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Legislation

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⁽¹⁾ Text with EEA relevance.

EN

Acts whose titles are printed in light type are those relating to day-to-day management of agricultural matters, and are generally valid for a limited period.

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II

(Non-legislative acts)

INTERNATIONAL AGREEMENTS

COUNCIL DECISION (EU) 2019/400

of 22 January 2019

on the signing, on behalf of the Union, of the Status Agreement between the European Union and the Republic of Serbia on actions carried out by the European Border and Coast Guard Agency in the Republic of Serbia

THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty on the Functioning of the European Union, and in particular points (b) and (d) of Article 77(2) and point (c) of Article 79(2), in conjunction with Article 218(5), thereof,

Having regard to the proposal from the European Commission,

Whereas:

- (1) Pursuant to Article 54(4) of Regulation (EU) 2016/1624 of the European Parliament and of the Council ⁽¹⁾, in cases where it is envisaged that European Border and Coast Guard teams are to be deployed to a third country in actions where the team members have executive powers, or where other actions in third countries require it, a status agreement shall be concluded by the Union with the third country concerned. Such status agreement should cover all aspects that are necessary for carrying out the actions.
- (2) On 21 February 2017, the Council authorised the Commission to open negotiations with the Republic of Serbia for a status agreement on actions carried out by the European Border and Coast Guard Agency in the Republic of Serbia.
- (3) Negotiations on a status agreement were opened on 7 April 2017 and were successfully concluded by the initialling of the Status Agreement between the European Union and the Republic of Serbia on actions carried out by the European Border and Coast Guard Agency in the Republic of Serbia (the 'Agreement') on 20 September 2018.
- (4) This Decision constitutes a development of the provisions of the Schengen *acquis* in which the United Kingdom does not take part, in accordance with Council Decision 2000/365/EC ⁽²⁾; the United Kingdom is therefore not taking part in the adoption of this Decision and is not bound by it or subject to its application.
- (5) This Decision constitutes a development of the provisions of the Schengen *acquis* in which Ireland does not take part, in accordance with Council Decision 2002/192/EC ⁽³⁾; Ireland is therefore not taking part in the adoption of this Decision and is not bound by it or subject to its application.

⁽¹⁾ Regulation (EU) 2016/1624 of the European Parliament and of the Council of 14 September 2016 on the European Border and Coast Guard and amending Regulation (EU) 2016/399 of the European Parliament and of the Council and repealing Regulation (EC) No 863/2007 of the European Parliament and of the Council, Council Regulation (EC) No 2007/2004 and Council Decision 2005/267/EC (OJ L 251, 16.9.2016, p. 1).

⁽²⁾ Council Decision 2000/365/EC of 29 May 2000 concerning the request of the United Kingdom of Great Britain and Northern Ireland to take part in some of the provisions of the Schengen *acquis* (OJ L 131, 1.6.2000, p. 43).

⁽³⁾ Council Decision 2002/192/EC of 28 February 2002 concerning Ireland's request to take part in some of the provisions of the Schengen *acquis* (OJ L 64, 7.3.2002, p. 20).

- (6) In accordance with Articles 1 and 2 of Protocol No 22 on the position of Denmark, annexed to the Treaty on European Union and to the Treaty on the Functioning of the European Union, Denmark is not taking part in the adoption of this Decision and is not bound by it or subject to its application. Given that this Decision builds upon the Schengen *acquis*, Denmark shall, in accordance with Article 4 of that Protocol, decide within a period of six months after the Council has decided on this Decision whether it will implement it in its national law.
- (7) Therefore, the Agreement should be signed, subject to its conclusion at a later date, and the annexed Declarations be approved,

HAS ADOPTED THIS DECISION:

Article 1

The signing, on behalf of the Union, of the Status Agreement between the European Union and the Republic of Serbia on actions carried out by the European Border and Coast Guard Agency in the Republic of Serbia is hereby authorised, subject to the conclusion of the said Agreement ⁽⁴⁾.

Article 2

The Declarations annexed to this Decision shall be approved on behalf of the Union.

Article 3

The President of the Council is hereby authorised to designate the person(s) empowered to sign the Agreement on behalf of the Union.

Article 4

This Decision shall enter into force on the date of its adoption.

Done at Brussels, 22 January 2019.

For the Council
The President
E.O. TEODOROVICI

⁽⁴⁾ The text of the Agreement will be published together with the decision on its conclusion.

ANNEX

JOINT DECLARATION CONCERNING ARTICLE 2(b)

The Parties take note that the European Border and Coast Guard Agency will support the Republic of Serbia to control efficiently its border with any country that is not a member of the European Union by other means than deployments of European Border and Coast Guard teams with executive powers.

JOINT DECLARATION ON STATUS AND DELIMITATION OF THE TERRITORIES

The status and delimitation under international law of the territory of Serbia and the Member States of the European Union are in no way affected either by this Agreement or by any act accomplished in its implementation by the Parties or on their behalf, including the establishment of operational plans or the participation in cross-border operations.

JOINT DECLARATION WITH REGARD TO ICELAND, NORWAY, SWITZERLAND AND LIECHTENSTEIN

The Parties take note of the close relationship between the European Union and Norway, Iceland, Switzerland and Liechtenstein, particularly by virtue of the Agreements of 18 May 1999 and 26 October 2004 concerning the association of those countries with the implementation, application and development of the Schengen *acquis*.

In such circumstances it is desirable that the authorities of Norway, Iceland, Switzerland and Liechtenstein, on the one hand, and the Republic of Serbia, on the other hand, conclude, without delay, bilateral agreements on actions carried out by the European Border and Coast Guard Agency in the Republic of Serbia in terms similar to those of this Agreement.

REGULATIONS

COMMISSION DELEGATED REGULATION (EU) 2019/401
of 19 December 2018
amending Regulation (EU) No 389/2013 establishing a Union Registry
(Text with EEA relevance)

THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003 establishing a scheme for greenhouse gas emission allowance trading within the Community and amending Council Directive 96/61/EC ⁽¹⁾, and in particular Articles 19(3) thereof,

Whereas:

- (1) The registries system ensures the accurate accounting of transactions under the EU emissions trading system (EU ETS) set up by Directive 2003/87/EC, the Kyoto Protocol and Decision No 406/2009/EC.
- (2) Where necessary and for as long as necessary in order to protect the environmental integrity of the EU ETS, aviation operators and other operators in the EU ETS may not use allowances that are issued by a Member State which has notified the European Council of its intention to withdraw from the Union pursuant to Article 50 of the Treaty on European Union ("TEU"). In the light of the negotiations pursuant to Article 50 TEU, and pursuant to Article 12(3)(a) of Directive 2003/87/EC, the Commission should regularly assess whether the use of allowances by a Member State in respect of which there are obligations lapsing for aircraft operators and other operators is permitted, in particular in situations where Union law does not yet cease to apply in that Member State or where it is sufficiently ensured that the surrender of allowances takes place in a legally enforceable manner before the Treaties cease to apply.
- (3) The draft agreement on the withdrawal of the United Kingdom of Great Britain and Northern Ireland from the European Union and the European Atomic Energy Community ('the Withdrawal Agreement'), as agreed at negotiators' level on 14 November 2018, establishes a transition period and ensures that UK operators comply with their obligations laid down in the Directive 2003/87/EC as regards their emissions in 2019 and 2020. In case of entry into force of the Withdrawal Agreement, it is no longer necessary to restrict the use of allowances that are issued by such a Member State in those years.
- (4) No marking of allowances should therefore take place from the day following the one on which the instruments of ratification of both parties to the Withdrawal Agreement are deposited with the Secretary-General of the Council.
- (5) Appropriate technical measures should be put in place to ensure the effectiveness of this Regulation at the time of its application.

⁽¹⁾ OJ L 275, 25.10.2003, p. 32.

HAS ADOPTED THIS REGULATION:

Article 1

In Article 41(4) of Regulation (EU) No 389/2013, the following paragraph is added:

‘4. From the day following the one on which both ratification instruments concerning the Withdrawal Agreement have been deposited, allowances created for 2019 and 2020 shall not be identified with a country code if compliance with Directive 2003/87/EC for emissions taking place during these years is required by an agreement setting out arrangements for the withdrawal of such a Member State from the European Union.’

Article 2

This Regulation shall enter into force on the day following that of its publication in the *Official Journal of the European Union*.

This Regulation shall be binding in its entirety and directly applicable in all Member States.

Done at Brussels, 19 December 2018.

For the Commission

The President

Jean-Claude JUNCKER

COMMISSION REGULATION (EU) 2019/402
of 13 March 2019

amending Regulation (EC) No 1126/2008 adopting certain international accounting standards in accordance with Regulation (EC) No 1606/2002 of the European Parliament and of the Council as regards International Accounting Standard 19

THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to Regulation (EC) No 1606/2002 of the European Parliament and of the Council of 19 July 2002 on the application of international accounting standards ⁽¹⁾, and in particular Article 3(1) thereof,

Whereas:

- (1) By Commission Regulation (EC) No 1126/2008 ⁽²⁾ certain international standards and interpretations that were in existence at 15 October 2008 were adopted.
- (2) On 7 February 2018, the International Accounting Standards Board (IASB) published Plan Amendment, Curtailment or Settlement (Amendments to IAS 19) in the framework of its regular improvement process, which aims at streamlining and clarifying the standards. The objective of the amendments is to clarify that, after a defined-benefit plan amendment, curtailment or settlement occurs, an entity should apply the updated assumptions from the remeasurement of its net defined benefit liability (asset) for the remainder of the reporting period.
- (3) Following the consultation with the European Financial Reporting Advisory Group, the Commission concludes that the amendments to International Accounting Standard (IAS) 19 *Employee Benefits* meet the criteria for adoption set out in Article 3(2) of Regulation (EC) No 1606/2002.
- (4) Regulation (EC) No 1126/2008 should therefore be amended accordingly.
- (5) The measures provided for in this Regulation are in accordance with the opinion of the Accounting Regulatory Committee,

HAS ADOPTED THIS REGULATION:

Article 1

In the Annex to Regulation (EC) No 1126/2008, International Accounting Standard (IAS) 19 *Employee Benefits* is amended as set out in the Annex to this Regulation.

Article 2

Each company shall apply the amendments referred to in Article 1, at the latest, as from the commencement date of its first financial year starting on or after 1 January 2019.

Article 3

This Regulation shall enter into force on the twentieth day following that of its publication in the *Official Journal of the European Union*.

⁽¹⁾ OJ L 243, 11.9.2002, p. 1.

⁽²⁾ Commission Regulation (EC) No 1126/2008 of 3 November 2008 adopting certain international accounting standards in accordance with Regulation (EC) No 1606/2002 of the European Parliament and of the Council (OJ L 320, 29.11.2008, p. 1).

This Regulation shall be binding in its entirety and directly applicable in all Member States.

Done at Brussels, 13 March 2019.

For the Commission

The President

Jean-Claude JUNKER

ANNEX

Plan Amendment, Curtailment or Settlement

(Amendments to IAS 19)

Amendments to IAS 19 *Employee Benefits*

Paragraphs 101A, 122A, 123A and 179 are added and paragraphs 57, 99, 120, 123, 125, 126 and 156 are amended. A heading is added before paragraph 122A.

POST-EMPLOYMENT BENEFITS: DEFINED BENEFIT PLANS

...

Recognition and measurement

...

57. Accounting by an entity for defined benefit plans involves the following steps:

...

- (c) determining amounts to be recognised in profit or loss:

- (i) current service cost (see paragraphs 70–74 and paragraph 122A).

...

...

Past service cost and gains and losses on settlement

99. **When determining past service cost, or a gain or loss on settlement, an entity shall remeasure the net defined benefit liability (asset) using the current fair value of plan assets and current actuarial assumptions, (including current market interest rates and other current market prices), reflecting:**

- (a) **the benefits offered under the plan and the plan assets before the plan amendment, curtailment or settlement; and**
- (b) **the benefits offered under the plan and the plan assets after the plan amendment, curtailment or settlement.**

...

- 101A When a plan amendment, curtailment or settlement occurs, an entity shall recognise and measure any past service cost, or a gain or loss on settlement, in accordance with paragraphs 99–101 and paragraphs 102–112. In doing so, an entity shall not consider the effect of the asset ceiling. An entity shall then determine the effect of the asset ceiling after the plan amendment, curtailment or settlement and shall recognise any change in that effect in accordance with paragraph 57(d).

...

Components of defined benefit cost

120. **An entity shall recognise the components of defined benefit cost, except to the extent that another IFRS requires or permits their inclusion in the cost of an asset, as follows:**

- (a) **service cost (see paragraphs 66–112 and paragraph 122A) in profit or loss;**

...

Current service cost

- 122A **An entity shall determine current service cost using actuarial assumptions determined at the start of the annual reporting period. However, if an entity remeasures the net defined benefit liability (asset) in accordance with paragraph 99, it shall determine current service cost for the remainder of the**

annual reporting period after the plan amendment, curtailment or settlement using the actuarial assumptions used to remeasure the net defined benefit liability (asset) in accordance with paragraph 99(b).

Net interest on the net defined benefit liability (asset)

123. An entity shall determine net interest on the net defined benefit liability (asset) by multiplying the net defined benefit liability (asset) by the discount rate specified in paragraph 83.

123A To determine net interest in accordance with paragraph 123, an entity shall use the net defined benefit liability (asset) and the discount rate determined at the start of the annual reporting period. However, if an entity remeasures the net defined benefit liability (asset) in accordance with paragraph 99, the entity shall determine net interest for the remainder of the annual reporting period after the plan amendment, curtailment or settlement using:

(a) the net defined benefit liability (asset) determined in accordance with paragraph 99(b); and

(b) the discount rate used to remeasure the net defined benefit liability (asset) in accordance with paragraph 99(b).

In applying paragraph 123A, the entity shall also take into account any changes in the net defined benefit liability (asset) during the period resulting from contributions or benefit payments.

...

125. Interest income on plan assets is a component of the return on plan assets, and is determined by multiplying the fair value of the plan assets by the discount rate specified in paragraph 123A. An entity shall determine the fair value of the plan assets at the start of the annual reporting period. However, if an entity remeasures the net defined benefit liability (asset) in accordance with paragraph 99, the entity shall determine interest income for the remainder of the annual reporting period after the plan amendment, curtailment or settlement using the plan assets used to remeasure the net defined benefit liability (asset) in accordance with paragraph 99(b). In applying paragraph 125, the entity shall also take into account any changes in the plan assets held during the period resulting from contributions or benefit payments. The difference between the interest income on plan assets and the return on plan assets is included in the remeasurement of the net defined benefit liability (asset).

126. Interest on the effect of the asset ceiling is part of the total change in the effect of the asset ceiling, and is determined by multiplying the effect of the asset ceiling by the discount rate specified in paragraph 123A. An entity shall determine the effect of the asset ceiling at the start of the annual reporting period. However, if an entity remeasures the net defined benefit liability (asset) in accordance with paragraph 99, the entity shall determine interest on the effect of the asset ceiling for the remainder of the annual reporting period after the plan amendment, curtailment or settlement taking into account any change in the effect of the asset ceiling determined in accordance with paragraph 101A. The difference between interest on the effect of the asset ceiling and the total change in the effect of the asset ceiling is included in the remeasurement of the net defined benefit liability (asset).

...

OTHER LONG-TERM EMPLOYEE BENEFITS

...

Recognition and measurement

...

156. For other long-term employee benefits, an entity shall recognise the net total of the following amounts in profit or loss, except to the extent that another IFRS requires or permits their inclusion in the cost of an asset:

(a) service cost (see paragraphs 66–112 and paragraph 122A);

...

TRANSITION AND EFFECTIVE DATE

...

179. *Plan Amendment, Curtailment or Settlement* (Amendments to IAS 19), issued in February 2018, added paragraphs 101A, 122A and 123A, and amended paragraphs 57, 99, 120, 123, 125, 126 and 156. An entity shall apply these amendments to plan amendments, curtailments or settlements occurring on or after the beginning of the first annual reporting period that begins on or after 1 January 2019. Earlier application is permitted. If an entity applies these amendments earlier, it shall disclose that fact.
-

COMMISSION IMPLEMENTING REGULATION (EU) 2019/403**of 13 March 2019****granting a Union authorisation for the biocidal product family 'Deosan Activate BPF based on Iodine'**

THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to Regulation (EU) No 528/2012 of the European Parliament and of the Council of 22 May 2012 concerning the making available on the market and use of biocidal products ⁽¹⁾, and in particular Article 44(5) thereof,

Whereas:

- (1) On 7 July 2015, Diversey Europe Operations B.V. submitted an application in accordance with Article 43(1) of Regulation (EU) No 528/2012 for authorisation of a biocidal product family named 'Deosan Activate BPF based on Iodine' ('the product family') of product-type 3, as described in Annex V to that Regulation. The competent authority of United Kingdom agreed to evaluate the application as referred to in Article 43(1) of Regulation (EU) No 528/2012. The application was recorded under the case number BC-JN018376-30 in the Register for Biocidal Products.
- (2) The biocidal product family contains iodine, as the active substance, which is included in the Union list of approved active substances referred to in Article 9(2) of Regulation (EU) No 528/2012. Taking into account the intrinsic properties of the active substance, and the scientific criteria for the determination of endocrine-disrupting properties set out in Commission Delegated Regulation (EU) 2017/2100 ⁽²⁾, the Commission will consider the need to review the approval of iodine, including polyvinylpyrrolidone iodine, in accordance with Article 15 of Regulation (EU) No 528/2012. Depending on the outcome of that review, the Commission will then consider whether the Union authorisations for products containing the active substance have to be reviewed in accordance with Article 48 of Regulation (EU) No 528/2012.
- (3) On 20 December 2017, the evaluating competent authority submitted, in accordance with Article 44(1) of Regulation (EU) No 528/2012, the assessment report and the conclusions of its evaluation to the European Chemicals Agency ('the Agency').
- (4) On 6 July 2018, the Agency submitted to the Commission an opinion ⁽³⁾, including the draft summary of the biocidal product characteristics ('SPC') of the product family and the final assessment report on the product family in accordance with Article 44(3) of Regulation (EU) No 528/2012. The opinion concludes that the product family falls within the definition of 'biocidal product family' laid down in Article 3(1)(s) of Regulation (EU) No 528/2012, that it is eligible for Union authorisation in accordance with Article 42(1) of that Regulation and that subject to compliance with the draft SPC, the product family meets the conditions laid down in Article 19(1) and (6) of that Regulation.
- (5) On 17 September 2018, the Agency transmitted to the Commission the draft SPC in all the official languages of the Union in accordance with Article 44(4) of Regulation (EU) No 528/2012.
- (6) The Commission concurs with the opinion of the Agency and considers it therefore appropriate to grant a Union authorisation for the biocidal product family.
- (7) The measures provided for in this Regulation are in accordance with the opinion of the Standing Committee on Biocidal Products,

⁽¹⁾ OJ L 167, 27.6.2012, p. 1.

⁽²⁾ Commission Delegated Regulation (EU) 2017/2100 of 4 September 2017 setting out scientific criteria for the determination of endocrine-disrupting properties pursuant to Regulation (EU) No 528/2012 of the European Parliament and Council (OJ L 301, 17.11.2017, p. 1).

⁽³⁾ ECHA opinion of 6 July 2018 on the Union authorisation of 'Deosan Activate BPF based on Iodine' (ECHA/BPC/207/2018).

HAS ADOPTED THIS REGULATION:

Article 1

A Union authorisation is granted to Diversey Europe Operations B.V. for the biocidal product family 'Deosan Activate BPF based on Iodine' with authorisation number EU-0019228-0000.

The Union authorisation is valid from 3 April 2019 until 31 March 2029.

The Union authorisation is subject to compliance with the summary of the biocidal product characteristics set out in the Annex.

Article 2

This Regulation shall enter into force on the twentieth day following that of its publication in the *Official Journal of the European Union*.

This Regulation shall be binding in its entirety and directly applicable in all Member States.

Done at Brussels, 13 March 2019.

For the Commission
The President
Jean-Claude JUNCKER

ANNEX

Summary of product characteristics for a biocidal product family

Deosan Activate BPF based on Iodine

Product type 3 — Veterinary hygiene (Disinfectants)

Authorisation number: EU-0019228-0000

R4BP asset number: EU-0019228-0000

PART I

FIRST INFORMATION LEVEL**1. ADMINISTRATIVE INFORMATION****1.1. Family name**

Name	Deosan Activate BPF based on Iodine
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1.2. Product type(s)

Product type(s)	PT03 — Veterinary hygiene (Disinfectants)
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1.3. Authorisation holder

Name and address of the authorisation holder	Name	Diversey Europe Operations B.V.
	Address	Maarssenbroeksedijk 2, 3542DN Utrecht, Netherlands
Authorisation number	EU-0019228-0000	
R4BP asset number	EU-0019228-0000	
Date of the authorisation	3 April 2019	
Expiry date of the authorisation	31 March 2029	

1.4. Manufacturer(s) of the biocidal products

Name of manufacturer	Diversey Europe Operations B.V.
Address of manufacturer	Maarssenbroeksedijk 2, 3542 DN Utrecht Netherlands
Location of manufacturing sites	Strada Statale 235, 26010 Bagnolo Cremasco (CR) Italy Avenida Conde Duque 5, 7 y 9 Poligono Industrial La Postura, 28343 Valdemoro (Madrid) Spain Rembrandtlaan 414, 7545 ZW Enschede Netherlands Cotes Park Industrial Estate, DE55 4PA Somercotes Alfreton United Kingdom Morschheimer Strasse 12, 67292 Kirchheimbolanden Germany

1.5. Manufacturer(s) of the active substance(s)

Active substance	Iodine
Name of manufacturer	ACF Minera S.A.
Address of manufacturer	San Martin No 499, 1100000 Iquique Chile
Location of manufacturing sites	Lagunas mine, 118 0000 Pozo Almonte Chile

Active substance	Iodine
Name of manufacturer	Sociedad Quimica y Minera (SQM) S.A.
Address of manufacturer	Los Militares 4290, Piso 4, Las Condes, 8320000 Santiago Chile
Location of manufacturing sites	Nueva Victoria plant, 5090000 Pedro de Valdivia plant Chile

Active substance	Iodine
Name of manufacturer	Cosayach Nitratos S.A.
Address of manufacturer	Hnos Amunátegui 178, 8320000 Santiago Chile
Location of manufacturing sites	S.C.M. Cosayach Cala Cala, 118 0000 Pozo Almonte Chile

Active substance	Iodine
Name of manufacturer	Nihon Tennen Gas Development Co., Ltd
Address of manufacturer	Chiba Plant, 2508 Minami-Hinata, Shirako-Machi, Chosei-Gun, 299-4205 Chiba Japan
Location of manufacturing sites	Chiba Plant, 2508 Minami-Hinata, Shirako-Machi, Chosei-Gun, 299-4205 Chiba Japan

Active substance	Iodine
Name of manufacturer	ISE Chemicals Corporation
Address of manufacturer	3-1, Kyobashi 1-Chome, 104-0031 Tokyo Japan
Location of manufacturing sites	Shirasto Plant (3695 Kitaimaizumi, Oamishirasato City, 299-3201 Chiba Japan

Active substance	Iodine
Name of manufacturer	Atacama Minerals SCM
Address of manufacturer	Coronel Pereira No 72 Of. 701, Las Condes, 8320000 Santiago Chile
Location of manufacturing sites	Atacama Minerals SCM, Aguas Blancas Facility, 3580000 Antofagasta Chile

2. PRODUCT FAMILY COMPOSITION AND FORMULATION

2.1. Qualitative and quantitative information on the composition of the family

Common name	IUPAC name	Function	CAS number	EC number	Content (%)	
					Min	Max
Iodine		Active Substance	7553-56-2	231-442-4	0,3	1,6

2.2. Type(s) of formulation

Formulation(s)	AL — Any other liquid SL — Soluble concentrate GW — Water soluble gel
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PART II

SECOND INFORMATION LEVEL — META SPC(S)

META SPC 1

1. META SPC 1 ADMINISTRATIVE INFORMATION

1.1. Meta SPC 1 identifier

Identifier	Meta SPC 1 — Deosan Activate BPF — Concentrate
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1.2. Suffix to the authorisation number

Number	1-1
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1.3. Product type(s)

Product type(s)	PT03 — Veterinary hygiene (Disinfectants)
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2. META SPC 1 COMPOSITION

2.1. Qualitative and quantitative information on the composition of the meta SPC 1

Common name	IUPAC name	Function	CAS number	EC number	Content (%)	
					Min	Max
Iodine		Active Substance	7553-56-2	231-442-4	1,35	1,6

2.2. Type(s) of formulation of the meta SPC 1

Formulation(s)	SL — Soluble concentrate
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3. HAZARD AND PRECAUTIONARY STATEMENTS OF THE META SPC 1

Hazard statements	Harmful to aquatic life with long lasting effects.
Precautionary statements	If medical advice is needed, have product container or label at hand. Keep out of reach of children. Avoid release to the environment. Dispose of contents to in accordance with national regulations. Dispose of container to in accordance with national regulations.

4. AUTHORISED USE(S) OF THE META SPC 1

4.1. Use description

Table 1. Use # 1 – Pre-milking disinfection, manual dipping (concentrate)

Product type	PT03 — Veterinary hygiene (Disinfectants)
Where relevant, an exact description of the authorised use	—
Target organism(s) (including development stage)	Bacteria Yeast
Field(s) of use	Indoor
Application method(s)	Manual dipping Teat disinfectant, for direct application to lactating animals pre milking. Applied directly to animal teats pre milking via manual dipping method
Application rate(s) and frequency	In use iodine concentration of 3 000 mg/Kg (0,3 % w/w) – For products containing 1,5 % iodine: Dilute 1 part of product to 4 parts water to achieve 0,3 % in use iodine concentration. For products with another concentration this instruction should be adapted. 3 pre milking applications, per animal, per day Apply a maximum of 10 ml product/animal/application
Category(ies) of users	Professional
Pack sizes and packaging material	1, 5 and 20 litre HDPE or f-HDPE canister 200 litre HDPE or f-HDPE drum 950 litre HDPE or f-HDPE Intermediate Bulk Container (IBC)

4.1.1. Use-specific instructions for use

For products containing 1,5 % iodine this can be: Dilute 1 part of product to 4 parts water to achieve 0,3 % in use iodine concentration. For products with another concentration this instruction should be adapted.

Apply directly to animal teats pre-milking via manual dipping method.

3 pre-milking applications, per animal, per day

Apply a maximum of 10 ml product/animal/application

4.1.2. Use-specific risk mitigation measures

See section 5 — General Directions for Use

4.1.3. Where specific to the use, the particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment

See section 5 — General Directions for Use

4.1.4. Where specific to the use, the instructions for safe disposal of the product and its packaging

See section 5 — General Directions for Use

4.1.5. Where specific to the use, the conditions of storage and shelf-life of the product under normal conditions of storage

See section 5 — General Directions for Use

4.2. Use description

Table 2. Use # 2 – Pre-milking disinfection, manual foaming (concentrate)

Product type	PT03 — Veterinary hygiene (Disinfectants)
Where relevant, an exact description of the authorised use	—
Target organism(s) (including development stage)	Bacteria Yeast
Field(s) of use	Indoor
Application method(s)	Manual foaming Teat disinfectant, for direct application to lactating animals pre milking Applied directly to animal teats pre milking via manual foaming method
Application rate(s) and frequency	In use iodine concentration of 3 000 mg/Kg (0,3 % w/w) – For products containing 1,5 % iodine: Dilute 1 part of product to 4 parts water to achieve 0,3 % in use iodine concentration. For products with another concentration this instruction should be adapted. 3 pre milking applications, per animal, per day Apply a maximum of 5 ml/animal/application
Category(ies) of users	Professional
Pack sizes and packaging material	1, 5 and 20 litre HDPE or f-HDPE canister 200 litre HDPE or f-HDPE drum 950 litre HDPE or f-HDPE Intermediate Bulk Container (IBC)

4.2.1. Use-specific instructions for use

For products containing 1,5 % iodine: Dilute 1 part of product to 4 parts water to achieve 0,3 % in use iodine concentration. For products with another concentration this instruction should be adapted.

Apply directly to animal teats pre-milking via manual foaming application method.

3 pre-milking applications, per animal, per day

Apply a maximum of 5 ml product/animal/application

4.2.2. Use-specific risk mitigation measures

See section 5 — General Directions for Use

4.2.3. Where specific to the use, the particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment

See section 5 — General Directions for Use

4.2.4. Where specific to the use, the instructions for safe disposal of the product and its packaging

See section 5 — General Directions for Use

4.2.5. Where specific to the use, the conditions of storage and shelf-life of the product under normal conditions of storage

See section 5 — General Directions for Use

4.3. Use description

Table 3. Use # 3 – Pre-milking disinfection, manual spraying (concentrate)

Product type	PT03 — Veterinary hygiene (Disinfectants)
Where relevant, an exact description of the authorised use	—
Target organism(s) (including development stage)	Bacteria Yeast
Field(s) of use	Indoor
Application method(s)	Manual spraying Teat disinfectant, for direct application to lactating animals pre milking Applied directly to animal teats pre milking via manual spraying method.
Application rate(s) and frequency	In use iodine concentration of 3 000 mg/Kg (0,3 % w/w) – For products containing 1,5 % iodine Dilute 1 part of product to 4 parts water to achieve 0,3 % in use iodine concentration. For products with another concentration this instruction should be adapted. 3 pre milking applications, per animal, per day Apply a maximum of 15 ml product/animal/application
Category(ies) of users	Professional
Pack sizes and packaging material	1, 5 and 20 litre HDPE or f-HDPE canister 200 litre HDPE or f-HDPE drum 950 litre HDPE or f-HDPE Intermediate Bulk Container (IBC)

4.3.1. Use-specific instructions for use

For products containing 1,5 % iodine: Dilute 1 part of product to 4 parts water to achieve 0,3 % in use iodine concentration. For products with another concentration this instruction should be adapted.

Apply directly to animal teats pre-milking via manual spraying application method.

3 pre-milking applications, per animal, per day

Apply a maximum of 15 ml product/animal/application

4.3.2. Use-specific risk mitigation measures

Wear protective chemical resistant gloves during product handling phase (glove material to be specified by the authorisation holder within the product information)

4.3.3. Where specific to the use, the particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment

See section 5 — General Directions for Use

4.3.4. Where specific to the use, the instructions for safe disposal of the product and its packaging

See section 5 — General Directions for Use

4.3.5. Where specific to the use, the conditions of storage and shelf-life of the product under normal conditions of storage

See section 5 — General Directions for Use

4.4. Use description

Table 4. Use # 4 – Post-milking disinfection, manual dipping (concentrate)

Product type	PT03 — Veterinary hygiene (Disinfectants)
Where relevant, an exact description of the authorised use	—
Target organism(s) (including development stage)	Bacteria Yeast
Field(s) of use	Indoor
Application method(s)	Manual dipping Teat disinfectant, for direct application to lactating animals post milking Applied directly to animal teats post milking via manual dipping method.
Application rate(s) and frequency	In use Iodine concentration of 3 000 mg/Kg (0,3 % w/w) – For products containing 1,5 % iodine: Dilute 1 part of product to 4 parts water to achieve 0,3 % in use iodine concentration. For products with another concentration this instruction should be adapted. 3 post milking applications, per animal, per day Apply a maximum of 10 ml product/animal/application
Category(ies) of users	Professional
Pack sizes and packaging material	1, 5 and 20 litre HDPE or f-HDPE canister 200 litre HDPE or f-HDPE drum 950 litre HDPE or f-HPDE Intermediate Bulk Container (IBC)

4.4.1. Use-specific instructions for use

Applied directly to animal teats post milking via manual dipping method.

For products containing 1,5 % iodine: Dilute 1 part of product to 4 parts water to achieve 0,3 % in use iodine concentration. For products with another concentration this instruction should be adapted.

3 post milking applications, per animal, per day (5 applications in total)

Apply a maximum of 10 ml product/animal/application

4.4.2. Use-specific risk mitigation measures

See section 5 — General Directions for Use

4.4.3. Where specific to the use, the particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment

See section 5 — General Directions for Use

4.4.4. Where specific to the use, the instructions for safe disposal of the product and its packaging

See section 5 — General Directions for Use

4.4.5. Where specific to the use, the conditions of storage and shelf-life of the product under normal conditions of storage

See section 5 — General Directions for Use

4.5. Use description

Table 5. Use # 5 – Post-milking disinfection, manual foaming (concentrate)

Product type	PT03 — Veterinary hygiene (Disinfectants)
Where relevant, an exact description of the authorised use	—
Target organism(s) (including development stage)	Bacteria Yeast
Field(s) of use	Indoor
Application method(s)	Manual foaming Teat disinfectant, for direct application to lactating animals post milking Applied directly to animal teats post milking via manual foaming method.
Application rate(s) and frequency	In use iodine concentration of 3 000 mg/Kg (0,3 % w/w) – For products containing 1,5 % iodine: Dilute 1 part of product to 4 parts water to achieve 0,3 % in use iodine concentration. For products with another concentration this instruction should be adapted. 3 post milking applications, per animal, per day Apply a maximum of 5 ml product/animal/application
Category(ies) of users	Professional
Pack sizes and packaging material	1, 5 and 20 litre HDPE or f-HDPE canister 200 litre HDPE or f-HDPE drum 950 litre HDPE or f-HPDE Intermediate Bulk Container (IBC)

4.5.1. Use-specific instructions for use

Applied directly to animal teats post milking via manual foaming method.

For products containing 1,5 % iodine: Dilute 1 part of product to 4 parts water to achieve 0,3 % in use iodine concentration. For products with another concentration this instruction should be adapted.

3 post milking applications, per animal, per day

Apply a maximum of 5 ml product/animal/application

4.5.2. Use-specific risk mitigation measures

See section 5 — General Directions for Use

4.5.3. Where specific to the use, the particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment

See section 5 — General Directions for Use

4.5.4. Where specific to the use, the instructions for safe disposal of the product and its packaging

See section 5 — General Directions for Use

4.5.5. Where specific to the use, the conditions of storage and shelf-life of the product under normal conditions of storage

See section 5 — General Directions for Use

4.6. Use description

Table 6. Use # 6 – Post-milking disinfection, manual spraying (concentrate)

Product type	PT03 — Veterinary hygiene (Disinfectants)
Where relevant, an exact description of the authorised use	—
Target organism(s) (including development stage)	Bacteria Yeast
Field(s) of use	Indoor
Application method(s)	Manual spraying Teat disinfectant, for direct application to lactating animals post milking Applied directly to animal teats post milking via manual spraying method.
Application rate(s) and frequency	In use iodine concentration of 3 000 mg/Kg (0,3 % w/w) – For products containing 1,5 % iodine: Dilute 1 part of product to 4 parts water to achieve 0,3 % in use iodine concentration. For products with another concentration this instruction should be adapted. 3 post milking applications, per animal, per day Apply a maximum of 15 ml product/animal/application
Category(ies) of users	Professional
Pack sizes and packaging material	1, 5 and 20 litre HDPE or f-HDPE canister 200 litre HDPE or f-HDPE drum 950 litre HDPE or f-HPDE Intermediate Bulk Container (IBC)

4.6.1. Use-specific instructions for use

Applied directly to animal teats post milking via manual spraying method.

For products containing 1,5 % iodine: Dilute 1 part of product to 4 parts water to achieve 0,3 % in use iodine concentration. For products with another concentration this instruction should be adapted.

3 post milking applications, per animal, per day

Apply a maximum of 15 ml product/animal/application

4.6.2. Use-specific risk mitigation measures

Wear protective chemical resistant gloves during product handling phase (glove material to be specified by the authorisation holder within the product information)

4.6.3. Where specific to the use, the particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment

See section 5 — General Directions for Use

4.6.4. Where specific to the use, the instructions for safe disposal of the product and its packaging

See section 5 — General Directions for Use

4.6.5. Where specific to the use, the conditions of storage and shelf-life of the product under normal conditions of storage

See section 5 — General Directions for Use

4.7. Use description

Table 7. Use # 7 – Post-milking disinfection, automatic spraying (concentrate)

Product type	PT03 — Veterinary hygiene (Disinfectants)
Where relevant, an exact description of the authorised use	—
Target organism(s) (including development stage)	Bacteria Yeast
Field(s) of use	Indoor
Application method(s)	Automatic spraying Teat disinfectant, for direct application to lactating animals post milking Applied directly to animal teats post milking via automatic spraying method.
Application rate(s) and frequency	In use iodine concentration of 3 000 mg/Kg (0,3 % w/w) – For products containing 1,5 % iodine: Dilute 1 part of product to 4 parts water to achieve 0,3 % in use iodine concentration. For products with another concentration this instruction should be adapted. 5 post milking applications, per animal, per day. Not to be combined with pre-milking disinfection. Apply a maximum of 15 ml product/animal/application
Category(ies) of users	Professional
Pack sizes and packaging material	1, 5 and 20 litre HDPE or f-HDPE canister 200 litre HDPE or f-HDPE drum 950 litre HDPE or f-HPDE Intermediate Bulk Container (IBC)

4.7.1. Use-specific instructions for use

Applied directly to animal teats post milking via automatic spraying method.

For products containing 1,5 % iodine: Dilute 1 part of product to 4 parts water to achieve 0,3 % in use iodine concentration. For products with another concentration this instruction should be adapted.

5 post milking applications, per animal, per day. Not to be combined with Iodine based pre-milking disinfection.

Apply a maximum of 15 ml product/animal/application

4.7.2. Use-specific risk mitigation measures

See section 5 — General Directions for Use

4.7.3. Where specific to the use, the particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment

See section 5 — General Directions for Use

4.7.4. Where specific to the use, the instructions for safe disposal of the product and its packaging

See section 5 — General Directions for Use

4.7.5. Where specific to the use, the conditions of storage and shelf-life of the product under normal conditions of storage

See section 5 — General Directions for Use

4.8. Use description

Table 8. Use # 8 – Post-milking disinfection, semi-automatic dipping (concentrate)

Product type	PT03 — Veterinary hygiene (Disinfectants)
Where relevant, an exact description of the authorised use	—
Target organism(s) (including development stage)	Bacteria Yeast
Field(s) of use	Indoor
Application method(s)	Semi-automatic dipping Teat disinfectant, for direct application to lactating animals post milking Applied directly to animal teats post milking via semi-automatic dipping method.
Application rate(s) and frequency	In use iodine concentration of 3 000 mg/Kg (0,3 % w/w) – For products containing 1,5 % iodine: Dilute 1 part of product to 4 parts water to achieve 0,3 % in use iodine concentration. For products with another concentration this instruction should be adapted. 3 post-milking applications, per animal, per day Apply a maximum of 10 ml product/animal/application
Category(ies) of users	Professional
Pack sizes and packaging material	1, 5 & 20 litre HDPE or f-HDPE canister 200 litre HDPE or f-HDPE drum 950 litre HDPE or f-HPDE Intermediate Bulk Container (IBC)

4.8.1. Use-specific instructions for use

Applied directly to animal teats post milking via semi-automatic dipping method.

For products containing 1,5 % iodine: Dilute 1 part of product to 4 parts water to achieve 0,3 % in use iodine concentration. For products with another concentration this instruction should be adapted.

3 post milking applications, per animal, per day

Apply a maximum of 10 ml product/animal/application

4.8.2. Use-specific risk mitigation measures

See section 5 — General Directions for Use

4.8.3. Where specific to the use, the particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment

See section 5 — General Directions for Use

4.8.4. Where specific to the use, the instructions for safe disposal of the product and its packaging

See section 5 — General Directions for Use

4.8.5. Where specific to the use, the conditions of storage and shelf-life of the product under normal conditions of storage

See section 5 — General Directions for Use

4.9. Use description

Table 9. Use # 9 – Pre and post-milking disinfection, manual dipping (concentrate)

Product type	PT03 — Veterinary hygiene (Disinfectants)
Where relevant, an exact description of the authorised use	—
Target organism(s) (including development stage)	Bacteria Yeast
Field(s) of use	Indoor
Application method(s)	Manual dipping Teat disinfectant, for direct application to lactating animals pre and post milking Applied directly to animal teats pre and post milking via manual dipping method
Application rate(s) and frequency	In use iodine concentration of 3 000 mg/Kg (0,3 % w/w) – For products containing 1,5 % iodine: Dilute 1 part of product to 4 parts water to achieve 0,3 % in use iodine concentration. For products with another concentration this instruction should be adapted. 3 pre and 3 post milking applications, per animal, per day (up to 5 applications in total) Apply a maximum of 10 ml product/animal/application
Category(ies) of users	Professional
Pack sizes and packaging material	1, 5 and 20 litre HDPE or f-HDPE canister 200 litre HDPE or f-HDPE drum 950 litre HDPE or f-HDPE Intermediate Bulk Container (IBC)

4.9.1. Use-specific instructions for use

For products containing 1,5 % iodine: Dilute 1 part of product to 4 parts water to achieve 0,3 % in use iodine concentration. For products with another concentration this instruction should be adapted.

Apply directly to animal teats pre and post milking via manual dipping method.

3 pre and 3 post milking applications, per animal, per day (up to 5 applications in total)

Apply a maximum of 10 ml product/animal/application

4.9.2. Use-specific risk mitigation measures

See section 5 — General Directions for Use

4.9.3. Where specific to the use, the particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment

See section 5 — General Directions for Use

4.9.4. Where specific to the use, the instructions for safe disposal of the product and its packaging

See section 5 — General Directions for Use

4.9.5. Where specific to the use, the conditions of storage and shelf-life of the product under normal conditions of storage

See section 5 — General Directions for Use

4.10. Use description

Table 10. Use # 10 – Pre and post-milking disinfection, manual foaming (concentrate)

Product type	PT03 — Veterinary hygiene (Disinfectants)
Where relevant, an exact description of the authorised use	—
Target organism(s) (including development stage)	Bacteria Yeast
Field(s) of use	Indoor
Application method(s)	Manual foaming Teat disinfectant, for direct application to lactating animals pre and post milking Applied directly to animal teats pre and post milking via manual foaming method
Application rate(s) and frequency	In use iodine concentration of 3 000 mg/Kg (0,3 % w/w) – For products containing 1,5 % iodine: Dilute 1 part of product to 4 parts water to achieve 0,3 % in use iodine concentration. For products with another concentration this instruction should be adapted. 3 pre and 3 post milking applications, per animal, per day (up to 5 applications in total) Apply a maximum of 5 ml/animal/application
Category(ies) of users	Professional
Pack sizes and packaging material	1, 5 and 20 litre HDPE or f-HDPE canister 200 litre HDPE or f-HDPE drum 950 litre HDPE or f-HDPE Intermediate Bulk Container (IBC)

4.10.1. Use-specific instructions for use

For products containing 1,5 % iodine: Dilute 1 part of product to 4 parts water to achieve 0,3 % in use iodine concentration. For products with another concentration this instruction should be adapted.

Apply directly to animal teats pre and post milking via manual foaming application method.

3 pre and 3 post milking applications, per animal, per day (up to 5 applications in total)

Apply a maximum of 5 ml product/animal/application

4.10.2. Use-specific risk mitigation measures

See section 5 — General Directions for Use

4.10.3. Where specific to the use, the particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment

See section 5 — General Directions for Use

4.10.4. Where specific to the use, the instructions for safe disposal of the product and its packaging

See section 5 — General Directions for Use

4.10.5. Where specific to the use, the conditions of storage and shelf-life of the product under normal conditions of storage

See section 5 — General Directions for Use

4.11. Use description

Table 11. Use # 11 – Pre and post-milking disinfection, manual spraying (concentrate)

Product type	PT03 — Veterinary hygiene (Disinfectants)
Where relevant, an exact description of the authorised use	—
Target organism(s) (including development stage)	Bacteria Yeast
Field(s) of use	Indoor
Application method(s)	Manual spraying Teat disinfectant, for direct application to lactating animals pre and post milking Applied directly to animal teats pre and post milking via manual spraying method.
Application rate(s) and frequency	In use iodine concentration of 3 000 mg/Kg (0,3 % w/w) – For products containing 1,5 % iodine: Dilute 1 part of product to 4 parts water to achieve 0,3 % in use iodine concentration. For products with another concentration this instruction should be adapted. 3 pre and 3 post milking applications, per animal, per day (up to 5 applications in total) Apply a maximum of 15 ml product/animal/application
Category(ies) of users	Professional
Pack sizes and packaging material	1, 5 and 20 litre HDPE or f-HDPE canister 200 litre HDPE or f-HDPE drum 950 litre HDPE or f-HPDE Intermediate Bulk Container (IBC)

4.11.1. Use-specific instructions for use

For products containing 1,5 % iodine: Dilute 1 part of product to 4 parts water to achieve 0,3 % in use iodine concentration. For products with another concentration this instruction should be adapted.

Apply directly to animal teats pre and post milking via manual spraying application method.

3 pre and 3 post milking applications, per animal, per day (up to 5 applications in total)

Apply a maximum of 15 ml product/animal/application

4.11.2. Use-specific risk mitigation measures

Wear protective chemical resistant gloves during product handling phase (glove material to be specified by the authorisation holder within the product information)

Wear suitable protective footwear (EN 13832) when applying the product.

A protective coverall (at least type 6, EN 13034) shall be worn

4.11.3. Where specific to the use, the particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment

See section 5 — General Directions for Use

4.11.4. *Where specific to the use, the instructions for safe disposal of the product and its packaging*

See section 5 — General Directions for Use

4.11.5. *Where specific to the use, the conditions of storage and shelf-life of the product under normal conditions of storage*

See section 5 — General Directions for Use

5. GENERAL DIRECTIONS FOR USE ⁽¹⁾ OF THE META SPC 1

5.1. **Instructions for use**

The product must be brought to temperature > 20 °C before use

Pre milking:

Apply product to full length of each teat.

For effective use against bacteria and yeast, product must be left in contact with the skin for at least 30 seconds.

After the appropriate contact time, thoroughly remove the product, using a single service paper towel/cloth to ensure teats are clean and dry.

In use iodine concentration of 3 000 mg/Kg (0,3 % w/w)

Post milking:

Cover the full length of each teat with the product, immediately after milking.

To ensure sufficient contact time, care should be taken that the product is not removed after application (e.g. keep the cows standing at least 5 minutes)

In use iodine concentration of 3 000 mg/Kg (0,3 % w/w)

5.2. **Risk mitigation measures**

This product can be used for pre- and post-milking disinfection in combination (up to 5 applications in total per animal per day). However, it should not be used in combination with a different iodine-based product.

The use of a dosing pump for filling the product into the application equipment is recommended.

5.3. **Particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment**

Inhalation: No known effects or symptoms in normal use.

Skin contact: No known effects or symptoms in normal use.

Eye contact: No known effects or symptoms in normal use.

Ingestion: No known effects or symptoms in normal use

After inhalation: Supply fresh air; consult doctor in case of symptoms.

After skin contact: Instantly wash with water and soap and rinse thoroughly.

After eye contact: Rinse opened eye for several minutes under running water (at least 15 minutes).

After swallowing: Rinse out mouth and then drink plenty of water. Instantly call for doctor.

If medical advice is needed, have product container or label at hand

Stability and reactivity:

Reactivity: No reactivity hazards known under normal storage and use conditions.

Chemical stability: Stable under normal storage and use conditions.

Possibility of hazardous reactions: No hazardous reactions known under normal storage and use conditions.

Conditions to avoid: None known under normal storage and use conditions.

⁽¹⁾ Instructions for use, risk mitigation measures and other directions for use under this section are valid for any authorised uses within the meta SPC 1.

Hazardous decomposition products: None known under normal storage and use conditions.

Environmental precautions:

Dike to collect larger liquid spills.

Contain and/or absorb spill with inert material, then place in suitable container.

Prevent run-off from entering drains, sewers or waterways.

Collect in closed and suitable containers for disposal.

Do not place spilled materials back into the original container.

5.4. Instructions for safe disposal of the product and its packaging

Empty containers must be tripled rinsed prior to disposal

Paper towels used to dry animal teats and remove the product from them should be disposed of as normal/domestic waste.

Do not discharge undiluted product to sewers.

5.5. Conditions of storage and shelf-life of the product under normal conditions of storage

Store only in original, closed container

Protect from frost

Do not store at temperatures above 40 °C

Shelf life 24 months

6. OTHER INFORMATION

None

7. THIRD INFORMATION LEVEL: INDIVIDUAL PRODUCTS IN THE META SPC 1

7.1. Trade name(s), authorisation number and specific composition of each individual product

Trade name(s)	Deosan Activate Pre AG106 Deosan Activate Pre				
Authorisation number	EU-0019228-0001 1-1				
Common name	IUPAC name	Function	CAS number	EC number	Content (%)
Iodine		Active Substance	7553-56-2	231-442-4	1,5

7.2. Trade name(s), authorisation number and specific composition of each individual product

Trade name(s)	Deosan Activate Pre/Post Conc. AG218 Deosan Activate Pre/Post Conc. Deosan Hitech concentrate Deosan Activate Pre/Post Plus Conc. AG218 Deosan Activate Pre/Post Plus Conc. Iodine Concentrate				
Authorisation number	EU-0019228-0002 1-1				
Common name	IUPAC name	Function	CAS number	EC number	Content (%)
Iodine		Active Substance	7553-56-2	231-442-4	1,5

META SPC 2

1. META SPC 2 ADMINISTRATIVE INFORMATION

1.1. **Meta SPC 2 identifier**

Identifier	Meta SPC 2 — Deosan Activate BPF – RTU liquid
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1.2. **Suffix to the authorisation number**

Number	1-2
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1.3. **Product type(s)**

Product type(s)	PT03 — Veterinary hygiene (Disinfectants)
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2. META SPC 2 COMPOSITION

2.1. **Qualitative and quantitative information on the composition of the meta SPC 2**

Common name	IUPAC name	Function	CAS number	EC number	Content (%)	
					Min	Max
Iodine		Active Substance	7553-56-2	231-442-4	0,3	0,32

2.2. **Type(s) of formulation of the meta SPC 2**

Formulation(s)	AL — Any other liquid
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3. HAZARD AND PRECAUTIONARY STATEMENTS OF THE META SPC 2

Hazard statements	Harmful to aquatic life with long lasting effects.
Precautionary statements	If medical advice is needed, have product container or label at hand. Keep out of reach of children. Avoid release to the environment. Dispose of contents to in accordance with national regulations. Dispose of container to in accordance with national regulations.

4. AUTHORISED USE(S) OF THE META SPC 2

4.1. **Use description****Table 12. Use # 1 – Pre-milking disinfection, manual dipping (RTU liquid)**

Product type	PT03 — Veterinary hygiene (Disinfectants)
Where relevant, an exact description of the authorised use	—
Target organism(s) (including development stage)	Bacteria Yeast
Field(s) of use	Indoor
Application method(s)	Manual dipping Teat disinfectant, for direct application to lactating animals pre milking Applied directly to animal teats pre-milking via manual dipping methods

Application rate(s) and frequency	In use iodine concentration of 3 000 mg/Kg (0,3 % w/w) – Ready to use formulation containing 0,3 % w/w iodine. Do not dilute before use. 3 pre-milking applications, per animal, per day. Apply a maximum of 10 ml product/animal/application
Category(ies) of users	Professional
Pack sizes and packaging material	1, 5 and 20 litre HDPE or f-HDPE canister 200 litre HDPE or f-HDPE drum 950 litre HDPE or f-HPDE Intermediate Bulk Container (IBC)

4.1.1. *Use-specific instructions for use*

Applied directly to animal teats pre-milking via manual dipping methods.

Ready to use formulation containing 0,3 % w/w iodine. Do not dilute before use.

3 pre-milking applications, per animal, per day.

Apply a maximum of 10 ml product/animal/application

4.1.2. *Use-specific risk mitigation measures*

See section 5 — General Directions for Use

4.1.3. *Where specific to the use, the particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment*

See section 5 — General Directions for Use

4.1.4. *Where specific to the use, the instructions for safe disposal of the product and its packaging*

See section 5 — General Directions for Use

4.1.5. *Where specific to the use, the conditions of storage and shelf-life of the product under normal conditions of storage*

See section 5 — General Directions for Use

4.2. **Use description**

Table 13. Use # 2 – Pre-milking disinfection, manual foaming (RTU liquid)

Product type	PT03 — Veterinary hygiene (Disinfectants)
Where relevant, an exact description of the authorised use	—
Target organism(s) (including development stage)	Bacteria Yeast
Field(s) of use	Indoor
Application method(s)	Manual foaming Teat disinfectant, for direct application to lactating animals pre milking Applied directly to animal teats pre-milking via manual foaming method.

Application rate(s) and frequency	In use Iodine concentration of 3 000 mg/Kg (0,3 % w/w) – Ready to use formulation containing 0,3 % w/w Iodine. Do not dilute before use. 3 pre milking applications, per animal, per day. Apply a maximum of 5 ml product/animal/application
Category(ies) of users	Professional
Pack sizes and packaging material	1, 5 & 20 litre HDPE or f-HDPE canister 200 litre HDPE or f-HDPE drum 950 litre HDPE or f-HPDE Intermediate Bulk Container (IBC)

4.2.1. *Use-specific instructions for use*

Ready to use formulation containing 0,3 % w/w iodine. Do not dilute before use.

Apply directly to animal teats pre-milking via manual foaming application method.

3 pre-milking applications, per animal, per day.

Apply a maximum of 5 ml product/animal/application

4.2.2. *Use-specific risk mitigation measures*

See section 5 — General Directions for Use

4.2.3. *Where specific to the use, the particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment*

See section 5 — General Directions for Use

4.2.4. *Where specific to the use, the instructions for safe disposal of the product and its packaging*

See section 5 — General Directions for Use

4.2.5. *Where specific to the use, the conditions of storage and shelf-life of the product under normal conditions of storage*

See section 5 — General Directions for Use

4.3. **Use description**

Table 14. Use # 3 – Pre-milking disinfection, manual spraying (RTU liquid)

Product type	PT03 — Veterinary hygiene (Disinfectants)
Where relevant, an exact description of the authorised use	—
Target organism(s) (including development stage)	Bacteria Yeast
Field(s) of use	Indoor
Application method(s)	Manual spraying Teat disinfectant, for direct application to lactating animals pre milking Applied directly to animal teats pre-milking via manual spraying method.

Application rate(s) and frequency	In use iodine concentration of 3 000 mg/Kg (0,3 % w/w) – Ready to use formulation containing 0,3 % w/w Iodine. Do not dilute before use. 3 pre milking applications, per animal, per day. Apply a maximum of 15 ml product/animal/application
Category(ies) of users	Professional
Pack sizes and packaging material	1, 5 and 20 litre HDPE or f-HDPE canister 200 litre HDPE or f-HDPE drum 950 litre HDPE or f-HDPE Intermediate Bulk Container (IBC)

4.3.1. *Use-specific instructions for use*

Applied directly to animal teats pre-milking via manual spraying method.

Ready to use formulation containing 0,3 % w/w iodine. Do not dilute before use.

3 pre-milking applications, per animal, per day.

Apply a maximum of 15 ml product/animal/application

4.3.2. *Use-specific risk mitigation measures*

Wear protective chemical resistant gloves during product handling phase (glove material to be specified by the authorisation holder within the product information)

4.3.3. *Where specific to the use, the particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment*

See section 5 — General Directions for Use

4.3.4. *Where specific to the use, the instructions for safe disposal of the product and its packaging*

See section 5 — General Directions for Use

4.3.5. *Where specific to the use, the conditions of storage and shelf-life of the product under normal conditions of storage*

See section 5 — General Directions for Use

4.4. **Use description**

Table 15. Use # 4 – Post-milking disinfection, manual dipping (RTU liquid)

Product type	PT03 — Veterinary hygiene (Disinfectants)
Where relevant, an exact description of the authorised use	—
Target organism(s) (including development stage)	Bacteria Yeast
Field(s) of use	Indoor
Application method(s)	Manual dipping Teat disinfectant, for direct application to lactating animals post milking Applied directly to animal teats post milking via manual dipping method.

Application rate(s) and frequency	In use iodine concentration of 3 000 mg/Kg (0,3 % w/w) – Ready to use formulation containing 0,3 % w/w iodine. Do not dilute before use. 3 post milking applications, per animal, per day. Apply a maximum of 10 ml product/animal/application
Category(ies) of users	Professional
Pack sizes and packaging material	1, 5 and 20 litre HDPE or f-HDPE canister 200 litre HDPE or f-HDPE drum 950 litre HDPE or f-HDPE Intermediate Bulk Container (IBC)

4.4.1. *Use-specific instructions for use*

Applied directly to animal teats post milking via manual dipping method.

Ready to use formulation containing 0,3 % w/w iodine. Do not dilute before use.

3 post milking applications, per animal, per day.

Apply a maximum of 10 ml product/animal/application

4.4.2. *Use-specific risk mitigation measures*

See section 5 — General Directions for Use

4.4.3. *Where specific to the use, the particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment*

See section 5 — General Directions for Use

4.4.4. *Where specific to the use, the instructions for safe disposal of the product and its packaging*

See section 5 — General Directions for Use

4.4.5. *Where specific to the use, the conditions of storage and shelf-life of the product under normal conditions of storage*

See section 5 — General Directions for Use

4.5. **Use description**

Table 16. Use # 5 – Post-milking disinfection, manual foaming (RTU liquid)

Product type	PT03 — Veterinary hygiene (Disinfectants)
Where relevant, an exact description of the authorised use	—
Target organism(s) (including development stage)	Bacteria Yeast
Field(s) of use	Indoor
Application method(s)	Manual foaming Teat disinfectant, for direct application to lactating animals post milking Applied directly to animal teats post milking via manual foaming method.

Application rate(s) and frequency	In use iodine concentration of 3 000 mg/Kg (0,3 % w/w) – Ready to use formulation containing 0,3 % w/w iodine. Do not dilute before use. 3 post milking applications, per animal, per day. Apply a maximum of 5 ml product/animal/application
Category(ies) of users	Professional
Pack sizes and packaging material	1, 5 & 20 litre HDPE or f-HDPE canister 200 litre HDPE or f-HDPE drum 950 litre HDPE or f-HDPE Intermediate Bulk Container (IBC)

4.5.1. *Use-specific instructions for use*

Applied directly to animal teats post milking via manual foaming method.)

Ready to use formulation containing 0,3 % w/w iodine. Do not dilute before use.

3 post milking applications, per animal, per day.

Apply a maximum of 5 ml product/animal/application

4.5.2. *Use-specific risk mitigation measures*

See section 5 — General Directions for Use

4.5.3. *Where specific to the use, the particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment*

See section 5 — General Directions for Use

4.5.4. *Where specific to the use, the instructions for safe disposal of the product and its packaging*

See section 5 — General Directions for Use

4.5.5. *Where specific to the use, the conditions of storage and shelf-life of the product under normal conditions of storage*

See section 5 — General Directions for Use

4.6. **Use description**

Table 17. Use # 6 – Post-milking disinfection, manual spraying (RTU liquid)

Product type	PT03 — Veterinary hygiene (Disinfectants)
Where relevant, an exact description of the authorised use	—
Target organism(s) (including development stage)	Bacteria Yeast
Field(s) of use	Indoor
Application method(s)	Manual spraying Teat disinfectant, for direct application to lactating animals post milking Applied directly to animal teats post milking via manual spraying method.

Application rate(s) and frequency	In use iodine concentration of 3 000 mg/Kg (0,3 % w/w) – Ready to use formulation containing 0,3 % w/w iodine. Do not dilute before use. 3 post milking applications, per animal, per day. Apply a maximum of 15 ml product/animal/application
Category(ies) of users	Professional
Pack sizes and packaging material	1, 5 and 20 litre HDPE or f-HDPE canister 200 litre HDPE or f-HDPE drum 950 litre HDPE or f-HDPE Intermediate Bulk Container (IBC)

4.6.1. *Use-specific instructions for use*

Applied directly to animal teats post milking via manual spraying method.

Ready to use formulation containing 0,3 % w/w iodine. Do not dilute before use.

3 post milking applications, per animal, per day.

Apply a maximum of 15 ml product/animal/application

4.6.2. *Use-specific risk mitigation measures*

Wear protective chemical resistant gloves during product handling phase (glove material to be specified by the authorisation holder within the product information)

4.6.3. *Where specific to the use, the particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment*

See section 5 — General Directions for Use

4.6.4. *Where specific to the use, the instructions for safe disposal of the product and its packaging*

See section 5 — General Directions for Use

4.6.5. *Where specific to the use, the conditions of storage and shelf-life of the product under normal conditions of storage*

See section 5 — General Directions for Use

4.7. **Use description**

Table 18. Use # 7 – Post-milking disinfection, automatic spraying (not to be combined with a pre-milking disinfection (RTU liquid))

Product type	PT03 — Veterinary hygiene (Disinfectants)
Where relevant, an exact description of the authorised use	—
Target organism(s) (including development stage)	Bacteria Yeast
Field(s) of use	Indoor
Application method(s)	Automatic spraying Teat disinfectant, for direct application to lactating animals post milking Applied directly to animal teats post milking via automatic spraying method.

Application rate(s) and frequency	In use iodine concentration of 3 000 mg/Kg (0,3 % w/w) – Ready to use formulation containing 0,3 % w/w iodine. Do not dilute before use. 5 post milking applications, per animal, per day. Not to be combined with iodine based pre-milking disinfection. Apply a maximum of 15 ml product/animal/application
Category(ies) of users	Professional
Pack sizes and packaging material	1, 5 and 20 litre HDPE or f-HDPE canister 200 litre HDPE or f-HDPE drum 950 litre HDPE or f-HPDE Intermediate Bulk Container (IBC)

4.7.1. *Use-specific instructions for use*

Applied directly to animal teats post milking via automatic spraying method.

Ready to use formulation containing 0,3 % w/w iodine. Do not dilute before use.

5 post milking applications, per animal, per day. Not to be combined with iodine based pre-milking disinfection.

Apply a maximum of 15 ml product/animal/application

4.7.2. *Use-specific risk mitigation measures*

See section 5 — General Directions for Use

4.7.3. *Where specific to the use, the particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment*

See section 5 — General Directions for Use

4.7.4. *Where specific to the use, the instructions for safe disposal of the product and its packaging*

See section 5 — General Directions for Use

4.7.5. *Where specific to the use, the conditions of storage and shelf-life of the product under normal conditions of storage*

See section 5 — General Directions for Use

4.8. **Use description**

Table 19. Use # 8 – Post-milking disinfection, semi-automatic dipping (RTU liquid)

Product type	PT03 — Veterinary hygiene (Disinfectants)
Where relevant, an exact description of the authorised use	—
Target organism(s) (including development stage)	Bacteria Yeast
Field(s) of use	Indoor
Application method(s)	Semi-automatic dipping Teat disinfectant, for direct application to lactating animals post milking Applied directly to animal teats post milking via semi-automatic dipping method.

Application rate(s) and frequency	In use iodine concentration of 3 000 mg/Kg (0,3 % w/w) – Ready to use formulation containing 0,3 % w/w iodine. Do not dilute before use. 3 post milking applications per animal, per day. Apply a maximum of 10 ml product/animal/application
Category(ies) of users	Professional
Pack sizes and packaging material	1, 5 and 20 litre HDPE or f-HDPE canister 200 litre HDPE or f-HDPE drum 950 litre HDPE or f-HDPE Intermediate Bulk Container (IBC)

4.8.1. *Use-specific instructions for use*

Applied directly to animal teats post milking via semi-automatic dipping method.

Ready to use formulation containing 0,3 % w/w iodine. Do not dilute before use.

3 post milking applications, per animal, per day.

Apply a maximum of 10 ml product/animal/application

4.8.2. *Use-specific risk mitigation measures*

See section 5 — General Directions for Use

4.8.3. *Where specific to the use, the particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment*

See section 5 — General Directions for Use

4.8.4. *Where specific to the use, the instructions for safe disposal of the product and its packaging*

See section 5 — General Directions for Use

4.8.5. *Where specific to the use, the conditions of storage and shelf-life of the product under normal conditions of storage*

See section 5 — General Directions for Use

4.9. **Use description**

Table 20. Use # 9 – Pre and post milking disinfection, manual dipping (RTU liquid)

Product type	PT03 — Veterinary hygiene (Disinfectants)
Where relevant, an exact description of the authorised use	—
Target organism(s) (including development stage)	Bacteria Yeast
Field(s) of use	Indoor
Application method(s)	Manual dipping Teat disinfectant, for direct application to lactating animals pre and post milking Applied directly to animal teats pre and post milking via manual dipping methods

Application rate(s) and frequency	In use iodine concentration of 3 000 mg/Kg (0,3 % w/w) – Ready to use formulation containing 0,3 % w/w iodine. Do not dilute before use. 3 pre and 3 post milking applications, per animal, per day (up to 5 applications in total). Apply a maximum of 10 ml product/animal/application
Category(ies) of users	Professional
Pack sizes and packaging material	1, 5 and 20 litre HDPE or f-HDPE canister 200 litre HDPE or f-HDPE drum 950 litre HDPE or f-HPDE Intermediate Bulk Container (IBC)

4.9.1. *Use-specific instructions for use*

Applied directly to animal teats pre-milking via manual dipping methods.

Ready to use formulation containing 0,3 % w/w iodine. Do not dilute before use.

3 pre and 3 post milking applications, per animal, per day (up to 5 applications in total).

Apply a maximum of 10 ml product/animal/application

4.9.2. *Use-specific risk mitigation measures*

Wear protective chemical resistant gloves during product handling phase (glove material to be specified by the authorisation holder within the product information)

4.9.3. *Where specific to the use, the particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment*

See section 5 — General Directions for Use

4.9.4. *Where specific to the use, the instructions for safe disposal of the product and its packaging*

See section 5 — General Directions for Use

4.9.5. *Where specific to the use, the conditions of storage and shelf-life of the product under normal conditions of storage*

See section 5 — General Directions for Use

4.10. **Use description**

Table 21. Use # 10 – Pre and post milking disinfection, manual foaming (RTU liquid)

Product type	PT03 — Veterinary hygiene (Disinfectants)
Where relevant, an exact description of the authorised use	—
Target organism(s) (including development stage)	Bacteria Yeast
Field(s) of use	Indoor
Application method(s)	Manual foaming Teat disinfectant, for direct application to lactating animals pre and post milking Applied directly to animal teats pre and post milking via manual foaming method.

Application rate(s) and frequency	In use iodine concentration of 3 000 mg/Kg (0,3 % w/w) – Ready to use formulation containing 0,3 % w/w iodine. Do not dilute before use. 3 pre and 3 post milking applications, per animal, per day (up to 5 applications in total). Apply a maximum of 5 ml product/animal/application
Category(ies) of users	Professional
Pack sizes and packaging material	1, 5 & 20 litre HDPE or f-HDPE canister 200 litre HDPE or f-HDPE drum 950 litre HDPE or f-HPDE Intermediate Bulk Container (IBC)

4.10.1. *Use-specific instructions for use*

Ready to use formulation containing 0,3 % w/w iodine. Do not dilute before use.

Apply directly to animal teats pre and post milking via manual foaming application method.

3 pre and 3 post milking applications, per animal, per day (up to 5 applications in total).

Apply a maximum of 5 ml product/animal/application

4.10.2. *Use-specific risk mitigation measures*

Wear protective chemical resistant gloves during product handling phase (glove material to be specified by the authorisation holder within the product information)

4.10.3. *Where specific to the use, the particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment*

See section 5 — General Directions for Use

4.10.4. *Where specific to the use, the instructions for safe disposal of the product and its packaging*

See section 5 — General Directions for Use

4.10.5. *Where specific to the use, the conditions of storage and shelf-life of the product under normal conditions of storage*

See section 5 — General Directions for Use

4.11. **Use description**

Table 22. Use # 11 – Pre and post milking disinfection, manual spraying (RTU liquid)

Product type	PT03 — Veterinary hygiene (Disinfectants)
Where relevant, an exact description of the authorised use	—
Target organism(s) (including development stage)	Bacteria Yeast
Field(s) of use	Indoor
Application method(s)	Manual spraying Teat disinfectant, for direct application to lactating animals pre and post milking Applied directly to animal teats pre and post milking via manual spraying method.

Application rate(s) and frequency	In use iodine concentration of 3 000 mg/Kg (0,3 % w/w) – Ready to use formulation containing 0,3 % w/w iodine. Do not dilute before use. 3 pre and 3 post milking applications, per animal, per day (up to 5 applications in total). Apply a maximum of 15 ml product/animal/application
Category(ies) of users	Professional
Pack sizes and packaging material	1, 5 and 20 litre HDPE or f-HDPE canister 200 litre HDPE or f-HDPE drum 950 litre HDPE or f-HPDE Intermediate Bulk Container (IBC)

4.11.1. *Use-specific instructions for use*

Applied directly to animal teats pre and post milking via manual spraying method.

Ready to use formulation containing 0,3 % w/w iodine. Do not dilute before use.

3 pre and 3 post milking applications, per animal, per day (up to 5 applications in total).

Apply a maximum of 15 ml product/animal/application

4.11.2. *Use-specific risk mitigation measures*

Wear protective chemical resistant gloves during product handling phase (glove material to be specified by the authorisation holder within the product information)

Wear suitable protective footwear (EN 13832) when applying the product.

A protective coverall (at least type 6, EN 13034) shall be worn

4.11.3. *Where specific to the use, the particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment*

See section 5 — General Directions for Use

4.11.4. *Where specific to the use, the instructions for safe disposal of the product and its packaging*

See section 5 — General Directions for Use

4.11.5. *Where specific to the use, the conditions of storage and shelf-life of the product under normal conditions of storage*

See section 5 — General Directions for Use

5. GENERAL DIRECTIONS FOR USE ⁽²⁾ OF THE META SPC 2

5.1. **Instructions for use**

The product must be brought to temperature > 20 °C before use

Pre milking:

Apply product to full length of each teat.

For effective use against bacteria and yeast, product must be left in contact with the skin for at least 30 seconds.

After the appropriate contact time, thoroughly remove the product, using a single service paper towel/cloth to ensure teats are clean and dry.

In use iodine concentration of 3 000 mg/Kg (0,3 % w/w)

⁽²⁾ Instructions for use, risk mitigation measures and other directions for use under this section are valid for any authorised uses within the meta SPC 2.

Post milking:

Cover the full length of each teat with the product, immediately after milking.

To ensure sufficient contact time, care should be taken that the product is not removed after application (e.g. keep the cows standing at least 5 minutes)

In use iodine concentration of 3 000 mg/Kg (0,3 % w/w)

5.2. **Risk mitigation measures**

This product can be used for pre- and post-milking disinfection in combination (up to 5 applications in total per animal per day). However, it should not be used in combination with a different iodine-based product

The use of a dosing pump for filling the product into the application equipment is recommended.

5.3. **Particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment**

Inhalation: No known effects or symptoms in normal use.

Skin contact: No known effects or symptoms in normal use.

Eye contact: No known effects or symptoms in normal use.

Ingestion: No known effects or symptoms in normal use

After inhalation: Supply fresh air; consult doctor in case of symptoms.

After skin contact: Instantly wash with water and soap and rinse thoroughly.

After eye contact: Rinse opened eye for several minutes under running water (at least 15 minutes).

After swallowing: Rinse out mouth and then drink plenty of water. Instantly call for doctor.

If medical advice is needed, have product container or label at hand

Stability and reactivity:

Reactivity: No reactivity hazards known under normal storage and use conditions.

Chemical stability: Stable under normal storage and use conditions.

Possibility of hazardous reactions: No hazardous reactions known under normal storage and use conditions.

Conditions to avoid: None known under normal storage and use conditions.

Hazardous decomposition products: None known under normal storage and use conditions.

Environmental precautions:

Dike to collect larger liquid spills.

Contain and/or absorb spill with inert material, then place in suitable container.

Prevent run-off from entering drains, sewers or waterways.

Collect in closed and suitable containers for disposal.

Do not place spilled materials back into the original container.

5.4. **Instructions for safe disposal of the product and its packaging**

Empty containers must be tripled rinsed prior to disposal

Paper towels used to dry animal teats and remove the product from them should be disposed of as normal/domestic waste.

Do not discharge undiluted product to sewers.

5.5. **Conditions of storage and shelf-life of the product under normal conditions of storage**

Store only in original, closed container

Protect from frost

Do not store at temperatures above 30 °C

Shelf life 24 months

6. **OTHER INFORMATION**

None

7. **THIRD INFORMATION LEVEL: INDIVIDUAL PRODUCTS IN THE META SPC 2**

7.1. **Trade name(s), authorisation number and specific composition of each individual product**

Trade name(s)	Deosan Activate Pre RTU AG108 Deosan Activate Pre RTU				
Authorisation number	EU-0019228-0003 1-2				
Common name	IUPAC name	Function	CAS number	EC number	Content (%)
Iodine		Active Substance	7553-56-2	231-442-4	0,3

7.2. **Trade name(s), authorisation number and specific composition of each individual product**

Trade name(s)	Deosan Activate Pre/Post AG217 Deosan Activate Pre/Post Iodine Plus Pre & Post Deosan D4T Super AG211 Agros Iodo Agros Iodo Multi Poviclyn liquido				
Authorisation number	EU-0019228-0004 1-2				
Common name	IUPAC name	Function	CAS number	EC number	Content (%)
Iodine		Active Substance	7553-56-2	231-442-4	0,3

7.3. **Trade name(s), authorisation number and specific composition of each individual product**

Trade name(s)	Deosan Activate PVP Plus AG215 Deosan Activate PVP Plus Agros Iodo-Prev POS-Ordenha Deosan Hitech 2 AG214 Iodine Teat Dip Solution				
Authorisation number	EU-0019228-0005 1-2				
Common name	IUPAC name	Function	CAS number	EC number	Content (%)
Iodine		Active Substance	7553-56-2	231-442-4	0,3

META SPC 3

1. META SPC 3 ADMINISTRATIVE INFORMATION

1.1. **Meta SPC 3 identifier**

Identifier	Meta SPC 3 — Deosan Activate BPF – RTU gel
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1.2. **Suffix to the authorisation number**

Number	1-3
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1.3. **Product type(s)**

Product type(s)	PT03 — Veterinary hygiene (Disinfectants)
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2. META SPC 3 COMPOSITION

2.1. **Qualitative and quantitative information on the composition of the meta SPC 3**

Common name	IUPAC name	Function	CAS number	EC number	Content (%)	
					Min	Max
Iodine		Active Substance	7553-56-2	231-442-4	0,3	0,32

2.2. **Type(s) of formulation of the meta SPC 3**

Formulation(s)	GW — Water soluble gel
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3. HAZARD AND PRECAUTIONARY STATEMENTS OF THE META SPC 3

Hazard statements	Harmful to aquatic life with long lasting effects.
Precautionary statements	If medical advice is needed, have product container or label at hand. Keep out of reach of children. Avoid release to the environment. Dispose of contents to in accordance with national regulations. Dispose of container to in accordance with national regulations.

4. AUTHORISED USE(S) OF THE META SPC 3

4.1. **Use description****Table 23. Use # 1 – Pre-milking disinfection, manual dipping (RTU gel)**

Product type	PT03 — Veterinary hygiene (Disinfectants)
Where relevant, an exact description of the authorised use	—
Target organism(s) (including development stage)	Bacteria Yeast
Field(s) of use	Indoor
Application method(s)	Manual dipping Teat disinfectant, for direct application to lactating animals pre milking Applied directly to animal teats pre- milking via manual dipping application method.

Application rate(s) and frequency	In use iodine concentration of 3 000 mg/Kg (0,3 % w/w) – Ready to use formulation containing 0,3 % w/w iodine. Do not dilute before use. 3 pre milking applications, per animal, per day. Apply a maximum of 10 ml product/animal/application
Category(ies) of users	Professional
Pack sizes and packaging material	1, 5 and 20 litre HDPE or f-HDPE canister 200 litre HDPE or f-HDPE drum 950 litre HDPE or f-HDPE Intermediate Bulk Container (IBC)

4.1.1. *Use-specific instructions for use*

Applied directly to animal teats pre- milking via manual dipping application method.

Ready to use formulation containing 0,3 % w/w iodine. Do not dilute before use.

3 pre milking applications, per animal, per day.

Apply a maximum of 10 ml product/animal/application

4.1.2. *Use-specific risk mitigation measures*

See section 5 — General Directions for Use

4.1.3. *Where specific to the use, the particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment*

See section 5 — General Directions for Use

4.1.4. *Where specific to the use, the instructions for safe disposal of the product and its packaging*

See section 5 — General Directions for Use

4.1.5. *Where specific to the use, the conditions of storage and shelf-life of the product under normal conditions of storage*

See section 5 — General Directions for Use

4.2. **Use description**

Table 24. Use # 2 – Post-milking disinfection, manual dipping (RTU gel)

Product type	PT03 — Veterinary hygiene (Disinfectants)
Where relevant, an exact description of the authorised use	—
Target organism(s) (including development stage)	Bacteria Yeast
Field(s) of use	Indoor
Application method(s)	Manual dipping Teat disinfectant, for direct application to lactating animals post milking Applied directly to animal teats post milking via manual dipping method.

Application rate(s) and frequency	In use iodine concentration of 3 000 mg/Kg (0,3 % w/w) – Ready to use formulation containing 0,3 % w/w iodine. Do not dilute before use. 3 post milking applications, per animal, per day. apply a maximum of 10 ml product/animal/application
Category(ies) of users	Professional
Pack sizes and packaging material	1, 5 and 20 litre HDPE or f-HDPE canister 200 litre HDPE or f-HDPE drum 950 litre HDPE or f-HDPE Intermediate Bulk Container (IBC)

4.2.1. *Use-specific instructions for use*

Applied directly to animal teats post milking via manual dipping method.

Ready to use formulation containing 0,3 % w/w iodine. Do not dilute before use.

2-3 post milking applications, per animal, per day.

Apply a maximum of 10 ml product/animal/application

4.2.2. *Use-specific risk mitigation measures*

See section 5 — General Directions for Use

4.2.3. *Where specific to the use, the particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment*

See section 5 — General Directions for Use

4.2.4. *Where specific to the use, the instructions for safe disposal of the product and its packaging*

See section 5 — General Directions for Use

4.2.5. *Where specific to the use, the conditions of storage and shelf-life of the product under normal conditions of storage*

See section 5 — General Directions for Use

4.3. **Use description**

Table 25. Use # 3 – Post-milking disinfection, semi-automatic dipping (RTU gel)

Product type	PT03 — Veterinary hygiene (Disinfectants)
Where relevant, an exact description of the authorised use	—
Target organism(s) (including development stage)	Bacteria Yeast
Field(s) of use	Indoor
Application method(s)	Semi-automatic dipping Teat disinfectant, for direct application to lactating animals post milking Applied directly to animal teats post milking via semi-automatic dipping method.

Application rate(s) and frequency	In use iodine concentration of 3 000 mg/Kg (0,3 % w/w) – Ready to use formulation containing 0,3 % w/w iodine. Do not dilute before use. 3 post milking applications, per animal per day. Apply a maximum of 10 ml product/animal/application.
Category(ies) of users	Professional
Pack sizes and packaging material	1, 5 and 20 litre HDPE or f-HDPE canister 200 litre HDPE or f-HDPE drum 950 litre HDPE or f-HPDE Intermediate Bulk Container (IBC)

4.3.1. Use-specific instructions for use

Applied directly to animal teats post milking via semi-automatic dipping method.

Ready to use formulation containing 0,3 % w/w iodine. Do not dilute before use.

3 post milking applications, per animal, per day.

Apply a maximum of 10 ml product/animal/application

4.3.2. Use-specific risk mitigation measures

See section 5 — General Directions for Use

4.3.3. Where specific to the use, the particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment

See section 5 — General Directions for Use

4.3.4. Where specific to the use, the instructions for safe disposal of the product and its packaging

See section 5 — General Directions for Use

4.3.5. Where specific to the use, the conditions of storage and shelf-life of the product under normal conditions of storage

See section 5 — General Directions for Use

4.4. Use description

Table 26. Use # 4 – Pre and post-milking disinfection, manual dipping (RTU gel)

Product type	PT03 — Veterinary hygiene (Disinfectants)
Where relevant, an exact description of the authorised use	—
Target organism(s) (including development stage)	Bacteria Yeast
Field(s) of use	Indoor
Application method(s)	Manual dipping Teat disinfectant, for direct application to lactating animals pre and post milking Applied directly to animal teats pre and post milking via manual dipping application method.

Application rate(s) and frequency	In use iodine concentration of 3 000 mg/Kg (0,3 % w/w) – Ready to use formulation containing 0,3 % w/w iodine. Do not dilute before use. 3 pre and 3 post milking applications, per animal, per day (up to 5 applications in total) Apply a maximum of 10 ml product/animal/application
Category(ies) of users	Professional
Pack sizes and packaging material	1, 5 and 20 litre HDPE or f-HDPE canister 200 litre HDPE or f-HDPE drum 950 litre HDPE or f-HPDE Intermediate Bulk Container (IBC)

4.4.1. *Use-specific instructions for use*

Applied directly to animal teats pre and post milking via manual dipping application method.

Ready to use formulation containing 0,3 % w/w iodine. Do not dilute before use.

3 pre and 3 post milking applications, per animal, per day (up to 5 applications in total)

Apply a maximum of 10 ml product/animal/application

4.4.2. *Use-specific risk mitigation measures*

Wear protective chemical resistant gloves when applying the product by dipping (glove material to be specified by the authorisation holder within the product information)

4.4.3. *Where specific to the use, the particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment*

See section 5 — General Directions for Use

4.4.4. *Where specific to the use, the instructions for safe disposal of the product and its packaging*

See section 5 — General Directions for Use.

4.4.5. *Where specific to the use, the conditions of storage and shelf-life of the product under normal conditions of storage*

See section 5 — General Directions for Use

5. GENERAL DIRECTIONS FOR USE ⁽³⁾ OF THE META SPC 3

5.1. **Instructions for use**

The product must be brought to temperature > 20 °C before use

Pre milking:

Apply product to full length of each teat.

For effective use against bacteria and yeast, product must be left in contact with the skin for at least 30 seconds.

After the appropriate contact time, thoroughly remove the product, using a single service paper towel/cloth to ensure teats are clean and dry.

In use iodine concentration of 3 000 mg/Kg (0,3 % w/w)

⁽³⁾ Instructions for use, risk mitigation measures and other directions for use under this section are valid for any authorised uses within the meta SPC 3.

Post milking:

Cover the full length of each teat with the product, immediately after milking.

To ensure sufficient contact time, care should be taken that the product is not removed after application (e.g. keep the cows standing at least 5 minutes)

In use iodine concentration of 3 000 mg/Kg (0,3 % w/w)

5.2. Risk mitigation measures

This product can be used for pre- and post-milking disinfection in combination (up to 5 applications in total per animal per day). However, it should not be used in combination with a different iodine-based product

The use of a dosing pump for filling the product into the application equipment is recommended.

5.3. Particulars of likely direct or indirect effects, first aid instructions and emergency measures to protect the environment

Inhalation: No known effects or symptoms in normal use.

Skin contact: No known effects or symptoms in normal use.

Eye contact: No known effects or symptoms in normal use.

Ingestion: No known effects or symptoms in normal use

After inhalation: Supply fresh air; consult doctor in case of symptoms.

After skin contact: Instantly wash with water and soap and rinse thoroughly.

After eye contact: Rinse opened eye for several minutes under running water (at least 15 minutes).

After swallowing: Rinse out mouth and then drink plenty of water. Instantly call for doctor.

If medical advice is needed, have product container or label at hand

Stability and reactivity:

Reactivity: No reactivity hazards known under normal storage and use conditions.

Chemical stability: Stable under normal storage and use conditions.

Possibility of hazardous reactions: No hazardous reactions known under normal storage and use conditions.

Conditions to avoid: None known under normal storage and use conditions.

Hazardous decomposition products: None known under normal storage and use conditions.

Environmental precautions:

Dike to collect larger liquid spills.

Contain and/or absorb spill with inert material, then place in suitable container.

Prevent run-off from entering drains, sewers or waterways.

Collect in closed and suitable containers for disposal.

Do not place spilled materials back into the original container.

5.4. Instructions for safe disposal of the product and its packaging

Empty containers must be tripled rinsed prior to disposal

Paper towels used to dry animal teats and remove the product from them should be disposed of as normal/domestic waste.

Do not discharge undiluted product to sewers.

5.5. Conditions of storage and shelf-life of the product under normal conditions of storage

Store only in original, closed container

Protect from frost

Do not store at temperatures above 30 °C

Shelf life 18 months

6. OTHER INFORMATION

None

7. THIRD INFORMATION LEVEL: INDIVIDUAL PRODUCTS IN THE META SPC 3**7.1. Trade name(s), authorisation number and specific composition of each individual product**

Trade name(s)	Deosan Activate Barrier AG216 Agros Iodo Pós Povisyl espeso				
Authorisation number	EU-0019228-0006 1-3				
Common name	IUPAC name	Function	CAS number	EC number	Content (%)
Iodine		Active Substance	7553-56-2	231-442-4	0,3

DECISIONS

COMMISSION IMPLEMENTING DECISION (EU) 2019/404

of 12 March 2019

amending the Annex to Implementing Decision 2014/709/EU concerning animal health control measures relating to African swine fever in certain Member States

(notified under document C(2019) 1833)

(Text with EEA relevance)

THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to Council Directive 89/662/EEC of 11 December 1989 concerning veterinary checks in intra-Community trade with a view to the completion of the internal market ⁽¹⁾, and in particular Article 9(4) thereof,

Having regard to Council Directive 90/425/EEC of 26 June 1990 concerning veterinary checks applicable in intra-Union trade in certain live animals and products with a view to the completion of the internal market ⁽²⁾, and in particular Article 10(4) thereof,

Having regard to Council Directive 2002/99/EC of 16 December 2002 laying down the animal health rules governing the production, processing, distribution and introduction of products of animal origin for human consumption ⁽³⁾, and in particular Article 4(3) thereof,

Whereas:

- (1) Commission Implementing Decision 2014/709/EU ⁽⁴⁾ lays down animal health control measures in relation to African swine fever in certain Member States, where there have been confirmed cases of that disease in domestic or feral pigs (the Member States concerned). The Annex to that Implementing Decision demarcates and lists certain areas of the Member States concerned in Parts I to IV thereof, differentiated by the level of risk based on the epidemiological situation as regards that disease. The Annex to Implementing Decision 2014/709/EU has been amended several times to take account of changes in the epidemiological situation in the Union as regards African swine fever that need to be reflected in that Annex. The Annex to Implementing Decision 2014/709/EU was last amended by Commission Implementing Decision (EU) 2019/315 ⁽⁵⁾, following instances of African swine fever in Belgium, Bulgaria and Romania.
- (2) The risk of the spread of African swine fever in wildlife is linked to the natural slow spread of that disease among feral pig populations, and also to human activity, as demonstrated by the recent epidemiological evolution of that disease in the Union, and as documented by the European Food Safety Authority (EFSA) in the Scientific Opinion of the Panel on Animal Health and Welfare, published on 14 July 2015; in the Scientific Report of EFSA on Epidemiological analyses on African swine fever in the Baltic countries and Poland, published on 23 March 2017;

⁽¹⁾ OJ L 395, 30.12.1989, p. 13.

⁽²⁾ OJ L 224, 18.8.1990, p. 29.

⁽³⁾ OJ L 18, 23.1.2003, p. 11.

⁽⁴⁾ Commission Implementing Decision 2014/709/EU of 9 October 2014 concerning animal health control measures relating to African swine fever in certain Member States and repealing Implementing Decision 2014/178/EU (OJ L 295, 11.10.2014, p. 63).

⁽⁵⁾ Commission Implementing Decision (EU) 2019/315 of 21 February 2019 amending the Annex to Implementing Decision 2014/709/EU concerning animal health control measures relating to African swine fever in certain Member States (OJ L 51, 22.2.2019, p. 53).

in the Scientific Report of EFSA on Epidemiological analyses of African swine fever in the Baltic States and Poland, published on 8 November 2017; and in the Scientific Report of EFSA on Epidemiological analyses of African swine fever in the European Union, published on 29 November 2018 ⁽¹⁾.

- (3) Council Directive 2002/60/EC ⁽²⁾ lays down the minimum Union measures to be taken for the control of African swine fever. In particular, Article 9 of Directive 2002/60/EC provides for the establishment of a protection and a surveillance zone when African swine fever has been officially confirmed in pigs on a holding, and Articles 10 and 11 of that Directive lay down the measures to be taken in the protection and surveillance zones in order to prevent the spread of that disease. In addition, Article 15 of Directive 2002/60/EC provides for the measures to be taken where African swine fever is confirmed in feral pigs, including the placing under official surveillance of pig holdings in the defined infected area. Recent experience has shown that the measures laid down in Directive 2002/60/EC are effective in controlling the spread of that disease, and in particular the measures providing for the cleaning and disinfecting of infected holdings and the measures related to the eradication of the disease from a feral pig population.
- (4) Taking into account the effectiveness of the measures being applied in the Member States in accordance with Directive 2002/60/EC, and in particular those laid down in Article 10(4)(b), Article 10(5) and Article 15 thereof, and in line with the risk mitigation measures for African swine fever set out in the Terrestrial Animal Health Code of the World Organisation for Animal Health, certain areas in the counties of Alytaus, Kauno, Marijampolės, Šiaulių, Tauragės and Telšių in Lithuania currently listed in Part III of the Annex to Implementing Decision 2014/709/EU should now be listed in Part II of that Annex, in view of the expiry of the period of three months from the date of the final cleaning and disinfection of the infected holdings. Given that Part III of the Annex to Implementing Decision 2014/709/EU lists the areas where the epidemiological situation is still evolving and very dynamic, when any amendments are made to areas listed in that Part, particular consideration must always be given to the effect on the surrounding areas.
- (5) In addition, taking into account the effectiveness of the overall measures being applied in the Czech Republic in accordance with Directive 2002/60/EC, and in particular those laid down in Article 15 thereof, and in line with the risk mitigation measures for African swine fever set out in the Terrestrial Animal Health Code of the World Organisation for Animal Health, all areas in the Czech Republic currently listed in Parts I and II of the Annex to Implementing Decision 2014/709/EU, should now be delisted from the Annex, in view of favourable epidemiological situation of the disease in that Member State.
- (6) In February 2019, there have been further instances of African swine fever in feral pigs in Hungary and Poland that also need to be reflected in the Annex to Implementing Decision 2014/709/EU.
- (7) In February 2019, a few cases of African swine fever in feral pigs were observed in the counties of Heves and Borsod-Abaúj-Zemplén in Hungary in close proximity to areas listed in Part I of the Annex to Implementing Decision 2014/709/EU. These cases of African swine fever in feral pigs constitute an increased level of risk which should be reflected in that Annex. Accordingly, these areas of Hungary affected by African swine fever should be listed in Part II of the Annex to Implementing Decision 2014/709/EU instead of in Part I thereof.
- (8) In February 2019, a few cases of African swine fever in feral pigs were observed in the county of miński in Poland in close proximity to an area listed in Part I of the Annex to Implementing Decision 2014/709/EU. These cases of African swine fever in feral pigs constitute an increased level of risk which should be reflected in that Annex. Accordingly, this area of Poland affected by African swine fever should be listed in Part II of the Annex to Implementing Decision 2014/709/EU instead of in Part I thereof.
- (9) In February 2019, one case of African swine fever in a feral pig was observed in the region of Dobrich in Bulgaria in close proximity to areas listed in Part I of the Annex to Implementing Decision 2014/709/EU. This case of African swine fever in a feral pig constitutes an increased level of risk which should be reflected in that Annex. Accordingly, this area of Bulgaria affected by African swine fever should be listed in Part II of the Annex to Implementing Decision 2014/709/EU.

⁽¹⁾ EFSA Journal 2015;13(7):4163; EFSA Journal 2017;15(3):4732; EFSA Journal 2017;15(11):5068; EFSA Journal 2018;16(11):5494.

⁽²⁾ Council Directive 2002/60/EC of 27 June 2002 laying down specific provisions for the control of African swine fever and amending Directive 92/119/EEC as regards Teschen disease and African swine fever (OJ L 192, 20.7.2002, p. 27).

- (10) In order to take account of recent developments in the epidemiological evolution of African swine fever in the Union, and in order to combat the risks associated with the spread of that disease in a proactive manner, new high-risk areas of a sufficient size should be demarcated for Lithuania, Hungary, Poland and Bulgaria and duly listed in Parts I, II and III of the Annex to Implementing Decision 2014/709/EU. The Annex to Implementing Decision 2014/709/EU should therefore be amended accordingly.
- (11) The measures provided for in this Decision are in accordance with the opinion of the Standing Committee on Plants, Animals, Food and Feed,

HAS ADOPTED THIS DECISION:

Article 1

The Annex to Implementing Decision 2014/709/EU is replaced by the text set out in the Annex to this Decision.

Article 2

This Decision is addressed to the Member States.

Done at Brussels, 12 March 2019.

For the Commission
Vytenis ANDRIUKAITIS
Member of the Commission

ANNEX

The Annex to Implementing Decision 2014/709/EU is replaced by the following:

‘ANNEX

PART I

1. Belgium

The following areas in Belgium:

in Luxembourg province:

— the area is delimited clockwise by:

— Frontière avec la France

— Rue Mersinhat

— N818

— N83: Le Buisson des Cailles

— Rue des Sources

— Rue Antoine

— Rue de la Cure

— Rue du Breux

— Rue Blondiau

— Nouvelle Chiyue

— Rue de Martué

— Rue du Chêne

— Rue des Aubépines

— N85: Rue des Îles, N894: Rue de Chiny, Rue de la Fontenelle, Rue du Millénaire, Rue de la Goulette, Pont saint Nicolas, Rue des Combattants jusqu'à son intersection avec la Rue de la Motte, Rue de la Motte

— Rue de Neufchâteau

— Rue des Bruyères jusqu'à son intersection avec la Rue de la Gaume (N801)

— Rue de la Gaume jusqu'à son intersection avec la Rue de l'Accord

— Rue du Fet

— N40: Route d'Arlon, Burnaimont, Rue de Luxembourg, Rue Ranci, Rue de la Chapelle,

— Rue du Tombois

— Rue Du Pierroy

— Rue Saint-Orban

— Rue Saint-Aubain

— Rue des Cottages

— Rue de Relune

— Rue de Rulune

— Route de l'Ermitage

— N87: Route de Habay

— Chemin des Ecoliers

— Le Routy

— Rue Burgknapp

— Rue de la Halte

— Rue du Centre

— Rue de l'Eglise

— Rue du Marquisat

- Rue de la Carrière
- Rue de la Lorraine
- Rue du Beynert
- Millewée
- Rue du Tram
- Millewée
- N4: Route de Bastogne, Avenue de Longwy, Route de Luxembourg,
- Frontière avec le Grand-Duché de Luxembourg
- Frontière avec la France
- La N87 jusque son intersection avec la N871 au niveau de Rouvroy
- La N871 jusque son intersection avec la N88
- La N88 jusque son intersection avec la N883 au niveau d'Aubange
- La N883 jusque son intersection avec la N81 au niveau d'Aubange
- La N81 jusque son intersection avec la E25-E411
- La E25-E411 jusque son intersection avec la N894
- La N894 jusque son intersection avec la N801
- La N801 jusque son intersection avec la N891
- La N83 jusque son intersection avec la N85
- La N85 jusque son intersection avec la frontière avec la France

2. Bulgaria

The following areas in Bulgaria:

in Varna the whole region excluding the villages covered in Part II

in Silistra region:

- whole municipality of Glavinitza,
- whole municipality of Tutrakan,
- within municipality of Dulovo:
 - Boil,
 - Vokil,
 - Grancharovo,
 - Doletz,
 - Oven,
 - Okorsh,
 - Oreshene,
 - Paisievo,
 - Pravda,
 - Prohlada,
 - Ruyno,
 - Sekulovo,
 - Skala,
 - Yarebitsa,
- within municipality of Sitovo:
 - Bosna,
 - Garvan,
 - Irnik,
 - Iskra,
 - Nova Popina,

- Polyana,
- Popina,
- Sitovo,
- Yastrebna,
- within municipality of Silistra:
 - Vetren
- in Dobrich region:
 - whole municipality of Baltchik,
 - whole municipality of General Toshevo,
 - whole municipality of Dobrich,
 - whole municipality of Dobrich-selska (Dobrichka),
 - within municipality of Krushari:
 - Severnyak,
 - Abrit,
 - Dobrin,
 - Alexandria,
 - Polkovnik Dyakovo,
 - Poruchik Kardzhievo,
 - Zagortzi,
 - Zementsi,
 - Koriten,
 - Krushari,
 - Bistretz,
 - Efreytor Bakalovo,
 - Telerig,
 - Lozenetz,
 - Krushari,
 - Severnyak,
 - Severtsi,
- within municipality of Kavarna:
 - Krupen,
 - Belgun,
 - Bilo,
 - Septemvriytsi,
 - Travnik,
- whole municipality of Tervel, except Brestnitsa and Kolartzi,
- in Ruse region:
 - within municipality of Slivo pole:
 - Babovo,
 - Brashlen,
 - Golyamo vranovo,
 - Malko vranovo,
 - Ryahovo,
 - Slivo pole,
 - Borisovo,

- within municipality of Ruse:
 - Sandrovo,
 - Prosenia,
 - Nikolovo,
 - Marten,
 - Dolno Ablanovo,
 - Ruse,
 - Chervena voda,
 - Basarbovo,
- within municipality of Ivanovo:
 - Krasen,
 - Bozhichen,
 - Pirgovo,
 - Mechka,
 - Trastenik,
- within municipality of Borovo:
 - Batin,
 - Gorno Ablanovo,
 - Ekzarh Yosif,
 - Obretenik,
 - Batin,
- within municipality of Tsenovo:
 - Krivina,
 - Belyanovo,
 - Novgrad,
 - Dzhulyunitza,
 - Beltzov,
 - Tsenovo,
 - Piperkovo,
 - Karamanovo,
- in Veliko Tarnovo region:
 - within municipality of Svishtov:
 - Sovata,
 - Vardim,
 - Svishtov,
 - Tzarevets,
 - Bulgarsko Slivovo,
 - Oresh,
- in Pleven region:
 - within municipality of Belene:
 - Dekov,
 - Belene,
 - Kulina voda,
 - Byala voda,
 - within municipality of Nikopol:
 - Lozitza,
 - Dragash voyvoda,

- Lyubenovo,
 - Nikopol,
 - Debovo,
 - Evlogievo,
 - Muselievo,
 - Zhernov,
 - Cherkovitzza,
 - within municipality of Gulyantzi:
 - Somovit,
 - Dolni vit,
 - Milkovitsa,
 - Shiyakovo,
 - Lenkovo,
 - Kreta,
 - Gulyantzi,
 - Brest,
 - Dabovan,
 - Zagrazhdan,
 - Gigen,
 - Iskar,
 - within municipality of Dolna Mitropoliya:
 - Komarevo,
 - Baykal,
 - Slavovitsa,
 - Bregare,
 - Orehovitsa,
 - Krushovene,
 - Stavertzi,
 - Gostilya,
- in Vratza region:
- within municipality of Oryahovo:
 - Dolni vadin,
 - Gorni vadin,
 - Ostrov,
 - Galovo,
 - Leskovets,
 - Selanovtsi,
 - Oryahovo,
 - within municipality of Miziya:
 - Saraevo,
 - Miziya,
 - Voyvodovo,
 - Sofronievo,
 - within municipality of Kozloduy:
 - Harlets,
 - Glozhene,

- Butan,
- Kozloduy,
- in Montana region:
- within municipality of Valtchedram:
 - Dolni Tzibar,
 - Gorni Tzibar,
 - Ignatovo,
 - Zlatiya,
 - Razgrad,
 - Botevo,
 - Valtchedram,
 - Mokresh,
- within municipality Lom:
 - Kovatchitza,
 - Stanevo,
 - Lom,
 - Zemphyr,
 - Dolno Linevo,
 - Traykovo,
 - Staliyska mahala,
 - Orsoya,
 - Slivata,
 - Dobri dol,
- within municipality of Brusarts:
 - Vasilyovtzi,
 - Dondukovo,
- in Vidin region:
- within municipality of Ruzhintsi:
 - Dinkovo,
 - Topolovets,
 - Drenovets,
- within municipality of Dimovo:
 - Artchar,
 - Septemvriytzi,
 - Yarlovitza,
 - Vodnyantzi,
 - Shipot,
 - Izvor,
 - Mali Drenovetz,
 - Lagoshevtzi,
 - Darzhanitza,
- within municipality of Vidin:
 - Vartop,
 - Botevo,
 - Gaytantsi,
 - Tzar Simeonovo,

- Ivanovtsi,
- Zheglitza,
- Sinagovtsi,
- Dunavtsi,
- Bukovets,
- Bela Rada,
- Slana bara,
- Novoseltsi,
- Ruptzi,
- Akatsievo,
- Vidin,
- Inovo,
- Kapitanovtsi,
- Pokrayna,
- Antimovo,
- Kutovo,
- Slanotran,
- Koshava,
- Gomotartsi.

3. Estonia

The following areas in Estonia:

- Hiiu maakond.

4. Hungary

The following areas in Hungary:

- Borsod-Abaúj-Zemplén megye 651100, 651300, 651400, 651500, 651610, 651700, 651801, 651802, 651803, 651900, 652000, 652200, 652300, 652601, 652602, 652603, 652700, 652900, 653000, 653100, 653200, 653300, 653401, 653403, 653500, 653600, 653700, 653800, 653900, 654000, 654201, 654202, 654301, 654302, 654400, 654501, 654502, 654600, 654700, 654800, 654900, 655000, 655100, 655200, 655300, 655500, 655600, 655700, 655800, 655901, 655902, 656000, 656100, 656200, 656300, 656400, 656600, 657300, 657400, 657500, 657600, 657700, 657800, 657900, 658000, 658201, 658202 és 658403 kódszámú vadgazdálkodási egységeinek teljes területe,
- Hajdú-Bihar megye 900750, 900850, 900860, 900930, 900950, 901050, 901150, 901250, 901260, 901270, 901350, 901450, 901551, 901560, 901570, 901580, 901590, 901650, 901660, 901750, 901950, 902050, 902150, 902250, 902350, 902450, 902850, 902860, 902950, 902960, 903050, 903150, 903250, 903350, 903360, 903370, 903450, 903550, 904450, 904460, 904550, 904650, 904750, 904760, 905450 és 905550 kódszámú vadgazdálkodási egységeinek teljes területe,
- Heves megye 702550, 703350, 703360, 703450, 703550, 703610, 703750, 703850, 703950, 704050, 704150, 704250, 704350, 704450, 704550, 704650, 704750, 704850, 704950, 705050, és 705350 kódszámú vadgazdálkodási egységeinek teljes területe,
- Jász-Nagykun-Szolnok megye 750150, 750160, 750250, 750260, 750350, 750450, 750460, 750550, 750650, 750750, 750850, 750950, 751150, 752150 és 755550 kódszámú vadgazdálkodási egységeinek teljes területe,
- Nógrád megye 550710, 550810, 551450, 551460, 551550, 551650, 551710, 552010, 552150, 552250, 552350, 552360, 552450, 552460, 552520, 552550, 552610, 552620, 552710, 552850, 552860, 552950, 552960, 552970, 553050, 553110, 553250, 553260, 553350, 553650, 553750, 553850, 553910 és 554050 kódszámú vadgazdálkodási egységeinek teljes területe,
- Pest megye 571250, 571350, 571550, 571610, 571750, 571760, 572250, 572350, 572550, 572850, 572950, 573360, 573450, 580050 és 580450 kódszámú vadgazdálkodási egységeinek teljes területe,
- Szabolcs-Szatmár-Bereg megye 851950, 852350, 852450, 852550, 852750, 853560, 853650, 853751, 853850, 853950, 853960, 854050, 854150, 854250, 854350, 855250, 855350, 855450, 855460, 855550, 855650, 855660, 855750, 855850, 855950, 855960, 856012, 856050, 856150, 856260, 857050, 857150, 857350 és 857450 kódszámú vadgazdálkodási egységeinek teljes területe.

5. Latvia

The following areas in Latvia:

- Aizputes novads Aizputes, Cīravas, Lažas, Kazdangas pagasts un Aizputes pilsēta,
- Alsungas novads,
- Durbes novads Dunalkas un Tadaikšu pagasts,
- Kuldīgas novads Gudenieku pagasts,
- Pāvilostas novads Sakas pagasts un Pāvilostas pilsēta,
- Stopiņu novads daļa, kas atrodas uz rietumiem no autoceļa V36, P4 un P5, Acones ielas, Daugulupes ielas un Daugulupītes,
- Ventspils novads Jūrkalnes pagasts,
- Grobiņas novads Bārtas un Gaviezes pagasts,
- Rucavas novads Dunikas pagasts.

6. Lithuania

The following areas in Lithuania:

- Jurbarko rajono savivaldybė: Smalininkų ir Viešvilės seniūnijos,
- Kelmės rajono savivaldybė: Kelmės, Kelmės apylinkių, Kražių, Kukečių, Liolių, Pakražančio seniūnijos, Tytuvėnų seniūnijos dalis į vakarus ir šiaurę nuo kelio Nr. 157 ir į vakarus nuo kelio Nr. 2105 ir Tytuvėnų apylinkių seniūnijos dalis į šiaurę nuo kelio Nr. 157 ir į vakarus nuo kelio Nr. 2105, ir Vaiguvos seniūnijos,
- Mažeikių rajono savivaldybė: Sedos ir Židikų seniūnijos,
- Pagėgių savivaldybė,
- Plungės rajono savivaldybė,
- Raseinių rajono savivaldybė: Girkalnio ir Kalnujų seniūnijos dalis į šiaurę nuo kelio Nr. A1, Nemakščių, Paliepių, Raseinių, Raseinių miesto ir Viduklės seniūnijos,
- Rietavo savivaldybė,
- Skuodo rajono savivaldybė,
- Šilalės rajono savivaldybė,
- Šilutės rajono savivaldybė: Juknaičių, Kintų, Šilutės ir Usėnų seniūnijos,
- Tauragės rajono savivaldybė: Lauksargių, Skaudvilės, Tauragės, Mažonų, Tauragės miesto ir Žygaičių seniūnijos.

7. Poland

The following areas in Poland:

w województwie warmińsko-mazurskim:

- gmina Ruciane – Nida i część gminy Pisz położona na południe od linii wyznaczonej przez drogę nr 58 oraz miasto Pisz w powiecie piskim,
- gmina Miłki, część gminy Ryn położona na południe od linii kolejowej łączącej miejscowości Giżycko i Kętrzyn, część gminy wiejskiej Giżycko położona na południe od linii wyznaczonej przez drogę nr 59 biegnącą od zachodniej granicy gminy do granicy miasta Giżycko, na południe od linii wyznaczonej przez drogę nr 63 biegnącą od południowej granicy gminy do granicy miasta Giżycko i na południe od granicy miasta Giżycko w powiecie giżyckim,
- gminy Mikołajki, Piecki, część gminy Sorkwity położona na południe od drogi nr 16 i część gminy wiejskiej Mrągowo położona na południe od linii wyznaczonej przez drogę nr 16 biegnącą od zachodniej granicy gminy do granicy miasta Mrągowo oraz na południe od linii wyznaczonej przez drogę nr 59 biegnącą od wschodniej granicy gminy do granicy miasta Mrągowo w powiecie mrągowskim,
- gminy Dźwierzuty i Świątajno w powiecie szczycieńskim,
- gminy Gronowo Elbląskie, Markusy, Rychliki, część gminy Elbląg położona na wschód i na południe od granicy powiatu miejskiego Elbląg i na południe od linii wyznaczonej przez drogę nr S7 biegnącą od granicy powiatu miejskiego Elbląg do wschodniej granicy gminy Elbląg i część gminy Tolkmicko niewymieniona w części II załącznika w powiecie elbląskim oraz strefa wód przybrzeżnych Zalewu Wiślanego i Zatoki Elbląskiej,
- gminy Barczewo, Biskupiec, Dobrze Miasto, Dywity, Jeziorany, Jonkowo i Świątki w powiecie olsztyńskim,

- gminy Łukta, Miłakowo, Małdyty, Miłomłyn i Morąg w powiecie ostródzkim,
 - gmina Zalewo w powiecie iławskim,
- w województwie podlaskim:
- gminy Rudka, Wyszki, część gminy Brańsk położona na północ od linii od linii wyznaczonej przez drogę nr 66 biegnącą od wschodniej granicy gminy do granicy miasta Brańsk i miasto Brańsk w powiecie bielskim,
 - gmina Perlejewo w powiecie siemiatyckim,
 - gminy Kolno z miastem Kolno, Mały Płock i Turośl w powiecie kolneńskim,
 - gmina Poświętne w powiecie białostockim,
 - gminy Kołaki Kościelne, Rutki, Szumowo, część gminy Zambrów położona na południe od linii wyznaczonej przez drogę nr 58 i miasto Zambrów w powiecie zambrowskim,
 - gminy Kulesze Kościelne, Nowe Piekuty, Szepietowo, Klukowo, Ciechanowiec, Wysokie Mazowieckie z miastem Wysokie Mazowieckie, Czyżew w powiecie wysokomazowieckim,
 - gminy Miastkowo, Nowogród i Zbójna w powiecie łomżyńskim;
- w województwie mazowieckim:
- gminy Ceranów, Kosów Lacki, Sabnie, Sterdyń, część gminy Bielany położona na zachód od linii wyznaczonej przez drogę nr 63 i część gminy wiejskiej Sokołów Podlaski położona na zachód od linii wyznaczonej przez drogę nr 63 w powiecie sokołowskim,
 - gminy Grębków, Korytnica, Liw, Łochów, Miedzna, Sadowne, Stoczek, Wierzbno i miasto Węgrów w powiecie węgrowskim,
 - gminy Rzekuń, Troszyn, Lelis, Czerwin i Goworowo w powiecie ostrołęckim,
 - powiat miejski Ostrołęka,
 - powiat ostrowski,
 - gminy Karniewo, Maków Mazowiecki, Rzewnie i Szelków w powiecie makowskim,
 - gmina Krasne w powiecie przasnyskim,
 - gminy Mała Wieś i Wyszogród w powiecie płockim,
 - gminy Ciechanów z miastem Ciechanów, Głinojeck, Gołymin – Ośrodek, Ojrzeń, Opinogóra Górna i Sońsk w powiecie ciechanowskim,
 - gminy Baboszewo, Czerwińsk nad Wisłą, Naruszewo, Płońsk z miastem Płońsk, Sochocin i Załuski w powiecie płońskim,
 - gminy Gzy, Obryte, Zatory, Pułtusk i część gminy Winnica położona na wschód od linii wyznaczonej przez drogę łączącą miejscowości Bielany, Winnica i Pokrzywnica w powiecie pułtuskim,
 - gminy Brańszczyk, Długosiodło, Rząśnik, Wyszków, Zabrodzie i część gminy Somianka położona na północ od linii wyznaczonej przez drogę nr 62 w powiecie wyszkowskim,
 - gminy Jadów, Klembów, Poświętne, Strachówka i Tuszcz w powiecie wołomińskim,
 - gminy Dobrze, Jakubów, Kałuszyn, Stanisławów, i część gminy Mińsk Mazowiecki położona na północ od linii wyznaczonej przez drogę nr A2 w powiecie mińskim,
 - gmina Żelechów w powiecie garwolińskim,
 - gminy Garbatka Letnisko, Gniewoszków i Sieciechów w powiecie kozienickim,
 - gminy Baranów i Jaktorów w powiecie grodziskim,
 - powiat żyrardowski,
 - gminy Belsk Duży, Błędów, Goszczyn i Mogielnica w powiecie grójeckim,
 - gminy Białobrzegi, Promna, Stara Błotnica, Wyśmierzyce i część gminy Stromiec położona na południe od linii wyznaczonej przez drogę nr 48 w powiecie białobrzeskim,
 - gminy Jedlińsk, Jastrzębia i Pionki z miastem Pionki w powiecie radomskim,
 - gminy Ilów, Nowa Sucha, Rybno, Teresin, część gminy wiejskiej Sochaczew położona na południe od linii wyznaczonej przez drogę nr 92 biegnącą od wschodniej granicy gminy do granicy miasta Sochaczew oraz na południowy zachód od linii wyznaczonej przez drogę nr 50 biegnącą od północnej granicy gminy do granicy miasta Sochaczew i część miasta Sochaczew położona na południowy zachód od linii wyznaczonej przez drogi nr 50 i 92 w powiecie sochaczewskim,

- gmina Policzna w powiecie zwoleńskim,
 - gmina Solec nad Wisłą w powiecie lipskim;
- w województwie lubelskim:
- gminy Bełżyce, Borzechów, Niedrzwica Duża, Jabłonna, Krzczonów, Jastków, Konopnica, Głusk, Strzyżewice i Wojciechów w powiecie lubelskim,
 - gminy Miączyn, Nielisz, Sitno, Stary Zamość, Komarów-Osada i część gminy wiejskiej Zamość położona na północ od linii wyznaczonej przez drogę nr 74 w powiecie zamojskim,
 - powiat miejski Zamość,
 - gminy Jeziorzany i Kock w powiecie lubartowskim,
 - gminy Adamów i Serokomla w powiecie łukowskim,
 - gminy Kłoczew, Nowodwór, Ryki, Ułęż i miasto Dęblin w powiecie ryckim,
 - gminy Janowiec, i część gminy wiejskiej Puławy położona na zachód od rzeki Wisły w powiecie puławskim,
 - gminy Chodel, Karczmiska, Łaziska, Opole Lubelskie, Poniatowa i Wilków w powiecie opolskim,
 - gmina Rybczewice, miasto Świdnik i część gminy Piaski położona na południe od linii wyznaczonej przez drogę nr 17 biegnącą od wschodniej granicy gminy Piaski do skrzyżowania z drogą nr S12 i na zachód od linii wyznaczonej przez drogę biegnącą od skrzyżowania dróg nr 17 i nr S12 przez miejscowość Majdan Brzezicki do północnej granicy gminy w powiecie świdnickim;
 - gminy Gorzków, Rudnik i Żółkiewka w powiecie krasnostawskim,
 - gminy Bełzec, Jarczów, Lubycza Królewska, Rachanie, Susiec, Ułhówek i część gminy Łaszczów położona na południe od linii wyznaczonej przez drogę nr 852 w powiecie tomaszowskim,
 - gminy Łukowa i Obsza w powiecie biłgorajskim,
 - powiat miejski Lublin,
 - gminy Kraśnik z miastem Kraśnik, Szastarka, Trzydnik Duży, Urzędów, Wilkołaz i Zakrzówek w powiecie kraśnickim,
 - gminy Modliborzyce i Potok Wielki w powiecie janowskim;
- w województwie podkarpackim:
- gminy Horyniec-Zdrój, Narol, Stary Dzików, Wielkie Oczy, Oleszyce i Lubaczów z miastem Lubaczów w powiecie lubaczowskim,
 - gminy Laszki i Wiązownica w powiecie jarosławskim,
 - gminy Pysznica, Zaleszany i miasto Stalowa Wola w powiecie stalowowolskim,
 - gmina Gorzyce w powiecie tarnobrzeskim;
- w województwie świętokrzyskim:
- gminy Tarłów i Ożarów w powiecie opatowskim,
 - gminy Dwikozy, Zawichost i miasto Sandomierz w powiecie sandomierskim.

8. Romania

The following areas in Romania:

- Județul Alba,
- Restul județului Argeș care nu a fost inclus în partea III,
- Județul Cluj,
- Județul Harghita,
- Județul Hunedoara,
- Județul Iași,
- Județul Neamț,
- Județul Vâlcea,
- Restul județului Mehedinți care nu a fost inclus în Partea III cu următoarele comune:
 - Comuna Garla Mare,
 - Hinova,
 - Burila Mare,

- Gruia,
- Pistol,
- Dubova,
- Municipiul Drobeta Turnu Severin,
- Eselnița,
- Salcia,
- Devesel,
- Svinița,
- Gogoșu,
- Simian,
- Orșova,
- Obârșia Closani,
- Baia de Aramă,
- Bala,
- Florești,
- Broșteni,
- Corcova,
- Isverna,
- Balta,
- Podeni,
- Cireșu,
- Ilovița,
- Ponoarele,
- Ilovăț,
- Patulele,
- Jiana,
- Iyvoru Bârzii,
- Malovat,
- Bălvănești,
- Breznița Ocol,
- Godeanu,
- Padina Mare,
- Corlățel,
- Vânju Mare,
- Vânjuleț,
- Obârșia de Câmp,
- Vânători,
- Vladaia,
- Punghina,
- Cujmir,
- Oprișor,
- Dârvari,
- Căzănești,
- Husnicioara,
- Poroina Mare,
- Prunișor,

- Tămna,
- Livezile,
- Rogova,
- Voloiac,
- Sisești,
- Sovarna,
- Bălăcița,
- Județul Gorj,
- Județul Suceava,
- Județul Mureș,
- Județul Sibiu,
- Județul Caraș-Severin.

PART II

1. Belgium

The following areas in Belgium:

in Luxembourg province:

- the area is delimited clockwise by:
- La frontière avec la France au niveau de Florenville
- La N85 jusque son intersection avec la N83 au niveau de Florenville
- La N83 jusque son intersection avec la N891
- La N891 jusque son intersection avec la N801
- La N801 jusque son intersection avec la N894
- La N894 jusque son intersection avec la E25-E411
- La E25-E411 jusque son intersection avec la N81 au niveau de Weyler
- La N81 jusque son intersection avec la N883 au niveau d'Aubange
- La N883 jusque son intersection avec la N88 au niveau d'Aubange
- La N88 jusque son intersection avec la N871
- La N871 jusque son intersection avec la N87 au niveau de Rouvroy
- La N87 jusque son intersection avec la frontière avec la France

2. Bulgaria

The following areas in Bulgaria:

In Varna region

- Within municipality of Beloslav
 - Razdelna
- within municipality of Devnya
 - Devnya
 - Poveľyanovo
 - Padina,
- within municipality of Vetrino:
 - Gabarnitsa;
- within municipality of Provadiya:
 - Staroselets,
 - Petrov dol,
 - Provadiya,
 - Dobrina,
 - Manastir,

- Zhitnitsa,
- Tutrakantsi,
- Bozveliysko,
- Barzitsa,
- Tchayka,
- within municipality of Avren:
 - Trastikovo,
 - Sindel,
 - Avren,
 - Kazashka reka,
 - Yunak,
 - Tsarevtsi,
 - Dabravino,
- within municipality of Dalgopol:
 - Tsonevo,
 - Velichkovo,
- within municipality of Dolni chiflik:
 - Nova shipka,
 - Goren chiflik,
 - Pchelnik,
 - Venelin,
- in Silistra region:
 - within municipality of Kaynardzha:
 - Voynovo,
 - Kaynardzha,
 - Kranovo,
 - Zarnik,
 - Dobrudzhanka,
 - Golesh,
 - Svetoslav,
 - Polkovnik Cholakovo,
 - Kamentzi,
 - Gospodinovo,
 - Davidovo,
 - Sredishte,
 - Strelkovo,
 - Poprusanovo,
 - Posev,
 - within municipality of Alfatar:
 - Alfatar,
 - Alekovo,
 - Bistra,
 - Kutlovitza,
 - Tzar Asen,
 - Chukovetz,
 - Vasil Levski,

- within municipality of Silistra:
 - Glavan,
 - Silistra,
 - Aydemir,
 - Babuk,
 - Popkralevo,
 - Bogorovo,
 - Bradvari,
 - Sratzimir,
 - Bulgarka,
 - Tsenovich,
 - Sarpovo,
 - Srebarna,
 - Smiletz,
 - Profesor Ishirkovo,
 - Polkovnik Lambrinovo,
 - Kalipetrovo,
 - Kazimir,
 - Yordanovo,
- within municipality of Sitovo:
 - Dobrotitza,
 - Lyuben,
 - Slatina,
- within municipality of Dulovo:
 - Varbino,
 - Polkovnik Taslakovo,
 - Kolobar,
 - Kozyak,
 - Mezhdan,
 - Tcherkovna,
 - Dulovo,
 - Razdel,
 - Tchernik,
 - Poroyno,
 - Vodno,
 - Zlatoklas,
 - Tchernolik,
- in Dobrich region:
 - within municipality of Krushari:
 - Kapitan Dimitrovo,
 - Ognyanovo,
 - Zimnitza,
 - Gaber,
 - within municipality of Dobrich-selska:
 - Altsek,
 - Vodnyantsi,

- Feldfebel Denkovo,
- Hitovo,
- within municipality of Tervel:
 - Brestnitsa,
 - Kolartzi,
 - Angelariy,
 - Balik,
 - Bezmer,
 - Bozhan,
 - Bonevo,
 - Voynikovo,
 - Glavantsi,
 - Gradnitsa,
 - Guslar,
 - Kableshekovo,
 - Kladentsi,
 - Kochmar,
 - Mali izvor,
 - Nova Kamena,
 - Onogur,
 - Polkovnik Savovo,
 - Popgruevo,
 - Profesor Zlatarski,
 - Sartents,
 - Tervel,
 - Chestimenstko,
- within municipality Shabla:
 - Shabla,
 - Tyulenovo,
 - Bozhanovo,
 - Gorun,
 - Gorichane,
 - Prolez,
 - Ezeretz,
 - Zahari Stoyanovo,
 - Vaklino,
 - Granichar,
 - Durankulak,
 - Krapetz,
 - Smin,
 - Staevtsi,
 - Tvarditsa,
 - Chernomortzi,
- within municipality of Kavarna:
 - Balgarevo,
 - Bozhurets,

- Vranino,
- Vidno,
- Irechek,
- Kavarna,
- Kamen briag,
- Mogilishte,
- Neykovo,
- Poruchik Chunchevo,
- Rakovski,
- Sveti Nikola,
- Seltse,
- Topola,
- Travnik,
- Hadzhi Dimitar,
- Chelopechene.

3. Estonia

The following areas in Estonia:

- Eesti Vabariik (välja arvatud Hiiu maakond).

4. Hungary

The following areas in Hungary:

- Heves megye 700150, 700250, 700260, 700350, 700450, 700460, 700550, 700650, 700750, 700850, 700860, 700950, 701050, 701111, 701150, 701250, 701350, 701550, 701560, 701650, 701750, 701850, 701950, 702050, 702150, 702250, 702260, 702350, 702450, 702750, 702850, 702950, 703050, 703150, 703250, 703370, 705150, 705250, 705450, 705510 és 705610 kódszámú vadgazdálkodási egységeinek teljes területe,
- Szabolcs-Szatmár-Bereg megye 850950, 851050, 851150, 851250, 851350, 851450, 851550, 851560, 851650, 851660, 851751, 851752, 852850, 852860, 852950, 852960, 853050, 853150, 853160, 853250, 853260, 853350, 853360, 853450, 853550, 854450, 854550, 854560, 854650, 854660, 854750, 854850, 854860, 854870, 854950, 855050, 855150, 856250, 856350, 856360, 856450, 856550, 856650, 856750, 856760, 856850, 856950, 857650, valamint 850150, 850250, 850260, 850350, 850450, 850550, 852050, 852150, 852250 és 857550, továbbá 850650, 850850, 851851 és 851852 kódszámú vadgazdálkodási egységeinek teljes területe,
- Nógrád megye 550110, 550120, 550130, 550210, 550310, 550320, 550450, 550460, 550510, 550610, 550950, 551010, 551150, 551160, 551250, 551350, 551360, 551810 és 551821 kódszámú vadgazdálkodási egységeinek teljes területe,
- Borsod-Abaúj-Zemplén megye 650100, 650200, 650300, 650400, 650500, 650600, 650700, 650800, 650900, 651000, 651200, 652100, 655400, 656701, 656702, 656800, 656900, 657010, 657100, 658100, 658310, 658401, 658402, 658404, 658500, 658600, 658700, 658801, 658802, 658901, 658902, 659000, 659100, 659210, 659220, 659300, 659400, 659500, 659601, 659602, 659701, 659800, 659901, 660000, 660100, 660200, 660400, 660501, 660502, 660600 és 660800, valamint 652400, 652500 és 652800 kódszámú vadgazdálkodási egységeinek teljes területe,
- Hajdú-Bihar megye 900150, 900250, 900350, 900450, 900550, 900650, 900660, 900670 és 901850 kódszámú vadgazdálkodási egységeinek teljes területe.

5. Latvia

The following areas in Latvia:

- Ādažu novads,
- Aizputes novads Kalvenes pagasts,
- Aglonas novads,
- Aizkraukles novads,
- Aknīstes novads,
- Alojas novads,

- Alūksnes novads,
- Amatas novads,
- Apes novads,
- Auces novads,
- Babītes novads,
- Baldones novads,
- Baltnavas novads,
- Balvu novads,
- Bauskas novads,
- Beverīnas novads,
- Brocēnu novada Blīdenes pagasts, Remtes pagasta daļa uz austrumiem no autoceļa 1154 un P109,
- Burtnieku novads,
- Carnikavas novads,
- Cēsu novads,
- Cesvaines novads,
- Ciblas novads,
- Dagdas novads,
- Daugavpils novads,
- Dobeles novads,
- Dundagas novads,
- Durbes novada Durbes un Vecpils pagasts,
- Engures novads,
- Ērgļu novads,
- Garkalnes novads,
- Gulbenes novads,
- Iecavas novads,
- Ikšķiles novads,
- Ilūkstes novads,
- Inčukalna novads,
- Jaunjelgavas novads,
- Jaunpiebalgas novads,
- Jaunpils novads,
- Jēkabpils novads,
- Jelgavas novads,
- Kandavas novads,
- Kārsavas novads,
- Ķeguma novads,
- Ķekavas novads,
- Kocēnu novads,
- Kokneses novads,
- Krāslavas novads,
- Krimuldas novads,
- Krustpils novads,
- Kuldīgas novada Ēdoles, Īvandes, Padures, Rendas, Kabiles, Rumbas, Kurmāles, Pelču, Snēpeles, Turlavas, Laidu un Vārmes pagasts, Kuldīgas pilsēta,
- Lielvārdes novads,
- Līgatnes novads,

- Limbažu novads,
- Līvānu novads,
- Lubānas novads,
- Ludzas novads,
- Madonas novads,
- Mālpils novads,
- Mārupes novads,
- Mazsalacas novads,
- Mērsraga novads,
- Naukšēnu novads,
- Neretas novads,
- Ogres novads,
- Olaines novads,
- Ozolnieku novads,
- Pārgaujas novads,
- Pļaviņu novads,
- Preiļu novads,
- Priekules novads,
- Priekuļu novads,
- Raunas novads,
- republikas pilsēta Daugavpils,
- republikas pilsēta Jelgava,
- republikas pilsēta Jēkabpils,
- republikas pilsēta Jūrmala,
- republikas pilsēta Rēzekne,
- republikas pilsēta Valmiera,
- Rēzeknes novads,
- Riebiņu novads,
- Rojas novads,
- Ropažu novads,
- Rugāju novads,
- Rundāles novads,
- Rūjienas novads,
- Salacgrīvas novads,
- Salas novads,
- Salaspils novads,
- Saldus novada Novadnieku, Kursīšu, Zvārdes, Pampāļu, Šķēdes, Nīgrandes, Zaņas, Ezeres, Rubas, Jaunaucē un Vadakstes pagasts,
- Saulkrastu novads,
- Sējas novads,
- Siguldas novads,
- Skrīveru novads,
- Skrundas novads,
- Smiltenes novads,
- Stopiņu novada daļa, kas atrodas uz austrumiem no autoceļa V36, P4 un P5, Acones ielas, Dauguļupes ielas un Dauguļupītes,
- Strenču novads,

- Talsu novads,
- Tērvetes novads,
- Tukuma novads,
- Vainodes novads,
- Valkas novads,
- Varakļānu novads,
- Vārkavas novads,
- Vecpiebalgas novads,
- Vecumnieku novads,
- Ventspils novada Ances, Tārgales, Popes, Vārves, Užavas, Piltenes, Puzes, Ziru, Ugāles, Usmas un Zlēku pagasts, Piltenes pilsēta,
- Viesītes novads,
- Viļakas novads,
- Viļānu novads,
- Zilupes novads.

6. Lithuania

The following areas in Lithuania:

- Alytaus miesto savivaldybė,
- Alytaus rajono savivaldybė,
- Anykščių rajono savivaldybė,
- Akmenės rajono savivaldybė: Ventos ir Papilės seniūnijos,
- Biržų miesto savivaldybė,
- Biržų rajono savivaldybė,
- Birštono savivaldybė,
- Druskininkų savivaldybė,
- Elektrėnų savivaldybė,
- Ignalinos rajono savivaldybė,
- Jonavos rajono savivaldybė,
- Joniškio rajono savivaldybė: Kepalių, Kriukų, Saugėlaukio ir Satkūnų seniūnijos,
- Jurbarko rajono savivaldybė,
- Kaišiadorių miesto savivaldybė,
- Kaišiadorių rajono savivaldybė,
- Kalvarijos savivaldybė,
- Kauno miesto savivaldybė,
- Kauno rajono savivaldybė,
- Kazlų Rūdos savivaldybė,
- Kelmės rajono savivaldybė: Tytuvėnų seniūnijos dalis į rytus ir pietus nuo kelio Nr. 157 ir į rytus nuo kelio Nr. 2105 ir Tytuvėnų apylinkių seniūnijos dalis į pietus nuo kelio Nr. 157 ir į rytus nuo kelio Nr. 2105, Užvenčio ir Šaukėnų seniūnijos,
- Kėdainių rajono savivaldybė,
- Kupiškio rajono savivaldybė,
- Lazdijų rajono savivaldybė: Būdviečio, Kapčiamieščio, Krosnos, Kučiūnų ir Noragėlių seniūnijos,
- Marijampolės savivaldybė,
- Mažeikių rajono savivaldybė: Šerkšnėnų seniūnija,
- Molėtų rajono savivaldybė,
- Pakruojo rajono savivaldybė,
- Panevėžio rajono savivaldybė,

- Pasvalio rajono savivaldybė,
- Radviliškio rajono savivaldybė,
- Prienų miesto savivaldybė,
- Prienų rajono savivaldybė,
- Raseinių rajono savivaldybė: Ariogalos, Betygalos, Pajūrių, Šiluvos, Kalnų seniūnijos ir Girkalnio seniūnijos dalis į pietus nuo kelio Nr. A1,
- Rokiškio rajono savivaldybė,
- Šakių rajono savivaldybė,
- Šalčininkų rajono savivaldybė,
- Šiaulių miesto savivaldybė,
- Šiaulių rajono savivaldybė: Šiaulių kaimiškoji seniūnija,
- Šilutės rajono savivaldybė: Rusnės seniūnija,
- Širvintų rajono savivaldybė,
- Švenčionių rajono savivaldybė,
- Tauragės rajono savivaldybė: Batakių ir Gaurės seniūnijos,
- Telšių rajono savivaldybė,
- Trakų rajono savivaldybė,
- Ukmergės rajono savivaldybė,
- Utenos rajono savivaldybė,
- Varėnos rajono savivaldybė,
- Vilniaus miesto savivaldybė,
- Vilniaus rajono savivaldybė,
- Vilkaviškio rajono savivaldybė,
- Visagino savivaldybė,
- Zarasų rajono savivaldybė.

7. Poland

The following areas in Poland:

w województwie warmińsko-mazurskim:

- Gminy Kalinowo, Prostki, Stare Juchy i gmina wiejska Elk w powiecie elckim,
- gminy Godkowo, Milejewo, Młynary, Pasłęk, część gminy Elbląg położona na północ od linii wyznaczonej przez drogę nr S7 biegnącą od granicy powiatu miejskiego Elbląg do wschodniej granicy gminy Elbląg, i część obszaru lądowego gminy Tolkmicko położona na południe od linii brzegowej Zalewu Wiślanego i Zatoki Elbląskiej do granicy z gminą wiejską Elbląg w powiecie elbląskim,
- powiat miejski Elbląg,
- gminy Kruklanki, Wydminy, część gminy Ryn położona na północ od linii kolejowej łączącej miejscowości Giżycko i Kętrzyn i część gminy wiejskiej Giżycko położona na północ od linii wyznaczonej przez drogę nr 59 biegnącą od zachodniej granicy gminy do granicy miasta Giżycko, na północ od linii wyznaczonej przez drogę nr 63 biegnącą od południowej granicy gminy do granicy miasta Giżycko i na północ od granicy miasta Giżycka i miasta Giżycko w powiecie giżyckim,
- gmina Dubeninki, część gminy Gołdap położona na wschód od linii wyznaczonej przez drogę nr 65 biegnącą od południowej granicy gminy do skrzyżowania z drogą nr 1815N i na północ od linii wyznaczonej przez drogę nr 1815N biegnącą od zachodniej granicy gminy do skrzyżowania z drogą nr 65 w powiecie gołdapskim,
- gmina Pozezdrze i część gminy Węgorzewo położona na zachód od linii wyznaczonej przez drogę nr 63 biegnącą od południowo-wschodniej granicy gminy do skrzyżowania z drogą nr 650, a następnie na południe od linii wyznaczonej przez drogę nr 650 biegnącą od skrzyżowania z drogą nr 63 do skrzyżowania z drogą biegnącą do miejscowości Przysań i na wschód od linii wyznaczonej przez drogę łączącą miejscowości Przysań, Pniewo, Kamionek Wielki, Radziejewo, Dłużec w powiecie węgorzewskim,
- gminy Olecko, Świętajno, Wieliczki i część gminy Kowale Oleckie położona na wschód od linii wyznaczonej przez drogę nr 65 i na południowy wschód od linii wyznaczonej przez drogę łączącą miejscowości Kowale Oleckie, Guzy, Węzewo, Sokółki biegnącą do południowej granicy gminy w powiecie oleckim,

- gminy Orzysz, Biała Piska i część gminy Pisz położona na północ od linii wyznaczonej przez drogę nr 58 w powiecie piskim,
- gminy Górowo Iławeckie z miastem Górowo Iławeckie, Bisztynek, część gminy wiejskiej Bartoszyce położona na zachód od linii wyznaczonej przez drogę nr 51 biegnącą od północnej granicy gminy do skrzyżowania z drogą nr 57 i na zachód od linii wyznaczonej przez drogę nr 57 biegnącą od skrzyżowania z drogą nr 51 do południowej granicy gminy i miasto Bartoszyce w powiecie bartoszyckim,
- gmina Kolno w powiecie olsztyńskim,
- powiat braniewski,
- gminy Kętrzyn z miastem Kętrzyn, Reszel i część gminy Korsze położona na południe od linii wyznaczonej przez drogę biegnącą od wschodniej granicy łączącą miejscowości Kreliekijmy i Sątoczno i na wschód od linii wyznaczonej przez drogę łączącą miejscowości Sątoczno, Sajna Wielka biegnącą do skrzyżowania z drogą nr 590 w miejscowości Glitajny, a następnie na wschód od drogi nr 590 do skrzyżowania z drogą nr 592 i na południe od linii wyznaczonej przez drogę nr 592 biegnącą od zachodniej granicy gminy do skrzyżowania z drogą nr 590 w powiecie kętrzyńskim,
- powiat lidzbarski,
- część gminy Sorkwity położona na północ od drogi nr 16 i część gminy wiejskiej Mrągowo położona na północ od linii wyznaczonej przez drogę nr 16 biegnącą od zachodniej granicy gminy do granicy miasta Mrągowo oraz na północ od linii wyznaczonej przez drogę nr 59 biegnącą od wschodniej granicy gminy do granicy miasta Mrągowo w powiecie mrągowskim;

w województwie podlaskim:

- powiat grajewski,
- powiat moniecki,
- powiat sejneński,
- gminy Łomża, Piątnica, Śniadowo, Jedwabne, Przytuły i Wizna w powiecie łomżyńskim,
- powiat miejski Łomża,
- gminy Mielnik, Nurzec – Stacja, Grodzisk, Drohiczyn, Dziadkowice, Milejczyce i Siemiatycze z miastem Siemiatycze w powiecie siemiatyckim,
- powiat hajnowski,
- gminy Kobylin-Borzymy i Sokoły w powiecie wysokomazowieckim,
- część gminy Zambrów położona na północ od linii wyznaczonej przez drogę nr S8 w powiecie zambrowskim,
- gminy Grabowo i Stawiski w powiecie kolneńskim,
- gminy Czarna Białostocka, Dobrzyniewo Duże, Gródek, Juchnowiec Kościelny, Łapy, Michałowo, Supraśl, Suraż, Turośń Kościelna, Tykocin, Wasilków, Zabłudów, Zawady i Choroszcz w powiecie białostockim,
- gminy Boćki, Orla, Bielsk Podlaski z miastem Bielsk Podlaski i część gminy Brańsk położona na południe od linii od linii wyznaczonej przez drogę nr 66 biegnącą od wschodniej granicy gminy do granicy miasta Brańsk w powiecie bielskim,
- powiat suwalski,
- powiat miejski Suwałki,
- powiat augustowski,
- powiat sokólski,
- powiat miejski Białystok;

w województwie mazowieckim:

- gminy Korczew, Kotuń, Paprotnia, Przesmyki, Wodynie, Skórzec, Mokobody, Mordy, Siedlce, Suchożebry i Zbuczyn w powiecie siedleckim,
- powiat miejski Siedlce,
- gminy Repki, Jabłonna Lacka, część gminy Bielany położona na wschód od linii wyznaczonej przez drogę nr 63 i część gminy wiejskiej Sokołów Podlaski położona na wschód od linii wyznaczonej przez drogę nr 63 w powiecie sokołowskim,
- powiat łosicki,

- gminy Brochów, Młodzieszyn, część gminy wiejskiej Sochaczew położona na północ od linii wyznaczonej przez drogę nr 92 biegnącą od wschodniej granicy gminy do granicy miasta Sochaczew oraz na północny wschód od linii wyznaczonej przez drogę nr 50 biegnącą od północnej granicy gminy do granicy miasta Sochaczew i część miasta Sochaczew położona na północny wschód od linii wyznaczonej przez drogi nr 50 i 92 w powiecie sochaczewskim,
 - powiat nowodworski,
 - gminy Joniec i Nowe Miasto w powiecie płońskim,
 - gminy Pokrzywnica, Świercze i część gminy Winnica położona na zachód od linii wyznaczonej przez drogę łączącą miejscowości Bielany, Winnica i Pokrzywnica w powiecie pułuskim,
 - gminy Dąbrówka, Kobyłka, Marki, Radzymin, Wołomin, Zielonka i Ząbki w powiecie wołomińskim,
 - część gminy Somianka położona na południe od linii wyznaczonej przez drogę nr 62 w powiecie wyszkowskim,
 - gminy Ceglów, Dębe Wielkie, Halinów, Latowicz, Mrozy, Siennica, Sulejówek, część gminy Mińsk Mazowiecki położona na południe od linii wyznaczonej przez drogę nr A2 i miasto Mińsk Mazowiecki w powiecie mińskim,
 - gminy Borowie, Wilga, Garwolin z miastem Garwolin, Górzno, Łaskarzew z miastem Łaskarzew, Maciejowice, Parysów, Pilawa, Miastków Kościelny, Sobolew i Trojanów w powiecie garwolińskim,
 - powiat otwocki,
 - powiat warszawski zachodni,
 - powiat legionowski,
 - powiat piaseczyński,
 - powiat pruszkowski,
 - gminy Chynów, Grójec, Jasieniec, Pniewy i Warka w powiecie grójeckim,
 - gminy Milanówek, Grodzisk Mazowiecki, Podkowa Leśna i Żabia Wola w powiecie grodziskim,
 - gminy Grabów nad Pilicą, Magnuszew, Głowaczów, Kozienice w powiecie kozienickim,
 - część gminy Stromiec położona na północ od linii wyznaczonej przez drogę nr 48 w powiecie białobrzeskim,
 - powiat miejski Warszawa;
- w województwie lubelskim:
- gminy Borki, Czemierniki, Kąkolewnica, Komarówka Podlaska, Wohyń i Radzyń Podlaski z miastem Radzyń Podlaski w powiecie radzyńskim,
 - gminy Stoczek Łukowski z miastem Stoczek Łukowski, Wola Mysłowska, Trzebieszów, Krzywda, Stanin, część gminy wiejskiej Łuków położona na wschód od linii wyznaczonej przez drogę nr 63 biegnącą od północnej granicy gminy do granicy miasta Łuków i na północ od linii wyznaczonej przez drogę nr 806 biegnącą od wschodniej granicy miasta Łuków do wschodniej granicy gminy wiejskiej Łuków i miasto Łuków w powiecie łukowskim,
 - gminy Janów Podlaski, Kodeń, Tucznia, Leśna Podlaska, Rossosz, Łomazy, Konstantynów, Piszczac, Rokitno, Biała Podlaska, Zalesie, Terespol z miastem Terespol, Drelów, Międzyrzec Podlaski z miastem Międzyrzec Podlaski w powiecie białskim,
 - powiat miejski Biała Podlaska,
 - gmina Łęczna i część gminy Spiczyn położona na zachód od linii wyznaczonej przez drogę nr 829 w powiecie łęczyńskim,
 - część gminy Siemień położona na zachód od linii wyznaczonej przez drogę nr 815 i część gminy Milanów położona na zachód od drogi nr 813 w powiecie parczewskim,
 - gminy Niedźwiada, Ostrówek, Abramów, Firlej, Kamionka, Michów i Lubartów z miastem Lubartów, w powiecie lubartowskim,
 - gminy Niemce, Garbów i Wólka w powiecie lubelskim,
 - gmina Mełgiew i część gminy Piaski położona na północ od linii wyznaczonej przez drogę nr 17 biegnącą od wschodniej granicy gminy Piaski do skrzyżowania z drogą nr S12 i na wschód od linii wyznaczonej przez drogę biegnącą od skrzyżowania dróg nr 17 i nr S12 przez miejscowość Majdan Brzezicki do północnej granicy gminy w powiecie świdnickim,
 - gmina Fajslawice, Izbica, Kraśniczyn, część gminy Krasnystaw położona na zachód od linii wyznaczonej przez drogę nr 17 biegnącą od północno – wschodniej granicy gminy do granicy miasta Krasnystaw, miasto Krasnystaw i część gminy Łopiennik Górny położona na zachód od linii wyznaczonej przez drogę nr 17 w powiecie krasnostawskim,

- gminy Dołhobyczów, Mircze, Trzeszczany, Werbkowice i część gminy wiejskiej Hrubieszów położona na południe od linii wyznaczonej przez drogę nr 844 oraz na południe od linii wyznaczonej przez drogę nr 74 i miasto Hrubieszów w powiecie hrubieszowskim,
 - gmina Telatyn, Tyszowce i część gminy Łaszczów położona na północ od linii wyznaczonej przez drogę nr 852 w powiecie tomaszowskim,
 - część gminy Wojsławice położona na zachód od linii wyznaczonej przez drogę biegnącą od północnej granicy gminy przez miejscowość Wojsławice do południowej granicy gminy w powiecie chełmskim,
 - gmina Grabowiec i Skierbieszów w powiecie zamojskim,
 - gminy Markuszów, Nałęczów, Kazimierz Dolny, Końskowola, Kurów, Wąwolnica, Żyrzyn, Baranów, część gminy wiejskiej Puławy położona na wschód od rzeki Wisły i miasto Puławy w powiecie puławskim,
 - gminy Annopol, Dzierzkowice i Gościeradów w powiecie kraśnickim,
 - gmina Józefów nad Wisłą w powiecie opolskim,
 - gmina Stężyca w powiecie ryckim;
- w województwie podkarpackim:
- gminy Radomyśl nad Sanem i Zaklików w powiecie stalowowolskim.

8. Romania

The following areas in Romania:

- Restul județului Maramureș care nu a fost inclus în Partea III cu următoarele comune:
 - Comuna Vișeu de Sus,
 - Comuna Moisei,
 - Comuna Borșa,
 - Comuna Oarța de Jos,
 - Comuna Suceu de Sus,
 - Comuna Coroieni,
 - Comuna Târgu Lăpuș,
 - Comuna Vima Mică,
 - Comuna Boiu Mare,
 - Comuna Valea Chioarului,
 - Comuna Ulmeni,
 - Comuna Băsești,
 - Comuna Baia Mare,
 - Comuna Tăuții Magherăuș,
 - Comuna Cicărlău,
 - Comuna Seini,
 - Comuna Ardușat,
 - Comuna Farcasa,
 - Comuna Salsig,
 - Comuna Asuaju de Sus,
 - Comuna Băița de sub Codru,
 - Comuna Bicăz,
 - Comuna Grosi,
 - Comuna Recea,
 - Comuna Baia Sprie,
 - Comuna Sisesti,
 - Comuna Cernesti,
 - Copalnic Mănăstur,

- Comuna Dumbrăvița,
- Comuna Cupseni,
- Comuna Șomcuța Mare,
- Comuna Sacaleșeni,
- Comuna Remetea Chioarului,
- Comuna Mireșu Mare,
- Comuna Ariniș,
- Județul Bistrița-Năsăud.

PART III

1. Latvia

The following areas in Latvia:

- Brocēnu novads Cieceres un Gaiķu pagasts, Remtes pagasta daļa uz rietumiem no autoceļa 1154 un P109, Brocēnu pilsēta,
- Saldus novads Saldus, Zirņu, Lutriņu un Jaunlutriņu pagasts, Saldus pilsēta.

2. Lithuania

The following areas in Lithuania:

- Akmenės rajono savivaldybė: Akmenės, Kruopių, Naujosios Akmenės kaimiškoji ir Naujosios Akmenės miesto seniūnijos,
- Joniškio rajono savivaldybė: Gaižaičių, Gataučių, Joniškio, Rudiškių, Skaistgirio, Žagarės seniūnijos,
- Lazdijų rajono savivaldybė: Lazdijų miesto, Lazdijų, Seirijų, Šeštokų, Šventėžio ir Veisiejų seniūnijos,
- Mažeikių rajono savivaldybės: Laižuvos, Mažeikių apylinkės, Mažeikių, Reivyčių, Tirkšlių ir Viekšnių seniūnijos,
- Šiaulių rajono savivaldybės: Bubių, Ginkūnų, Gruzdžių, Kairių, Kuršėnų kaimiškoji, Kuršėnų miesto, Kužių, Meškiškių, Raudėnų ir Šakynos seniūnijos.

3. Poland

The following areas in Poland:

w województwie warmińsko-mazurskim:

- gmina Sępólno i część gminy wiejskiej Bartoszyce położona na wschód od linii wyznaczonej przez drogę nr 51 biegnącą od północnej granicy gminy do skrzyżowania z drogą nr 57 i na wschód od linii wyznaczonej przez drogę nr 57 biegnącą od skrzyżowania z drogą nr 51 do południowej granicy gminy w powiecie bartoszyckim,
- gminy Srokowo, Barciany i część gminy Korsze położona na północ od linii wyznaczonej przez drogę biegnącą od wschodniej granicy łączącej miejscowości Kreliekijmy i Sątoczno i na zachód od linii wyznaczonej przez drogę łączącą miejscowości Sątoczno, Sajna Wielka biegnącą do skrzyżowania z drogą nr 590 w miejscowości Glitajny, a następnie na zachód od drogi nr 590 do skrzyżowania z drogą nr 592 i na północ od linii wyznaczonej przez drogę nr 592 biegnącą od zachodniej granicy gminy do skrzyżowania z drogą nr 590 w powiecie kętrzyńskim,
- gmina Budry i część gminy Węgorzewo położona na wschód od linii wyznaczonej przez drogę nr 63 biegnącą od południowo-wschodniej granicy gminy do skrzyżowania z drogą nr 650, a następnie na północ od linii wyznaczonej przez drogę nr 650 biegnącą od skrzyżowania z drogą nr 63 do skrzyżowania z drogą biegnącą do miejscowości Przysań i na zachód od linii wyznaczonej przez drogę łączącą miejscowości Przysań, Pniewo, Kamionek Wielki, Radziejewo, Dłużec w powiecie węgorzewskim,
- gmina Banie Mazurskie i część gminy Gołdap położona na zachód od linii wyznaczonej przez drogę nr 65 biegnącą od południowej granicy gminy do skrzyżowania z drogą nr 1815N i na południe od linii wyznaczonej przez drogę nr 1815N biegnącą od zachodniej granicy gminy do skrzyżowania z drogą nr 65 w powiecie gołdapskim,
- część gminy Kowale Oleckie położona na zachód od linii wyznaczonej przez drogę biegnącą od południowej granicy gminy łączącej miejscowości Sokółki, Wężewo, Guzy, Kowale Oleckie do skrzyżowania z drogą nr 65 i na zachód od linii wyznaczonej przez drogę nr 65 biegnącą od tego skrzyżowania do północnej granicy gminy w powiecie oleckim,

w województwie mazowieckim:

- gminy Domanice i Wiśniew w powiecie siedleckim,

w województwie lubelskim:

- gminy Białopole, Dubienka, Chełm, Leśniowice, Wierzbica, Sawin, Ruda Huta, Dorohusk, Kamień, Rejowiec, Rejowiec Fabryczny z miastem Rejowiec Fabryczny, Siedliszcze, Żmudź i część gminy Wojsławice położona na wschód od linii wyznaczonej przez drogę biegnącą od północnej granicy gminy do miejscowości Wojsławice do południowej granicy gminy w powiecie chełmskim,
- powiat miejski Chełm,
- gmina Siennica Różana część gminy Łopiennik Górny położona na wschód od linii wyznaczonej przez drogę nr 17 i część gminy Krasnystaw położona na wschód od linii wyznaczonej przez drogę nr 17 biegnącą od północno – wschodniej granicy gminy do granicy miasta Krasnystaw w powiecie krasnostawskim,
- gminy Hanna, Hańsk, Wola Uhruska, Urszulin, Stary Brus, Wiryki i gmina wiejska Włodawa w powiecie włodawskim,
- gminy Cyców, Ludwin, Puchaczów, Milejów i część gminy Spiczyn położona na wschód od linii wyznaczonej przez drogę nr 829 w powiecie łęczyńskim,
- gmina Trawniki w powiecie świdnickim,
- gminy Jabłoń, Podedwórze, Dębowa Kłoda, Parczew, Sosnowica, część gminy Siemień położona na wschód od linii wyznaczonej przez drogę nr 815 i część gminy Milanów położona na wschód od drogi nr 813 w powiecie parczewskim,
- gminy Sławatycze, Sosnówka, i Wisznice w powiecie bialskim,
- gmina Ulan Majorat w powiecie radzyńskim,
- gminy Ostrów Lubelski, Serniki i Uścimów w powiecie lubartowskim,
- gmina Wojcieszków i część gminy wiejskiej Łuków położona na zachód od linii wyznaczonej przez drogę nr 63 biegnącą od północnej granicy gminy do granicy miasta Łuków, a następnie na północ, zachód, południe i wschód od linii stanowiącej północną, zachodnią, południową i wschodnią granicę miasta Łuków do jej przecięcia się z drogą nr 806 i na południe od linii wyznaczonej przez drogę nr 806 biegnącą od wschodniej granicy miasta Łuków do wschodniej granicy gminy wiejskiej Łuków w powiecie łukowskim,
- gminy Horodło, Uchanie i część gminy wiejskiej Hrubieszów położona na północ od linii wyznaczonej przez drogę nr 844 biegnącą od zachodniej granicy gminy wiejskiej Hrubieszów do granicy miasta Hrubieszów oraz na północ od linii wyznaczonej przez drogę nr 74 biegnącą od wschodniej granicy miasta Hrubieszów do wschodniej granicy gminy wiejskiej Hrubieszów w powiecie hrubieszowskim,

w województwie podkarpackim:

- gmina Cieszanów w powiecie lubaczowskim.

4. Romania

The following areas in Romania:

- Zona oraşului Bucureşti,
- Judeţul Constanţa,
- Judeţul Satu Mare,
- Judeţul Tulcea,
- Judeţul Bacău,
- Judeţul Bihor,
- Judeţul Brăila,
- Judeţul Buzău,
- Judeţul Călăraşi,
- Judeţul Dâmboviţa,
- Judeţul Galaţi,
- Judeţul Giurgiu,
- Judeţul Ialomiţa,
- Judeţul Ilfov,
- Judeţul Prahova,
- Judeţul Sălaj,
- Judeţul Vaslui,

- Județul Vrancea,
- Județul Teleorman,
- Partea din județul Maramureș cu următoarele delimitări:
 - Comuna Petrova,
 - Comuna Bistra,
 - Comuna Repedea,
 - Comuna Poienile de sub Munte,
 - Comuna Vișeu e Jos,
 - Comuna Ruscova,
 - Comuna Leordina,
 - Comuna Rozavlea,
 - Comuna Strâmtura,
 - Comuna Bârsana,
 - Comuna Rona de Sus,
 - Comuna Rona de Jos,
 - Comuna Bocoiu Mare,
 - Comuna Sighetu Marmației,
 - Comuna Sarasau,
 - Comuna Câmpulung la Tisa,
 - Comuna Săpânța,
 - Comuna Remeti,
 - Comuna Giulești,
 - Comuna Ocna Șugatag,
 - Comuna Desești,
 - Comuna Budești,
 - Comuna Băiuț,
 - Comuna Căvnic,
 - Comuna Lăpuș,
 - Comuna Dragomirești,
 - Comuna Ieud,
 - Comuna Saliștea de Sus,
 - Comuna Săcel,
 - Comuna Călinești,
 - Comuna Vadu Izei,
 - Comuna Botiza,
 - Comuna Bogdan Vodă,
 - Localitatea Groșii Țibileșului, comuna Suci de Sus,
 - Localitatea Vișeu de Mijloc, comuna Vișeu de Sus,
 - Localitatea Vișeu de Sus, comuna Vișeu de Sus.
- Partea din județul Mehedinți cu următoarele comune:
 - Comuna Strehăia,
 - Comuna Greci,
 - Comuna Brejnita Motru,
 - Comuna Butoiești,
 - Comuna Stângăceaua,

- Comuna Grozesti,
- Comuna Dumbrava de Jos,
- Comuna Băcles,
- Comuna Bălăcița,
- Partea din județu Arges cu următoarele comune:
 - Comuna Bârla,
 - Comuna Miroși,
 - Comuna Popești,
 - Comuna Ștefan cel Mare,
 - Comuna Slobozia,
 - Comuna Mozăceni,
 - Comuna Negrași,
 - Comuna Izvoru,
 - Comuna Recea,
 - Comuna Căldăraru,
 - Comuna Ungheni,
 - Comuna Hârsești,
 - Comuna Stolnici,
 - Comuna Vulpești,
 - Comuna Rociu,
 - Comuna Lunca Corbului,
 - Comuna Costești,
 - Comuna Mărăsești,
 - Comuna Poiana Lacului,
 - Comuna Vedea,
 - Comuna Uda,
 - Comuna Cuca,
 - Comuna Morărești,
 - Comuna Cotmeanaă,
 - Comuna Răchițele de Jos,
 - Comuna Drăganu-Olteni,
 - Comuna Băbana,
 - Comuna Bascov,
 - Comuna Moșoaia,
 - Municipiul Pitești,
 - Comuna Albota,
 - Comuna Oarja,
 - Comuna Bradu,
 - Comuna Suseni,
 - Comuna Căteasca,
 - Comuna Rătești,
 - Comuna Teiu,
- Județul Olt,
- Județul Dolj,
- Județul Arad,

- Județul Timiș,
- Județul Covasna,
- Județul Brașov,
- Județul Botoșani.

PART IV

Italy

The following areas in Italy:

- tutto il territorio della Sardegna.'

ACTS ADOPTED BY BODIES CREATED BY INTERNATIONAL AGREEMENTS

Only the original UN/ECE texts have legal effect under international public law. The status and date of entry into force of this Regulation should be checked in the latest version of the UN/ECE status document TRANS/WP.29/343, available at:

<http://www.unece.org/trans/main/wp29/wp29wgs/wp29gen/wp29docstts.html>

Regulation No 120 of the Economic Commission for Europe of the United Nations (UN/ECE) — Uniform provisions concerning the approval of internal combustion engines to be installed in agricultural and forestry tractors and in non-road mobile machinery, with regard to the measurement of the net power, net torque and specific fuel consumption [2019/405]

Incorporating all valid text up to:

02 series of amendments — Date of entry into force: 29 December 2018

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1. SCOPE

- 1.1. This Regulation applies to the representation of the curves as a function of engine speed of the power, torque and specific fuel consumption at full load, indicated by the manufacturer for internal combustion engines to be used:

1.1.1. In category T vehicles ⁽¹⁾,

1.1.2. In non-road mobile machinery ⁽¹⁾, operated under variable or constant speed.

⁽¹⁾ As defined in the Consolidated Resolution on the Construction of Vehicles (R.E.3.), document ECE/TRANS/WP.29/78/Rev.6, para. 2 — www.unece.org/trans/main/wp29/wp29wgs/wp29gen/wp29resolutions.html

- 1.2. The internal combustion engines belong to one of the following categories:
 - 1.2.1. Reciprocating internal combustion engines (positive-ignition or compression-ignition), but excluding free piston engines;
 - 1.2.2. Rotary piston engines (positive-ignition or compression-ignition).
2. DEFINITIONS
 - 2.1. 'Approval of an engine' means the approval of an engine type with regard to its net power measured in accordance with the procedure specified in Annex 4 to this Regulation;
 - 2.2. 'Approval of an engine family' means the approval of the members of an engine family with regard to their net power in accordance with the procedure specified in paragraphs 3 and 4 of this Regulation;
 - 2.3. 'Constant-speed engine' means an engine type-approval of which is limited to constant-speed operation, excluding engines the constant-speed governor function of which is removed or disabled; it may be provided with an idle speed that can be used during start-up or shut-down and it may be equipped with a governor that can be set to an alternative speed when the engine is stopped;
 - 2.4. 'Constant-speed operation' means an engine operation with a governor that automatically controls the operator demand to maintain engine speed, even under changing load;
 - 2.5. 'DeNO_x system' means an exhaust after-treatment system designed to reduce emissions of oxides of nitrogen (NO_x) (e.g. passive and active lean NO_x catalysts, NO_x adsorbers and selective catalytic reduction (SCR) systems);
 - 2.6. 'Dual-fuel engine' means an engine that is designed to simultaneously operate with a liquid fuel and a gaseous fuel, both fuels being metered separately, the consumed amount of one of the fuels relative to the other one being able to vary depending on the operation;
 - 2.7. 'Electronically controlled engine' means an engine using electronic control to determine both the quantity and timing of injected fuel.
 - 2.8. 'Engine family' means a manufacturer's grouping of engines which, through their design, fulfil the grouping criteria laid down in Annex 5 to this Regulation;
 - 2.9. 'Engine type' means a category of engines which do not differ in such essential engine characteristics as defined in Annex 5 to this Regulation;
 - 2.10. 'Exhaust-gas recirculation' or 'EGR' means a technical device that is part of the emission control system and reduces emissions by routing exhaust gases that have been expelled from the combustion chamber(s) back into the engine to be mixed with incoming air before or during combustion, except for the use of valve timing to increase the amount of residual exhaust gas in the combustion chamber(s) that is mixed with incoming air before or during combustion;
 - 2.11. 'Gaseous fuel' means any fuel which is wholly gaseous at standard ambient conditions (298 K, absolute ambient pressure 101,3 kPa);
 - 2.12. 'Internal combustion engine' or 'Engine' means an energy converter, other than a gas turbine, designed to transform chemical energy (input) into mechanical energy (output) with an internal combustion process; it includes, where they have been installed, the emission control system and the communication interface (hardware and messages) between the engine's electronic control unit(s) and any other powertrain or category T vehicle or non-road mobile machinery control unit necessary to comply with this Regulation;
 - 2.13. 'λ-shift factor' or 'S_λ' means an expression that describes the required flexibility of the engine management system regarding a change of the excess-air ratio λ if the engine is fuelled with a gas composition different from pure methane;
 - 2.14. 'Liquid fuel' means a fuel which exists in the liquid state at standard ambient conditions (298 K, absolute ambient pressure 101,3 kPa);
 - 2.15. 'Liquid-fuel mode' means the normal operating mode of a dual-fuel engine during which the engine does not use any gaseous fuel for any engine operating condition;

- 2.16. 'Manufacturer' means any natural or legal person who is responsible to the Type Approval Authority for all aspects of the engine approval and for ensuring conformity of engine production, whether or not they are directly involved in all stages of the design and construction of the engine which is the subject of the approval process;
- 2.17. 'Maximum net power' means the highest value of the net power on the nominal full-load power curve for the engine type;
- 2.18. 'Maximum net power speed' means the engine speed at which the maximum net power is obtained, as specified by the manufacturer;
- 2.19. 'Maximum torque' means the highest value of the net torque measured at full engine load.
- 2.20. 'Maximum torque speed' means the engine speed at which the maximum torque is obtained from the engine, as specified by the manufacturer;
- 2.21. 'Mechanically controlled engine' means an engine using mechanical devices to determine the quantity and timing of the delivered fuel.
- 2.22. 'Net power' means the power obtained on a test bench at the end of the crankshaft or its equivalent at the corresponding engine speed with the auxiliaries and equipment listed in Table 1 of Annex 4 to this Regulation, determined under reference atmospheric conditions;
- 2.23. 'Parent engine' means an engine selected from an engine family in such a way that it complies with requirements set out in Annex 5 to this Regulation;
- 2.24. 'Particulate after-treatment system' means an exhaust after-treatment system designed to reduce emissions of particulate pollutants through a mechanical, aerodynamic, diffusional or inertial separation;
- 2.25. 'Rated net power' means engine net power as declared by the manufacturer at rated speed;
- 2.26. 'Rated speed' means the maximum full load speed (*) allowed by an engine's governor, as designed by the manufacturer, or, if a governor is not present, the speed at which the maximum net power is attained by the engine, as specified by the manufacturer;
- 2.27. 'Reagent' means any consumable or non-recoverable medium required and used for the effective operation of the exhaust after-treatment system;
- 2.28. 'Reference power' means the maximum net power for variable speed engines and the rated net power for constant speed engines
- 2.29. 'Reference power speed' means the engine speed at which the reference power is obtained, as specified by the manufacturer;
- 2.30. 'Regeneration' means an event during which emissions levels change while the exhaust after-treatment system's performance is being restored by design and which can be classified as continuous regeneration or infrequent (periodic) regeneration;
- 2.31. 'Tampering' means inactivation, adjustment or modification of the engine control system, including any software or other logical control elements of such a system, that has the effect, whether intended or not, of changing the engine performance;
- 2.32. 'Variable-speed engine' means an engine that is not a constant-speed engine;
- 2.33. 'Wobbe index' or 'W' means the ratio of the corresponding calorific value of a gas (H_{gas}) per unit volume and the square root of its relative density (ρ) under the same reference conditions:

$$W = H_{gas} \times \sqrt{\frac{\rho_{air}}{\rho_{gas}}}$$

3. APPLICATION FOR APPROVAL

- 3.1. The application for approval of an engine type or an engine family with regard to the measurement of the net power shall be submitted by the manufacturer or by his duly accredited representative.

(*) Note by the secretariat: for the purpose of this Regulation 'speed' means 'engine speed'.

- 3.2. The applicant shall provide the Type Approval Authority with an information folder which includes the following:
- (a) An information document, including a list of reference fuels and, where requested by the manufacturer, any other specified fuels, fuel mixtures or fuel emulsions referred to in paragraph 5.2.3 and described in accordance with Annex 7 to this Regulation.
 - (b) All relevant data, drawings, photographs and other information relating to the engine type or, where applicable, the parent engine;
 - (c) Any additional information requested by the Type Approval Authority in the context of the type-approval application procedure.

A description of the engine type and if applicable the particulars of the engine family referred to in Annex 5 of this Regulation.

- 3.3. The information folder may be provided in paper form or in an electronic format that is accepted by the technical service and the Type Approval Authority.
- 3.3.1. Applications submitted on paper shall be in triplicate. Any drawings shall be to an appropriate scale and in sufficient detail on size A4 sheets or in a folder of A4 format. Photographs (if any) shall show sufficient detail.
- 3.4. Manufacturers shall make available to the technical service responsible for conducting the type-approval tests defined in paragraph 5, an engine conforming to the engine type or, in the case of an engine family, to the parent engine characteristics described in Annex 5 of this Regulation.
- 3.5. In the case of an application for an engine family type-approval, if the Technical Service determines that, with regard to the selected parent engine, the application submitted does not fully represent the engine family described in Annex 5, manufacturers shall make available an alternative and, if necessary, an additional parent engine which is considered by the Technical Service to represent the engine family.

4. APPROVAL

- 4.1. If the power of the engine submitted for approval pursuant to this Regulation meets the requirements of paragraph 5. below, approval of the engine type or family shall be granted.
- 4.2. An approval number shall be assigned to each engine type or family approved. Its first two digits (at present 02 for the Regulation in its form) shall indicate the series of amendments incorporating the most recent major technical amendments made to the Regulation at the time of issue of the approval. The same Contracting Party shall not assign the same number to another engine type or family.
- 4.3. Notice of approval or of extension or of refusal of approval of an engine type or an engine family pursuant to this Regulation shall be communicated to the Parties to the 1958 Agreement applying this Regulation by means of a form conforming to the model in Annex 2 to this Regulation.
- 4.4. There shall be affixed, conspicuously and in a readily accessible place as specified on the approval form, to every engine conforming to an engine type or an engine family approved under this Regulation a statutory marking consisting of:
- 4.4.1. A circle surrounding the letter 'E' followed by the distinguishing number of the country which has granted approval ⁽²⁾;
 - 4.4.2. The number of this Regulation, followed by the letter 'R', a dash and the approval number to the right of the circle prescribed in paragraph 4.4.1.

Where the statutory marking of the engine is not visible without removing parts, the vehicle manufacturer shall affix to the category T vehicle or the non-road mobile machinery, in a visible manner, a duplicate of the marking provided by the manufacturer.

- 4.5. If the engine conforms to an approved type or family under one or more other Regulations annexed to the Agreement, in the country which has granted approval under this Regulation, the symbol prescribed in paragraph 4.4.1 need not be repeated; in such a case the Regulation and approval numbers and the additional symbols of all the Regulations under which approval has been granted under this Regulation shall be placed in vertical columns to the right of the symbol prescribed in paragraph 4.4.1.

⁽²⁾ The distinguishing numbers of the Contracting Parties to the 1958 Agreement are reproduced in Annex 3 to the Consolidated Resolution on the Construction of Vehicles (R.E.3), document ECE/TRANS/WP.29/78/Rev.6, Annex 3 — www.unece.org/trans/main/wp29/wp29wgs/wp29gen/wp29resolutions.html

- 4.6. The statutory marking shall be placed close to or on the data plate affixed by the manufacturer to the approved type.
- 4.7. Annex 3 to this Regulation gives examples of arrangements of approval marks.
- 4.8. Every engine conforming to an engine type or an engine family approved under this Regulation must bear, in addition to the approval mark:
- (a) The trademark or trade name of the manufacturer of the engine and the address at which it can be contacted;
 - (b) The manufacturer's engine type or engine family designation in case the engine type belongs to a family;
 - (c) The unique engine identification number.

5. SPECIFICATIONS AND TESTS

5.1. General

The components liable to affect the power of the engine shall be so designed, constructed and assembled as to enable the engine in normal use, despite the vibrations to which it may be subjected, to comply with the provisions of this Regulation.

- 5.1.1. For this purpose, the engine net power measured in accordance with the test conditions and detailed technical procedures set out in Annex 4 to this Regulation, using the fuel(s) specified in paragraph 5.2.3 and corrected according to the power correction factors defined in paragraph 5 of Annex 4 of this Regulation shall not deviate by more than the tolerances specified in paragraph 5.3 from the power curves declared by the manufacturer.

5.2. Description of tests for internal combustion engines

5.2.1. The net power test shall consist of either

- (a) A run at full throttle for mechanically controlled positive ignition engines a run fixed full load fuel injection pump setting for mechanically controlled compression ignition engines; or
- (b) A run at the required fuel system settings to produce the manufacturer specified power for electronically controlled engines.

The engine shall be equipped as specified in Table 1 of Annex 4 to this Regulation.

- 5.2.2. Measurements shall be taken at a sufficient number of engine speeds to define correctly the power, torque and specific fuel consumption curves between the lowest and the highest engine speeds recommended by the manufacturer. This range of speeds must include the rotational speeds at which the engine produces its rated net power, its maximum power and its maximum torque.

- 5.2.3. The testing of an engine type or engine family shall be carried out by using the following reference fuels or fuel combinations described in Annex 7, as appropriate:

- (a) Diesel;
- (b) Petrol;
- (c) Petrol/oil mixture, for two-stroke SI engines;
- (d) Natural gas/bio methane;
- (e) Liquid petroleum gas (LPG);
- (f) Ethanol.

The engine type or engine family shall, in addition, meet the requirements set out in paragraph 5.1.1 in respect of any other specified fuels, fuel mixtures or fuel emulsions included by a manufacturer in an application for type-approval and described in Annex 1 to this Regulation.

- 5.2.3.1. The fuel used shall be specified in the test report.

5.2.4. Measurements shall be carried out according to the provisions of Annex 4 to this Regulation.

5.2.5. The test report shall contain the results and all the calculations required to determine the net power, as listed in the appendix A.1 to Annex 2 to this Regulation together with the characteristics of the engine, as listed in Annex 1 to this Regulation.

5.3. Interpretation of results

5.3.1. Net power

The net power declared by the manufacturer for the type of engine (or parent engine) shall be accepted if it does not differ by more than the values indicated in the table below, from the corrected values measured by the technical service on the engine submitted for testing.

Engine Type	Reference power [%]	Other measurement points on the curve [%]	Tolerance for engine speed [%]
General	± 2	± 4	± 1,5
Petrol fuelled spark ignited engines with governor	± 4	± 6	± 4
Petrol fuelled spark ignited engines without governor	± 4	± 10	± 4

5.3.2. Reference power speed

The reference power speed declared by the manufacturer shall not deviate by more than 100 min^{-1} from the value measured by the technical service on the engine submitted for testing. For spark ignited petrol fuelled engines, the reference power speed declared by the manufacturer shall not deviate from the value measured by the technical service on the engine submitted for testing by more than 150 min^{-1} for engines provided with governor and for engines without governor 350 min^{-1} or 4 per cent, whichever is smaller.

5.3.3. Fuel consumption

The specific fuel consumption curve declared by the manufacturer for the type of engine (or parent engine) shall be accepted if it does not differ by more than ± 8 per cent at all measurement points from the values measured for the same points by the technical service on the engine submitted for testing.

5.3.4. Engine family

In case of compliance of the parent engine to the conditions in paragraphs 5.3.1 and 5.3.2, the acceptance is automatically extended to all the declared curves of the family members.

5.4. Engine types and engine families shall be designed and fitted with engine control strategies in such a way as to prevent tampering to the extent possible.

6. CONFORMITY OF PRODUCTION

The conformity of production procedures shall comply with those set out in the Agreement, Schedule 1 (E/ECE/TRANS/505/Rev.3), with the following requirements:

6.1. Engines approved under this Regulation shall be so manufactured as to conform to the type approved.

6.2. The minimum requirements for conformity of production control procedures set forth in Annex 6 to this Regulation shall be complied with.

7. PENALTIES FOR NON-CONFORMITY OF PRODUCTION

7.1. The approval granted in respect of an engine type or an engine family pursuant to this Regulation may be withdrawn if the requirements set forth in paragraph 6.1 above are not met or if an engine or an engine family bearing the approval mark does not conform to the type approved.

7.2. If a Contracting Party to the 1958 Agreement applying this Regulation withdraws an approval it has previously granted, it shall forthwith so notify the other Contracting Parties applying this Regulation, by means of a communication form conforming to the model in Annex 2 to this Regulation.

8. MODIFICATION AND EXTENSION OF APPROVAL OF AN ENGINE TYPE OR ENGINE FAMILY

8.1. Every modification of an engine type or an engine family with regard to the characteristics in Annex 1, shall be notified to the Type Approval Authority which approved the engine type or engine family. The Type Approval Authority may then either:

8.1.1. Consider that the modifications made are unlikely to have any appreciable adverse effect and that in any case the engine still complies with the requirements; or

8.1.2. Require a further test report from the Technical Service responsible for conducting the tests.

8.2. Confirmation or refusal of approval, specifying the alterations shall be communicated by the procedure specified in paragraph 4.3 above to the Parties to the Agreement applying this Regulation.

8.3. The Type Approval Authority issuing the extension of approval shall assign a series number for such an extension and inform thereof the other Parties to the 1958 Agreement applying this Regulation by means of a communication form conforming to the model in Annex 2 to this Regulation.

9. PRODUCTION DEFINITELY DISCONTINUED

If the holder of an approval completely ceases to manufacture an engine type or an engine family approved in accordance with this Regulation, he shall so inform the authority which granted the approval. Upon receiving the relevant communication that authority shall inform thereof the other Parties to the 1958 Agreement applying this Regulation by means of a communication form conforming to the model in Annex 2 to this Regulation.

10. NAMES AND ADDRESSES OF TECHNICAL SERVICES RESPONSIBLE FOR CONDUCTING APPROVAL TESTS, AND OF TYPE APPROVAL AUTHORITIES

The Parties to the Agreement which apply this Regulation shall communicate to the United Nations Secretariat the names and addresses of the Technical Services responsible for conducting approval tests, and/or the Type Approval Authorities which grant approval, and to which forms certifying approval or extension or refusal of approval, issued in other countries, are to be sent.

ANNEX 1

TEMPLATES FOR INFORMATION FOLDER AND INFORMATION DOCUMENT**1. INFORMATION FOLDER**

The information folder referred to in paragraph 3 of this Regulation shall contain the following:

- 1.1. A list of contents;
- 1.2. Manufacturer's declaration and supporting data demonstrating that the engine control strategies fitted are designed in such a way as to prevent tampering to the extent possible, as referred to in paragraph 5.4.
 - 1.2.1. For electronically controlled engine types and engine families that use an Electronic Control Unit (ECU) as part of the engine control system the information shall include a description of the provisions taken to prevent tampering with and modification of the ECU including the facility for updating using a manufacturer approved programme or calibration;
 - 1.2.2. For mechanically controlled engine types and engine families the information shall include a description of the provisions taken to prevent tampering with and modification of the adjustable parameters of the engine control system. This shall include the tamper resistant components such as carburettor limiter caps or sealing of carburettor screws or special screws not adjustable by user;
- 1.3. A description of the overall quality-assurance management systems for conformity of production in accordance to paragraph 6 of this Regulation;
- 1.4. The completed information document as set out in paragraph 2 of this Annex;
 - 1.4.1. Where the particulars appearing in the information document for an engine approval have changed, the manufacturer shall submit revised pages to the approval authority showing clearly the nature of the change(s) and the date of re-issue;
- 1.5. All relevant data, drawings, photographs and other information as required in the information document;

2. INFORMATION DOCUMENT

The information document shall have a reference number issued by the applicant.

- 2.1. All information documents shall contain the following:
 - 2.1.1. the general information set out in Part A of Appendix A.1 to this Annex;
 - 2.1.2. the information set out in Part B of Appendix A.1 to this Annex, to identify the common design parameters of all engine types within an engine family or applicable to the engine type where not part of an engine family, intended for type approval;
 - 2.1.3. the information set out in Part C of Appendix A.1 to this Annex.
- 2.2. Explanatory notes on creation of information document:
 - 2.2.1. Upon agreement of the approval authority, the information in paragraph 2.1.2 and 2.1.3 may be presented in an alternative format;
 - 2.2.2. Reserved
 - 2.2.3. Only those paragraphs of this Annex relevant for the particular engine family, engine types within the engine family or engine type shall be listed; in any case, the list shall adhere to the proposed numbering system,
 - 2.2.4. Where several options separated by forward slash are given for an entry, the unused options shall be struck out, or only the used option(s) shall be shown;
 - 2.2.5. When the same value for or description of a certain engine characteristic applies for several or all members of an engine family the corresponding cells may be merged.
 - 2.2.6. Where a picture, diagram or detailed information is required, a reference to an appendix may be given;

- 2.2.7. Where a 'type' of a component is requested, the information supplied shall uniquely identify the component; this may be a list of characteristic, a manufacturers' name and part or drawing number, a drawing, or a combination of the aforementioned or other methods that achieves the same result.

2.3. Engine type designation and engine family designation

The manufacturer shall allocate to each engine type and engine family a unique alphanumeric code.

- 2.3.1. In the case of an engine type, the code is named engine type designation and shall clearly and unequivocally identify those engines presenting a unique combination of technical features for those items set out in Part C of Appendix A.1 to this Annex applicable to the engine type.

- 2.3.2. In the case of engine types within an engine family, the whole code is named Family-Type or 'FT', and is composed of two sections: the first section is named engine family designation and identifies the engine family; the second section is the engine type designation of each particular engine type within the engine family;

The engine family designation shall clearly and unequivocally identify those engines presenting a unique combination of technical features for those items set out in Parts B and C of Appendix A.1 to this Annex applicable to the particular engine family.

The FT shall clearly and unequivocally identify those engines presenting a unique combination of technical features for those items set out in Part C of Appendix A.1 to this Annex applicable to the engine type within the engine family.

- 2.3.2.1. The manufacturer may use the same engine family designation to identify the same engine family under two or more engine categories.

- 2.3.2.2. The manufacturer shall not use the same engine family designation to identify more than one engine family under the same engine category.

2.3.2.3. Display of the FT

In the FT, a space shall be left between the engine family designation and the engine type designation, as shown in the example below:

'159AF[space]0054'

2.3.3. Number of characters

The number of characters shall not exceed the following:

- (a) 15 for the engine family designation;
- (b) 25 for the engine type designation;
- (c) 40 for the FT.

2.3.4. Characters allowed

The engine type designation and engine family designation shall be made up of Roman letters and/or Arabic numerals;

- 2.3.4.1. The use of brackets and hyphens is permitted provided they do not replace a letter or a numeral.

- 2.3.4.2. The use of variable characters is permitted; variable characters shall be denoted by a '#', where the variable character is unknown at the time of notification;

- 2.3.4.2.1. The reasons for using such variable characters shall be explained to the technical service and Type Approval Authority.

APPENDIX A.1

TEMPLATE FOR INFORMATION DOCUMENT

Explanatory note to Appendix A.1: All the templates below have been adapted from Appendix 3 to Annex 1 to the 05 series of amendments to UN Regulation No 96 and the corresponding numeration has been kept to facilitate their use by both manufacturers and Type Approval Authorities.

PART A

1. GENERAL INFORMATION

- 1.1. Make (trade name(s) of manufacturer):
- 1.2. Commercial name(s) (if applicable):
- 1.3. Company name and address of manufacturer:
- 1.4. Name and address of manufacturer's authorised representative (if any):
- 1.5. Name(s) and address(es) of assembly/manufacture plant(s):
- 1.6. Engine type designation/engine family designation/FT ⁽¹⁾:
- 1.11. Reference power is: rated net power/maximum net power ⁽¹⁾

PART B

2. COMMON DESIGN PARAMETERS OF ENGINE FAMILY ⁽²⁾

- 2.1. Combustion Cycle ⁽¹⁾: four-stroke cycle/two-stroke cycle/rotary/other (specify)
- 2.2. Ignition Type ⁽¹⁾: Compression ignition/spark ignition
- 2.3. Configuration of the cylinders
 - 2.3.1. Position of the cylinders in the block ⁽¹⁾: Single/V/in-line/opposed/radial/other(specify):
 - 2.3.2. Bore centre to centre dimension (mm):
- 2.4. Combustion chamber type/design
 - 2.4.1. Open chamber/divided chamber/other(specify) ⁽¹⁾
 - 2.4.2. Valve and porting configuration:
 - 2.4.3. Number of valves per cylinder:
- 2.5. Range of swept volume per cylinder (cm³):
- 2.6. Main Cooling medium ⁽¹⁾: Air/Water/Oil
- 2.7. Method of air aspiration ⁽¹⁾: naturally aspirated/pressure charged/pressure charged with charge cooler
- 2.8. Fuel
 - 2.8.1. Fuel Type ⁽¹⁾: Diesel (non-road gas-oil)/Ethanol for dedicated compression ignition engines (ED95)/Petrol (E10)/Ethanol (E85)/(Natural gas/Biomethane)/Liquid Petroleum Gas (LPG)
 - 2.8.1.1. Sub Fuel type (Natural gas/Biomethane only) ⁽¹⁾: Universal fuel — high calorific fuel (H-gas) and low calorific fuel (L-gas)/Restricted fuel — high calorific fuel (H-gas)/Restricted fuel — low calorific fuel (L-gas)/Fuel specific (LNG);
 - 2.8.2. Fuelling arrangement ⁽¹⁾: Liquid-fuel only/Gaseous-fuel only/Dual-fuel type 1A/Dual-fuel type 1B/Dual-fuel type 2A/Dual-fuel type 2B/Dual-fuel type 3B

- 2.8.3. List of additional fuels, fuel mixtures or emulsions compatible with use by the engine declared by the manufacturer in accordance with paragraph 5.2.3 of this Regulation (provide reference to recognised standard or specification):
- 2.8.4. Lubricant added to fuel ⁽¹⁾: Yes/No
- 2.8.4.1. Specification:
- 2.8.4.2. Ratio of fuel to oil:
- 2.8.5. Fuel supply type ⁽¹⁾: Pump (high pressure) line and injector/in-line pump or distributor pump/Unit injector/Common rail/Carburettor/port injector/direct injector/Mixing unit/other(specify):
- 2.9. Engine management systems ⁽¹⁾: mechanical/electronic control strategy ⁽³⁾
- 2.10. Miscellaneous devices ⁽¹⁾: Yes/No (if yes provide a schematic diagram of the location and order of the devices)
- 2.10.1. Exhaust gas recirculation (EGR) ⁽¹⁾: Yes/No (if yes, complete section 3.10.1 and provide a schematic diagram of the location and order of the devices)
- 2.10.2. Water injection ⁽¹⁾: Yes/No (if yes, complete section 3.10.2 and provide a schematic diagram of the location and order of the devices)
- 2.10.3. Air injection ⁽¹⁾: Yes/No (if yes, complete section 3.10.3 and provide a schematic diagram of the location and order of the devices)
- 2.10.4. Others ⁽¹⁾: Yes/No (if yes specify, complete section 3.10.4 and provide a schematic diagram of the location and order of the devices):
- 2.11. Exhaust after-treatment system ⁽¹⁾: Yes/No (if yes provide a schematic diagram of the location and order of the devices)
- 2.11.1. Oxidation catalyst ⁽¹⁾: Yes/No
(if yes, complete section 3.11.2)
- 2.11.2. De NO_x system with selective reduction of NO_x (addition of reducing agent) ⁽¹⁾: Yes/No
(if yes, complete section 3.11.3)
- 2.11.3. Other De NO_x systems ⁽¹⁾: Yes/No
(if yes, complete section 3.11.3)
- 2.11.4. Three-way catalyst combining oxidation and NO_x reduction ⁽¹⁾: Yes/No
(if yes, complete section 3.11.3)
- 2.11.5. Particulate after-treatment system with passive regeneration ⁽¹⁾: Yes/No
(if yes, complete section 3.11.4)
- 2.11.5.1. Wall-flow/non-wall-flow ⁽¹⁾
- 2.11.6. Particulate after-treatment system with active regeneration: ⁽¹⁾ Yes/No
(if yes, complete section 3.11.4)
- 2.11.6.1. Wall-flow/non-wall-flow ⁽¹⁾
- 2.11.7. Other particulate after-treatment systems ⁽¹⁾: Yes/No
(if yes, complete section 3.11.4)
- 2.11.8. Other after-treatment devices (specify):
- (if yes, complete section 3.11.5)

PART C

Item Number	Item Description	Parent engine/engine type	Engine types within the engine family (if applicable)				Explanatory notes (not included in document)
			type 2	type 3	type ...	type n	
3.1.	Engine Identification						
3.1.1.	Engine type designation						
3.1.2.	Engine type designation shown on engine marking: yes/no						
3.1.3.	Location of the statutory marking:						
3.1.4.	Method of attachment of the statutory marking:						
3.1.5.	Drawings of the location of the engine identification number (complete example with dimensions):						
3.2.	Performance Parameters						
3.2.1.	Declared rated speed(s) (rpm):						
3.2.1.1.	Fuel delivery/stroke (mm ³) for diesel engine, fuel flow (g/h) for other engines, at rated net power:						
3.2.1.2.	Declared rated net power (kW):						
3.2.2.	Maximum power speed(rpm):						If different from rated speed
3.2.2.1.	Fuel delivery/stroke (mm ³) for diesel engine, fuel flow (g/h) for other engines, at maximum net power:						
3.2.2.2.	Maximum net power (kW):						If different from rated speed
3.2.3.	Declared maximum torque speed (rpm):						If applicable
3.2.3.1.	Fuel delivery/stroke (mm ³) for diesel engine, fuel flow (g/h) for other engines, at maximum torque speed:						
3.2.3.2.	Declared maximum torque (Nm):						If applicable
3.2.4.	Declared 100 % test speed:						If applicable
3.2.5.	Declared Intermediate test speed:						If applicable
3.2.6.	Idle speed (rpm)						If applicable

Item Number	Item Description	Parent engine/engine type	Engine types within the engine family (if applicable)				Explanatory notes (not included in document)
			type 2	type 3	type ...	type n	
3.2.7.	Maximum no load speed (rpm):						If applicable
3.2.8	Declared minimum torque (Nm)						If applicable
3.3.	Run-in procedure						Optional at choice of manufacturer
3.3.1.	Run-in time:						
3.3.2.	Run-in cycle:						
3.4.	Engine test						
3.4.1.	Specific fixture required: Yes/No						If applicable
3.4.1.1	Description, including photographs and/or drawings, of the system for mounting the engine on the test bench including the power transmission shaft for connection to the dynamometer:						
3.4.2.	Exhaust mixing chamber permitted by manufacturer: Yes/No						If applicable
3.4.2.1.	Exhaust mixing chamber description, photograph and/or drawing:						If applicable
3.5.	Lubrication system						
3.5.1.	Lubricant temperature						If applicable
3.5.1.1.	Minimum (°C):						
3.5.1.2.	Maximum (°C):						
3.6.	Combustion Cylinder						
3.6.1.	Bore(mm):						
3.6.2.	Stroke(mm):						
3.6.3.	Number of cylinders:						
3.6.4.	Engine total swept volume (cm ³):						
3.6.5.	Swept volume per cylinder as % of parent engine:						If engine family
3.6.6.	Volumetric compression ratio:						Specify tolerance
3.6.7.	Combustion system description:						

Item Number	Item Description	Parent engine/engine type	Engine types within the engine family (if applicable)				Explanatory notes (not included in document)
			type 2	type 3	type ...	type n	
3.6.8.	Drawings of combustion chamber and piston crown:						
3.6.9.	Minimum cross sectional area of inlet and outlet ports (mm ²):						
3.6.10.	Valve timing						
3.6.10.1.	Maximum lift and angles of opening and closing in relation to dead centre or equivalent data:						
3.6.10.2.	Reference and/or setting range:						
3.6.10.3.	Variable valve timing system: Yes/No						If applicable and where intake and/or exhaust
3.6.10.3.1.	Type: continuous/(on/off)						
3.6.10.3.2.	Cam phase shift angle:						
3.6.11.	Porting configuration						2-stroke only, if applicable
3.6.11.1.	Position, size and number:						
3.7.	Cooling system						Complete relevant section
3.7.1.	Liquid cooling						
3.7.1.1.	Nature of liquid:						
3.7.1.2.	Circulating pumps: Yes/No						
3.7.1.2.1.	type(s):						
3.7.1.2.2.	Drive ratio(s):						If applicable
3.7.1.3.	Minimum coolant temperature at outlet (°C):						
3.7.1.4.	Maximum coolant temperature at outlet (°C):						
3.7.2.	Air cooling						
3.7.2.1.	fan: Yes/No						
3.7.2.1.1.	type(s):						
3.7.2.1.2.	Drive ratio(s):						If applicable
3.7.2.2.	Maximum temperature at reference point (°C):						
3.7.2.2.1.	Reference point location						

Item Number	Item Description	Parent engine/engine type	Engine types within the engine family (if applicable)				Explanatory notes (not included in document)
			type 2	type 3	type ...	type n	
3.8.	Aspiration						
3.8.1.	Maximum allowable intake depression at 100 % engine speed and at 100 % load (kPa)						
3.8.1.1.	With clean air cleaner:						
3.8.1.2.	With dirty air cleaner:						
3.8.1.3.	Location, of measurement:						
3.8.2.	Pressure charger(s): Yes/No						
3.8.2.1.	Type(s):						
3.8.2.2.	Description and schematic diagram of the system (e.g. maximum charge pressure, waste gate, VGT, Twin turbo, etc.):						
3.8.3.	Charge air cooler: Yes/No						
3.8.3.1.	Type: air-air/air-water/other(specify)						
3.8.3.2.	Maximum charge air cooler outlet temperature at 100 % speed and 100 % load (°C):						
3.8.3.3.	Maximum allowable pressure drop across charge cooler at 100 % engine speed and at 100 % load (kPa):						
3.8.4.	Intake throttle valve: Yes/No						
3.8.5.	Device for recycling crankcase gases: Yes/No						
3.8.5.1.	If yes, description and drawings:						
3.8.5.2.	If no, compliance with paragraph 5.7 of this Regulation: Yes/No						
3.8.6.	<i>Inlet path</i>						If applicable
3.8.6.1.	Description of inlet path, (with drawings, photographs and/or part numbers):						
3.8.7.	Air filter						If applicable
3.8.7.1.	Type:						
3.8.8.	Intake air-silencer						If applicable
3.8.8.1.	Type:						

Item Number	Item Description	Parent engine/engine type	Engine types within the engine family (if applicable)				Explanatory notes (not included in document)
			type 2	type 3	type ...	type n	
3.9.	Exhaust system						
3.9.1.	Description of the exhaust system (with drawings, photos and/or part numbers as required):						If applicable
3.9.2.	Maximum exhaust temperature (°C):						
3.9.3.	Maximum permissible exhaust backpressure at 100 % engine speed and at 100 % load (kPa):						
3.9.3.1.	Location of measurement:						
3.9.4.	Exhaust backpressure at loading level specified by manufacturer for variable restriction after-treatment at start of test (kPa):						
3.9.4.1.	Location and speed/load conditions:						
3.9.5.	Exhaust throttle valve: Yes/No						
3.10.	Miscellaneous devices: Yes/No						
3.10.1.	Exhaust gas recirculation (EGR)						
3.10.1.1.	Characteristics: cooled/uncooled, high pressure/low pressure/other (specify):						
3.10.2.	Water injection						
3.10.2.1.	Operation principle:						
3.10.3.	Air injection						
3.10.3.1.	Operation principle						
3.10.4.	Others						
3.10.4.1.	Type(s)						
3.11.	Exhaust after-treatment system						
3.11.1.	Location						
3.11.1.1.	Place(s) and maximum/minimum distance(s) from engine to first after-treatment device:						
3.11.1.2.	Maximum temperature drop from exhaust or turbine outlet to first after-treatment device (°C) if stated:						
3.11.1.2.1.	Test conditions for measurement:						

Item Number	Item Description	Parent engine/engine type	Engine types within the engine family (if applicable)				Explanatory notes (not included in document)
			type 2	type 3	type ...	type n	
3.11.1.3.	Minimum temperature at inlet to first after-treatment device, (°C) if stated:						
3.11.1.3.1.	Test conditions for measurement:						
3.11.2.	Oxidation catalyst						
3.11.2.1.	Number of catalytic converters and elements:						
3.11.2.2.	Dimensions and volume of the catalytic converter(s):						Or drawing
3.11.2.3.	Total charge of precious metals (g):						
3.11.2.4.	Relative concentration of each compound (%):						
3.11.2.5.	Substrate (structure and material):						
3.11.2.6.	Cell density:						
3.11.2.7.	Type of casing for the catalytic converter(s):						
3.11.3.	Catalytic exhaust after-treatment system for NO _x or three way catalyst						
3.11.3.1.	Type:						
3.11.3.2.	Number of catalytic converters and elements:						
3.11.3.3.	Type of catalytic action:						
3.11.3.4.	Dimensions and volume of the catalytic converter(s):						Or drawing
3.11.3.5.	Total charge of precious metals (g):						
3.11.3.6.	Relative concentration of each compound (%):						
3.11.3.7.	Substrate (structure and material):						
3.11.3.8.	Cell density:						
3.11.3.9.	Type of casing for the catalytic converter(s):						
3.11.3.10.	Method of regeneration:						If applicable
3.11.3.10.1.	Infrequent regeneration: Yes/No:						If yes, complete section 3.11.6.
3.11.3.11.	Normal operating temperature range (°C):						

Item Number	Item Description	Parent engine/engine type	Engine types within the engine family (if applicable)				Explanatory notes (not included in document)
			type 2	type 3	type ...	type n	
3.11.3.12.	Consumable reagent: Yes/No						
3.11.3.12.1.	Type and concentration of reagent needed for catalytic action:						
3.11.3.12.2.	Lowest concentration of the active ingredient present in the reagent that does not activate warning system (CD_{min}) (%vol):						
3.11.3.12.3.	Normal operational temperature range of reagent:						
3.11.3.12.4.	International standard:						If applicable
3.11.3.13.	NO _x sensor(s): Yes/No						
3.11.3.13.1.	Type:						
3.11.3.13.2.	Location(s)						
3.11.3.14.	Oxygen sensor(s): Yes/No						
3.11.3.14.1.	Type:						
3.11.3.14.2.	Location(s):						
3.11.4.	Particulate after-treatment system						
3.11.4.1.	Type of filtration: wall-flow/non-wall-flow/other (specify)						
3.11.4.2.	Type:						
3.11.4.3.	Dimensions and capacity of the particulate after-treatment system:						Or drawing
3.11.4.4.	Location place(s) and maximum and minimum distance(s) from engine:						
3.11.4.5.	Method or system of regeneration, description and/or drawing:						
3.11.4.5.1.	Infrequent regeneration: Yes/No						If yes, complete section 3.11.6
3.11.4.5.2.	Minimum exhaust gas temperature for initiating regeneration procedure (°C):						
3.11.4.6.	Catalytic coating: Yes/No						
3.11.4.6.1.	Type of catalytic action:						
3.11.4.7.	Fuel borne catalyst (FBC): Yes/No						
3.11.4.8.	Normal operating temperature range (°C):						
3.11.4.9.	Normal operating pressure range (kPa)						

Item Number	Item Description	Parent engine/engine type	Engine types within the engine family (if applicable)				Explanatory notes (not included in document)
			type 2	type 3	type ...	type n	
3.11.4.10.	Storage capacity soot/ash (g):						
3.11.4.11.	Oxygen sensor(s): Yes/No						
3.11.4.11.1.	Type:						
3.11.4.11.2.	Location(s):						
3.11.5.	Other after-treatment devices						
3.11.5.1.	Description and operation:						
3.11.6.	Infrequent Regeneration						
3.11.6.1.	Number of cycles with regeneration						
3.11.6.2.	Number of cycles without regeneration						
3.11.7.	Other devices or features						
3.11.7.1.	Type(s)						
3.12.	Fuel feed for liquid-fuelled CI or, where applicable, dual-fuel engines						
3.12.1.	Feed pump						
3.12.1.1.	Pressure (kPa) or characteristic diagram:						
3.12.2.	Injection system						
3.12.2.1.	Pump						
3.12.2.1.1.	Type(s):						
3.12.2.1.2.	Rated pump speed (rpm):						
3.12.2.1.3.	mm ³ per stroke or cycle at full injection at rated pump speed:						Specify tolerance
3.12.2.1.4.	Torque peak pump speed (rpm):						
3.12.2.1.5.	mm ³ per stroke or cycle at full injection at torque peak pump speed						Specify tolerance
3.12.2.1.6.	Characteristic diagram:						As alternative to entries 3.12.2.1.1 to 3.12.2.1.5
3.12.2.1.7.	Method used: on engine/on pump bench						
3.12.2.2.	Injection timing						
3.12.2.2.1.	Injection timing curve:						Specify tolerance, if applicable

Item Number	Item Description	Parent engine/engine type	Engine types within the engine family (if applicable)				Explanatory notes (not included in document)
			type 2	type 3	type ...	type n	
3.12.2.2.2.	Static Timing:						Specify tolerance
3.12.2.3.	Injection piping						
3.12.2.3.1.	Length(s) (mm):						
3.12.2.3.2.	Internal diameter (mm):						
3.12.2.4.	Common rail: Yes/No						
3.12.2.4.1.	Type:						
3.12.3.	Injector(s)						
3.12.3.1.	Type(s):						
3.12.3.2.	Opening pressure (kPa):						Specify tolerance
3.12.4.	ECU: Yes/No						
3.12.4.1.	Type(s):						
3.12.4.2.	Software calibration number(s):						
3.12.4.3.	Communication standard(s) for access to data stream information: ISO 27145 with ISO 15765-4 (CAN-based)/ISO 27145 with ISO 13400 (TCP/IP-based)/SAE J1939-73						
3.12.5.	Governor						
3.12.5.1.	Type(s):						
3.12.5.2.	Speed at which cut-off starts under full load:						Specify range, if applicable
3.12.5.3.	Maximum no-load speed:						Specify range, if applicable
3.12.5.4.	Idle speed:						Specify range, if applicable
3.12.6.	Cold-start system: Yes/No						
3.12.6.1.	Type(s):						
3.12.6.2.	Description:						
3.12.7.	Fuel temperature at the inlet to the fuel injection pump						
3.12.7.1.	Minimum (°C):						
3.12.7.2.	Maximum (°C):						

Item Number	Item Description	Parent engine/engine type	Engine types within the engine family (if applicable)				Explanatory notes (not included in document)
			type 2	type 3	type ...	type n	
3.13.	Fuel feed for liquid fuel spark ignition engine						
3.13.1.	Carburettor						
3.13.1.1.	Type(s):						
3.13.2.	Port fuel injection:						
3.13.2.1.	single-point/multi-point						
3.13.2.2.	Type(s):						
3.13.3.	Direct injection:						
3.13.3.1.	Type(s):						
3.13.4.	Fuel temperature at location specified by manufacturer						
3.13.4.1.	Location:						
3.13.4.2.	Minimum (°C)						
3.13.4.3.	Maximum (°C)						
3.14.	Fuel feed for gaseous fuel engines or where applicable, dual-fuel engines (in the case of systems laid out in a different manner, supply equivalent information)						
3.14.1.	Fuel: LPG/NG-H/NG-L/NG-HL/LNG/Fuel specific LNG						
3.14.2.	Pressure regulator(s)/vaporiser (s)						
3.14.2.1.	Type(s)						
3.14.2.2.	Number of pressure reduction stages						
3.14.2.3.	Pressure in final stage minimum and maximum. (kPa)						
3.14.2.4.	Number of main adjustment points:						
3.14.2.5.	Number of idle adjustment points:						
3.14.3.	Fuelling system: mixing unit/gas injection/liquid injection/direct injection						
3.14.3.1.	Mixture strength regulation						
3.14.3.1.1.	System description and/or diagram and drawings:						
3.14.4.	Mixing unit						
3.14.4.1.	Number:						

Item Number	Item Description	Parent engine/engine type	Engine types within the engine family (if applicable)				Explanatory notes (not included in document)
			type 2	type 3	type ...	type n	
3.14.4.2.	Type(s):						
3.14.4.3.	Location:						
3.14.4.4.	Adjustment possibilities:						
3.14.5.	Inlet manifold injection						
3.14.5.1.	Injection: single-point/multi-point						
3.14.5.2.	Injection: continuous/simultaneously timed/sequentially timed						
3.14.5.3.	Injection equipment						
3.14.5.3.1.	Type(s):						
3.14.5.3.2.	Adjustment possibilities:						
3.14.5.4.	Supply pump						If applicable
3.14.5.4.1.	Type(s):						
3.14.5.5.	Injector(s)						
3.14.5.5.1.	Type(s):						
3.14.6.	Direct injection						
3.14.6.1.	Injection pump/pressure regulator						
3.14.6.1.1.	Type(s):						
3.14.6.1.2.	Injection timing (specify):						
3.14.6.2.	Injector(s)						
3.14.6.2.1.	Type(s):						
3.14.6.2.2.	Opening pressure or characteristic diagram:						
3.14.7.	Electronic Control Unit (ECU)						
3.14.7.1.	Type(s):						
3.14.7.2.	Adjustment possibilities:						
3.14.7.3.	Software calibration number(s):						
3.14.8.	Approvals of engines for several fuel compositions						
3.14.8.1.	Self-adaptive feature: Yes/No						

Item Number	Item Description	Parent engine/engine type	Engine types within the engine family (if applicable)				Explanatory notes (not included in document)
			type 2	type 3	type ...	type n	
3.14.8.2.	Calibration for a specific gas composition: NG-H/NG-L/NG-HL/LNG/Fuel specific LNG						
3.14.8.3.	Transformation for a specific gas composition: NG-HT/NG-LT/NG-HLT						
3.14.9.	Fuel temperature pressure regulator final stage						
3.14.9.1.	Minimum (°C):						
3.14.9.2.	Maximum (°C):						
3.15.	Ignition system						
3.15.1.	Ignition coil(s)						
3.15.1.1.	Type(s):						
3.15.1.2.	Number:						
3.15.2.	Spark plug(s)						
3.15.2.1.	Type(s):						
3.15.2.2.	Gap setting:						
3.15.3.	Magneto						
3.15.3.1.	Type(s):						
3.15.4.	Ignition timing control: Yes/No						
3.15.4.1.	Static advance with respect to top dead centre (crank angle degrees):						
3.15.4.2.	Advance curve or map:						If applicable
3.15.4.3.	Electronic control: Yes/No						

Explanatory notes to Appendix A.1:

(Footnote markers, footnotes and explanatory notes not to be stated on the information document)

In the case of combined catalyst and particulate filter both pertinent sections shall be filled.

⁽¹⁾ Strike out the unused options, or only show the used option(s).

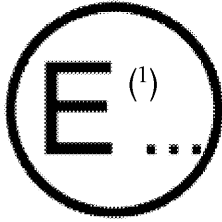
⁽²⁾ As defined in Annex 5 of this Regulation.

⁽³⁾ Refer to paragraph 2.3.13 in Annex 5 (engine family definition).

ANNEX 2

COMMUNICATION

(maximum format: A4 (210 × 297 mm))



issued by:

Name of administration:

.....

.....

.....

concerning ⁽²⁾: Approval granted

Approval extended

Approval refused

Approval withdrawn

Production definitively discontinued

of an engine or engine family pursuant to UN Regulation No 120

Approval No: Extension No:

Reason for extension/refusal/withdrawal ⁽²⁾:

SECTION I

- 1.1. Make (trade name(s) of manufacturer):
- 1.2. Commercial name(s) (if applicable):
- 1.3. Company name and address of manufacturer:
- 1.4. Name and address of manufacturer's authorised representative (if any):
- 1.5. Name(s) and address(es) of assembly/manufacture plant(s):
- 1.6. Engine type designation/engine family designation/FT ⁽²⁾:

SECTION II

1. Technical service responsible for carrying out the test(s):
2. Date(s) of the test report(s):
3. Number(s) of the test report(s):

SECTION III

The undersigned hereby certifies the accuracy of the manufacturer's description in the attached information document of the engine type/engine family ⁽²⁾ described above, for which one or more representative samples, selected by the approval authority, have been submitted as prototypes and that the attached test results apply to the engine type/engine family ⁽²⁾.

1. The engine type/engine family ⁽²⁾ meets/does not meet ⁽²⁾ the requirements laid down in Regulation 120, 02 series of amendments.
2. The approval is granted/extended/refused/withdrawn ⁽²⁾

Place:

Date:

Name and signature:

Attachments:

Information folder

Test report(s)

All other documents added by the technical services or by the Type Approval Authority to the information folder in the course of carrying out their functions.

Addendum

Approval number:

PART A

Characteristics of the engine type/engine Family ⁽²⁾

2. Common design parameters of the engine type/engine family ²
- 2.1. Combustion Cycle: four-stroke cycle/two-stroke cycle/rotary/other:
(describe) ⁽²⁾
- 2.2. Ignition Type: Compression ignition/spark ignition ⁽²⁾
- 2.3.1. Position of the cylinders in the block: V/in-line/radial/other(describe) ⁽²⁾
- 2.6. Main Cooling medium: Air/Water/Oil ⁽²⁾
- 2.7. Method of air aspiration: naturally aspirated/pressure charged/pressure charged with charge cooler ⁽²⁾
- 2.8.1. Fuel Type(s): Diesel (non-road gas-oil)/Ethanol for dedicated compression ignition engines (ED95)/Petrol (E10)/Ethanol (E85)/(Natural gas/Biomethane)/Liquid Petroleum Gas (LPG) ⁽²⁾
- 2.8.1.1. Sub Fuel type (Natural gas/Biomethane only): Universal fuel — high calorific fuel (H-gas) and low calorific fuel (L-gas)/Restricted fuel — high calorific fuel (H-gas)/Restricted fuel — low calorific fuel (L-gas)/Fuel specific (LNG);
- 2.8.2. Fuelling arrangement: Liquid-fuel only/Gaseous-fuel only/Dual-fuel type 1A/Dual-fuel type 1B/Dual-fuel type 2A/Dual-fuel type 2B/Dual-fuel type 3B ⁽²⁾
- 2.8.3. List of additional fuels compatible with use by the engine declared by the manufacturer in accordance with paragraph 5.2.3 of this Regulation (provide reference to recognised standard or specification):
- 2.8.4. Lubricant added to fuel: Yes/No ⁽²⁾
- 2.8.5. Fuel supply type: Pump (high pressure) line and injector/in-line pump or distributor pump/Unit injector/Common rail/Carburettor/port injector/direct injector/Mixing unit/other(specify) ⁽²⁾
- 2.9. Engine management systems: mechanical/electronic control strategy ⁽²⁾
- 2.10. Miscellaneous devices: Yes/No ⁽²⁾
- 2.10.1. Exhaust gas recirculation (EGR): Yes/No ⁽²⁾
- 2.10.2. Water injection: Yes/No ⁽²⁾
- 2.10.3. Air injection: Yes/No ⁽²⁾
- 2.10.4. Others (specify):
- 2.11. Exhaust after-treatment system: Yes/No ⁽²⁾
- 2.11.1. Oxidation catalyst: Yes/No ⁽²⁾
- 2.11.2. De NO_x system with selective reduction of NO_x (addition of reducing agent): Yes/No
- 2.11.3. Other De NO_x systems: Yes/No ⁽²⁾
- 2.11.4. Three-way catalyst combining oxidation and NO_x reduction: Yes/No ⁽²⁾
- 2.11.5. Particulate after-treatment system with passive regeneration: Yes/No ⁽²⁾
- 2.11.6. Particulate after-treatment system with active regeneration: Yes/No ⁽²⁾

- 2.11.7. Other particulate after-treatment systems: Yes/No ⁽²⁾
- 2.11.8. Three-way catalyst combining oxidation and NO_x reduction: Yes/No ⁽²⁾
- 2.11.9. Other after-treatment devices (specify):
3. Essential characteristics of the engine type(s)

Item Number	Item Description	Parent Engine/ Engine type	Engine types within the family (if applicable)		
3.1.1.	Engine Type Designation:				
3.1.2.	Engine type designation shown on engine mark: Yes/No ⁽²⁾				
3.1.3.	Location of the manufacturer's statutory marking:				
3.2.1.	Declared rated speed (rpm):				
3.2.1.2.	Declared rated net Power (kW):				
3.2.2.	Maximum power speed (rpm):				
3.2.2.2.	Maximum net power (kW):				
3.2.3.	Declared maximum torque speed (rpm):				
3.2.3.2.	Declared maximum torque (Nm):				
3.6.3.	Number of Cylinders:				
3.6.4.	Engine total swept volume (cm ³):				
3.8.5.	Device for recycling crankcase gases: Yes/No ⁽²⁾				
3.11.3.12.	Consumable reagent: Yes/No ⁽²⁾				
3.11.3.12.1.	Type and concentration of reagent needed for catalytic action:				
3.11.3.13.	NO _x sensor(s): Yes/No ⁽²⁾				
3.11.3.14.	Oxygen sensor: Yes/No ⁽²⁾				
3.11.4.7.	Fuel borne catalyst (FBC): Yes/No ⁽²⁾				

PART B

Test results

1. Approved data
- 1.1. Rated net power: kW, at min⁻¹
- 1.2. Maximum net power: kW, at min⁻¹
- 1.3. Maximum net torque: Nm, at min⁻¹

Explanatory notes to Annex 2:

(Footnote markers, footnotes and explanatory notes not to be stated on the type-approval certificate)

⁽¹⁾ Distinguishing number of the contracting party which has granted/extended/refused/withdrawn an approval.

⁽²⁾ Strike out the unused options, or only show the used option(s).

APPENDIX A.1

TEST REPORT

A.1.1. GENERAL REQUIREMENTS

One test report shall be completed for each tests required for the type-approval. Each additional (e.g. a second speed on a constant speed engine) or supplementary test (e.g. another fuel is tested) will require an additional or supplementary test report.

A.1.2. EXPLANATORY NOTES ON CREATION OF A TEST REPORT

A.1.2.1. A test report shall contain at least the information set out in paragraph A.1.3.

A.1.2.2. Notwithstanding paragraph A.1.2.1, only those sections or sub-sections relevant for the particular test and for the particular engine family, engine types within the engine family or engine type tested need to be stated in the test report;

A.1.2.3. The test report may contain more information than that requested in paragraph A.1.2.1 but in any case, shall adhere to the proposed numbering system;

A.1.2.4. Where several options separated by forward slash are given for an entry, the unused options shall be struck out, or only the used option(s) shall be shown;

A.1.2.5. Where a 'type' of a component is requested, the information supplied shall uniquely identify the component; this may be a list of characteristic, a manufacturers' name and part or drawing number, a drawing, or a combination of the aforementioned or other methods that achieves the same result.

A.1.2.6. The test report may be delivered on paper or in an electronic format agreed between the manufacturer, technical service and Type Approval Authority.

A.1.3 TEMPLATE FOR THE TEST REPORT

Test report for non-road engines**1. GENERAL INFORMATION**

- 1.1. Make(s) (trade name(s) of manufacturer):
- 1.2. Commercial name(s) (if applicable):
- 1.3. Company name and address of manufacturer:
- 1.4. Name of technical service:
- 1.5. Address of technical service:
- 1.6. Location of test:
- 1.7. Date of test:
- 1.8. Test report number:
- 1.9. Information document reference number (if available):
- 1.10. Test report type: Primary test/additional test/supplementary test
- 1.10.1. Description of the purpose of the test:

2. GENERAL ENGINE INFORMATION (TEST ENGINE)

- 2.1. Engine type designation/engine family designation/FT:
- 2.2. Engine identification number:

3. DOCUMENTATION AND INFORMATION CHECK LIST (PRIMARY TEST ONLY)

- 3.6. For engine types and engine families that use an ECU as part of the engine control system anti-tampering declaration documentation reference:
- 3.7. For engine types and engine families that use mechanical devices as part of the engine control system anti-tampering and adjustable parameters declaration and demonstration documentation reference:

4. REFERENCE FUEL(S) USED FOR TEST (COMPLETE RELEVANT SUBPARAGRAPH(S))**4.1. Liquid fuel for spark-ignition engines**

- 4.1.1. Make:
- 4.1.2. Type:
- 4.1.3. Octane number RON:
- 4.1.4. Octane number MON:
- 4.1.5. Ethanol content (%):
- 4.1.6. Density at 15 °C (kg/m³):

4.2. Liquid fuel for compression-ignition engines

- 4.2.1. Make:
- 4.2.2. Type:
- 4.2.3. Cetane number:
- 4.2.4. Fame content (%):
- 4.2.5. Density at 15 °C (kg/m³):

- 4.3. Gaseous fuel — LPG
- 4.3.1. Make:
- 4.3.2. Type:
- 4.3.3. Reference fuel type: Fuel A/Fuel B
- 4.3.4. Octane number MON:
- 4.4. Gaseous fuel — Methane/biomethane
- 4.4.1. Reference fuel type: GR/G23/G25/G20
- 4.4.2. Source of reference gas: specific reference fuel/pipeline gas with admixture
- 4.4.3. For specific reference fuel
- 4.4.3.1. Make:
- 4.4.3.2. Type:
- 4.4.4. For pipeline gas with admixture
- 4.4.4.1. Admixture(s): Carbon dioxide/Ethane/Methane/Nitrogen/Propane
- 4.4.4.2. The value of S_λ for the resulting fuel blend:
- 4.4.4.3. The Methane Number (MN) of the resulting fuel blend:
- 4.5. Dual-fuel engine (in addition to relevant sections above)
- 4.5.1. Gas energy ratio on test cycle:
5. LUBRICANT
- 5.1. Make(s):
- 5.2. Type(s):
- 5.3. SAE viscosity:
- 5.4. Lubricant and fuel are mixed: yes/no
- 5.4.1. Percentage of oil in mixture:

6. DETAILED RESULTS OF MEASUREMENTS (*)

Engine speed, min^{-1}			
Measured torque, Nm			
Measured power, kW			
Measured fuel flow, g/h			
Barometric pressure, kPa			
Water vapour pressure, kPa			
Inlet air temperature, K			
Power to be added for equipment and auxiliaries in excess of Table 1, kW	No 1 No 2 No 3		
Total, kW			

Power correction factor		
Corrected power, kW		
Corrected torque, Nm		
Corrected specific fuel consumption g/(kWh) ⁽²⁾		
Cooling liquid temperature at outlet, K		
Lubricating oil temperature at measuring point, K		
Air temperature after pressure-charger, K ⁽¹⁾		
Fuel temperature at injection pump inlet, K		
Air temperature after charge air cooler, K ⁽¹⁾		
Pressure after pressure-charger, kPa		
Pressure after charge air cooler, kPa		
Inlet depression, Pa		
Exhaust back-pressure, Pa		
Fuel delivery, mm ³ /stroke or cycle ⁽¹⁾		

⁽¹⁾ Strike out what does not apply.

⁽²⁾ Calculated with the net power for compression-ignition and positive-ignition engines, in the latter case multiplied by the power correction factor.

(*) The characteristic curves of the net power and the net torque shall be drawn as a function of the engine speed.

ANNEX 3

ARRANGEMENTS OF APPROVAL MARKS

MODEL A

(see paragraph 4.4 of this Regulation)

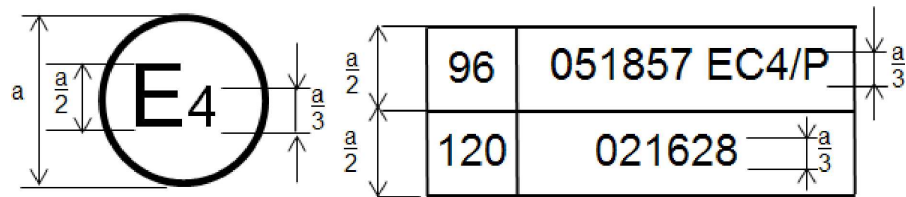


a = 8 mm min.

The above approval mark affixed to an engine shows that the engine type concerned has been approved in the Netherlands (E 4) with regard to the measurement of the net power, pursuant to UN Regulation No 120 and under the approval number 021628. The approval number indicates that the approval was granted in accordance with the requirements of UN Regulation No 120 as amended by the 02 series of amendments.

MODEL B

(see paragraph 4.5 of this Regulation)



a = 8 mm min.

The above approval mark affixed to an engine shows that the engine type concerned has been approved in the Netherlands (E 4) pursuant to UN Regulations No 120 and 96 ⁽¹⁾. The first two digits of the approval numbers indicate that, at the dates when the respective approvals were granted, UN Regulation No 120 was amended by the 02 series of amendments, and UN Regulation No 96 already included the 05 series of amendments.

⁽¹⁾ The second number is given merely as an example.

ANNEX 4

METHOD FOR MEASURING INTERNAL COMBUSTION ENGINE NET POWER

1. These provisions apply to the method for determining the power curve at full load of an internal combustion engine operated under intermittent speed as a function of engine speed and the rated speed and rated net power of an internal combustion engine under constant speed.
2. Test conditions
 - 2.1. The engine shall have been run-in according to the manufacturer's recommendations.
 - 2.2. If the power measurement can be carried out only on an engine with the gearbox mounted, the efficiency of the gearbox shall be taken into account.
 - 2.3. Auxiliaries and equipment
 - 2.3.1. Auxiliaries and equipment to be fitted

During the test, the auxiliaries necessary for the engine operation in the intended application (as listed in Table 1) shall be installed on the test bench as far as possible in the same position as in the intended application.

- 2.3.2. Auxiliaries and equipment to be removed

Certain auxiliaries whose definition is linked with the operation of the machine and which may be mounted on the engine shall be removed for the test. The following non-exhaustive list is given as a sample:

- (a) Air compressor for brakes
- (b) Power steering compressor
- (c) Suspension compressor
- (d) Air-conditioning system

Where auxiliaries cannot be removed, the power they absorb in the unloaded condition may be determined and added to the measured engine power (see note h of Table 1). If this value is greater than 3 per cent of the maximum power at the test speed it may be verified by the test authority.

Table 1

Equipment and auxiliaries to be installed for the test to determine engine power

Number	Equipment and auxiliaries	Fitted for emission test
1	Inlet system	
	Inlet manifold	Yes
	Crankcase emission control system	Yes
	Air flow meter	Yes
	Air filter	Yes ^(a)
	Inlet silencer	Yes ^(a)
2	Exhaust system	
	Exhaust after-treatment	Yes
	Exhaust manifold	Yes
	Connecting pipes	Yes ^(b)
	Silencer	Yes ^(b)
	Tail pipe	Yes ^(b)

Number	Equipment and auxiliaries	Fitted for emission test
	Exhaust brake	No ^(c)
	Pressure charging device	Yes
3	Fuel supply pump	Yes ^(d)
4	Carburation equipment	
	Carburettor	Yes
	Electronic control system, air flow meter, etc.	Yes
	Equipment for gas engines	
	Pressure reducer	Yes
	Evaporator	Yes
	Mixer	Yes
5	Fuel injection equipment (petrol and diesel)	
	Pre-filter	Yes
	Filter	Yes
	Pump	Yes
	High-pressure pipe	Yes
	Injector	Yes
	Electronic control system, sensors, etc.	Yes
	Governor/control system	Yes
	Automatic full-load stop for the control rack depending on atmospheric conditions	Yes
6	Liquid-cooling equipment	
	Radiator	No
	Fan	No
	Fan cowl	No
	Water pump	Yes ^(e)
	Thermostat	Yes ^(f)
7	Air cooling	
	Cowl	No ^(g)
	Fan or Blower	No ^(g)
	Temperature-regulating device	No
8	Pressure charging equipment	
	Compressor driven either directly by the engine and/or by the exhaust gases	Yes
	Charge air cooler	Yes ^(g) ^(h)
	Coolant pump or fan (engine-driven)	No ^(g)
	Coolant flow control device	Yes
9	Auxiliary test-bed fan	Yes, if necessary
10	Anti-pollution device	Yes,
11	Starting equipment	Yes or test bed equipment ⁽ⁱ⁾
12	Lubricating oil pump	Yes

Number	Equipment and auxiliaries	Fitted for emission test
13	Certain auxiliaries whose definition is linked with the operation of the non-road mobile machinery and which may be mounted on the engine shall be removed for the test. The following non-exhaustive list is given as an example: (i) air compressor for brakes (ii) power steering compressor (iii) suspension compressor (iv) air-conditioning system.	No

- (^a) The complete inlet system shall be fitted as provided for the intended application:
- (a) where there is a risk of an appreciable effect on the engine power;
 - (b) in the case of naturally aspirated spark ignition engines.
- In other cases, an equivalent system may be used and a check should be made to ascertain that the intake pressure does not differ by more than 100 Pa from the upper limit specified by the manufacturer for a clean air filter.
- (^b) The complete exhaust system shall be fitted as provided for the intended application:
- (a) where there is a risk of an appreciable effect on the engine power;
 - (b) in the case of naturally aspirated spark ignition engines.
- In other cases, an equivalent system may be installed provided the pressure measured does not differ by more than 1 000 Pa from the upper limit specified by the manufacturer.
- (^c) If an exhaust brake is incorporated in the engine, the throttle valve shall be fixed in the fully open position.
- (^d) The fuel feed pressure may be adjusted, if necessary, to reproduce the pressure existing in the particular engine application (particularly when a 'fuel return' system is used).
- (^e) The cooling-liquid circulation shall be operated by the engine water pump only. Cooling of the liquid may be produced by an external circuit, such that the pressure loss of this circuit and the pressure at the pump inlet remain substantially the same as those of the engine cooling system.
- (^f) The thermostat may be fixed in the fully open position.
- (^g) When the cooling fan or blower is fitted for the test, the power absorbed shall be added to the results, except for engines where such auxiliaries are an integral part of the engine (i.e.: cooling fans of air cooled engines directly fitted on the crankshaft). The fan or blower power shall be determined at the speeds used for the test either by calculation from standard characteristics or by practical tests.
- (^h) Charge air-cooled engines shall be tested with charge air cooling, whether liquid- or air-cooled, but if the manufacturer prefers, a test bench system may replace the air cooler. In either case, the measurement of power at each speed shall be made with the maximum pressure drop and the minimum temperature drop of the engine air across the charge air cooler on the test bench system as those specified by the manufacturer.
- (ⁱ) The power for electrical or other starting systems shall be provided from the test bed.

2.4. Setting conditions

The setting conditions for the test to determine the net power are indicated in Table 2.

Table 2

Setting conditions

1. Setting of carburettor(s), evaporator/pressure regulator	In accordance with the manufacturer's production specifications, and used without further alteration for the particular application.
2. Setting of injection pump delivery system	
3. Ignition or injection timing (timing curve)	
4. Governor setting	
5. Emission control devices	
6. Boost Control	

3. Data to be recorded

- 3.1. Data to be recorded are those indicated in appendix A.1 to Annex 2. Performance data shall be obtained under stabilised operating conditions with an adequate fresh air supply to the engine. Combustion chambers may contain deposits, but in limited quantity. Test conditions, such as inlet air temperature, shall be selected as near to reference conditions (see paragraph 5.2 of this annex) as possible in order to minimise the magnitude of the correction factor.
- 3.2. The temperature of the inlet air to the engine shall be measured within the inlet ductwork. The inlet depression measurement shall be made at the same point. The thermometer or thermocouple shall be shielded from fuel spray-back and radiant heat and located directly in the air stream. A sufficient number of locations shall be used to give a representative average of the inlet temperature.
- 3.3. The inlet depression shall be measured downstream of the entry ducts, air filter, inlet silencer or speed-limiting device (if fitted).
- 3.4. The absolute pressure at the entry to the engine downstream of the compressor and heat exchanger, if fitted, shall be measured in the inlet manifold and at any other point where pressure has to be measured to calculate correction factors.
- 3.5. The exhaust back pressure shall be measured at a point at least three pipe diameters downstream from the outlet flange(s) of the exhaust manifold(s) and downstream at the turbocharger(s), if fitted. The location shall be specified.
- 3.6. No data shall be taken until torque, speed and temperatures have been maintained substantially constant for at least one minute.
- 3.7. The engine speed during a run or reading shall not deviate from the selected speed by more than ± 1 per cent or ± 10 min, whichever is greater.
- 3.8. Observed brake load, fuel consumption and inlet air temperature data shall be taken simultaneously and shall be the average of two stabilised consecutive values which do not vary more than 2 per cent for the brake load.
- 3.9. The temperature of the coolant at the outlet from the engine shall be kept at the value specified by the manufacturer.
- If no temperature is specified by the manufacturer, the temperature shall be $353 \text{ K} \pm 5 \text{ K}$. For air-cooled engines, the temperature at a point indicated by the manufacturer shall be kept within $+ 0/- 20 \text{ K}$ of the maximum value specified by the manufacturer in the reference conditions.
- 3.10. For C.I. engines, the fuel temperature shall be measured at the inlet of the fuel injection pump and maintained within $306\text{--}316 \text{ K}$ ($33\text{--}43 \text{ }^{\circ}\text{C}$) for positive-ignition engines the fuel temperature shall be measured as near as possible to the inlet of the carburettor or assembly of fuel injectors and maintained within $293\text{--}303 \text{ K}$ ($20\text{--}30 \text{ }^{\circ}\text{C}$).
- 3.11. The temperature of the lubricating oil measured in the oil pump or at the outlet from the coil cooler, if fitted, shall be maintained within the limits established by the engine manufacturer.
- 3.12. An auxiliary regulating system may be used if necessary to maintain the temperatures within the limits specified in paragraphs 3.9, 3.10 and 3.11 above of this annex.

4. Accuracy of measurements

- 4.1. Torque: ± 1 percent of measured torque. The torque measuring system shall be calibrated to take friction losses into account. The accuracy in the lower half of the measuring range of the dynamometer bench may be ± 2 per cent of measured torque.
- 4.2. Engine speed: 0,5 per cent of measured speed.
- 4.3. Fuel consumption: ± 1 per cent of measured consumption.
- 4.4. Fuel temperature: $\pm 2 \text{ K}$.

- 4.5. Engine inlet air temperature: ± 2 K.
- 4.6. Barometric pressure: ± 100 Pa.
- 4.7. Depression in inlet system: ± 50 Pa.
- 4.8. Back-pressure in exhaust system: ± 200 Pa.

5. Power correction factors

5.1. Definition

The power correction factor is the coefficient to determine the engine power under the reference atmospheric conditions specified in 5.2 below.

$$P_o = \alpha P$$

Where:

P_o is the corrected power (i.e. power under reference atmospheric conditions)

α is the correction factor (α_a or α_d)

P is the measured power (test power)

5.2. Reference atmospheric conditions

5.2.1. Temperature (T_o): 298 K (25 °C)

5.2.2. Dry pressure (P_{so}): 99 kPa

The dry pressure is based on a total pressure of 100 kPa and a water vapour pressure of 1 kPa.

5.3. Test atmospheric conditions

The atmospheric conditions during the test shall be the following:

5.3.1. Temperature (T)

For positive-ignition engines: $288 \text{ K} \leq T \leq 308 \text{ K}$

For compression-ignition engines: $283 \text{ K} \leq T \leq 313 \text{ K}$

5.3.2. Pressure (p_s)

$$90 \text{ kPa} < p_s < 110 \text{ kPa}$$

5.4. Determination of correction factor α_a and α_d ⁽¹⁾

5.4.1. Naturally aspirated or pressure-charged positive-ignition engine

The correction factor α_a is obtained by applying the formula:

$$\alpha_a = \left(\frac{99}{p_s} \right)^{1,2} \times \left(\frac{T}{298} \right)^{0,6}$$

Where:

p_s is the total dry atmospheric pressure in kilopascals (kPa); i.e. the total barometric pressure minus water vapour pressure,

T is the absolute temperature in kelvins (K) of the air drawn in by the engine.

Conditions to be complied with in the laboratory

For a test to be valid, the correction factor must be such that

$$0,93 < \alpha_a < 1,07$$

If these limits are exceeded, the corrected value obtained shall be given and the test conditions (temperature and pressure) precisely stated in the test report.

⁽¹⁾ The tests may be carried out in air-conditioned test rooms where the atmospheric conditions may be controlled.

In the case of engines fitted with automatic air temperature control, if the device is such that at full load at 25 °C no heated air is added, the test shall be carried out with the device fully closed. If the device is still operating at 25 °C then the test is made with the device operating normally and the exponent of the temperature term in the correction factor shall be taken as zero (no temperature correction).

5.4.2. Compression-ignition engines — factor α_d

The power correction factor (α_d) for compression-ignition engines at constant fuel rate is obtained by applying the formula:

$$\alpha_d = (f_a)^{f_m}$$

Where:

f_a is the atmospheric factor

f_m the characteristic parameter for each type of engine and adjustment

5.4.2.1. Atmospheric factor f_a

This factor indicates the effects of environmental conditions (pressure, temperature and humidity) on the air drawn in by the engine. The atmospheric factor formula differs according to the type of engine.

5.4.2.1.1. Naturally aspirated and mechanically pressure charged engines

$$f_a = \left(\frac{99}{p_s}\right) \times \left(\frac{T}{298}\right)^{0,7}$$

5.4.2.1.2. Turbocharged engines with or without charge air cooling

$$f_a = \left(\frac{99}{p_s}\right)^{0,7} \times \left(\frac{T}{298}\right)^{1,5}$$

5.4.2.2. Engine factor f_m

f_m is a function of q_c (fuel flow corrected) as follows:

$$f_m = 0,036 q_c - 1,14$$

and

$$q_c = q/r$$

Where:

q is the fuel flow in milligram per cycle per litre of total swept volume (mg/(l.cycle))

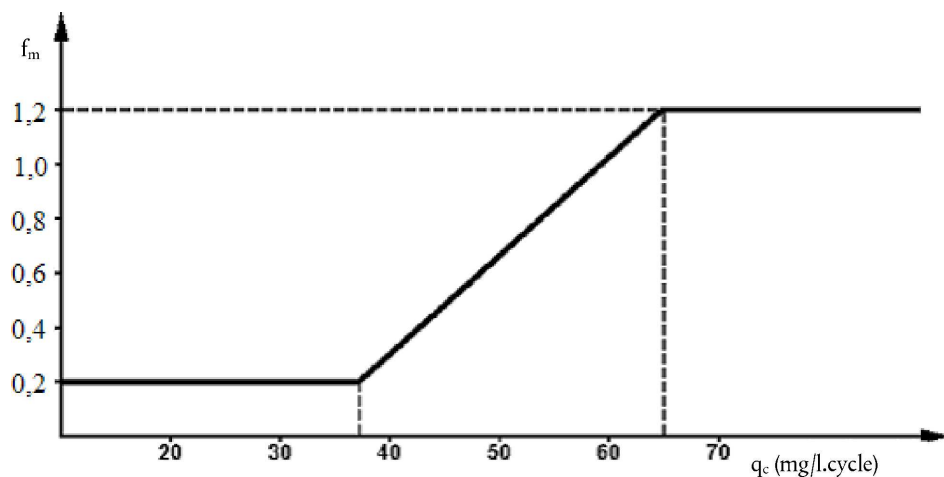
r is the pressure ratio of compressor outlet and compressor inlet in case of multiple turbochargers
 r represents the total compression ratio ($r = 1$ for naturally aspirated engines)

This formula is valid for a value interval of q_c included between 37,2 mg/(l.cycle) and 65 mg/(l.cycle).

For q_c values lower than 37,2 mg/(l.cycle), a constant value of f_m equal to 0,2 ($f_m = 0,2$) will be taken.

For q_c values higher than 65 mg/(l.cycle), a constant value of f_m equal to 1,2 ($f_m = 1,2$) will be taken (see the figure):

Determination of engine factor f_m



5.4.2.3. Conditions to be complied with in the laboratory

For a test to be valid, the correction factors α_a must be such that

$$0,93 \leq \alpha_a \leq 1,07$$

If these limits are exceeded, the corrected value obtained shall be given and the test conditions (temperature and pressure) precisely stated in the test report.

ANNEX 5

PARAMETERS FOR THE DEFINITION OF ENGINE TYPES AND ENGINE FAMILIES, AND THEIR OPERATION MODES**1. ENGINE TYPE**

The technical features of an engine type shall be those defined in its information document drafted in accordance with the template set out in Annex 1.

1.1. Operating mode (speed operation)

An engine type may be type-approved as a constant speed engine or as a variable speed engine, as defined respectively in paragraphs 2.3 and 2.32 of this Regulation.

2. ENGINE FAMILY CRITERIA**2.1. General**

An engine family is characterised by design parameters. These shall be common to all engines within the engine family. The engine manufacturer may decide, which engines belong to an engine family, as long as the membership criteria listed in paragraph 2.3 of this Annex are respected. The engine family shall be approved by the Type Approval Authority.

2.2. Engine categories, operating mode (speed operation) and power range.**2.2.1. The engine family shall comprise only engine types of the same speed operation.****2.3. Parameters defining the engine family****2.3.1. Combustion cycle**

- (a) 2-stroke cycle;
- (b) 4-stroke cycle;
- (c) Rotary engine;
- (d) Others.

2.3.2. Configuration of the cylinders**2.3.2.1. Position of the cylinders in the block**

- (a) Single
- (b) V;
- (c) In-line;
- (d) Opposed;
- (e) Radial;
- (f) Others (F, W, etc.).

2.3.2.2. Relative position of the cylinders

Engines with the same block may belong to the same engine family as long as their bore centre-to-centre dimensions are the same.

2.3.3. Main cooling medium

- (a) Air;
- (b) Water;
- (c) Oil.

2.3.4. Swept volume per cylinder

2.3.4.1. Engine with a swept volume per cylinder $\geq 750 \text{ cm}^3$

In order for engines with a swept volume per cylinder of $\geq 750 \text{ cm}^3$ to be considered to belong to the same engine family, the spread of the swept volume per cylinder shall not exceed 15 per cent of the largest swept volume per cylinder within the engine family.

2.3.4.2. Engine with a swept volume per cylinder $< 750 \text{ cm}^3$

In order for engines with a swept volume per cylinder of $< 750 \text{ cm}^3$ to be considered to belong to the same engine family, the spread of the swept volume per cylinder shall not exceed 30 per cent of the largest swept volume per cylinder within the engine family.

2.3.5. Method of air aspiration

- (a) Naturally aspirated;
- (b) Pressure charged;
- (c) Pressure charged with charge cooler.

2.3.6. Fuel type

- (a) Diesel (non-road gas-oil);
- (b) Ethanol for dedicated compression ignition engines (ED95);
- (c) Petrol (E10);
- (d) Ethanol (E85);
- (e) Natural gas/Biomethane:
 - (i) Universal fuel — high calorific fuel (H-gas) and low calorific fuel (L-gas);
 - (ii) Restricted fuel — high calorific fuel (H-gas);
 - (iii) Restricted fuel — low calorific fuel (L-gas);
 - (iv) Fuel specific (LNG);
- (f) Liquid Petroleum Gas (LPG);

2.3.7. Fuelling arrangement

- (a) Liquid-fuel only;
- (b) Gaseous-fuel only;
- (c) Dual-fuel type 1A;
- (d) Dual-fuel type 1B;
- (e) Dual-fuel type 2A;
- (f) Dual-fuel type 2B;
- (g) Dual-fuel type 3B.

2.3.8. Combustion chamber type/design

- (a) Open chamber;
- (b) Divided chamber;
- (c) Other types.

2.3.9. Ignition Type

- (a) Spark ignition;
- (b) Compression ignition.

2.3.10. Valves and porting

- (a) Configuration;
- (b) Number of valves per cylinder.

2.3.11. Fuel supply type

- (a) Pump, (high pressure) line and injector;
- (b) In-line pump or distributor pump;
- (c) Unit injector;
- (d) Common rail;
- (e) Carburettor;
- (f) Port injector;
- (g) Direct injector;
- (h) Mixing unit;
- (i) Other.

2.3.12. Miscellaneous devices

- (a) Exhaust gas recirculation (EGR);
- (b) Water injection;
- (c) Air injection;
- (d) Others.

2.3.13. Electronic control strategy

The presence or absence of an ECU on the engine is regarded as a basic parameter of the engine family.

The electronic governing of speed does not need to be in a different engine family from those with mechanical governing. The need to separate electronic engines from mechanical engines should only apply to the fuel injection characteristics, such as timing, pressure, rate shape, etc.

2.3.14. Exhaust after-treatment systems

The function and combination of the following devices are regarded as membership criteria for an engine family:

- (a) Oxidation catalyst;
- (b) DeNO_x system with selective reduction of NO_x (addition of reducing agent);
- (c) Other DeNO_x systems;
- (d) Particulate after-treatment system with passive regeneration:
 - (i) Wall-flow;
 - (ii) Non-wall-flow;
- (e) Particulate after-treatment system with active regeneration:
 - (i) Wall-flow;
 - (ii) Non-wall-flow;
- (f) Other particulate after-treatment systems;
- (g) Other devices.

2.3.15. Dual-fuel engines

All engine types within a dual-fuel engine family shall belong to the same type of dual-fuel engines as defined in paragraph 2 of Annex 7 of 05 series of amendments to UN Regulation No 96, and operate with the same types of fuel or when appropriate with fuels declared according to this Regulation as being of the same range(s).

3. CHOICE OF THE PARENT ENGINE

3.1. General

- 3.1.1. Once the engine family has been agreed by the Type Approval Authority, the parent engine of the engine family shall be selected using the primary criterion of the highest fuel delivery per stroke per cylinder at the declared maximum torque speed. In the event that two or more engines share this primary criterion, the parent engine shall be selected using the secondary criterion of highest fuel delivery per stroke at rated speed.
-

ANNEX 6

CHECKS ON CONFORMITY OF PRODUCTION

1. GENERAL

These requirements are consistent with tests to be held to check Conformity of Production (CoP), according to paragraph 6.2 of this Regulation.

2. TEST PROCEDURES

The methods of testing and measuring instruments shall be those described in Annex 4 to this Regulation.

3. COLLECTION OF SAMPLES

3.1. Case of an engine type

One engine has to be chosen. If after the test of paragraph 4. below, the engine is not considered as conforming to the requirements of this Regulation, two more engines have to be tested.

3.2. Case of a family of engines

In case of an approval granted to a family of engines the CoP shall be run on one member of the family, which is not the parent engine. In case of failure of the CoP test, the two more engines shall be of the same member type.

4. MEASUREMENT CRITERIA

4.1. Net power and specific fuel consumption of internal combustion engine

Measurements shall be taken at a sufficient number of engine speeds to define correctly the power, torque and specific fuel consumption curves between the lowest and the highest engine speeds recommended by the manufacturer.

The corrected values measured for the engine sampled shall not differ by more than the values indicated in the table below and ± 10 per cent for the specific fuel consumption.

Engine type	Reference power (torque) [%]	Other measurement points on the curve [%]	Tolerance for engine speed [%]
General	± 5	± 10	± 5
Petrol fuelled spark ignited engines with governor	± 8	± 12	± 8
Petrol fuelled spark ignited engines without governor	± 8	± 20	± 8

5. EVALUATION OF RESULTS

If the net power and fuel consumption figures of the second and/or third engine of paragraph 3 do not fulfil the requirements of paragraph 4 above, the production shall be considered not to conform to the requirements of this Regulation and the provision of paragraph 7 of this Regulation shall be put into effect.

ANNEX 7

**TECHNICAL CHARACTERISTICS OF REFERENCE FUELS PRESCRIBED FOR APPROVAL TESTS AND TO
VERIFY CONFORMITY OF PRODUCTION**

1. TECHNICAL DATA ON FUELS FOR TESTING COMPRESSION-IGNITION ENGINES

1.1. Type: Diesel (non-road gas-oil)

Parameter	Unit	Limits ⁽¹⁾		Test Method
		minimum	maximum	
Cetane number ⁽²⁾		45	56,0	EN-ISO 5165
Density at 15 °C	kg/m ³	833	865	EN-ISO 3675
Distillation:				
50 per cent point	°C	245	—	EN-ISO 3405
95 per cent point	°C	345	350	EN-ISO 3405
Final boiling point	°C	—	370	EN-ISO 3405
Flash point	°C	55	—	EN 22719
CFPP	°C	—	– 5	EN 116
Viscosity at 40 °C	mm ² /s	2,3	3,3	EN-ISO 3104
Polycyclic aromatic hydrocarbons	% m/m	2,0	6,0	IP 391
Sulphur content ⁽³⁾	mg/kg	—	10	ASTM D 5453
Copper corrosion		—	class 1	EN-ISO 2160
Conradson carbon residue (10 % DR)	% m/m	—	0,2	EN-ISO 10370
Ash content	% m/m	—	0,01	EN-ISO 6245
Total contamination	mg/kg	—	24	EN 12662
Water content	% m/m	—	0,02	EN-ISO 12937
Neutralisation (strong acid) number	mg KOH/g	—	0,10	ASTM D 974
Oxidation stability ⁽³⁾	mg/ml	—	0,025	EN-ISO 12205
Lubricity (HFRR wear scar diameter at 60 °C)	µm	—	400	CEC F-06-A-96
Oxidation stability at 110 °C ⁽³⁾	H	20,0	—	EN 15751
FAME	% v/v	—	7,0	EN 14078

⁽¹⁾ The values quoted in the specifications are 'true values'. In establishment of their limit values the terms of ISO 4259 'Petroleum products — Determination and application of precision data in relation to methods of test' have been applied and in fixing a minimum value, a minimum difference of 2R above zero has been taken into account; in fixing a maximum and minimum value, the minimum difference is 4R (R = reproducibility).

Notwithstanding this measure, which is necessary for technical reasons, the manufacturer of fuels should nevertheless aim at a zero value where the stipulated maximum value is 2R and at the mean value in the case of quotations of maximum and minimum limits. Should it be necessary to clarify the questions as to whether a fuel meets the requirements of the specifications, the terms of ISO 4259 should be applied.

⁽²⁾ The range for the cetane number is not in accordance with the requirements of a minimum range of 4R. However, in the case of a dispute between fuel supplier and fuel user, the terms of ISO 4259 may be used to resolve such disputes provided replicate measurements, of sufficient number to achieve the necessary precision, are made in preference to single determinations.

⁽³⁾ Even though oxidation stability is controlled, it is likely that shelf life will be limited. Advice should be sought from the supplier as to storage conditions and life.

1.2. Type: Ethanol for dedicated compression ignition engines (ED95) ⁽¹⁾

Parameter	Unit	Limits ⁽²⁾		Test method ⁽³⁾
		Minimum	Maximum	
Total alcohol (Ethanol incl. content on higher saturated alcohols)	per cent m/m	92,4		EN 15721
Other higher saturated mono-alcohols (C ₃ -C ₅)	per cent m/m		2,0	EN 15721
Methanol	per cent m/m		0,3	EN 15721
Density 15 °C	kg/m ³	793,0	815,0	EN ISO 12185
Acidity, calculated as acetic acid	per cent m/m		0,0025	EN 15491
Appearance		Bright and clear		
Flashpoint	°C	10		EN 3679
Dry residue	mg/kg		15	EN 15691
Water content	per cent m/m		6,5	EN 15489 ⁽⁴⁾ EN-ISO 12937 EN15692
Aldehydes calculated as acetaldehyde	per cent m/m		0,0050	ISO 1388-4
Esters calculated as ethylacetat	per cent m/m		0,1	ASTM D1617
Sulphur content	mg/kg		10,0	EN 15485 EN 15486
Sulphates	mg/kg		4,0	EN 15492
Particulate contamination	mg/kg		24	EN 12662
Phosphorus	mg/l		0,20	EN 15487
Inorganic chloride	mg/kg		1,0	EN 15484 or EN 15492
Copper	mg/kg		0,100	EN 15488
Electrical Conductivity	µS/cm		2,50	DIN 51627-4 or prEN 15938

⁽¹⁾ Additives, such as cetane improver as specified by the engine manufacturer, may be added to the ethanol fuel, as long as no negative side effects are known. If these conditions are satisfied, the maximum allowed amount is 10 per cent m/m.

⁽²⁾ The values quoted in the specifications are 'true values'. In establishment of their limit values the terms of ISO 4259 Petroleum products – Determination and application of precision data in relation to methods of test have been applied and in fixing a minimum value, a minimum difference of 2R above zero has been taken into account; in fixing a maximum and minimum value, the minimum difference is 4R (R = reproducibility). Notwithstanding this measure, which is necessary for technical reasons, the manufacturer of fuels shall nevertheless aim at a zero value where the stipulated maximum value is 2R and at the mean value in the case of quotations of maximum and minimum limits. Should it be necessary to clarify whether a fuel meets the requirements of the specifications, the terms of ISO 4259 shall be applied.

⁽³⁾ Equivalent EN/ISO methods will be adopted when issued for properties listed above.

⁽⁴⁾ Should it be necessary to clarify whether a fuel meets the requirements of the specifications, the terms of EN 15489 shall be applied.

2. TECHNICAL DATA ON FUELS FOR TESTING SPARK IGNITION ENGINES

2.1. Type: Petrol (E10)

Parameter	Unit	Limits ⁽¹⁾		Test method ⁽²⁾
		Minimum	Maximum	
Research octane number, RON		91,0	98,0	EN ISO 5164:2005 ⁽³⁾
Motor octane number, MON		83,0	89,0	EN ISO 5163:2005 ⁽³⁾
Density at 15 °C	kg/m ³	743	756	EN ISO 3675 EN ISO 12185
Vapour pressure	kPa	45,0	60,0	EN ISO 13016-1 (DVPE)
Water content			Max 0,05 per cent v/v Appearance at – 7 °C: clear and bright	EN 12937
Distillation:				
— evaporated at 70 °C	per cent v/v	18,0	46,0	EN-ISO 3405
— evaporated at 100 °C	per cent v/v	46,0	62,0	EN-ISO 3405
— evaporated at 150 °C	per cent v/v	75,0	94,0	EN-ISO 3405
— final boiling point	°C	170	210	EN-ISO 3405
Residue	per cent v/v	—	2,0	EN-ISO 3405
Hydrocarbon analysis:				
— olefins	per cent v/v	3,0	18,0	EN 14517 EN 15553
— aromatics	per cent v/v	19,5	35,0	EN 14517 EN 15553
— benzene	per cent v/v	—	1,0	EN 12177 EN 238, EN 14517
— saturates	per cent v/v	Report		EN 14517 EN 15553
Carbon/hydrogen ratio		Report		
Carbon/oxygen ratio		Report		
Induction period ⁽⁴⁾	minutes	480		EN-ISO 7536
Oxygen content ⁽⁵⁾	per cent m/m	3,3 ⁽⁸⁾	3,7	EN 1601 EN 13132 EN 14517
Existent gum	mg/ml	—	0,04	EN-ISO 6246
Sulphur content ⁽⁶⁾	mg/kg	—	10	EN ISO 20846 EN ISO 20884

Parameter	Unit	Limits ⁽¹⁾		Test method ⁽²⁾
		Minimum	Maximum	
Copper corrosion (3h at 50 °C)	rating	—	Class 1	EN-ISO 2160
Lead content	mg/l	—	5	EN 237
Phosphorus content ⁽⁷⁾	mg/l	—	1,3	ASTM D 3231
Ethanol ⁽⁴⁾	per cent v/v	9,0 ⁽⁸⁾	10,2 ⁽⁸⁾	EN 22854

⁽¹⁾ The values quoted in the specifications are 'true values'. In establishment of their limit values the terms of ISO 4259 Petroleum products — Determination and application of precision data in relation to methods of test have been applied and in fixing a minimum value, a minimum difference of 2R above zero has been taken into account; in fixing a maximum and minimum value, the minimum difference is 4R (R = reproducibility). Notwithstanding this measure, which is necessary for technical reasons, the manufacturer of fuels shall nevertheless aim at a zero value where the stipulated maximum value is 2R and at the mean value in the case of quotations of maximum and minimum limits. Should it be necessary to clarify whether a fuel meets the requirements of the specifications, the terms of ISO 4259 shall be applied.

⁽²⁾ Equivalent EN/ISO methods will be adopted when issued for properties listed above.

⁽³⁾ A correction factor of 0,2 for MON and RON shall be subtracted for the calculation of the final result in accordance with EN 228:2008.

⁽⁴⁾ The fuel may contain oxidation inhibitors and metal deactivators normally used to stabilise refinery gasoline streams, but detergent/dispersive additives and solvent oils shall not be added.

⁽⁵⁾ Ethanol meeting the specification of EN 15376 is the only oxygenate that shall be intentionally added to the reference fuel.

⁽⁶⁾ The actual sulphur content of the fuel used for the Type 1 test shall be reported.

⁽⁷⁾ There shall be no intentional addition of compounds containing phosphorus, iron, manganese, or lead to this reference fuel.

⁽⁸⁾ The ethanol content and corresponding oxygen content may be zero for engines of category SMB at the choice of the manufacturer. In this case all testing of the engine family, or engine type where no family exists, shall be conducted using petrol with zero ethanol content.

2.2. Type: Ethanol (E85)

Parameter	Unit	Limits ⁽¹⁾		Test method
		Minimum	Maximum	
Research octane number, RON		95,0	—	EN ISO 5164
Motor octane number, MON		85,0	—	EN ISO 5163
Density at 15 °C	kg/m ³	Report		ISO 3675
Vapour pressure	kPa	40,0	60,0	EN ISO 13016-1 (DVPE)
Sulphur content ⁽²⁾	mg/kg	—	10	EN 15485 or EN 15486
Oxidation stability	Minutes	360		EN ISO 7536
Existent gum content (solvent washed)	mg/100ml	—	5	EN-ISO 6246
Appearance This shall be determined at ambient temperature or 15 °C whichever is higher		Clear and bright, visibly free of suspended or precipitated contaminants		Visual inspection
Ethanol and higher alcohols ⁽³⁾	per cent v/v	83	85	EN 1601 EN 13132 EN 14517 E DIN 51627-3

Parameter	Unit	Limits ⁽¹⁾		Test method
		Minimum	Maximum	
Higher alcohols (C ₃ -C ₈)	per cent v/v	—	2,0	E DIN 51627-3
Methanol	per cent v/v		1,00	E DIN 51627-3
Petrol ⁽⁴⁾	per cent v/v	Balance		EN 228
Phosphorus	mg/l	0,20 ⁽⁵⁾		EN 15487
Water content	per cent v/v		0,300	EN 15489 or EN 15692
Inorganic chloride content	mg/l		1	EN 15492
pHe		6,5	9,0	EN 15490
Copper strip corrosion (3h at 50 °C)	Rating	Class 1		EN ISO 2160
Acidity, (as acetic acid CH ₃ COOH)	per cent m/m (mg/l)	—	0,0050 (40)	EN 15491
Electric Conductivity	µS/cm	1,5		DIN 51627-4 or prEN 15938
Carbon/hydrogen ratio		Report		
Carbon/oxygen ration		Report		

⁽¹⁾ The values quoted in the specifications are 'true values'. In establishment of their limit values the terms of ISO 4259 Petroleum products — Determination and application of precision data in relation to methods of test have been applied and in fixing a minimum value, a minimum difference of 2R above zero has been taken into account; in fixing a maximum and minimum value, the minimum difference is 4R (R = reproducibility). Notwithstanding this measure, which is necessary for technical reasons, the manufacturer of fuels shall nevertheless aim at a zero value where the stipulated maximum value is 2R and at the mean value in the case of quotations of maximum and minimum limits. Should it be necessary to clarify whether a fuel meets the requirements of the specifications, the terms of ISO 4259 shall be applied.

⁽²⁾ The actual sulphur content of the fuel used for the emission tests shall be reported.

⁽³⁾ Ethanol to meet specification of EN 15376 is the only oxygenate that shall be intentionally added to this reference fuel.

⁽⁴⁾ The unleaded petrol content can be determined as 100 minus the sum of the per cent content of water, alcohols, MTBE and ETBE.

⁽⁵⁾ There shall be no intentional addition of compounds containing phosphorus, iron, manganese, or lead to this reference fuel.

3. TECHNICAL DATA ON GASEOUS FUELS FOR SINGLE-FUEL AND DUAL-FUEL ENGINES

3.1. Type: LPG

Parameter	Unit	Fuel A	Fuel B	Test method
Composition:				EN 27941
C ₃ -content	per cent v/v	30 ± 2	85 ± 2	
C ₄ -content	per cent v/v	Balance ⁽¹⁾	Balance ⁽¹⁾	
< C ₃ , > C ₄	per cent v/v	Maximum 2	Maximum 2	
Olefins	per cent v/v	Maximum 12	Maximum 15	
Evaporation residue	mg/kg	Maximum 50	Maximum 50	EN 15470
Water at 0 °C		Free	Free	EN 15469
Total sulphur content including odorant	mg/kg	Maximum 10	Maximum 10	EN 24260, ASTM D 3246, ASTM 6667

Parameter	Unit	Fuel A	Fuel B	Test method
Hydrogen sulphide		None	None	EN ISO 8819
Copper strip corrosion (1h at 40 °C)	Rating	Class 1	Class 1	ISO 6251 (2)
Odour		Characteristic	Characteristic	
Motor octane number (3)		Minimum 89,0	Minimum 89,0	EN 589 Annex B

(1) Balance shall be read as follows: balance = $100 - C_3 - <C_3 - >C_4$.

(2) This method may not accurately determine the presence of corrosive materials if the sample contains corrosion inhibitors or other chemicals which diminish the corrosivity of the sample to the copper strip. Therefore, the addition of such compounds for the sole purpose of biasing the test method is prohibited.

(3) At the request of the engine manufacturer, a higher MON could be used to perform the type approval tests.

3.2. Type: Natural Gas/Biomethane

3.2.1. Specification for reference fuels supplied with fixed properties (e.g. from a sealed container)

As an alternative to the reference fuels set out in this paragraph, the equivalent fuels in paragraph 3.2.2 of this annex may be used

Characteristics	Units	Basis	Limits		Test method
			minimum	maximum	
Reference fuel G _R					
Composition:					
Methane		87	84	89	
Ethane		13	11	15	
Balance (1)	per cent mole	—	—	1	ISO 6974
Sulphur content	mg/m ³ (2)	—		10	ISO 6326-5

(1) Inerts + C₂₊

(2) Value to be determined at standard conditions 293,2 K (20 °C) and 101,3 kPa.

Reference fuel G₂₃

Composition:					
Methane		92,5	91,5	93,5	
Balance (1)	per cent mole	—	—	1	ISO 6974
N ₂	per cent mole	7,5	6,5	8,5	
Sulphur content	mg/m ³ (2)	—	—	10	ISO 6326-5

(1) Inerts (different from N₂) + C₂ + C₂₊

(2) Value to be determined at 293,2 K (20 °C) and 101,3 kPa.

Reference fuel G ₂₅					
Composition:					
Methane	per cent mole	86	84	88	
Balance ⁽¹⁾	per cent mole	—	—	1	ISO 6974
N ₂	per cent mole	14	12	16	
Sulphur content	mg/m ³ ⁽²⁾	—	—	10	ISO 6326-5

⁽¹⁾ Inerts (different from N₂) + C₂ + C₂₊

⁽²⁾ Value to be determined at 293,2 K (20 °C) and 101,3 kPa.

Reference fuel G ₂₀					
Composition:					
Methane	per cent mole	100	99	100	ISO 6974
Balance ⁽¹⁾	per cent mole	—	—	1	ISO 6974
N ₂	per cent mole				ISO 6974
Sulphur content	mg/m ³ ⁽²⁾	—	—	10	ISO 6326-5
Wobbe Index (net)	MJ/m ³ ⁽³⁾	48,2	47,2	49,2	

⁽¹⁾ Inerts (different from N₂) + C₂ + C₂₊.

⁽²⁾ Value to be determined at 293,2 K (20 °C) and 101,3 kPa.

⁽³⁾ Value to be determined at 273,2 K (0 °C) and 101,3 kPa.

3.2.2. Specification for reference fuel supplied from a pipeline with admixture of other gases with gas properties determined by on-site measurement

As an alternative to the reference fuels in this paragraph the equivalent reference fuels in paragraph 3.2.1 of this annex may be used.

3.2.2.1. The basis of each pipeline reference fuel (G_R, G₂₀, ...) shall be gas drawn from a utility gas distribution network, blended, where necessary to meet the corresponding lambda-shift (S_λ) specification in Table A.7-1, with an admixture of one or more of the following commercially (the use of calibration gas for this purpose shall not be required) available gases:

- (a) Carbon dioxide;
- (b) Ethane;
- (c) Methane;
- (d) Nitrogen;
- (e) Propane.

3.2.2.2. The value of S_λ of the resulting blend of pipeline gas and admixture gas shall be within the range specified in Table A.7-1 for the specified reference fuel.

Table A.7-1

Required range of S_λ for each reference fuel

Reference fuel	Minimum S _λ	Maximum S _λ
G _R ⁽¹⁾	0,87	0,95
G ₂₀	0,97	1,03

Reference fuel	Minimum S_{λ}	Maximum S_{λ}
G_{23}	1,05	1,10
G_{25}	1,12	1,20

(1) The engine shall not be required to be tested on a gas blend with a Methane Number (MN) less than 70. In the case that the required range of S_{λ} for G_R would result in an MN less than 70 the value of S_{λ} for G_R may be adjusted as necessary until a value of MN no less than 70 is attained.

3.2.2.3. The engine test report for each test run shall include the following:

- (a) The admixture gas(es) chosen from the list in paragraph 3.2.2.1 of this Annex;
- (b) The value of S_{λ} for the resulting fuel blend;
- (c) The Methane Number (MN) of the resulting fuel blend.

3.2.2.4. The requirements of Appendices A.1 and A.2 shall be met in respect to determination of the properties of the pipeline and admixture gases, the determination of S_{λ} and MN for the resulting gas blend, and the verification that the blend was maintained during the test.

APPENDIX A.1

SUPPLEMENTARY REQUIREMENTS FOR CONDUCTING ENGINE TESTING USING GASEOUS REFERENCE FUELS COMPRISING PIPELINE GAS WITH ADMIXTURE OF OTHER GASES**A.1.1. METHOD OF GAS ANALYSIS AND GAS FLOW MEASUREMENT**

A.1.1.1. For the purpose of this Appendix, where required the composition of the gas shall be determined by analysis of the gas using gas chromatography according to EN ISO 6974, or by an alternative technique that achieves at least a similar level of accuracy and repeatability.

A.1.1.2. For the purpose of this Appendix, where required the measurement of gas flow shall be performed using a mass-based flowmeter.

A.1.2. ANALYSIS AND FLOWRATE OF INCOMING UTILITY GAS SUPPLY

A.1.2.1. The composition of the utility gas supply shall be analysed prior to the admixture blending system.

A.1.2.2. The flowrate of the utility gas entering the admixture blending system shall be measured.

A.1.3. ANALYSIS AND FLOWRATE OF ADMIXTURE

A.1.3.1. When an applicable certificate of analysis is available for an admixture (for example issued by the gas supplier) this may be used as the source of that admixture composition. In this case the on-site analysis of that admixture composition shall be permitted but shall not be required.

A.1.3.2. Where an applicable certificate of analysis is not available for an admixture the composition of that admixture shall be analysed.

A.1.3.3. The flowrate of each admixture entering the admixture blending system shall be measured.

A.1.4. ANALYSIS OF BLENDED GAS

A.1.4.1. The analysis of the composition of the gas supplied to the engine after leaving the admixture blending system shall be permitted in addition to, or as an alternative to the analysis required by paragraphs A.1.2.1 and A.1.3.1, but shall not be required.

A.1.5. CALCULATION OF S_{λ} AND MN OF THE BLENDED GAS

A.1.5.1. The results of the gas analysis according to paragraphs A.1.2.1, A.1.3.1 or A.1.3.2 and, where applicable, paragraph A.1.4.1, combined with the mass flowrate of gas measured according to paragraphs A.1.2.2 and A.1.3.3, shall be used to calculate the MN according to EN16726:2015. The same set of data shall be used to calculate S_{λ} according to the procedure set out in Appendix A.2 to this Annex.

A.1.6. CONTROL AND VERIFICATION OF GAS BLEND DURING THE TEST

A.1.6.1 The control and verification of the gas blend during the test shall be performed using either an open loop or closed loop control system.

A.1.6.2 Open loop blend control system

A.1.6.2.1 In this case the gas analysis, flow measurements and calculations set out in paragraphs A.1.1, A.1.2, A.1.3 and A.1.4 shall be performed prior to the emission test.

A.1.6.2.2 The proportion of utility gas and admixture(s) shall be set to ensure that the S_{λ} is within the permitted range for the relevant reference fuel in Table A.7-1.

A.1.6.2.3 When the relative proportions have been set they shall be maintained throughout the engine test. Adjustments to individual flow rates to maintain the relative proportions shall be permitted.

A.1.6.2.4 When the engine test has been completed the analysis of gas composition, flow measurements and calculations set out in paragraphs A.1.2, A.1.3, A.1.4 and A.1.5 shall be repeated. In order for the test to be considered valid the value of S_{λ} shall remain within the specified range for the respective reference fuel given in Table A.7-1.

A.1.6.3 Closed loop blend control system

A.1.6.3.1 In this case the analysis of gas composition, flow measurements and calculations set out in paragraphs A.1.2, A.1.3, A.1.4 and A.1.5 shall be performed at intervals during the emission test. The intervals shall be chosen taking into consideration the frequency capability of the gas chromatograph and corresponding calculation system.

A.1.6.3.2 The results from the periodic measurements and calculations shall be used to adjust the relative proportions of utility gas and admixture in order to maintain the value of S_{λ} within the range specified in Table A.7-1 for the respective reference fuel. The frequency of adjustment shall not exceed the frequency of measurement.

A.1.6.3.3 In order for the test to be considered valid the value of S_{λ} shall be within the range specified in Table A.7-1 for the respective reference fuel for at least 90 per cent of the measurement points.

APPENDIX A.2

CALCULATION OF λ -SHIFT FACTOR (S_λ)

A.2.1. CALCULATION

The λ -shift factor (S_λ) ⁽¹⁾ shall be calculated by means of equation (A.7-1):

$$S_\lambda = \frac{2}{\left(1 - \frac{\text{inert}\%}{100}\right) \left(n + \frac{m}{4}\right) - \frac{O_2^*}{100}} \quad (\text{A.7-1})$$

Where:

S_λ = λ -shift factor;

Inert% = per cent by volume of inert gases in the fuel (i.e. N_2 , CO_2 , He, etc.);

O_2^* = per cent by volume of original oxygen in the fuel;

n and m = refer to average C_nH_m representing the fuel hydrocarbons, i.e:

$$n = \frac{1 \times \left[\frac{CH_4\%}{100}\right] + 2 \times \left[\frac{C_2\%}{100}\right] + 3 \times \left[\frac{C_3\%}{100}\right] + 4 \times \left[\frac{C_4\%}{100}\right] + 5 \times \left[\frac{C_5\%}{100}\right] + \dots}{\frac{1 - \text{diluent}\%}{100}} \quad (\text{A.7-2})$$

$$m = \frac{4 \times \left[\frac{CH_4\%}{100}\right] + 4 \times \left[\frac{C_2H_4\%}{100}\right] + 6 \times \left[\frac{C_2H_6\%}{100}\right] + \dots + 8 \times \left[\frac{C_3H_8\%}{100}\right] + \dots}{\frac{1 - \text{diluent}\%}{100}} \quad (\text{A.7-3})$$

Where:

$CH_4\%$ = per cent by volume of methane in the fuel;

$C_2\%$ = per cent by volume of all C_2 hydrocarbons (e.g.: C_2H_6 , C_2H_4 , etc.) in the fuel;

$C_3\%$ = per cent by volume of all C_3 hydrocarbons (e.g.: C_3H_8 , C_3H_6 , etc.) in the fuel;

$C_4\%$ = per cent by volume of all C_4 hydrocarbons (e.g.: C_4H_{10} , C_4H_8 , etc.) in the fuel;

$C_5\%$ = per cent by volume of all C_5 hydrocarbons (e.g.: C_5H_{12} , C_5H_{10} , etc.) in the fuel;

diluent % = per cent by volume of dilution gases in the fuel (i.e.: O_2^* , N_2 , CO_2 , He, etc.).

A.2.2. EXAMPLES FOR THE CALCULATION OF THE λ -SHIFT FACTOR S_λ :

Example 1: G_{25} ; $CH_4\% = 86$ per cent, $N_2\% = 14$ per cent (by volume)

$$n = \frac{1 \times \left[\frac{CH_4\%}{100}\right] + 2 \times \left[\frac{C_2\%}{100}\right] + \dots}{\frac{1 - \text{diluent}\%}{100}} = \frac{1 \times 0,86}{1 - \frac{14}{100}} = \frac{0,86}{0,86} = 1$$

$$m = \frac{4 \times \left[\frac{CH_4\%}{100}\right] + 4 \times \left[\frac{C_2H_4\%}{100}\right] + \dots}{\frac{1 - \text{diluent}\%}{100}} = \frac{4 \times 0,86}{0,86} = 4$$

$$S_\lambda = \frac{2}{\left(1 - \frac{\text{inert}\%}{100}\right) \left(n + \frac{m}{4}\right) - \frac{O_2^*}{100}} = \frac{2}{\left(1 - \frac{14}{100}\right) \times \left(1 + \frac{4}{4}\right)} = 1,16$$

⁽¹⁾ Stoichiometric Air/Fuel ratios of automotive fuels — SAE J1829, June 1987. John B. Heywood, Internal combustion engine fundamentals, McGraw-Hill, 1988, Chapter 3.4 'Combustion stoichiometry' (pp. 68 to 72).

Example 2: G_R : $CH_4\%$ = 87 per cent, $C_2H_6\%$ = 13 per cent (by vol)

$$n = \frac{1 \times \left[\frac{CH_4\%}{100} \right] + 2 \times \left[\frac{C_2\%}{100} \right] + \dots}{\frac{1 - \text{diluent}\%}{100}} = \frac{1 \times 0,87 + 2 \times 0,13}{1 - \frac{0}{100}} = \frac{1,13}{1} = 1,13$$

$$m = \frac{4 \times \left[\frac{CH_4\%}{100} \right] + 4 \times \left[\frac{C_2H_4\%}{100} \right] + \dots}{\frac{1 - \text{diluent}\%}{100}} = \frac{4 \times 0,87 + 6 \times 0,13}{1} = 4,26$$

$$S_\lambda = \frac{2}{\left(1 - \frac{\text{inert}\%}{100}\right) \left(n + \frac{m}{4}\right) - \frac{O_2^*}{100}} = \frac{2}{\left(1 - \frac{0}{100}\right) \times \left(1,13 + \frac{4,26}{4}\right)} = 0,911$$

Example 3: $CH_4\%$ = 89 per cent, $C_2H_6\%$ = 4,5 per cent, $C_3H_8\%$ = 2,3 per cent, $C_6H_{14}\%$ = 0,2 per cent, $O_2\%$ = 0,6 per cent, $N_2\%$ = 4 per cent

$$n = \frac{1 \times \left[\frac{CH_4\%}{100} \right] + 2 \times \left[\frac{C_2\%}{100} \right] + \dots}{\frac{1 - \text{diluent}\%}{100}} = \frac{1 \times 0,89 + 2 \times 0,045 + 3 \times 0,023 + 4 \times 0,002}{1 - \frac{0,64+4}{100}} = 1,11$$

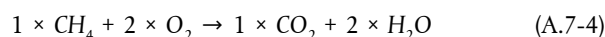
$$m = \frac{4 \times \left[\frac{CH_4\%}{100} \right] + 4 \times \left[\frac{C_2H_4\%}{100} \right] + 6 \times \left[\frac{C_2H_6\%}{100} \right] + \dots + 8 \times \left[\frac{C_3H_8\%}{100} \right]}{\frac{1 - \text{diluent}\%}{100}} = \frac{4 \times 0,89 + 4 \times 0,045 + 8 \times 0,023 + 14 \times 0,002}{1 - \frac{0,6+4}{100}} = 4,24$$

$$S_\lambda = \frac{2}{\left(1 - \frac{\text{inert}\%}{100}\right) \left(n + \frac{m}{4}\right) - \frac{O_2^*}{100}} = \frac{2}{\left(1 - \frac{4}{100}\right) \times \left(1,11 + \frac{4,24}{4}\right) - \frac{0,6}{100}} = 0,96$$

As an alternative to the above equation, S_λ may be calculated from the ratio of the stoichiometric air demand of pure methane to the stoichiometric air demand of the fuel blend supplied to the engine, as specified below.

Lambda-shift factor (S_λ) expresses the oxygen demand of any fuel blend in relation to oxygen demand of pure methane. Oxygen demand means the amount of oxygen to oxidise methane in a stoichiometric composition of reaction partners to products of complete combustion (i.e. carbon-dioxide and water).

For the combustion of pure methane the reaction is as set out in equation (A.7-4):



In this case the ratio of molecules in stoichiometric composition of reaction partners is exactly 2:

$$\frac{n_{O_2}}{n_{CH_4}} = 2$$

Where:

n_{O_2} = number of molecules of oxygen

n_{CH_4} = number of molecules of methane

The oxygen demand for pure methane is therefore:

$$n_{O_2} = 2 \cdot n_{CH_4} \text{ with a reference value of } [n_{CH_4}] = 1 \text{ kmol}$$

The value of S_λ may be determined from the ratio of the stoichiometric composition of oxygen and methane to the ratio of the stoichiometric composition of oxygen and the fuel blend supplied to the engine, as set out in equation (A.7-5):

$$S_\lambda = \frac{\left(\frac{n_{O_2}}{n_{CH_4}}\right)}{\left(\frac{n_{O_2}}{n_{blend}}\right)} = \frac{2}{(n_{O_2})_{blend}} \quad (A.7-5)$$

Where:

n_{blend} = number of molecules of the fuel blend

$(n_{O_2})_{blend}$ = the ratio of the molecules in the stoichiometric composition of oxygen and the fuel blend supplied to the engine

Because air contains 21 per cent oxygen the stoichiometric air demand L_{st} of any fuel shall be calculated by means of equation (A.7-6):

$$L_{st, fuel} = \frac{n_{O_2, fuel}}{0,21} \quad (A.7-6)$$

Where:

$L_{st, fuel}$ = the stoichiometric air demand for the fuel

$n_{O_2, fuel}$ = the stoichiometric oxygen demand for the fuel

Consequently the value of S_λ may also be determined from the ratio of the stoichiometric composition of air and methane to the ratio of the stoichiometric composition of air and the fuel blend supplied to the engine, i.e. the ratio of the stoichiometric air demand of methane to that of the fuel blend supplied to the engine, as set out in equation (A.7-7):

$$S_\lambda = \frac{\left(\frac{n_{O_2}}{n_{CH_4}}\right)/0,21}{\left(\frac{n_{O_2}}{n_{blend}}\right)/0,21} = \frac{\left(\frac{n_{O_2}}{0,21}\right)_{CH_4}}{\left(\frac{n_{O_2}}{0,21}\right)_{blend}} = \frac{L_{st, CH_4}}{L_{st, blend}} \quad (A.7-7)$$

Therefore, any calculation that specifies the stoichiometric air demand may be used to express the Lambda-shift factor.

III

(Other acts)

EUROPEAN ECONOMIC AREA

EFTA SURVEILLANCE AUTHORITY DELEGATED DECISION

No 90/18/COL

of 11 October 2018

amending the list contained in point 39 of Part 1.2 of Chapter I of Annex I to the Agreement on the European Economic Area listing border inspection posts in Iceland and Norway agreed for veterinary checks on live animals and animal products from third countries and repealing EFTA Surveillance Authority Decision No 111/15/COL [2019/406]

THE EFTA SURVEILLANCE AUTHORITY,

Having regard to point (5)(b) of the Introductory Part of Chapter I of Annex I to the EEA Agreement,

Having regard to the Act referred to at point 4 of Part 1.1 of Chapter I of Annex I to the EEA Agreement (Council Directive 97/78/EC of 18 December 1997 laying down the principles governing the organisation of veterinary checks on products entering the Community from third countries ⁽¹⁾), as amended and adapted to the EEA Agreement by the sectoral adaptations referred to in Annex I to that Agreement, and in particular Article 6(2) thereof,

Having regard to the Act referred to at point 111 of Part 1.2 of Chapter I of Annex I to the EEA Agreement (Commission Decision 2001/812/EC of 21 November 2001 laying down the requirements for the approval of border inspection posts responsible for veterinary checks on products introduced into the Community from third countries ⁽²⁾), as amended, and in particular Article 3(5) thereof,

as adapted to the EEA Agreement by point 4(d) of Protocol 1 to the EEA Agreement and Articles 1(2) and 3 of Protocol 1 to the Surveillance and Court Agreement.

Whereas:

By letter of 27 April 2018 (Doc No 911402, IS ref. Mast 18041079), the Icelandic Food and Veterinary Authority (MAST) informed the Authority of the imminent closure of the *Ísafjörður* border inspection post (IS ISA I). MAST therefore requested that the border inspection post be removed from the lists of border inspection posts in Iceland and Norway agreed for veterinary checks on live animals and animal products from third countries.

According to Directive 97/78/EC, the Authority is to draw up and publish a list of approved border inspection posts which may subsequently be amended or supplemented to reflect changes in the national lists. The current list of approved border inspection posts was adopted by the Authority on 31 March 2015 by Decision No 111/15/COL.

It is therefore the Authority's obligation to amend the list of border inspection posts in Iceland and Norway and to publish a new list, reflecting the change concerning the *Ísafjörður* border inspection post.

The Authority, by its Decision No 066/18/COL (Doc No 915087), referred the matter to the EFTA Veterinary and Phytosanitary Committee assisting the EFTA Surveillance Authority. The Committee approved the proposed modification to the list. Accordingly, the draft measures are in accordance with the opinion of the Committee.

⁽¹⁾ OJ L 24, 30.1.1998, p. 9.

⁽²⁾ OJ L 306, 23.11.2001, p. 28.

According to point 6 of EFTA Surveillance Authority Decision No 494/13/COL of 11 December 2013, the College Member with special responsibility for veterinary and phytosanitary matters is empowered to adopt draft measures amending the list of border inspection posts in an EFTA State agreed for veterinary checks on live animals and animal products from third countries if the draft measures are in accordance with the opinion of the EFTA Veterinary and Phytosanitary Committee assisting the EFTA Surveillance Authority.

HAS ADOPTED THIS DECISION:

1. The Ísafjörður border inspection post (IS ISA 1) is removed from the list contained in point 39 of Part 1.2 of Chapter I of Annex I to the Agreement on the European Economic Area of border inspection posts in Iceland and Norway agreed for veterinary checks on live animals and animal products from third countries.
2. Veterinary checks on live animals and animal products brought into Iceland and Norway from third countries shall be carried out by the competent national authorities at the agreed border inspection posts listed in the Annex to this Decision.
3. The EFTA Surveillance Authority Decision No 111/15/COL of 31 March 2015 is hereby repealed.
4. This Decision shall enter into force on the day of its signature.
5. This Decision is addressed to Iceland and Norway.
6. This Decision shall be authentic in the English language.

For the EFTA Surveillance Authority, acting under Delegation Decision No 494/13/COL

Högni S. KRISTJÁNSSON
Responsible College Member

For Carsten ZATSCHLER
Countersigning as Director, Legal and Executive Affairs

ANNEX

LIST OF AGREED BORDER INSPECTION POSTS

Country: **Iceland**

1	2	3	4	5	6
Akureyri	IS AKU1	P		HC-T(1)(2)(3), NHC(16)	
Hafnarfjörður	IS HAF 1	P		HC(1)(2)(3), NHC-NT(2)(6)(16)	
Keflavík Airport	IS KEF 4	A		HC(2), NHC(2)	O(15)
Reykjavík Eimskip	IS REY 1a	P		HC(2), NHC(2)	
Reykjavík Samskip	IS REY 1b	P		HC-T(FR)(1)(2)(3), HC-NT(1)(2)(3), NHC-NT(2)(6)(16)	
Þorlákshöfn	IS THH1	P		HC-T(FR)(1)(2)(3), HC-NT(6), NHC-NT(6)	

Country: **Norway**

1	2	3	4	5	6
Borg	NO BRG 1	P		HC (2), NHC(2)	E(7)
Båtsfjord	NO BJF 1	P		HC-T(FR)(1)(2)(3), HC-NT(1)(2)(3)	
Egersund	NO EGE 1	P		HC-NT(6), NHC-NT(6)(16)	
Hammerfest	NO HFT 1	P	Rypefjord	HC-T(FR)(1)(2)(3), HC-NT(1)(2)(3)	
Honningsvåg	NO HVG 1	P	Honningsvåg	HC-T(FR)(1)(2)(3)	
Kirkenes	NO KKN 1	P		HC-T(FR)(1)(2)(3), HC-NT(1)(2)(3)	
Kristiansund	NO KSU 1	P	Kristiansund	HC-T(FR)(1)(2)(3), NHC-T(FR)(2)(3), HC-NT(6), NHC-NT(6)	
Larvik	NO LAR 1	P		HC(2)	
Måløy	NO MAY 1	P	Gotteberg	HC-T(FR)(1)(2)(3), NHC-T(FR)(2)(3)	
Oslo	NO OSL 1	P		HC(2), NHC(2)	
Oslo	NO OSL 4	A		HC(2), NHC(2)	U,E,O
Sortland	NO SLX 1	P	Sortland	HC-T(FR)(1)(2)(3)	
Storskog	NO STS 3	R		HC, NHC	U,E,O
Tromsø	NO TOS 1	P	Bukta	HC-T(FR)(1)(2)(3)	
			Solstrand	HC-T(FR)(1)(2)(3)	

1	2	3	4	5	6
Ålesund	NO AES 1	P	Breivika	HC-T(FR)(1)(2)(3), NHC-T(FR)(2)(3)	
			Skutvik	HC-T(1)(2)(3), HC-NT(6), NHC-T(FR)(2)(3), NHC-NT(6)	

1 = Name

2 = TRACES Code

3 = Type

A = Airport

F = Rail

P = Port

R = Road

4 = Inspection centre

5 = Products

HC = All products for Human Consumption

NHC = Other Products

NT = No temperature requirements

T = Frozen/chilled products

T(FR) = Frozen products

T(CH) = Chilled products

6 = Live Animals

U = Ungulates: cattle, pigs, sheep, goats, wild and domestic solipeds

E = Registered equidae as defined in Council Directive 90/426/EEC

O = Other animals

5-6 = Special remarks

(1) = Checking in line with the requirements of Commission Decision 93/352/EEC taken in execution of Article 19(3) of Council Directive 97/78/EC

(2) = Packed products only

(3) = Fishery products only

(4) = Animal proteins only

(5) = Wool hides and skins only

(6) = Only liquid fats, oils, and fish oils

(7) = Icelandic ponies (from April to October only)

(8) = Equidae only

(9) = Tropical fish only

(10) = Only cats, dogs, rodents, lagomorphs, live fish, reptiles and other birds than ratites

(11) = Only feedstuffs in bulk

(12) = For (U) in the case of solipeds, only those consigned to a zoo; and for (O), only day old chicks, fish, dogs, cats, insects, or other animals consigned to a zoo

(13) = Nagylak HU: This is a border inspection post (for products) and crossing point (for Live animals) on the Hungarian Romanian border, subject to transitional measures as negotiated and laid down in the Treaty of Accession for both products and live animals. See Commission Decision 2003/630/EC

(14) = Designated for transit across the European Community for consignments of certain products of animal origin for human consumption, coming to or from Russia under the specific procedures foreseen in relevant Community legislation

(15) = Aquaculture animals only

(16) = Fish meal only

CORRIGENDA**Corrigendum to Commission Directive (EU) 2015/1480 of 28 August 2015 amending several annexes to Directives 2004/107/EC and 2008/50/EC of the European Parliament and of the Council laying down the rules concerning reference methods, data validation and location of sampling points for the assessment of ambient air quality**

(Official Journal of the European Union L 226 of 29 August 2015)

On page 10, in Annex II, in point (3)(a), in the amendments to Section A of Annex VI to Directive 2008/50/EC:

for: ‘3. Reference method for the sampling and measurement of lead — unchanged’

read: ‘3. Reference method for the sampling and measurement of lead

The reference method for the sampling of lead is that described in Section A(4) of this Annex. The reference method for the measurement of lead is that described in EN 14902:2005 “Standard method for measurement of Pb/Cd/As/Ni in the PM₁₀ fraction of suspended particulate matter”.’

On page 11, in Annex II, in point (3)(a), in the amendments to Section A of Annex VI to Directive 2008/50/EC:

for: ‘6. Reference method for the sampling and measurement of benzene — unchanged’

read: ‘6. Reference method for the sampling and measurement of benzene

The reference method for the measurement of benzene is that described in EN 14662:2005, parts 1, 2 and 3 “Ambient air quality — Standard method for measurement of benzene concentrations”.’

Corrigendum to Council Regulation (EU) 2018/2025 of 17 December 2018 fixing for 2019 and 2020 the fishing opportunities for Union fishing vessels for certain deep-sea fish stocks

(Official Journal of the European Union L 325 of 20 December 2018)

On page 17, in the table for red seabream (*Pagellus bogaraveo*):

for: ‘Zone: Union and international waters of 9 (1) (SBR/9-),’

read: ‘Zone: Union and international waters of 9 (1) (SBR/09-).’

