



COMMISSION OF THE EUROPEAN COMMUNITIES

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Proposal for a

**DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL**

**amending, for the twenty-ninth time, Council Directive 76/769/EEC on the approximation of the laws, regulations and administrative provisions of the Member States relating to restrictions on the marketing and use of certain dangerous substances and preparations (substances classified as carcinogen, mutagen or toxic to reproduction – c/m/r)**

(presented by the Commission)

## EXPLANATORY MEMORANDUM

### 1. INTRODUCTION AND CONTEXT

European Parliament and Council Directive 94/60/EC amending for the fourteenth time Directive 76/769/EEC of 27 July 1976 on the approximation of the laws, regulations and administrative provisions of the Member States relating to restrictions on the marketing and use of certain dangerous substances and preparations<sup>1</sup> introduced a list of substances classified as category 1 or 2 carcinogen, mutagen or toxic to reproduction (c/m/r) in the Appendix of Annex I to Directive 76/769/EEC. It stipulates in points 29, 30 and 31 of Annex I of Directive 76/769/EEC that these substances may not be used in substances or preparations placed on the market for sale to the general public. These are substances which have previously been listed as carcinogen, mutagen or toxic to reproduction (c/m/r) in Annex I of Council Directive 67/548/EEC of 27 June 1967 on the approximation of the laws, regulations and administrative provisions relating to the classification, packaging and labelling of dangerous substances<sup>2</sup>. Annex I of Directive 67/548/EEC is regularly updated by way of adaptations to technical progress.

Directive 94/60/EC also provides that the Commission will submit to the European Parliament and Council, no later than six months after publication of an adaptation to technical progress of Annex I to Council Directive 67/548/EEC, a proposal for a Directive governing the substances newly classified as carcinogenic, mutagenic and toxic to reproduction in categories 1 and 2, so as to update the Appendix of Annex I to Directive 76/769/EEC.

Commission Directive 2004/73/EC of 29 April 2004 adapting to technical progress for the twenty-ninth time Council Directive 67/548/EEC<sup>3</sup>, and more particularly Annex I thereto, inserted 146 entries containing substances newly classified as carcinogenic category 1, 21 entries containing substances newly classified as carcinogenic category 2, 152 entries containing substances newly classified as mutagenic category 2, and 24 entries containing substances newly classified as toxic to reproduction category 2 in Annex I of Directive 67/548/EEC. It is proposed to update the Appendix of Annex I to Directive 76/769/EEC in order to govern these substances newly classified in the framework of Directive 67/548/EEC.

This twenty-ninth amendment will insert 346 entries containing substances newly classified or re-classified under Commission Directive 2004/73/EC in the Appendix of Annex I to Directive 76/769/EEC. However, among these 346 entries, 304 contain substances which were already subject to a restriction for sale to the general public due to an earlier classification as c/m/r substance of category 1 or 2. Therefore, only 42 of these entries relate to substances that will be subject for the first time to the restriction for sale to the general public provided in points 29, 30 and 31 of Annex I of Directive 76/769/EEC.

Among the 146 entries containing substances newly classified as carcinogenic category 1, 145 cover substances which were previously classified as carcinogenic category 2. Therefore, the list relating to carcinogens category 2 needs to be amended accordingly.

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<sup>1</sup> OJ L 365, 31.12.1994, p. 1.

<sup>2</sup> OJ L 196, 16.8.1967, p. 1. Directive as last amended by Commission Directive 2004/73/EC (OJ L 152, 30.4.2004, p. 1).

<sup>3</sup> OJ L 152, 30.04.2004, p. 1.

In addition, a number of entries in the Appendix of Annex I to Directive 76/769/EEC need to be amended to update the content of the column entitled “Notes”. This update concerns four entries related to substances classified as carcinogenic category 1, 36 entries related to substances classified as carcinogen category 2, six entries related to substances classified as mutagen category 2, two entries related to substances classified as toxic to reproduction category 1 and three entries related to substances classified as toxic to reproduction category 2.

## **2. JUSTIFICATION FOR PROPOSAL AND CONSIDERATIONS OF SUBSIDIARITY**

*What are the objectives of the proposal in relation to the Community’s obligations?*

Within the framework for action in the field of public health, the European Parliament and the Council have adopted an action plan to combat cancer (Decision No 646/1996/EC<sup>4</sup> and Decision No 1786/2002/EC<sup>5</sup>). In this context, the Community is committed to promoting and improving health, preventing disease, and countering potential threats to health, with a view to reducing avoidable morbidity and premature mortality and activity-impairing disability. Due to the fact that use by consumers of substances classified as carcinogenic, mutagenic or toxic to reproduction of category 1 or 2 cannot be controlled, safety can only be ensured by governing these substances through restrictions on the placing on the market of substances and preparations containing c/m/r substances.

Following the adoption of Directive 94/60/EC the Commission is invited to propose directives restricting the use by the general public of substances newly classified as c/m/r categories 1 or 2.

The aim of the proposal is to preserve the Internal Market. When Member States adopt national provisions restricting the marketing and use of dangerous substances and preparations, including c/m/r substances and preparations, there will be obstacles to trade because of differences in legislation between Member States. This Proposal aims to improve the conditions for the functioning of the Internal Market to the benefit of the protection of the health and safety of consumers.

*Do the initiatives arise out of an exclusive Community competence or a shared competence?*

The action to preserve the Internal Market for dangerous substances and preparations falls within the exclusive competence of the Community. This competence was established by Council Directive 76/769/EEC.

*What are the courses of action available to the Community?*

The only course of action available is to put forward a proposal for an amendment to Directive 76/769/EEC, the twenty-ninth amendment, providing for harmonised rules governing the use of substances classified as c/m/r categories 1 or 2 by restricting the placing on the market for sale to the general public of substances or preparations containing such c/m/r substances.

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<sup>4</sup> Decision No 646/96/EC of the European Parliament and of the Council of 29 March 1996 adopting an action plan to combat cancer within the framework for action in the field of public health (1996 to 2000) (OJ L 95, 16.4.1996, p. 9), as amended by Decision No 521/2001/EC (OJ L 79, 17.3.2001, p. 1), which extended the action plan until end 2002.

<sup>5</sup> Decision No 1786/2002/EC of the European Parliament and of the Council of 23 September 2002 adopting a programme of Community action in the field of public health (2003-2008) (OJ L 271, 9.10.2002, p. 1).

*Are uniform rules necessary? Is it not sufficient to establish targets to be implemented by Member States?*

The proposed twenty-ninth amendment establishes uniform rules for the use of substances newly classified as c/m/r category 1 or 2 by restricting the placing on the market for sale to the general public of substances or preparations containing such c/m/r substances. It therefore guarantees a high level of protection of health and safety of consumers. The proposed twenty-ninth amendment is the only way to meet these goals. Targets would be insufficient.

### **3. RATIONALE OF THE PROPOSAL**

The proposed twenty-ninth amendment would govern the substances newly classified or re-classified as c/m/r category 1 or category 2 in the twenty-ninth adaptation to technical progress of Directive 67/548/EEC by inserting them in the Appendix of Annex I to Directive 76/769/EEC in order to restrict their use in substances and preparations placed on the market for sale to the general public.

### **4. COSTS AND BENEFITS**

#### **4.1. Costs**

Concerning the substances newly classified as carcinogen, mutagen or toxic to reproduction of category 1 or 2 in the twenty-ninth adaptation to technical progress of Directive 67/548/EEC, the costs are estimated to be low due to the limited use of those substances by the general public. According to available information, a large number of these newly classified c/m/r substances are used as raw material, organic synthesis intermediates or for specific professional applications.

In addition, most of the substances listed in the proposed twenty-ninth amendment were already subject to a restriction for sale to the general public due to their previous classification as a c/m/r substance of category 1 or 2 and are just been subject to reclassification or have been ascribed new notes. In practice, only 42 of the 346 entries containing substances newly classified will relate to substances that will be subject to new restrictions for sale to the general public.

The proposal is cost-effective since it will ensure that consumer health is protected more effectively without having any significant impact in economic terms and in terms of job losses, given that use of these dangerous substances by the general public is limited.

#### **4.2. Benefits**

Concerning the 42 entries containing substances newly classified as carcinogen, mutagen or toxic to reproduction, the proposed restriction for sale to the general public will ensure that the substances classified as carcinogenic, mutagenic and toxic to reproduction of categories 1 and 2 are not used in substances and preparations placed on the market for sale to the general public. The benefit of the proposal is an increased level of protection for consumers.

### **5. PROPORTIONALITY**

Directive 94/60/EEC provides that the proposal from the Commission for a Directive governing the substances newly classified as carcinogenic, mutagenic and toxic to reproduction in categories 1 and 2 will take account of the risks and advantages of the substances newly classified as well as of the Community legislative provisions on risk analysis.

In the elaboration of this proposal, the Commission has sought all available information concerning the uses of these substances covered in order to find the right balance. In this context, it should be recalled that most of these substances were already subject to a restriction for sale to the general public due to their previous classification as a c/m/r substance of category 1 or 2 and are just been subject to a re-classification or have been ascribed new notes. Therefore, the present proposal does not have any impact.

Concerning the remaining substances (contained in 42 of the 346 entries) which were not previously subject to the restriction for use in substances and preparations placed on the market for sale to the general public established in points 29, 30 and 31 of Annex I of Directive 76/769/EEC, according to the available information and the outcome of the consultation of stakeholders, it appears that a large number of these substances are used as raw material, organic synthesis intermediates or for specific professional applications rather than in substances and preparations placed on the market for sale to the general public and that there is no need for specific derogation in the present proposal.

Therefore, the twenty-ninth amendment would yield benefits in terms of protecting human health and the environment. This will be achieved at low cost.

## **6. CONSULTATIONS PERFORMED IN PREPARING THE DRAFT TWENTY-NINTH AMENDMENT**

A number of organisations have been consulted, *inter alia* CEFIC (European Chemical Industry Council), the CONCAWE (Conservation of Clean Air and Water in Europe), Eurometaux (European association of metals) and BLIC (European association of the rubber industry) as well as the European Consumer's organisation (BEUC). The experts from Member States were consulted on 15 July 2004.

## **7. CONFORMITY WITH THE TREATY**

This proposal is intended to preserve the Internal Market and at the same time ensure a high level of protection of health of the consumers and of the environment and is therefore in conformity with Article 95(3) of the Treaty.

## **8. EUROPEAN PARLIAMENT AND ECONOMIC AND SOCIAL COMMITTEE**

In compliance with Article 95 of the Treaty, the co-decision procedure with the European Parliament is applicable. The Economic and Social Committee has to be consulted.

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**(Text with EEA relevance)**

THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty establishing the European Community, and in particular Article 95 thereof,

Having regard to the proposal from the Commission<sup>6</sup>,

Having regard to the opinion of the European Economic and Social Committee<sup>7</sup>,

Acting in accordance with the procedure laid down in Article 251 of the Treaty<sup>8</sup>,

Whereas:

- (1) The measures provided for in this Directive fall within the framework of the action plan adopted in Decision No 1786/2002/EC of the European Parliament and of the Council of 23 September 2002 adopting a programme of Community action in the field of public health (2003-2008)<sup>9</sup>. According to this decision the Community is committed to promoting and improving health, preventing disease, and countering potential threats to health, with a view to reducing avoidable morbidity and premature mortality and activity-impairing disability.

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<sup>6</sup> OJ C [...], [...], p. [...].

<sup>7</sup> OJ C [...], [...], p. [...].

<sup>8</sup> OJ C [...], [...], p. [...].

<sup>9</sup> OJ L 271, 9.10.2002, p. 1. Decision as amended by Decision No 786/2004/EC (OJ L 138, 30.4.2004, p. 7).

- (2) The substances which appear in Annex I to Council Directive 67/548/EEC of 27 June 1967 on the approximation of the laws, regulations and administrative provisions relating to the classification, packaging and labelling of dangerous substances<sup>10</sup> and are classified as carcinogens category 1 or 2 may cause cancer. The substances which appear in Annex I to Directive 67/548/EEC and are classified as mutagens category 1 or 2 may cause heritable genetic damages. The substances which appear in Annex I to Directive 67/548/EEC and are classified as toxic to reproduction category 1 or 2 may cause birth defects or may impair fertility.
- (3) In order to improve human health protection and consumer safety, the use of substances newly classified as carcinogenic, mutagenic or toxic to reproduction of category 1 or 2 should be governed and the placing on the market of substances and preparations containing them should be subject to restriction for sale to the general public.
- (4) Council Directive 76/769/EEC of 27 July 1976 on the approximation of the laws, regulations and administrative provisions of the Member States relating to restrictions on the marketing and use of certain dangerous substances and preparations<sup>11</sup> lays down restrictions on the marketing and use of certain dangerous substances and preparations, with the objective, among others, to improve human health protection and consumer safety.
- (5) Directive 94/60/EC of the European Parliament and of the Council of 20 December 1994 amending for the 14<sup>th</sup> time Directive 76/769/EEC<sup>12</sup> establishes, in the form of an Appendix of Annex I to Directive 76/769/EEC, a list containing substances classified as carcinogenic, mutagenic or toxic to reproduction of category 1 or 2. Such substances and preparations containing them should be subject to restriction for sale to the general public.
- (6) Directive 94/60/EC provides that the Commission will submit to the European Parliament and Council, no later than six months after publication in the Official Journal of the European Union of an adaptation to technical progress of Annex I to Council Directive 67/548/EEC, which contains substances classified as carcinogenic, mutagenic or toxic to reproduction in category 1 or 2, a proposal for a directive governing these newly classified substances, so as to update the Appendix of Annex I to Directive 76/769/EEC. Such proposal from the Commission will take account of the risks and advantages of the newly classified substances as well as of the Community legislative provisions on risk analysis.

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<sup>10</sup> OJ L 196, 16.8.1967, p. 1. Directive as last amended by Commission Directive 2004/73/EC (OJ L 152, 30.4.2004, p. 1).

<sup>11</sup> OJ L 262, 27.9.1976, p. 201.

<sup>12</sup> OJ L 365, 31.12.1994, p. 1.

- (7) Commission Directive 2004/73/EC of 29 April 2004 adapting to technical progress for the twenty-ninth time Council Directive 67/548/EEC<sup>13</sup>, and more particularly Annex I thereto, includes 146 entries containing substances newly classified as carcinogenic category 1, 21 entries containing substances newly classified as carcinogenic category 2, 152 entries containing substances newly classified as mutagenic category 2 and 24 entries containing substances newly classified as toxic to reproduction category 2.
- (8) Commission Directive 2004/73/EC also amends the notes relating to the identification, classification and labelling ascribed to four substances classified as carcinogenic category 1, 36 entries containing substances classified as carcinogenic category 2, six entries containing substances classified as mutagenic category 2, two entries containing substances classified as toxic to reproduction category 1 and three entries containing substances classified as toxic to reproduction category 2. The lists in the Appendix of Annex I to Directive 76/769/EEC should be amended accordingly.
- (9) The risks and advantages of the newly classified substances, by Directive 2004/73/EC, as carcinogenic, mutagenic and toxic to reproduction of category 1 or 2 have been taken into account, in particular those relating to the substances which were not yet subject to a restriction for use in substances and preparations placed on the market for sale to the general public (due to an earlier classification). This analysis concluded that these newly classified substances could be inserted in the Appendix of Annex I to Directive 76/769/EEC.
- (10) This Directive should apply without prejudice to Community legislation laying down minimum requirements for the protection of workers contained in Council Directive 89/391/EEC of 12 June 1989 on the introduction of measures to encourage improvements in the safety and health of workers at work<sup>14</sup>, and individual directives based thereon, in particular Council Directive 90/394/EEC of 28 June 1990 on the protection of workers from the risks related to exposure to carcinogens at work<sup>15</sup>.

HAVE ADOPTED THIS DIRECTIVE:

#### *Article 1*

The Appendix of Annex I to Directive 76/769/EEC is hereby amended as set out in the Annex to this Directive.

#### *Article 2*

1. Member States shall adopt and publish, by [<sup>16</sup>] at the latest, the laws, regulations and administrative provisions necessary to comply with this Directive. They shall forthwith communicate to the Commission the text of those provisions and a correlation table between those provisions and this Directive.

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<sup>13</sup> OJ L 152, 30.4.2004, p. 1.

<sup>14</sup> OJ L 183, 29.6.1989, p. 1.

<sup>15</sup> OJ L 196, 26.7.1990, p. 1. Directive as last amended by Council Directive 1999/38/EC (OJ L 138, 1.6.1999, p. 66).

<sup>16</sup> [twelve months after the date of entry into force of this Directive].

They shall apply those provisions from <sup>[17]</sup>

When Member States adopt those provisions, they shall contain a reference to this Directive or be accompanied by such a reference on the occasion of their official publication. Member States shall determine how such reference is to be made.

2. Member States shall communicate to the Commission the text of the main provisions of national law which they adopt in the field covered by this Directive.

### *Article 3*

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

### *Article 4*

This Directive is addressed to the Member States.

Done at Brussels, [...]

*For the European Parliament*  
*The President*

*For the Council*  
*The President*

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<sup>17</sup> [eighteen months after the date of entry into force of this Directive].

## ANNEX

1. The heading “Notes” of the Foreword is amended as follows:

(a) The following notes are inserted:

“Note A:

The name of the substance must appear on the label in the form of one of the designations given in Annex I of Directive 67/548/EEC (see Article 23(2)(a)).

In Annex I of Directive 67/548/EEC, use is sometimes made of a general description such as ‘...compounds’ or ‘...salts’. In this case, the manufacturer or any other person who markets such a substance is required to state on the label the correct name, due account being taken of the chapter entitled ‘Nomenclature’ of the Foreword.

Directive 67/548/EEC also requires that the symbols, indications of danger, R- and S-phrases to be used for each substance shall be those shown in Annex I (Article 23(2)(c), (d) and (e)).

For substances belonging to one particular group of substances included in Annex I of Directive 67/548/EEC, the symbols, indications of danger, R- and S-phrases to be used for each substance shall be those shown in the appropriate entry in that Annex I.

For substances belonging to more than one group of substances included in Annex I of Directive 67/548/EEC, the symbols, indications of danger, R- and S-phrases to be used for each substance shall be those shown in both the appropriate entries given in Annex I. In cases where two different classifications are given in the two entries for the same hazard, the classification reflecting the more severe hazard classification is used.”

“Note D:

Certain substances which are susceptible to spontaneous polymerisation or decomposition are generally placed on the market in a stabilised form. It is in this form that they are listed in Annex I to Directive 67/548/EEC.

However, such substances are sometimes placed on the market in a non-stabilised form. In this case, the manufacturer or any person who places such a substance on the market must state on the label the name of the substance followed by the words ‘non-stabilised’.”

“Note E:

Substances with specific effects on human health (see chapter 4 of Annex VI of Directive 67/548/EEC) that are classified as carcinogenic, mutagenic and/or toxic for reproduction in categories 1 or 2 are ascribed Note E if they are also classified as very toxic (T+), toxic (T) or harmful (Xn). For these substances, the risk phrases R20, R21, R22, R23, R24, R25, R26, R27, R28, R39, R68 (harmful), R48 and R65 and all combinations of these risk phrases shall be preceded by the word ‘Also’.”

“Note H:

The classification and label shown for this substance applies to the dangerous property(ies) indicated by the risk phrase(s) in combination with the category(ies) of danger shown. The requirements of Article 6 of Directive 67/548/EEC on manufacturers, distributors, and importers of this substance apply to all other aspects of classification and labelling. The final label shall follow the requirements of section 7 of Annex VI of Directive 67/548/EEC.

This note applies to certain coal- and oil-derived substances and to certain entries for groups of substances in Annex I of Directive 67/548/EEC.”

“Note S:

This substance may not require a label according to Article 23 of Directive 67/548/EEC (see section 8 of Annex VI).”

(b) Note K is replaced by the following text:

“Note K:

The classification as a carcinogen or mutagen need not apply if it can be shown that the substance contains less than 0.1% w/w 1,3-butadiene (Einecs No 203-450-8). If the substance is not classified as a carcinogen or mutagen, at least the S-phrases (2-)9-16 should apply. This note applies to certain complex oil-derived substances in Annex I to Directive 67/548/EEC.”

2. The list under heading “Point 29 – Carcinogens: category 1” is amended as follows:

(a) The following entries are inserted:

Substances	Index number	EC number	CAS number	Notes
“Triethyl arsenate	601-067-00-4	427-700-2	15606-95-8	
Gases (petroleum), catalytic cracked naphtha depropanizer overhead, C <sub>3</sub> -rich acid-free; Petroleum gas  (A complex combination of hydrocarbons obtained from fractionation of catalytic cracked hydrocarbons and treated to remove acidic impurities. It consists of hydrocarbons having carbon numbers in the range of C <sub>2</sub> through C <sub>4</sub> , predominantly C <sub>3</sub> .)	649-062-00-6	270-755-0	68477-73-6	H, K
Gases (petroleum), catalytic cracker; Petroleum gas  (A complex combination of hydrocarbons produced by the distillation of the products from a catalytic cracking process. It consists predominantly of aliphatic hydrocarbons having carbon numbers predominantly in the range of C <sub>1</sub> through C <sub>6</sub> .)	649-063-00-1	270-756-6	68477-74-7	H, K
Gases (petroleum), catalytic cracker, C <sub>1-5</sub> -rich; Petroleum gas  (A complex combination of hydrocarbons produced by the distillation of products from a catalytic cracking process. It consists of aliphatic hydrocarbons having carbon numbers in the range of C <sub>1</sub> through C <sub>6</sub> , predominantly C <sub>1</sub> through C <sub>5</sub> .)	649-064-00-7	270-757-1	68477-75-8	H, K
Gases (petroleum), catalytic polyimd. naphtha stabilizer overhead, C <sub>2-4</sub> -rich; Petroleum gas  (A complex combination of hydrocarbons obtained from the fractionation stabilization of catalytic polymerized naphtha. It consists of aliphatic hydrocarbons having carbon numbers in the range of C <sub>2</sub> through C <sub>6</sub> , predominantly C <sub>2</sub> through C <sub>4</sub> .)	649-065-00-2	270-758-7	68477-76-9	H, K
Gases (petroleum), catalytic reformer, C <sub>1</sub> -	649-066-00-8	270-760-8	68477-79-2	H, K

Substances	Index number	EC number	CAS number	Notes
<p><math>C_4</math>-rich; Petroleum gas</p> <p>(A complex combination of hydrocarbons produced by distillation of products from a catalytic reforming process. It consists of hydrocarbons having carbon numbers in the range of <math>C_1</math> through <math>C_6</math>, predominantly <math>C_1</math> through <math>C_4</math>.)</p>				
<p>Gases (petroleum), <math>C_{3-5}</math> olefinic-paraffinic alkylation feed; Petroleum gas</p> <p>(A complex combination of olefinic and paraffinic hydrocarbons having carbon numbers in the range of <math>C_3</math> through <math>C_5</math> which are used as alkylation feed. Ambient temperatures normally exceed the critical temperature of these combinations.)</p>	649-067-00-3	270-765-5	68477-83-8	H, K
<p>Gases (petroleum), <math>C_4</math>-rich; Petroleum gas</p> <p>(A complex combination of hydrocarbons produced by distillation of products from a catalytic fractionation process. It consists of aliphatic hydrocarbons having carbon numbers in the range of <math>C_3</math> through <math>C_5</math>, predominantly <math>C_4</math>.)</p>	649-068-00-9	270-767-6	68477-85-0	H, K
<p>Gases (petroleum), deethanizer overheads; Petroleum gas</p> <p>(A complex combination of hydrocarbons produced from distillation of the gas and gasoline fractions from the catalytic cracking process. It contains predominantly ethane and ethylene.)</p>	649-069-00-4	270-768-1	68477-86-1	H, K
<p>Gases (petroleum), deisobutanizer tower overheads; Petroleum gas</p> <p>(A complex combination of hydrocarbons produced by the atmospheric distillation of a butane-butylene stream. It consists of aliphatic hydrocarbons having carbon numbers predominantly in the range of <math>C_3</math> through <math>C_4</math>.)</p>	649-070-00-X	270-769-7	68477-87-2	H, K
<p>Gases (petroleum), depropanizer dry, propene-rich; Petroleum gas</p> <p>(A complex combination of hydrocarbons produced by the distillation of products</p>	649-071-00-5	270-772-3	68477-90-7	H, K

Substances	Index number	EC number	CAS number	Notes
from the gas and gasoline fractions of a catalytic cracking process. It consists predominantly of propylene with some ethane and propane.)				
Gases (petroleum), depropanizer overheads; Petroleum gas  (A complex combination of hydrocarbons produced by distillation of products from the gas and gasoline fractions of a catalytic cracking process. It consists of aliphatic hydrocarbons having carbon numbers predominantly in the range of C <sub>2</sub> through C <sub>4</sub> .)	649-072-00-0	270-773-9	68477-91-8	H, K
Gases (petroleum), gas recovery plant depropanizer overheads; Petroleum gas  (A complex combination of hydrocarbons obtained by fractionation of miscellaneous hydrocarbon streams. It consists predominantly of hydrocarbons having carbon numbers in the range of C <sub>1</sub> through C <sub>4</sub> , predominantly propane.)	649-073-00-6	270-777-0	68477-94-1	H, K
Gases (petroleum), Girbatol unit feed; Petroleum gas  (A complex combination of hydrocarbons that is used as the feed into the Girbatol unit to remove hydrogen sulfide. It consists of aliphatic hydrocarbons having carbon numbers predominantly in the range of C <sub>2</sub> through C <sub>4</sub> .)	649-074-00-1	270-778-6	68477-95-2	H, K
Gases (petroleum), isomerized naphtha fractionator, C <sub>4</sub> -rich, hydrogen sulfide-free; Petroleum gas	649-075-00-7	270-782-8	68477-99-6	H, K
Tail gas (petroleum), catalytic cracked clarified oil and thermal cracked vacuum residue fractionation reflux drum; Petroleum gas  (A complex combination of hydrocarbons obtained from fractionation of catalytic cracked clarified oil and thermal cracked vacuum residue. It consists predominantly of hydrocarbons having carbon numbers predominantly in the range of C <sub>1</sub> through C <sub>6</sub> .)	649-076-00-2	270-802-5	68478-21-7	H, K

Substances	Index number	EC number	CAS number	Notes
Tail gas (petroleum), catalytic cracked naphtha stabilization absorber; Petroleum gas  (A complex combination of hydrocarbons obtained from the stabilization of catalytic cracked naphtha. It consists predominantly of hydrocarbons having carbon numbers predominantly in the range of C <sub>1</sub> through C <sub>6</sub> .)	649-077-00-8	270-803-0	68478-22-8	H, K
Tail gas (petroleum), catalytic cracker, catalytic reformer and hydrodesulfurizer combined fractionater; Petroleum gas  (A complex combination of hydrocarbons obtained from the fractionation of products from catalytic cracking, catalytic reforming and hydrodesulfurizing processes treated to remove acidic impurities. It consists predominantly of hydrocarbons having carbon numbers predominantly in the range of C <sub>1</sub> through C <sub>5</sub> .)	649-078-00-3	270-804-6	68478-24-0	H, K
Tail gas (petroleum), catalytic reformed naphtha fractionation stabilizer; Petroleum gas  (A complex combination of hydrocarbons obtained from the fractionation stabilization of catalytic reformed naphtha. It consists predominantly of hydrocarbons having carbon numbers predominantly in the range of C <sub>1</sub> through C <sub>4</sub> .)	649-079-00-9	270-806-7	68478-26-2	H, K
Tail gas (petroleum), saturate gas plant mixed stream, C <sub>4</sub> -rich; Petroleum gas  (A complex combination of hydrocarbons obtained from the fractionation stabilization of straight-run naphtha, distillation tail gas and catalytic reformed naphtha stabilizer tail gas. It consists of hydrocarbons having carbon numbers in the range of C <sub>3</sub> through C <sub>6</sub> , predominantly butane and isobutane.)	649-080-00-4	270-813-5	68478-32-0	H, K
Tail gas (petroleum), saturate gas recovery plant, C <sub>1-2</sub> -rich; Petroleum gas	649-081-00-X	270-814-0	68478-33-1	H, K

Substances	Index number	EC number	CAS number	Notes
(A complex combination of hydrocarbons obtained from fractionation of distillate tail gas, straight-run naphtha, catalytic reformed naphtha stabilizer tail gas. It consists predominantly of hydrocarbons having carbon numbers in the range of C <sub>1</sub> through C <sub>5</sub> , predominantly methane and ethane.)				
Tail gas (petroleum), vacuum residues thermal cracker; Petroleum gas  (A complex combination of hydrocarbons obtained from the thermal cracking of vacuum residues. It consists of hydrocarbons having carbon numbers predominantly in the range of C <sub>1</sub> through C <sub>5</sub> .)	649-082-00-5	270-815-6	68478-34-2	H, K
Hydrocarbons, C <sub>3,4</sub> -rich, petroleum distillate; Petroleum gas  (A complex combination of hydrocarbons produced by distillation and condensation of crude oil. It consists of hydrocarbons having carbon numbers in the range of C <sub>3</sub> through C <sub>5</sub> , predominantly C <sub>3</sub> through C <sub>4</sub> .)	649-083-00-0	270-990-9	68512-91-4	H, K
Gases (petroleum), full-range straight-run naphtha dehexanizer off; Petroleum gas  (A complex combination of hydrocarbons obtained by the fractionation of the full-range straight-run naphtha. It consists of hydrocarbons having carbon numbers predominantly in the range of C <sub>2</sub> through C <sub>6</sub> .)	649-084-00-6	271-000-8	68513-15-5	H, K
Gases (petroleum), hydrocracking depropanizer off, hydrocarbon-rich; Petroleum gas  (A complex combination of hydrocarbon produced by the distillation of products from a hydrocracking process. It consists predominantly of hydrocarbons having carbon numbers predominantly in the range of C <sub>1</sub> through C <sub>4</sub> . It may also contain small amounts of hydrogen and hydrogen sulfide.)	649-085-00-1	271-001-3	68513-16-6	H, K
Gases (petroleum), light straight-run	649-086-00-7	271-002-9	68513-17-7	H, K

Substances	Index number	EC number	CAS number	Notes
naphtha stabilizer off; Petroleum gas  (A complex combination of hydrocarbons obtained by the stabilization of light straight-run naphtha. It consists of saturated aliphatic hydrocarbons having carbon numbers predominantly in the range of C <sub>2</sub> through C <sub>6</sub> .)				
Residues (petroleum), alkylation splitter, C <sub>4</sub> -rich; Petroleum gas  (A complex residuum from the distillation of streams from various refinery operations. It consists of hydrocarbons having carbon numbers in the range of C <sub>4</sub> through C <sub>5</sub> , predominantly butane, and boiling in the range of approximately -11,7 °C to 27,8 °C.)	649-087-00-2	271-010-2	68513-66-6	H, K
Hydrocarbons, C <sub>1-4</sub> ; Petroleum gas  (A complex combination of hydrocarbons provided by thermal cracking and absorber operations and by distillation of crude oil. It consists of hydrocarbons having carbon numbers predominantly in the range of C <sub>1</sub> through C <sub>4</sub> and boiling in the range of approximately minus 164 °C to minus 0.5 °C.)	649-088-00-8	271-032-2	68514-31-8	H, K
Hydrocarbons, C <sub>1-4</sub> , sweetened; Petroleum gas  (A complex combination of hydrocarbons obtained by subjecting hydrocarbon gases to a sweetening process to convert mercaptans or to remove acidic impurities. It consists of hydrocarbons having carbon numbers predominantly in the range of C <sub>1</sub> through C <sub>4</sub> and boiling in the range of approximately - 164 °C to - 0,5 °C.)	649-089-00-3	271-038-5	68514-36-3	H, K
Hydrocarbons, C <sub>1-3</sub> ; Petroleum gas  (A complex combination of hydrocarbons having carbon numbers predominantly in the range of C <sub>1</sub> through C <sub>3</sub> and boiling in the range of approximately - 164 °C to - 42 °C.)	649-090-00-9	271-259-7	68527-16-2	H, K
Hydrocarbons, C <sub>1-4</sub> , debutanizer fraction;	649-091-00-4	271-261-8	68527-19-5	H, K

Substances	Index number	EC number	CAS number	Notes
Petroleum gas				
Gases (petroleum), C <sub>1-5</sub> , wet; Petroleum gas  (A complex combination of hydrocarbons produced by the distillation of crude oil and/or the cracking of tower gas oil. It consists of hydrocarbons having carbon numbers predominantly in the range of C <sub>1</sub> through C <sub>5</sub> .)	649-092-00-X	271-624-0	68602-83-5	H, K
Hydrocarbons, C <sub>2,4</sub> ; Petroleum gas	649-093-00-5	271-734-9	68606-25-7	H, K
Hydrocarbons, C <sub>3</sub> ; Petroleum gas	649-094-00-0	271-735-4	68606-26-8	H, K
Gases (petroleum), alkylation feed; Petroleum gas  (A complex combination of hydrocarbons produced by the catalytic cracking of gas oil. It consists of hydrocarbons having carbon numbers predominantly in the range of C <sub>3</sub> through C <sub>4</sub> .)	649-095-00-6	271-737-5	68606-27-9	H, K
Gases (petroleum), depropanizer bottoms fractionation off; Petroleum gas  (A complex combination of hydrocarbons obtained from the fractionation of depropanizer bottoms. It consists predominantly of butane, isobutane and butadiene.)	649-096-00-1	271-742-2	68606-34-8	H, K
Gases (petroleum), refinery blend; Petroleum gas  (A complex combination obtained from various processes. It consists of hydrogen, hydrogen sulfide and hydrocarbons having carbon numbers predominantly in the range of C <sub>1</sub> through C <sub>5</sub> .)	649-097-00-7	272-183-7	68783-07-3	H, K
Gases (petroleum), catalytic cracking; Petroleum gas  (A complex combination of hydrocarbons produced by the distillation of the products from a catalytic cracking process. It consists predominantly of hydrocarbons having carbon numbers predominantly in the range of C <sub>3</sub> through C <sub>5</sub> .)	649-098-00-2	272-203-4	68783-64-2	H, K

Substances	Index number	EC number	CAS number	Notes
<p>Gases (petroleum), C<sub>2-4</sub>, sweetened; Petroleum gas</p> <p>(A complex combination of hydrocarbons obtained by subjecting a petroleum distillate to a sweetening process to convert mercaptans or to remove acidic impurities. It consists predominantly of saturated and unsaturated hydrocarbons having carbon numbers predominantly in the range of C<sub>2</sub> through C<sub>4</sub> and boiling in the range of approximately - 51 °C to - 34 °C.)</p>	649-099-00-8	272-205-5	68783-65-3	H, K
<p>Gases (petroleum), crude oil fractionation off; Petroleum gas</p> <p>(A complex combination of hydrocarbons produced by the fractionation of crude oil. It consists of saturated aliphatic hydrocarbons having carbon numbers predominantly in the range of C<sub>1</sub> through C<sub>5</sub>.)</p>	649-100-00-1	272-871-7	68918-99-0	H, K
<p>Gases (petroleum), dehexanizer off; Petroleum gas</p> <p>(A complex combination of hydrocarbons obtained by the fractionation of combined naphtha streams. It consists of saturated aliphatic hydrocarbons having carbon numbers predominantly in the range of C<sub>1</sub> through C<sub>5</sub>.)</p>	649-101-00-7	272-872-2	68919-00-6	H, K
<p>Gases (petroleum), light straight run gasoline fractionation stabilizer off; Petroleum gas</p> <p>(A complex combination of hydrocarbons obtained by the fractionation of light straight-run gasoline. It consists of saturated aliphatic hydrocarbons having carbon numbers predominantly in the range of C<sub>1</sub> through C<sub>5</sub>.)</p>	649-102-00-2	272-878-5	68919-05-1	H, K
<p>Gases (petroleum), naphtha unifier desulfurization stripper off; Petroleum gas</p> <p>(A complex combination of hydrocarbons produced by a naphtha unifier desulfurization process and stripped from the naphtha product. It consists of</p>	649-103-00-8	272-879-0	68919-06-2	H, K

Substances	Index number	EC number	CAS number	Notes
saturated aliphatic hydrocarbons having carbon numbers predominantly in the range of C <sub>1</sub> through C <sub>4</sub> .)				
Gases (petroleum), straight-run naphtha catalytic reforming off; Petroleum gas  (A complex combination of hydrocarbons obtained by the catalytic reforming of straight-run naphtha and fractionation of the total effluent. It consists of methane, ethane, and propane.)	649-104-00-3	272-882-7	68919-09-5	H, K
Gases (petroleum), fluidized catalytic cracker splitter overheads; Petroleum gas  (A complex combination of hydrocarbons produced by the fractionation of the charge to the C <sub>3</sub> -C <sub>4</sub> splitter. It consists predominantly of C <sub>3</sub> hydrocarbons.)	649-105-00-9	272-893-7	68919-20-0	H, K
Gases (petroleum), straight-run stabilizer off; Petroleum gas  (A complex combination of hydrocarbons obtained from the fractionation of the liquid from the first tower used in the distillation of crude oil. It consists of saturated aliphatic hydrocarbons having carbon numbers predominantly in the range of C <sub>1</sub> through C <sub>4</sub> .)	649-106-00-4	272-883-2	68919-10-8	H, K
Gases (petroleum), catalytic cracked naphtha debutanizer; Petroleum gas  (A complex combination of hydrocarbons obtained from fractionation of catalytic cracked naphtha. It consists of hydrocarbons having carbon numbers predominantly in the range of C <sub>1</sub> through C <sub>4</sub> .)	649-107-00-X	273-169-3	68952-76-1	H, K
Tail gas (petroleum), catalytic cracked distillate and naphtha stabilizer; Petroleum gas  (A complex combination of hydrocarbons obtained by the fractionation of catalytic cracked naphtha and distillate. It consists predominantly of hydrocarbons having carbon numbers predominantly in the range of C <sub>1</sub> through C <sub>4</sub> .)	649-108-00-5	273-170-9	68952-77-2	H, K

Substances	Index number	EC number	CAS number	Notes
Tail gas (petroleum), thermal-cracked distillate, gas oil and naphtha absorber; Petroleum gas  (A complex combination of hydrocarbons obtained from the separation of thermal-cracked distillates, naphtha and gas oil. It consists predominantly of hydrocarbons having carbon numbers predominantly in the range of C <sub>1</sub> through C <sub>6</sub> .)	649-109-00-0	273-175-6	68952-81-8	H, K
Tail gas (petroleum), thermal cracked hydrocarbon fractionation stabilizer, petroleum coking; Petroleum gas  (A complex combination of hydrocarbons obtained from the fractionation stabilization of thermal cracked hydrocarbons from a petroleum coking process. It consists of hydrocarbons having carbon numbers predominantly in the range of C <sub>1</sub> through C <sub>6</sub> .)	649-110-00-6	273-176-1	68952-82-9	H, K
Gases (petroleum, light steam-cracked, butadiene conc.; Petroleum gas  (A complex combination of hydrocarbons produced by the distillation of products from a thermal cracking process. It consists of hydrocarbons having a carbon number predominantly of C <sub>4</sub> .)	649-111-00-1	273-265-5	68955-28-2	H, K
Gases (petroleum), straight-run naphtha catalytic reformer stabilizer overhead; Petroleum gas  (A complex combination of hydrocarbons obtained by the catalytic reforming of straight-run naphtha and the fractionation of the total effluent. It consists of saturated aliphatic hydrocarbons having carbon numbers predominantly in the range of C <sub>2</sub> through C <sub>4</sub> .)	649-112-00-7	273-270-2	68955-34-0	H, K
Hydrocarbons, C <sub>4</sub> ; Petroleum gas	649-113-00-2	289-339-5	87741-01-3	H, K
Alkanes, C <sub>1-4</sub> , C <sub>3</sub> -rich; Petroleum gas	649-114-00-8	292-456-4	90622-55-2	H, K
Gases (petroleum), steam-cracker C <sub>3</sub> -rich; Petroleum gas  (A complex combination of hydrocarbons produced by the distillation of products	649-115-00-3	295-404-9	92045-22-2	H, K

Substances	Index number	EC number	CAS number	Notes
from a steam cracking process. It consists predominantly of propylene with some propane and boils in the range of approximately – 70 °C to 0 °C.)				
Hydrocarbons, C <sub>4</sub> , steam-cracker distillate; Petroleum gas  (A complex combination of hydrocarbons produced by the distillation of the products of a steam cracking process. It consists predominantly of hydrocarbons having a carbon number of C <sub>4</sub> , predominantly 1-butene and 2-butene, containing also butane and isobutene and boiling in the range of approximately – 12 °C to 5 °C.)	649-116-00-9	295-405-4	92045-23-3	H, K
Petroleum gases, liquefied, sweetened, C <sub>4</sub> fraction; Petroleum gas  (A complex combination of hydrocarbons obtained by subjecting a liquified petroleum gas mix to a sweetening process to oxidize mercaptans or to remove acidic impurities. It consists predominantly of C <sub>4</sub> saturated and unsaturated hydrocarbons.)	649-117-00-4	295-463-0	92045-80-2	H, K, S
Raffinates (petroleum), steam-cracked C <sub>4</sub> fraction cuprous ammonium acetate extn., C <sub>3-5</sub> and C <sub>3-5</sub> unsatd., butadiene-free; Petroleum gas	649-119 -00-5	307-769-4	97722-19-5	H, K
Gases (petroleum), amine system feed; Refinery gas  (The feed gas to the amine system for removal of hydrogen sulphide. It consists primarily of hydrogen. Carbon monoxide, carbon dioxide, hydrogen sulfide and aliphatic hydrocarbons having carbon numbers predominantly in the range of C <sub>1</sub> through C <sub>5</sub> may also be present.)	649-120-00-0	270-746-1	68477-65-6	H, K
Gases (petroleum), benzene unit hydrodesulphurizer off; Refinery gas  (Off gases produced by the benzene unit. It consists primarily of hydrogen. Carbon monoxide and hydrocarbons having carbon numbers predominantly in the range of C <sub>1</sub> through C <sub>6</sub> , including	649-121-00-6	270-747-7	68477-66-7	H, K

Substances	Index number	EC number	CAS number	Notes
benzene, may also be present.)				
Gases (petroleum), benzene unit recycle, hydrogen-rich; Refinery gas  (A complex combination of hydrocarbons obtained by recycling the gases of the benzene unit. It consists primarily of hydrogen with various small amounts of carbon monoxide and hydrocarbons having carbon numbers in the range of C <sub>1</sub> through C <sub>6</sub> .)	649-122-00-1	270-748-2	68477-67-8	H, K
Gases (petroleum), blend oil, hydrogen-nitrogen-rich; Refinery gas  (A complex combination of hydrocarbons obtained by distillation of a blend oil. It consists primarily of hydrogen and nitrogen with various small amounts of carbon monoxide, carbon dioxide, and aliphatic hydrocarbons having carbon numbers predominantly in the range of C <sub>1</sub> through C <sub>5</sub> .)	649-123-00-7	270-749-8	68477-68-9	H, K
Gases (petroleum), catalytic reformed naphtha stripper overheads; Refinery gas  (A complex combination of hydrocarbons obtained from stabilization of catalytic reformed naphtha. It consists of hydrogen and saturated hydrocarbons having carbon numbers predominantly in the range of C <sub>1</sub> through C <sub>4</sub> .)	649-124-00-2	270-759-2	68477-77-0	H, K
Gases (petroleum), C <sub>6-8</sub> catalytic reformer recycle; Refinery gas  (A complex combination of hydrocarbons produced by distillation of products from catalytic reforming of C <sub>6</sub> -C <sub>8</sub> feed and recycled to conserve hydrogen. It consists primarily of hydrogen. It may also contain various small amounts of carbon monoxide, carbon dioxide, nitrogen, and hydrocarbons having carbon numbers predominantly in the range of C <sub>1</sub> through C <sub>6</sub> .)	649-125-00-8	270-761-3	68477-80-5	H, K
Gases (petroleum), C <sub>6-8</sub> catalytic reformer; Refinery gas  (A complex combination of hydrocarbons	649-126-00-3	270-762-9	68477-81-6	H, K

Substances	Index number	EC number	CAS number	Notes
produced by distillation of products from catalytic reforming of C <sub>6</sub> -C <sub>8</sub> feed. It consists of hydrocarbons having carbon numbers in the range of C <sub>1</sub> through C <sub>5</sub> and hydrogen.)				
Gases (petroleum), C <sub>6-8</sub> catalytic reformer recycle, hydrogen-rich; Refinery gas	649-127-00-9	270-763-4	68477-82-7	H, K
Gases (petroleum), C <sub>2</sub> -return stream; Refinery gas  (A complex combination of hydrocarbons obtained by the extraction of hydrogen from a gas stream which consists primarily of hydrogen with small amounts of nitrogen, carbon monoxide, methane, ethane, and ethylene. It contains predominantly hydrocarbons such as methane, ethane, and ethylene with small amounts of hydrogen, nitrogen and carbon monoxide.)	649-128-00-4	270-766-0	68477-84-9	H, K
Gases (petroleum), dry sour, gas-concn.-unit-off; Refinery gas  (The complex combination of dry gases from a gas concentration unit. It consists of hydrogen, hydrogen sulphide and hydrocarbons having carbon numbers predominantly in the range of C <sub>1</sub> through C <sub>3</sub> .)	649-129-00-X	270-774-4	68477-92-9	H, K
Gases (petroleum), gas concn. reabsorber distn.; Refinery gas  (A complex combination of hydrocarbons produced by distillation of products from combined gas streams in a gas concentration reabsorber. It consists predominantly of hydrogen, carbon monoxide, carbon dioxide, nitrogen, hydrogen sulphide and hydrocarbons having carbon numbers in the range of C <sub>1</sub> through C <sub>3</sub> .)	649-130-00-5	270-776-5	68477-93-0	H, K
Gases (petroleum), hydrogen absorber off; Refinery gas  (A complex combination obtained by absorbing hydrogen from a hydrogen rich stream. It consists of hydrogen, carbon monoxide, nitrogen, and methane with	649-131-00-0	270-779-1	68477-96-3	H, K

Substances	Index number	EC number	CAS number	Notes
small amounts of C <sub>2</sub> hydrocarbons.)				
Gases (petroleum), hydrogen-rich; Refinery gas  (A complex combination separated as a gas from hydrocarbon gases by chilling. It consists primarily of hydrogen with various small amounts of carbon monoxide, nitrogen, methane, and C <sub>2</sub> hydrocarbons.)	649-132-00-6	270-780-7	68477-97-4	H, K
Gases (petroleum), hydrotreater blend oil recycle, hydrogen-nitrogen-rich; Refinery gas  (A complex combination obtained from recycled hydrotreated blend oil. It consists primarily of hydrogen and nitrogen with various small amounts of carbon monoxide, carbon dioxide and hydrocarbons having carbon numbers predominantly in the range of C <sub>1</sub> through C <sub>5</sub> .)	649-133-00-1	270-781-2	68477-98-5	H, K
Gases (petroleum), recycle, hydrogen-rich; Refinery gas  (A complex combination obtained from recycled reactor gases. It consists primarily of hydrogen with various small amounts of carbon monoxide, carbon dioxide, nitrogen, hydrogen sulphide, and saturated aliphatic hydrocarbons having carbon numbers in the range of C <sub>1</sub> through C <sub>5</sub> .)	649-134-00-7	270-783-3	68478-00-2	H, K
Gases (petroleum), reformer make-up, hydrogen-rich; Refinery gas  (A complex combination obtained from the reformers. It consists primarily of hydrogen with various small amounts of carbon monoxide and aliphatic hydrocarbons having carbon numbers predominantly in the range of C <sub>1</sub> through C <sub>5</sub> .)	649-135-00-2	270-784-9	68478-01-3	H, K
Gases (petroleum), reforming hydrotreater; Refinery gas  (A complex combination obtained from the reforming hydrotreating process. It	649-136-00-8	270-785-4	68478-02-4	H, K

Substances	Index number	EC number	CAS number	Notes
consists primarily of hydrogen, methane, and ethane with various small amounts of hydrogen sulphide and aliphatic hydrocarbons having carbon numbers predominantly in the range C <sub>3</sub> through C <sub>5</sub> .)				
Gases (petroleum), reforming hydrotreater, hydrogen-methane-rich; Refinery gas  (A complex combination obtained from the reforming hydrotreating process. It consists primarily of hydrogen and methane with various small amounts of carbon monoxide, carbon dioxide, nitrogen and saturated aliphatic hydrocarbons having carbon numbers predominantly in the range of C <sub>2</sub> through C <sub>5</sub> .)	649-137-00-3	270-787-5	68478-03-5	H, K
Gases (petroleum), reforming hydrotreater make-up, hydrogen-rich; Refinery gas  (A complex combination obtained from the reforming hydrotreating process. It consists primarily of hydrogen with various small amounts of carbon monoxide and aliphatic hydrocarbons having carbon numbers predominantly in the range of C <sub>1</sub> through C <sub>5</sub> .)	649-138-00-9	270-788-0	68478-04-6	H, K
Gases (petroleum), thermal cracking distn.; Refinery gas  (A complex combination produced by distillation of products from a thermal cracking process. It consists of hydrogen, hydrogen sulphide, carbon monoxide, carbon dioxide and hydrocarbons having carbon numbers predominantly in the range of C <sub>1</sub> through C <sub>6</sub> .)	649-139-00-4	270-789-6	68478-05-7	H, K
Tail gas (petroleum), catalytic cracker refractionation absorber; Refinery gas  (A complex combination of hydrocarbons obtained from refractionation of products from a catalytic cracking process. It consists of hydrogen and hydrocarbons having carbon numbers predominantly in the range of C <sub>1</sub> through C <sub>3</sub> .)	649-140-00-X	270-805-1	68478-25-1	H, K

Substances	Index number	EC number	CAS number	Notes
<p>Tail gas (petroleum), catalytic reformed naphtha separator; Refinery gas</p> <p>(A complex combination of hydrocarbons obtained from the catalytic reforming of straight-run naphtha. It consists of hydrogen and hydrocarbons having carbon numbers predominantly in the range of C<sub>1</sub> through C<sub>6</sub>.)</p>	649-141-00-5	270-807-2	68478-27-3	H, K
<p>Tail gas (petroleum), catalytic reformed naphtha stabilizer; Refinery gas</p> <p>(A complex combination of hydrocarbons obtained from the stabilization of catalytic reformed naphtha. It consists of hydrogen and hydrocarbons having carbon numbers predominantly in the range of C<sub>1</sub> through C<sub>6</sub>.)</p>	649-142-00-0	270-808-8	68478-28-4	H, K
<p>Tail gas (petroleum), cracked distillate hydrotreater separator; Refinery gas</p> <p>(A complex combination of hydrocarbons obtained by treating cracked distillates with hydrogen in the presence of a catalyst. It consists of hydrogen and saturated aliphatic hydrocarbons having carbon numbers predominantly in the range of C<sub>1</sub> through C<sub>5</sub>.)</p>	649-143-00-6	270-809-3	68478-29-5	H, K
<p>Tail gas (petroleum), hydrodesulphurized straight-run naphtha separator; Refinery gas</p> <p>(A complex combination of hydrocarbons obtained from hydrodesulphurization of straight-run naphtha. It consists of hydrogen and saturated aliphatic hydrocarbons having carbon numbers predominantly in the range of C<sub>1</sub> through C<sub>6</sub>.)</p>	649-144-00-1	270-810-9	68478-30-8	H, K
<p>Gases (petroleum), catalytic reformed straight-run naphtha stabilizer overheads; Refinery gas</p> <p>(A complex combination of hydrocarbons obtained from the catalytic reforming of straight-run naphtha followed by fractionation of the total effluent. It consists of hydrogen, methane, ethane and</p>	649-145-00-7	270-999-8	68513-14-4	H, K

Substances	Index number	EC number	CAS number	Notes
propane.)				
Gases (petroleum), reformer effluent high-pressure flash drum off; Refinery gas  (A complex combination produced by the high-pressure flashing of the effluent from the reforming reactor. It consists primarily of hydrogen with various small amounts of methane, ethane, and propane.)	649-146-00-2	271-003-4	68513-18-8	H, K
Gases (petroleum), reformer effluent low-pressure flash drum off; Refinery gas  (A complex combination produced by low-pressure flashing of the effluent from the reforming reactor. It consists primarily of hydrogen with various small amounts of methane, ethane, and propane.)	649-147-00-8	271-005-5	68513-19-9	H, K
Gases (petroleum), oil refinery gas distn. off; Refinery gas  (A complex combination separated by distillation of a gas stream containing hydrogen, carbon monoxide, carbon dioxide and hydrocarbons having carbon numbers in the range of C <sub>1</sub> through C <sub>6</sub> or obtained by cracking ethane and propane. It consists of hydrocarbons having carbon numbers predominantly in the range of C <sub>1</sub> through C <sub>2</sub> , hydrogen, nitrogen, and carbon monoxide.)	649-148-00-3	271-258-1	68527-15-1	H, K
Gases (petroleum), benzene unit hydrotreater depentanizer overheads; Refinery gas  (A complex combination produced by treating the feed from the benzene unit with hydrogen in the presence of a catalyst followed by depentanizing. It consists primarily of hydrogen, ethane and propane with various small amounts of nitrogen, carbon monoxide, carbon dioxide and hydrocarbons having carbon numbers predominantly in the range of C <sub>1</sub> through C <sub>6</sub> . It may contain trace amounts of benzene.)	649-149-00-9	271-623-5	68602-82-4	H, K
Gases (petroleum), secondary absorber off, fluidized catalytic cracker overheads	649-150-00-4	271-625-6	68602-84-6	H, K

Substances	Index number	EC number	CAS number	Notes
fractionator; Refinery gas  (A complex combination produced by the fractionation of the overhead products from the catalytic cracking process in the fluidized catalytic cracker. It consists of hydrogen, nitrogen, and hydrocarbons having carbon numbers predominantly in the range of C <sub>1</sub> through C <sub>3</sub> .)				
Petroleum products, refinery gases; Refinery gas  (A complex combination which consists primarily of hydrogen with various small amounts of methane, ethane and propane.)	649-151-00 -X	271-750-6	68607-11-4	H, K
Gases (petroleum), hydrocracking low-pressure separator; Refinery gas  (A complex combination obtained by the liquid-vapour separation of the hydrocracking process reactor effluent. It consists predominantly of hydrogen and saturated hydrocarbons having carbon numbers predominantly in the range of C <sub>1</sub> through C <sub>3</sub> .)	649-152-00-5	272-182-1	68783-06-2	H, K
Gases (petroleum), refinery; Refinery gas  (A complex combination obtained from various petroleum refining operations. It consists of hydrogen and hydrocarbons having carbon numbers predominantly in the range of C <sub>1</sub> through C <sub>3</sub> .)	649-153-00-0	272-338-9	68814-67-5	H, K
Gases (petroleum), platformer products separator off; Refinery gas  (A complex combination obtained from the chemical reforming of naphthenes to aromatics. It consists of hydrogen and saturated aliphatic hydrocarbons having carbon numbers predominantly in the range of C <sub>2</sub> through C <sub>4</sub> .)	649-154-00-6	272-343-6	68814-90-4	H, K
Gases (petroleum), hydrotreated sour kerosine depentanizer stabilizer off; Refinery gas  (The complex combination obtained from the depentanizer stabilization of hydrotreated kerosine. It consists	649-155-00-1	272-775-5	68911-58-0	H, K

Substances	Index number	EC number	CAS number	Notes
primarily of hydrogen, methane, ethane, and propane with various small amounts of nitrogen, hydrogen sulphide, carbon monoxide and hydrocarbons having carbon numbers predominantly in the range of C <sub>4</sub> through C <sub>5</sub> .)				
Gases (petroleum), hydrotreated sour kerosine flash drum; Refinery gas  (A complex combination obtained from the flash drum of the unit treating sour kerosine with hydrogen in the presence of a catalyst. It consists primarily of hydrogen and methane with various small amounts of nitrogen, carbon monoxide, and hydro-carbons having carbon numbers predominantly in the range of C <sub>2</sub> through C <sub>5</sub> .)	649-156-00-7	272-776-0	68911-59-1	H, K
Gases (petroleum), distillate unifier desulphurization stripper off; Refinery gas  (A complex combination stripped from the liquid product of the unifier desulphurization process. It consists of hydrogen sulphide, methane, ethane, and propane.)	649-157-00-2	272-873-8	68919-01-7	H, K
Gases (petroleum), fluidized catalytic cracker fractionation off; Refinery gas  (A complex combination produced by the fractionation of the overhead product of the fluidized catalytic cracking process. It consists of hydrogen, hydrogen sulphide, nitrogen, and hydrocarbons having carbon numbers predominantly in the range of C <sub>1</sub> through C <sub>5</sub> .)	649-158-00-8	272-874-3	68919-02-8	H, K
Gases (petroleum), fluidized catalytic cracker scrubbing secondary absorber off; Refinery gas  (A complex combination produced by scrubbing the overhead gas from the fluidized catalytic cracker. It consists of hydrogen, nitrogen, methane, ethane and propane.)	649-159-00-3	272-875-9	68919-03-9	H, K
Gases (petroleum), heavy distillate hydrotreater desulphurization stripper off;	649-160-00-9	272-876-4	68919-04-0	H, K

Substances	Index number	EC number	CAS number	Notes
Refinery gas  (A complex combination stripped from the liquid product of the heavy distillate hydrotreater desulphurization process. It consists of hydrogen, hydrogen sulphide, and saturated aliphatic hydrocarbons having carbon numbers predominantly in the range of C <sub>1</sub> through C <sub>5</sub> .)				
Gases (petroleum), platformer stabilizer off, light ends fractionation; Refinery gas  (A complex combination obtained by the fractionation of the light ends of the platinum reactors of the platformer unit. It consists of hydrogen, methane, ethane and propane.)	649-161-00-4	272-880-6	68919-07-3	H, K
Gases (petroleum), preflash tower off, crude distn.; Refinery gas  (A complex combination produced from the first tower used in the distillation of crude oil. It consists of nitrogen and saturated aliphatic hydrocarbons having carbon numbers predominantly in the range of C <sub>1</sub> through C <sub>5</sub> .)	649-162-00-X	272-881-1	68919-08-4	H, K
Gases (petroleum), tar stripper off; Refinery gas  (A complex combination obtained by the fractionation of reduced crude oil. It consists of hydrogen and hydrocarbons having carbon numbers predominantly in the range of C <sub>1</sub> through C <sub>4</sub> .)	649-163-00-5	272-884-8	68919-11-9	H, K
Gases (petroleum), unifiner stripper off; Refinery gas  (A combination of hydrogen and methane obtained by fractionation of the products from the unifiner unit.)	649-164-00-0	272-885-3	68919-12-0	H, K
Tail gas (petroleum), catalytic hydrodesulphurized naphtha separator; Refinery gas  (A complex combination of hydrocarbons obtained from the hydrodesulphurization of naphtha. It consists of hydrogen, methane, ethane, and propane.)	649-165-00-6	273-173-5	68952-79-4	H, K

Substances	Index number	EC number	CAS number	Notes
<p>Tail gas (petroleum), straight-run naphtha hydrodesulphurizer; Refinery gas</p> <p>(A complex combination obtained from the hydrodesulphurization of straight-run naphtha. It consists of hydrogen and hydrocarbons having carbon numbers predominantly in the range of C<sub>1</sub> through C<sub>5</sub>.)</p>	649-166-00-1	273-174-0	68952-80-7	H, K
<p>Gases (petroleum), sponge absorber off, fluidized catalytic cracker and gas oil desulphurizer overhead fractionation; Refinery gas</p> <p>(A complex combination obtained by the fractionation of products from the fluidized catalytic cracker and gas oil desulphurizer. It consists of hydrogen and hydrocarbons having carbon numbers predominantly in the range of C<sub>1</sub> through C<sub>4</sub>.)</p>	649-167-00-7	273-269-7	68955-33-9	H, K
<p>Gases (petroleum), crude distn. and catalytic cracking; Refinery gas</p> <p>(A complex combination produced by crude distillation and catalytic cracking processes. It consists of hydrogen, hydrogen sulphide, nitrogen, carbon monoxide and paraffinic and olefinic hydrocarbons having carbon numbers predominantly in the range of C<sub>1</sub> through C<sub>6</sub>.)</p>	649-168-00-2	273-563-5	68989-88-8	H, K
<p>Gases (petroleum), gas oil diethanolamine scrubber off; Refinery gas</p> <p>(A complex combination produced by desulphurization of gas oils with diethanolamine. It consists predominantly of hydrogen sulphide, hydrogen and aliphatic hydrocarbons having carbon numbers in the range of C<sub>1</sub> through C<sub>5</sub>.)</p>	649-169-00-8	295-397-2	92045-15-3	H, K
<p>Gases (petroleum), gas oil hydrodesulphurization effluent; Refinery gas</p> <p>(A complex combination obtained by separation of the liquid phase from the effluent from the hydrogenation reaction.</p>	649-170-00-3	295-398-8	92045-16-4	H, K

Substances	Index number	EC number	CAS number	Notes
It consists predominantly of hydrogen, hydrogen sulphide and aliphatic hydrocarbons having carbon numbers predominantly in the range of C <sub>1</sub> through C <sub>3</sub> .)				
Gases (petroleum), gas oil hydrodesulphurization purge; Refinery gas  (A complex combination of gases obtained from the reformer and from the purges from the hydrogenation reactor. It consists predominantly of hydrogen and aliphatic hydrocarbons having carbon numbers predominantly in the range of C <sub>1</sub> through C <sub>4</sub> .)	649-171-00-9	295-399-3	92045-17-5	H, K
Gases (petroleum), hydrogenator effluent flash drum off; Refinery gas  (A complex combination of gases obtained from flash of the effluents after the hydrogenation reaction. It consists predominantly of hydrogen and aliphatic hydrocarbons having carbon numbers predominantly in the range of C <sub>1</sub> through C <sub>6</sub> .)	649-172-00-4	295-400-7	92045-18-6	H, K
Gases (petroleum), naphtha steam cracking high-pressure residual; Refinery gas  (A complex combination obtained as a mixture of the non-condensable portions from the product of a naphtha steam cracking process as well as residual gases obtained during the preparation of subsequent products. It consists predominantly of hydrogen and paraffinic and olefinic hydrocarbons having carbon numbers predominantly in the range of C <sub>1</sub> through C <sub>5</sub> with which natural gas may also be mixed.)	649-173-00-X	295-401-2	92045-19-7	H, K
Gases (petroleum), residue visbaking off; Refinery gas  (A complex combination obtained from viscosity reduction of residues in a furnace. It consists predominantly of hydrogen sulphide and paraffinic and olefinic hydrocarbons having carbon numbers predominantly in the range of C <sub>1</sub>	649-174-00-5	295-402-8	92045-20-0	H, K

Substances	Index number	EC number	CAS number	Notes
through C <sub>5</sub> .)				
Gases (petroleum), C <sub>3-4</sub> ; Petroleum gas  (A complex combination of hydrocarbons produced by distillation of products from the cracking of crude oil. It consists of hydrocarbons having carbon numbers in the range of C <sub>3</sub> through C <sub>4</sub> , predominantly of propane and propylene, and boiling in the range of approximately -51 °C to -1 °C.)	649-177-00-1	268-629-5	68131-75-9	H, K
Tail gas (petroleum), catalytic cracked distillate and catalytic cracked naphtha fractionation absorber; Petroleum gas  (The complex combination of hydrocarbons from the distillation of the products from catalytic cracked distillates and catalytic cracked naphtha. It consists predominantly of hydrocarbons having carbon numbers in the range of C <sub>1</sub> through C <sub>4</sub> .)	649-178-00-7	269-617-2	68307-98-2	H, K
Tail gas (petroleum), catalytic polymn. naphtha fractionation stabilizer; Petroleum gas  (A complex combination of hydrocarbons from the fractionation stabilization products from polymerization of naphtha. It consists predominantly of hydrocarbons having carbon numbers in the range of C <sub>1</sub> through C <sub>4</sub> .)	649-179-00-2	269-618-8	68307-99-3	H, K
Tail gas (petroleum), catalytic reformed naphtha fractionation stabilizer, hydrogen sulphide-free; Petroleum gas  (A complex combination of hydrocarbons obtained from fractionation stabilization of catalytic reformed naphtha and from which hydrogen sulphide has been removed by amine treatment. It consists predominantly of hydrocarbons having carbon numbers predominantly in the range of C <sub>1</sub> through C <sub>4</sub> .)	649-180-00-8	269-619-3	68308-00-9	H, K
Tail gas (petroleum), cracked distillate hydrotreater stripper; Petroleum gas  (A complex combination of hydrocarbons	649-181-00-3	269-620-9	68308-01-0	H, K

Substances	Index number	EC number	CAS number	Notes
obtained by treating thermal cracked distillates with hydrogen in the presence of a catalyst. It consists predominantly of saturated hydrocarbons having carbon numbers predominantly in the range of C <sub>1</sub> through C <sub>6</sub> .)				
Tail gas (petroleum), straight-run distillate hydrodesulphurizer, hydrogen sulphide-free; Petroleum gas  (A complex combination of hydrocarbons obtained from catalytic hydrodesulphurization of straight run distillates and from which hydrogen sulphide has been removed by amine treatment. It consists predominantly of hydrocarbons having carbon numbers predominantly in the range of C <sub>1</sub> through C <sub>4</sub> .)	649-182-00-9	269-630-3	68308-10-1	H, K
Tail gas (petroleum), gas oil catalytic cracking absorber; Petroleum gas  (A complex combination of hydrocarbons obtained from the distillation of products from the catalytic cracking of gas oil. It consists predominantly of hydrocarbons having carbon numbers predominantly in the range of C <sub>1</sub> through C <sub>5</sub> .)	649-183-00-4	269-623-5	68308-03-2	H, K
Tail gas (petroleum), gas recovery plant; Petroleum gas  (A complex combination of hydrocarbons from the distillation of products from miscellaneous hydrocarbon streams. It consists predominantly of hydrocarbons having carbon numbers predominantly in the range of C <sub>1</sub> through C <sub>5</sub> .)	649-184-00-X	269-624-0	68308-04-3	H, K
Tail gas (petroleum), gas recovery plant deethanizer; Petroleum gas  (A complex combination of hydrocarbons from the distillation of products from miscellaneous hydrocarbon streams. It consists of hydrocarbon having carbon numbers predominantly in the range of C <sub>1</sub> through C <sub>4</sub> .)	649-185-00-5	269-625-6	68308-05-4	H, K
Tail gas (petroleum), hydrodesulphurized distillate and hydrodesulphurized naphtha	649-186-00-0	269-626-1	68308-06-5	H, K

Substances	Index number	EC number	CAS number	Notes
<p>fractionator, acid-free; Petroleum gas</p> <p>(A complex combination of hydrocarbons obtained from fractionation of hydrodesulphurized naphtha and distillate hydrocarbon streams and treated to remove acidic impurities. It consists predominantly of hydrocarbons having carbon numbers predominantly in the range of C<sub>1</sub> through C<sub>5</sub>.)</p>				
<p>Tail gas (petroleum), hydrodesulphurized vacuum gas oil stripper, hydrogen sulphide-free; Petroleum gas</p> <p>(A complex combination of hydrocarbons obtained from stripping stabilization of catalytic hydrodesulphurized vacuum gas oil and from which hydrogen sulphide has been removed by amine treatment. It consists predominantly of hydrocarbons having carbon numbers predominantly in the range of C<sub>1</sub> through C<sub>6</sub>.)</p>	649-187-00-6	269-627-7	68308-07-6	H, K
<p>Tail gas (petroleum), light straight-run naphtha stabilizer, hydrogen sulphide-free; Petroleum gas</p> <p>(A complex combination of hydrocarbons obtained from fractionation stabilization of light straight-run naphtha and from which hydrogen sulphide has been removed by amine treatment. It consists predominantly of hydrocarbons having carbon numbers predominantly in the range of C<sub>1</sub> through C<sub>5</sub>.)</p>	649-188-00-1	269-629-8	68308-09-8	H, K
<p>Tail gas (petroleum), propane-propylene alkylation feed prep deethanizer; Petroleum gas</p> <p>(A complex combination of hydrocarbons obtained from the distillation of the reaction products of propane with propylene. It consists of hydrocarbons having carbon numbers predominantly in the range of C<sub>1</sub> through C<sub>4</sub>.)</p>	649-189-00-7	269-631-9	68308-11-2	H, K
<p>Tail gas (petroleum), vacuum gas oil hydrodesulphurizer, hydrogen sulphide-free; Petroleum gas</p> <p>(A complex combination of hydrocarbons</p>	649-190-00-2	269-632-4	68308-12-3	H, K

Substances	Index number	EC number	CAS number	Notes
obtained from catalytic hydrodesulphurization of vacuum gas oil and from which hydrogen sulphide has been removed by amine treatment. It consists predominantly of hydrocarbons having carbon numbers predominantly in the range of C <sub>1</sub> through C <sub>6</sub> .)				
Gases (petroleum), catalytic cracked overheads; Petroleum gas  (A complex combination of hydrocarbons produced by the distillation of products from the catalytic cracking process. It consists of hydrocarbons having carbon numbers predominantly in the range of C <sub>3</sub> through C <sub>5</sub> and boiling in the range of approximately -48 °C to 32 °C.)	649-191-00-8	270-071-2	68409-99-4	H, K
Alkanes, C <sub>1-2</sub> ; Petroleum gas	649-193-00-9	270-651-5	68475-57-0	H, K
Alkanes, C <sub>2-3</sub> ; Petroleum gas	649-194-00-4	270-652-0	68475-58-1	H, K
Alkanes, C <sub>3-4</sub> ; Petroleum gas	649-195-00-X	270-653-6	68475-59-2	H, K
Alkanes, C <sub>4-5</sub> ; Petroleum gas	649-196-00-5	270-654-1	68475-60-5	H, K
Fuel gases; Petroleum gas  (A combination of light gases. It consists predominantly of hydrogen and/or low molecular weight hydrocarbons.)	649-197-00-0	270-667-2	68476-26-6	H, K
Fuel gases, crude oil of distillates; Petroleum gas  (A complex combination of light gases produced by distillation of crude oil and by catalytic reforming of naphtha. It consists of hydrogen and hydrocarbons having carbon numbers predominantly in the range of C <sub>1</sub> through C <sub>4</sub> and boiling in the range of approximately -217 °C to -12 °C.)	649-198-00-6	270-670-9	68476-29-9	H, K
Hydrocarbons, C <sub>3-4</sub> ; Petroleum gas	649-199-00-1	270-681-9	68476-40-4	H, K
Hydrocarbons, C <sub>4-5</sub> ; Petroleum gas	649-200-00-5	270-682-4	68476-42-6	H, K
Hydrocarbons, C <sub>2-4</sub> , C <sub>3</sub> -rich; Petroleum gas	649-201-00-0	270-689-2	68476-49-3	H, K

Substances	Index number	EC number	CAS number	Notes
Petroleum gases, liquefied; Petroleum gas  (A complex combination of hydrocarbons produced by the distillation of crude oil. It consists of hydrocarbons having carbon numbers predominantly in the range of C <sub>3</sub> through C <sub>7</sub> and boiling in the range of approximately -40 °C to 80 °C.)	649-202-00-6	270-704-2	68476-85-7	H, K, S
Petroleum gases, liquefied, sweetened; Petroleum gas  (A complex combination of hydrocarbons obtained by subjecting liquefied petroleum gas mix to a sweetening process to convert mercaptans or to remove acidic impurities. It consists of hydrocarbons having carbon numbers predominantly in the range of C <sub>3</sub> through C <sub>7</sub> and boiling in the range of approximately -40 °C to 80 °C.)	649-203-00-1	270-705-8	68476-86-8	H, K, S
Gases (petroleum), C <sub>3-4</sub> , isobutane-rich; Petroleum gas  (A complex combination of hydrocarbons from the distillation of saturated and unsaturated hydrocarbons usually ranging in carbon numbers from C <sub>3</sub> through C <sub>6</sub> , predominantly butane and isobutane. It consists of saturated and unsaturated hydrocarbons having carbon numbers in the range of C <sub>3</sub> through C <sub>4</sub> , predominantly isobutane.)	649-204-00-7	270-724-1	68477-33-8	H, K
Distillates (petroleum), C <sub>3-6</sub> , piperylene-rich; Petroleum gas  (A complex combination of hydrocarbons from the distillation of saturated and unsaturated aliphatic hydrocarbons usually ranging in the carbon numbers C <sub>3</sub> through C <sub>6</sub> . It consists of saturated and unsaturated hydrocarbons having carbon numbers in the range of C <sub>3</sub> through C <sub>6</sub> , predominantly piperylenes.)	649-205-00-2	270-726-2	68477-35-0	H, K
Gases (petroleum), butane splitter overheads; Petroleum gas  (A complex combination of hydrocarbons obtained from the distillation of the butane stream. It consists of aliphatic	649-206-00-8	270-750-3	68477-69-0	H, K

Substances	Index number	EC number	CAS number	Notes
hydrocarbons having carbon numbers predominantly in the range of C <sub>3</sub> through C <sub>4</sub> .)				
Gases (petroleum), C <sub>2-3</sub> ; Petroleum gas  (A complex combination of hydrocarbons produced by the distillation of products from a catalytic fractionation process. It contains predominantly ethane, ethylene, propane, and propylene.)	649-207-00-3	270-751-9	68477-70-3	H, K
Gases (petroleum), catalytic-cracked gas oil depropanizer bottoms, C <sub>4</sub> -rich acid-free; Petroleum gas  (A complex combination of hydrocarbons obtained from fractionation of catalytic cracked gas oil hydrocarbon stream and treated to remove hydrogen sulphide and other acidic components. It consists of hydrocarbons having carbon numbers in the range of C <sub>3</sub> through C <sub>5</sub> , predominantly C <sub>4</sub> .)	649-208-00-9	270-752-4	68477-71-4	H, K
Gases (petroleum), catalytic-cracked naphtha debutanizer bottoms, C <sub>3-5</sub> -rich; Petroleum gas  (A complex combination of hydrocarbons obtained from the stabilization of catalytic cracked naphtha. It consists of aliphatic hydrocarbons having carbon numbers predominantly in the range of C <sub>3</sub> through C <sub>5</sub> .)	649-209-00-4	270-754-5	68477-72-5	H, K
Tail gas (petroleum), isomerized naphtha fractionation stabilizer; Petroleum gas  (A complex combination of hydrocarbons obtained from the fractionation stabilization products from isomerized naphtha. It consists predominantly of hydrocarbons having carbon numbers predominantly in the range of C <sub>1</sub> through C <sub>4</sub> .)	649-210-00-X	269-628-2	68308-08-7	H, K''

- (b) The entries with index numbers 024-001-00-0, 601-020-00-8, 612-022-00-3 and 612-042-00-2 are replaced by the following:

Substances	Index number	EC number	CAS number	Notes
“Chromium (VI) trioxide	024-001-00-0	215-607-8	1333-82-0	E
Benzene	601-020-00-8	200-753-7	71-43-2	E
2-Naphthylamine; beta-naphthylamine	612-022-00-3	202-080-4	91-59-8	E
Benzidine; 4,4'-diaminobiphenyl; biphenyl-4,4'-ylenediamine 1,1'-biphenyl-4,4'-diamine	612-042-00-2	202-199-1	92-87-5	E”

3. The list under heading “Point 29 - Carcinogens: category 2” is amended as follows:

(a) The following entries are inserted:

Substances	Index number	EC number	CAS number	Notes
Isobutyl nitrite	007-017-00-2	208-819-7	542-56-3	E
Cadmium sulphide	048-010-00-4	215-147-8	1306-23-6	E
Cadmium (pyrophoric)	048-011-00-X	231-152-8	7440-43-9	E
Isoprene (stabilised) 2-Methyl-1,3-butadiene	601-014-00-5	201-143-3	78-79-5	D
Chloroprene (stabilised) 2-Chlorobuta-1,3-diene	602-036-00-8	204-818-0	126-99-8	D, E
1,2,3-Trichloropropane	602-062-00-X	202-486-1	96-18-4	D
$\alpha,\alpha,\alpha,4$ -Tetrachlorotoluene p-Chlorobenzotrichloride	602-093-00-9	226-009-1	5216-25-1	E
4,4'-Bis(dimethylamino)benzophenone Michler's ketone	606-073-00-0	202-027-5	90-94-8	
Oxiranemethanol, 4-methylbenzene-sulfonate, (S)-	607-411-00-X	417-210-7	70987-78-9	
2-Nitrotoluene	609-065-00-5	201-853-3	88-72-2	E
(Methylenebis(4,1-phenylenazo(1-(3-(dimethylamino)propyl)-1,2-dihydro-6-hydroxy-4-methyl-2-oxopyridine-5,3-diyl)))-1,1'-dipyridinium dichloride dihydrochloride	611-099-00-0	401-500-5	—	
Diaminotoluene, technical product - mixture of [2] and [3] methyl-phenylenediamine [1] 4-methyl-m-phenylene diamine [2] 2-methyl-m-phenylene diamine [3]	612-151-00-5	246-910-3 [1] 202-453-1 [2] 212-513-9 [3]	25376-45-8 [1] 95-80-7 [2] 823-40-5 [3]	E
4-Chloro-o-toluidine [1] 4-chloro-o-toluidine hydrochloride [2]	612-196-00-0	202-441-6 [1] 221-627-8 [2]	95-69-2 [1] 3165-93-3 [2]	E

Substances	Index number	EC number	CAS number	Notes
2,4,5-Trimethylaniline [1]	612-197-00-6	205-282-0 [1]	137-17-7 [1]	E
2,4,5-trimethylaniline hydrochloride [2]		- [2]	21436-97-5 [2]	
4,4'-Thiodianiline [1] and its salts	612-198-00-1	205-370-9 [1]	139-65-1 [1]	E
4,4'-Oxydianiline [1] and its salts	612-199-00-7	202-977-0 [1]	101-80-4 [1]	E
p-Aminophenyl ether [1]				
2,4-Diaminoanisole [1]	612-200-00-0	210-406-1 [1]	615-05-4 [1]	
4-methoxy-m-phenylenediamine		254-323-9 [2]	39156-41-7 [2]	
2,4-diaminoanisole sulphate [2]				
N,N,N',N'-tetramethyl-4,4'-methylenedianiline	612-201-00-6	202-959-2	101-61-1	
C.I. Basic Violet 3 with $\geq 0.1\%$ of Michler's ketone (EC No. 202-027-5)	612-205-00-8	208-953-6	548-62-9	E
6-Methoxy-m-toluidine	612-209-00-X	204-419-1	120-71-8	E
p-cresidine				
A mixture of: 1,3,5-tris(3-aminomethylphenyl)-1,3,5-(1H,3H,5H)-triazine-2,4,6-trione; a mixture of oligomers of 3,5-bis(3-aminomethylphenyl)-1-poly[3,5-bis(3-aminomethylphenyl)-2,4,6-trioxo-1,3,5-(1H,3H,5H)-triazin-1-yl]-1,3,5-(1H,3H,5H)-triazine-2,4,6-trione	613-199-00-X	421-550-1	—	
Creosote oil, acenaphthene fraction	648-098-00-X	292-605-3	90640-84-9	H
Wash oil				
Creosote oil	648-099-00-5	263-047-8	61789-28-4	H
Creosote	648-101-00-4	232-287-5	8001-58-9	H

- (b) The entries with index numbers 007-008-00-3, 007-013-00-0, 016-023-00-4, 024-002-00-6, 024-003-00-1, 024-004-00-7, 024-004-01-4, 027-004-00-5, 027-005-00-0, 048-002-00-0, 048-006-00-2, 048-008-00-3, 048-009-00-9, 602-010-00-6, 602-073-00-X, 603-063-00-8, 605-020-00-9, 608-003-00-4, 609-007-00-9, 609-049-00-8, 611-001-00-6, 611-063-00-4, 612-035-00-4, 612-051-00-1, 612-077-00-3, 613-033-00-6, 648-043-00-X, 648-080-00-1, 648-100-00-9, 648-102-00-X, 648-138-00-6, 649-001-00-3, 649-002-00-9, 649-003-00-4, 649-004-00-X, 649-005-00-5 and 649-006-00-0 are replaced by the following:

Substances	Index number	EC number	CAS number	Notes
Hydrazine	007-008-00-3	206-114-9	302-01-2	E
1,2-Dimethylhydrazine	007-013-00-0	—	540-73-8	E
Dimethyl sulphate	016-023-00-4	201-058-1	77-78-1	E
Potassium dichromate	024-002-00-6	231-906-6	7778-50-9	E
Ammonium dichromate	024-003-00-1	232-143-1	7789-09-5	E
Sodium dichromate anhydrate	024-004-00-7	234-190-3	10588-01-9	E
Sodium dichromate, dihydrate	024-004-01-4	234-190-3	7789-12-0	E
Cobalt dichloride	027-004-00-5	231-589-4	7646-79-9	E
Cobalt sulphate	027-005-00-0	233-334-2	10124-43-3	E
Cadmium oxide	048-002-00-0	215-146-2	1306-19-0	E
Cadmium fluoride	048-006-00-2	232-222-0	7790-79-6	E
Cadmium chloride	048-008-00-3	233-296-7	10108-64-2	E
Cadmium sulphate	048-009-00-9	233-331-6	10124-36-4	E
1,2-Dibromoethane; ethylene dibromide	602-010-00-6	203-444-5	106-93-4	E
1,4-Dichlorobut-2-ene	602-073-00-X	212-121-8	764-41-0	E
2,3-Epoxypropan-1-ol; glycidol oxiranemethanol	603-063-00-8	209-128-3	556-52-5	E
5-Allyl-1,3-benzodioxole; safrole	605-020-00-9	202-345-4	94-59-7	E
Acrylonitrile	608-003-00-4	203-466-5	107-13-1	D, E
2,4-Dinitrotoluene; dinitrotoluene, technical grade [1] dinitrotoluene [2];	609-007-00-9	204-450-0 [1] 246-836-1 [2]	121-14-2 [1] 25321-14-6 [2]	E

Substances	Index number	EC number	CAS number	Notes
2,6-Dinitrotoluene	609-049-00-8	210-106-0	606-20-2	E
Azobenzene	611-001-00-6	203-102-5	103-33-3	E
Trisodium-[4'-(8-acetylamino-3,6-disulfonato-2-naphthylazo)-4''-(6-benzoylamino-3-sulfonato-2-naphthylazo)biphenyl-1,3',3'',1'''-tetraolato-O, O', O'', O''']copper(II)	611-063-00-4	413-590-3	-	
2-Methoxyaniline; o-anisidine,	612-035-00-4	201-963-1	90-04-0	E
4,4'-Diaminodiphenylmethane; 4,4'-methylenedianiline	612-051-00-1	202-974-4	101-77-9	E
N-nitrosodimethylamine; dimethylnitrosamine	612-077-00-3	200-549-8	62-75-9	E
2-Methylaziridine; propyleneimine	613-033-00-6	200-878-7	75-55-8	E
Creosote oil, acenaphthene fraction, acenaphthene-free; Wash oil redistillate  (The oil remaining after removal by a crystallization process of acenaphthene from acenaphthene oil from coal tar. Composed primarily of naphthalene and alkyl naphthalenes.)	648-043-00-X	292-606-9	90640-85-0	H
Residues (coal tar), creosote oil distn.; Wash oil redistillate  (The residue from the fractional distillation of wash oil boiling in the approximate range of 270 °C to 330 °C. It consists predominantly of dinuclear aromatic and heterocyclic hydrocarbons.)	648-080-00-1	295-506-3	92061-93-3	H
Creosote oil, high-boiling distillate; Wash oil  (The high-boiling distillation fraction obtained from the high temperature carbonization of bituminous coal which is further refined to remove excess crystalline salts. It consists primarily of creosote oil with some of the normal polynuclear aromatic salts, which are components of coal tar distillates, removed. It is crystal free at approximately 5 °C.)	648-100-00-9	274-565-9	70321-79-8	H

Substances	Index number	EC number	CAS number	Notes
Extract residues (coal), creosote oil acid; Wash oil extract residue  (A complex combination of hydrocarbons from the base-freed fraction from the distillation of coal tar, boiling in the range of approximately 250 °C to 280 °C. It consists predominantly of biphenyl and isomeric diphenylnaphthalenes.)	648-102-00-X	310-189-4	122384-77-4	H
Creosote oil, low-boiling distillate; Wash oil  (The low-boiling distillation fraction obtained from the high temperature carbonization of bituminous coal, which is further refined to remove excess crystalline salts. It consists primarily of creosote oil with some of the normal polynuclear aromatic salts, which are components of coal tar distillate, removed. It is crystal free at approximately 38 °C.)	648-138-00-6	274-566-4	70321-80-1	H
Extracts (petroleum), light naphthenic distillate solvent	649-001-00-3	265-102-1	64742-03-6	H
Extracts (petroleum), heavy paraffinic distillate solvent	649-002-00-9	265-103-7	64742-04-7	H
Extracts (petroleum), light paraffinic distillate solvent	649-003-00-4	265-104-2	6472-05-8	H
Extracts (petroleum), heavy naphthenic distillate solvent	649-004-00-X	265-111-0	64742-11-6	H
Extracts (petroleum), light vacuum gas oil solvent	649-005-00-5	295-341-7	91995-78-7	H
Hydrocarbons C <sub>26-55</sub> , arom.-rich	649-006-00-0	307-753-7	97722-04-8	H''

- (c) In the entry with index number 611-063-00-4, the number “164058-22-4” is inserted in the column entitled “CAS number”.
- d) The entries with index numbers 649-062-00-6, 649-063-00-1, 649-064-00-7, 649-065-00-2, 649-066-00-8, 649-067-00-3, 649-068-00-9, 649-069-00-4, 649-070-00-X, 649-071-00-5, 649-072-00-0, 649-073-00-6, 649-074-00-1, 649-075-00-7, 649-076-00-2, 649-077-00-8, 649-078-00-3, 649-079-00-9, 649-080-00-4, 649-081-00-X, 649-082-00-5, 649-083-00-0, 649-084-00-6, 649-085-00-1, 649-086-00-7, 649-087-00-2, 649-089-00-3, 649-090-00-9, 649-091-00-4, 649-092-00-X, 649-093-00-5, 649-094-00-0, 649-095-00-6, 649-096-00-1, 649-097-00-7, 649-098-00-2, 649-099-00-8, 649-100-00-1, 649-101-00-7, 649-102-00-2, 649-103-00-8, 649-104-00-3, 649-105-00-9, 649-106-00-4, 649-107-00-X, 649-108-00-5, 649-109-00-0, 649-110-00-6, 649-111-00-1, 649-112-00-7, 649-113-00-2, 649-114-00-8, 649-115-00-3, 649-116-00-9, 649-117-00-4, 649-120-00-0, 649-121-00-6, 649-122-00-1, 649-123-00-7, 649-124-00-2, 649-125-00-8, 649-126-00-3, 649-127-00-9, 649-128-00-4, 649-129-00-X, 649-130-00-5, 649-131-00-0, 649-132-00-6, 649-133-00-1, 649-134-00-7, 649-135-00-2, 649-136-00-8, 649-137-00-3, 649-138-00-9, 649-139-00-4, 649-140-00-X, 649-141-00-5, 649-142-00-0, 649-143-00-6, 649-144-00-1, 649-145-00-7, 649-146-00-2, 649-147-00-8, 649-148-00-3, 649-149-00-9, 649-150-00-4, 649-151-0-X, 649-152-00-5, 649-153-00-0, 649-154-00-6, 649-155-00-1, 649-156-00-7, 649-157-00-2, 649-158-00-8, 649-159-00-3, 649-160-00-9, 649-161-00-4, 649-162-00-X, 649-163-00-5, 649-164-00-0, 649-165-00-6, 649-166-00-1, 649-167-00-7, 649-168-00-2, 649-169-00-8, 649-170-00-3, 649-171-00-9, 649-172-00-4, 649-173-00-X, 649-174-00-5, 649-177-00-1, 649-178-00-7, 649-179-00-2, 649-180-00-8, 649-181-00-3, 649-182-00-9, 649-183-00-4, 649-184-00-X, 649-185-00-5, 649-186-00-0, 649-187-00-6, 649-188-00-1, 649-189-00-7, 649-190-00-2, 649-191-00-8, 649-193-00-9, 649-194-00-4, 649-195-00-X, 649-196-00-5, 649-197-00-0, 649-198-00-6, 649-199-00-1, 649-199 -00-5, 649-200-00-5, 649-201-00-0, 649-202-00-6, 649-203-00-1, 649-204-00-7, 649-205-00-2, 649-206-00-8, 649-207-00-3, 649-208-00-9, 649-209-00-4 and 649-210-00-X are deleted.

4. The list under heading “Point 30 - Mutagens: category 2” is amended as follows:

(a) The following entries are inserted:

Substances	Index number	EC number	CAS number	Notes
Chromium (VI) trioxide	024-001-00-0	215-607-8	1333-82-0	E
Cadmium sulphate	048-009-00-9	233-331-6	10124-36-4	E
Benzene	601-020-00-8	200-753-7	71-43-2	E
2-Nitrotoluene	609-065-00-5	201-853-3	88-72-2	E
4,4'-oxydianiline [1] and its salts p-aminophenyl ether [1]	612-199-00-7	202-977-0 [1]	101-80-4 [1]	E
Carbendazim (ISO) methyl benzimidazol-2-ylcarbamate	613-048-00-8	234-232-0	10605-21-7	
Benomyl (ISO) methyl 1-(butylcarbamoyl)benzimidazol-2-ylcarbamate	613-049-00-3	241-775-7	17804-35-2	
Gases (petroleum), catalytic cracked naphtha depropanizer overhead, C <sub>3</sub> -rich acid-free; Petroleum gas  (A complex combination of hydrocarbons obtained from fractionation of catalytic cracked hydrocarbons and treated to remove acidic impurities. It consists of hydrocarbons having carbon numbers in the range of C <sub>2</sub> through C <sub>4</sub> , predominantly C <sub>3</sub> .)	649-062-00-6	270-755-0	68477-73-6	H, K
Gases (petroleum), catalytic cracker; Petroleum gas  (A complex combination of hydrocarbons produced by the distillation of the products from a catalytic cracking process. It consists predominantly of aliphatic hydrocarbons having carbon numbers predominantly in the range of C <sub>1</sub> through C <sub>6</sub> .)	649-063-00-1	270-756-6	68477-74-7	H, K

Substances	Index number	EC number	CAS number	Notes
Gases (petroleum), catalytic cracker, C <sub>1-5</sub> -rich; Petroleum gas  (A complex combination of hydrocarbons produced by the distillation of products from a catalytic cracking process. It consists of aliphatic hydrocarbons having carbon numbers in the range of C <sub>1</sub> through C <sub>6</sub> , predominantly C <sub>1</sub> through C <sub>5</sub> .)	649-064-00-7	270-757-1	68477-75-8	H, K
Gases (petroleum), catalytic polymd. naphtha stabilizer overhead, C <sub>2-4</sub> -rich; Petroleum gas  (A complex combination of hydrocarbons obtained from the fractionation stabilization of catalytic polymerized naphtha. It consists of aliphatic hydrocarbons having carbon numbers in the range of C <sub>2</sub> through C <sub>6</sub> , predominantly C <sub>2</sub> through C <sub>4</sub> .)	649-065-00-2	270-758-7	68477-76-9	H, K
Gases (petroleum), catalytic reformer, C <sub>1-4</sub> -rich; Petroleum gas  (A complex combination of hydrocarbons produced by distillation of products from a catalytic reforming process. It consists of hydrocarbons having carbon numbers in the range of C <sub>1</sub> through C <sub>6</sub> , predominantly C <sub>1</sub> through C <sub>4</sub> .)	649-066-00-8	270-760-8	68477-79-2	H, K
Gases (petroleum), C <sub>3-5</sub> olefinic-paraffinic alkylation feed; Petroleum gas  (A complex combination of olefinic and paraffinic hydrocarbons having carbon numbers in the range of C <sub>3</sub> through C <sub>5</sub> which are used as alkylation feed. Ambient temperatures normally exceed the critical temperature of these combinations.)	649-067-00-3	270-765-5	68477-83-8	H, K
Gases (petroleum), C <sub>4</sub> -rich; Petroleum gas  (A complex combination of hydrocarbons produced by distillation of products from a catalytic fractionation process. It consists of aliphatic hydrocarbons having carbon numbers in the range of C <sub>3</sub> through C <sub>5</sub> , predominantly C <sub>4</sub> .)	649-068-00-9	270-767-6	68477-85-0	H, K

Substances	Index number	EC number	CAS number	Notes
Gases (petroleum), deethanizer overheads; Petroleum gas  (A complex combination of hydrocarbons produced from distillation of the gas and gasoline fractions from the catalytic cracking process. It contains predominantly ethane and ethylene.)	649-069-00-4	270-768-1	68477-86-1	H, K
Gases (petroleum), deisobutanizer tower overheads; Petroleum gas  (A complex combination of hydrocarbons produced by the atmospheric distillation of a butane-butylene stream. It consists of aliphatic hydrocarbons having carbon numbers predominantly in the range of C <sub>3</sub> through C <sub>4</sub> .)	649-070-00-X	270-769-7	68477-87-2	H, K
Gases (petroleum), depropanizer dry, propene-rich; Petroleum gas  (A complex combination of hydrocarbons produced by the distillation of products from the gas and gasoline fractions of a catalytic cracking process. It consists predominantly of propylene with some ethane and propane.)	649-071-00-5	270-772-3	68477-90-7	H, K
Gases (petroleum), depropanizer overheads; Petroleum gas  (A complex combination of hydrocarbons produced by distillation of products from the gas and gasoline fractions of a catalytic cracking process. It consists of aliphatic hydrocarbons having carbon numbers predominantly in the range of C <sub>2</sub> through C <sub>4</sub> .)	649-072-00-0	270-773-9	68477-91-8	H, K
Gases (petroleum), gas recovery plant depropanizer overheads; Petroleum gas  (A complex combination of hydrocarbons obtained by fractionation of miscellaneous hydrocarbon streams. It consists predominantly of hydrocarbons having carbon numbers in the range of C <sub>1</sub> through C <sub>4</sub> , predominantly propane.)	649-073-00-6	270-777-0	68477-94-1	H, K

Substances	Index number	EC number	CAS number	Notes
<p>Gases (petroleum), Girbatol unit feed; Petroleum gas</p> <p>(A complex combination of hydrocarbons that is used as the feed into the Girbatol unit to remove hydrogen sulfide. It consists of aliphatic hydrocarbons having carbon numbers predominantly in the range of C<sub>2</sub> through C<sub>4</sub>.)</p>	649-074-00-1	270-778-6	68477-95-2	H, K
<p>Gases (petroleum), isomerized naphtha fractionator, C<sub>4</sub>-rich, hydrogen sulfide-free; Petroleum gas</p>	649-075-00-7	270-782-8	68477-99-6	H, K
<p>Tail gas (petroleum), catalytic cracked clarified oil and thermal cracked vacuum residue fractionation reflux drum; Petroleum gas</p> <p>(A complex combination of hydrocarbons obtained from fractionation of catalytic cracked clarified oil and thermal cracked vacuum residue. It consists predominantly of hydrocarbons having carbon numbers predominantly in the range of C<sub>1</sub> through C<sub>6</sub>.)</p>	649-076-00-2	270-802-5	68478-21-7	H, K
<p>Tail gas (petroleum), catalytic cracked naphtha stabilization absorber; Petroleum gas</p> <p>(A complex combination of hydrocarbons obtained from the stabilization of catalytic cracked naphtha. It consists predominantly of hydrocarbons having carbon numbers predominantly in the range of C<sub>1</sub> through C<sub>6</sub>.)</p>	649-077-00-8	270-803-0	68478-22-8	H, K
<p>Tail gas (petroleum), catalytic cracker, catalytic reformer and hydrodesulfurizer combined fractionator; Petroleum gas</p> <p>(A complex combination of hydrocarbons obtained from the fractionation of products from catalytic cracking, catalytic reforming and hydrodesulfurizing processes treated to remove acidic impurities. It consists predominantly of hydrocarbons having carbon numbers predominantly in the range of C<sub>1</sub> through C<sub>5</sub>.)</p>	649-078-00-3	270-804-6	68478-24-0	H, K

Substances	Index number	EC number	CAS number	Notes
Tail gas (petroleum), catalytic reformed naphtha fractionation stabilizer; Petroleum gas  (A complex combination of hydrocarbons obtained from the fractionation stabilization of catalytic reformed naphtha. It consists predominantly of hydrocarbons having carbon numbers predominantly in the range of C <sub>1</sub> through C <sub>4</sub> .)	649-079-00-9	270-806-7	68478-26-2	H, K
Tail gas (petroleum), saturate gas plant mixed stream, C <sub>4</sub> -rich; Petroleum gas  (A complex combination of hydrocarbons obtained from the fractionation stabilization of straight-run naphtha, distillation tail gas and catalytic reformed naphtha stabilizer tail gas. It consists of hydrocarbons having carbon numbers in the range of C <sub>3</sub> through C <sub>6</sub> , predominantly butane and isobutane.)	649-080-00-4	270-813-5	68478-32-0	H, K
Tail gas (petroleum), saturate gas recovery plant, C <sub>1-2</sub> -rich; Petroleum gas  (A complex combination of hydrocarbons obtained from fractionation of distillate tail gas, straight-run naphtha, catalytic reformed naphtha stabilizer tail gas. It consists predominantly of hydrocarbons having carbon numbers in the range of C <sub>1</sub> through C <sub>5</sub> , predominantly methane and ethane.)	649-081-00-X	270-814-0	68478-33-1	H, K
Tail gas (petroleum), vacuum residues thermal cracker; Petroleum gas  (A complex combination of hydrocarbons obtained from the thermal cracking of vacuum residues. It consists of hydrocarbons having carbon numbers predominantly in the range of C <sub>1</sub> through C <sub>5</sub> .)	649-082-00-5	270-815-6	68478-34-2	H, K
Hydrocarbons, C <sub>3-4</sub> -rich, petroleum distillate; Petroleum gas  (A complex combination of hydrocarbons produced by distillation and condensation of crude oil. It consists of hydrocarbons having carbon numbers in the range of C <sub>3</sub> through C <sub>5</sub> , predominantly C <sub>3</sub> through C <sub>4</sub> .)	649-083-00-0	270-990-9	68512-91-4	H, K

Substances	Index number	EC number	CAS number	Notes
Gases (petroleum), full-range straight-run naphtha dehexanizer off; Petroleum gas  (A complex combination of hydrocarbons obtained by the fractionation of the full-range straight-run naphtha. It consists of hydrocarbons having carbon numbers predominantly in the range of C <sub>2</sub> through C <sub>6</sub> .)	649-084-00-6	271-000-8	68513-15-5	H, K
Gases (petroleum), hydrocracking depropanizer off, hydrocarbon-rich; Petroleum gas  (A complex combination of hydrocarbon produced by the distillation of products from a hydrocracking process. It consists predominantly of hydrocarbons having carbon numbers predominantly in the range of C <sub>1</sub> through C <sub>4</sub> . It may also contain small amounts of hydrogen and hydrogen sulfide.)	649-085-00-1	271-001-3	68513-16-6	H, K
Gases (petroleum), light straight-run naphtha stabilizer off; Petroleum gas  (A complex combination of hydrocarbons obtained by the stabilization of light straight-run naphtha. It consists of saturated aliphatic hydrocarbons having carbon numbers predominantly in the range of C <sub>2</sub> through C <sub>6</sub> .)	649-086-00-7	271-002-9	68513-17-7	H, K
Residues (petroleum), alkylation splitter, C <sub>4</sub> -rich; Petroleum gas  (A complex residuum from the distillation of streams from various refinery operations. It consists of hydrocarbons having carbon numbers in the range of C <sub>4</sub> through C <sub>5</sub> , predominantly butane, and boiling in the range of approximately -11,7 °C to 27,8 °C.)	649-087-00-2	271-010-2	68513-66-6	H, K
Hydrocarbons, C <sub>1-4</sub> ; Petroleum gas  (A complex combination of hydrocarbons provided by thermal cracking and absorber operations and by distillation of crude oil. It consists of hydrocarbons having carbon numbers predominantly in the range of C <sub>1</sub> through C <sub>4</sub> and boiling in the range of approximately minus 164 °C to minus 0.5 °C.)	649-088-00-8	271-032-2	68514-31-8	H, K

Substances	Index number	EC number	CAS number	Notes
Hydrocarbons, C <sub>1-4</sub> , sweetened; Petroleum gas  (A complex combination of hydrocarbons obtained by subjecting hydrocarbon gases to a sweetening process to convert mercaptans or to remove acidic impurities. It consists of hydrocarbons having carbon numbers predominantly in the range of C <sub>1</sub> through C <sub>4</sub> and boiling in the range of approximately – 164 °C to – 0,5 °C.)	649-089-00-3	271-038-5	68514-36-3	H, K
Hydrocarbons, C <sub>1-3</sub> ; Petroleum gas  (A complex combination of hydrocarbons having carbon numbers predominantly in the range of C <sub>1</sub> through C <sub>3</sub> and boiling in the range of approximately – 164 °C to – 42 °C.)	649-090-00-9	271-259-7	68527-16-2	H, K
Hydrocarbons, C <sub>1-4</sub> , debutanizer fraction; Petroleum gas	649-091-00-4	271-261-8	68527-19-5	H, K
Gases (petroleum), C <sub>1-5</sub> , wet; Petroleum gas  (A complex combination of hydrocarbons produced by the distillation of crude oil and/or the cracking of tower gas oil. It consists of hydrocarbons having carbon numbers predominantly in the range of C <sub>1</sub> through C <sub>5</sub> .)	649-092-00-X	271-624-0	68602-83-5	H, K
Hydrocarbons, C <sub>2-4</sub> ; Petroleum gas	649-093-00-5	271-734-9	68606-25-7	H, K
Hydrocarbons, C <sub>3</sub> ; Petroleum gas	649-094-00-0	271-735-4	68606-26-8	H, K
Gases (petroleum), alkylation feed; Petroleum gas  (A complex combination of hydrocarbons produced by the catalytic cracking of gas oil. It consists of hydrocarbons having carbon numbers predominantly in the range of C <sub>3</sub> through C <sub>4</sub> .)	649-095-00-6	271-737-5	68606-27-9	H, K
Gases (petroleum), depropanizer bottoms fractionation off; Petroleum gas  (A complex combination of hydrocarbons obtained from the fractionation of depropanizer bottoms. It consists predominantly of butane, isobutane and butadiene.)	649-096-00-1	271-742-2	68606-34-8	H, K

Substances	Index number	EC number	CAS number	Notes
Gases (petroleum), refinery blend; Petroleum gas  (A complex combination obtained from various processes. It consists of hydrogen, hydrogen sulfide and hydrocarbons having carbon numbers predominantly in the range of C <sub>1</sub> through C <sub>5</sub> .)	649-097-00-7	272-183-7	68783-07-3	H, K
Gases (petroleum), catalytic cracking; Petroleum gas  (A complex combination of hydrocarbons produced by the distillation of the products from a catalytic cracking process. It consists predominantly of hydrocarbons having carbon numbers predominantly in the range of C <sub>3</sub> through C <sub>5</sub> .)	649-098-00-2	272-203-4	68783-64-2	H, K
Gases (petroleum), C <sub>2-4</sub> , sweetened; Petroleum gas  (A complex combination of hydrocarbons obtained by subjecting a petroleum distillate to a sweetening process to convert mercaptans or to remove acidic impurities. It consists predominantly of saturated and unsaturated hydrocarbons having carbon numbers predominantly in the range of C <sub>2</sub> through C <sub>4</sub> and boiling in the range of approximately – 51 °C to – 34 °C.)	649-099-00-8	272-205-5	68783-65-3	H, K
Gases (petroleum), crude oil fractionation off; Petroleum gas  (A complex combination of hydrocarbons produced by the fractionation of crude oil. It consists of saturated aliphatic hydrocarbons having carbon numbers predominantly in the range of C <sub>1</sub> through C <sub>5</sub> .)	649-100-00-1	272-871-7	68918-99-0	H, K
Gases (petroleum), dehexanizer off; Petroleum gas  (A complex combination of hydrocarbons obtained by the fractionation of combined naphtha streams. It consists of saturated aliphatic hydrocarbons having carbon numbers predominantly in the range of C <sub>1</sub> through C <sub>5</sub> .)	649-101-00-7	272-872-2	68919-00-6	H, K

Substances	Index number	EC number	CAS number	Notes
Gases (petroleum), light straight run gasoline fractionation stabilizer off; Petroleum gas  (A complex combination of hydrocarbons obtained by the fractionation of light straight-run gasoline. It consists of saturated aliphatic hydrocarbons having carbon numbers predominantly in the range of C <sub>1</sub> through C <sub>5</sub> .)	649-102-00-2	272-878-5	68919-05-1	H, K
Gases (petroleum), naphtha unifiner desulfurization stripper off; Petroleum gas  (A complex combination of hydrocarbons produced by a naphtha unifiner desulfurization process and stripped from the naphtha product. It consists of saturated aliphatic hydrocarbons having carbon numbers predominantly in the range of C <sub>1</sub> through C <sub>4</sub> .)	649-103-00-8	272-879-0	68919-06-2	H, K
Gases (petroleum), straight-run naphtha catalytic reforming off; Petroleum gas  (A complex combination of hydrocarbons obtained by the catalytic reforming of straight-run naphtha and fractionation of the total effluent. It consists of methane, ethane, and propane.)	649-104-00-3	272-882-7	68919-09-5	H, K
Gases (petroleum), fluidized catalytic cracker splitter overheads; Petroleum gas  (A complex combination of hydrocarbons produced by the fractionation of the charge to the C <sub>3</sub> -C <sub>4</sub> splitter. It consists predominantly of C <sub>3</sub> hydrocarbons.)	649-105-00-9	272-893-7	68919-20-0	H, K
Gases (petroleum), straight-run stabilizer off; Petroleum gas  (A complex combination of hydrocarbons obtained from the fractionation of the liquid from the first tower used in the distillation of crude oil. It consists of saturated aliphatic hydrocarbons having carbon numbers predominantly in the range of C <sub>1</sub> through C <sub>4</sub> .)	649-106-00-4	272-883-2	68919-10-8	H, K

Substances	Index number	EC number	CAS number	Notes
Gases (petroleum), catalytic cracked naphtha debutanizer; Petroleum gas  (A complex combination of hydrocarbons obtained from fractionation of catalytic cracked naphtha. It consists of hydrocarbons having carbon numbers predominantly in the range of C <sub>1</sub> through C <sub>4</sub> .)	649-107-00-X	273-169-3	68952-76-1	H, K
Tail gas (petroleum), catalytic cracked distillate and naphtha stabilizer; Petroleum gas  (A complex combination of hydrocarbons obtained by the fractionation of catalytic cracked naphtha and distillate. It consists predominantly of hydrocarbons having carbon numbers predominantly in the range of C <sub>1</sub> through C <sub>4</sub> .)	649-108-00-5	273-170-9	68952-77-2	H, K
Tail gas (petroleum), thermal-cracked distillate, gas oil and naphtha absorber; Petroleum gas  (A complex combination of hydrocarbons obtained from the separation of thermal-cracked distillates, naphtha and gas oil. It consists predominantly of hydrocarbons having carbon numbers predominantly in the range of C <sub>1</sub> through C <sub>6</sub> .)	649-109-00-0	273-175-6	68952-81-8	H, K
Tail gas (petroleum), thermal cracked hydrocarbon fractionation stabilizer, petroleum coking; Petroleum gas  (A complex combination of hydrocarbons obtained from the fractionation stabilization of thermal cracked hydrocarbons from a petroleum coking process. It consists of hydrocarbons having carbon numbers predominantly in the range of C <sub>1</sub> through C <sub>6</sub> .)	649-110-00-6	273-176-1	68952-82-9	H, K
Gases (petroleum, light steam-cracked, butadiene conc.); Petroleum gas  (A complex combination of hydrocarbons produced by the distillation of products from a thermal cracking process. It consists of hydrocarbons having a carbon number predominantly of C <sub>4</sub> .)	649-111-00-1	273-265-5	68955-28-2	H, K

Substances	Index number	EC number	CAS number	Notes
Gases (petroleum), straight-run naphtha catalytic reformer stabilizer overhead; Petroleum gas  (A complex combination of hydrocarbons obtained by the catalytic reforming of straight-run naphtha and the fractionation of the total effluent. It consists of saturated aliphatic hydrocarbons having carbon numbers predominantly in the range of C <sub>2</sub> through C <sub>4</sub> .)	649-112-00-7	273-270-2	68955-34-0	H, K
Hydrocarbons, C <sub>4</sub> ; Petroleum gas	649-113-00-2	289-339-5	87741-01-3	H, K
Alkanes, C <sub>1-4</sub> , C <sub>3</sub> -rich; Petroleum gas	649-114-00-8	292-456-4	90622-55-2	H, K
Gases (petroleum), steam-cracker C <sub>3</sub> -rich; Petroleum gas  (A complex combination of hydrocarbons produced by the distillation of products from a steam cracking process. It consists predominantly of propylene with some propane and boils in the range of approximately – 70 °C to 0 °C.)	649-115-00-3	295-404-9	92045-22-2	H, K
Hydrocarbons, C <sub>4</sub> , steam-cracker distillate; Petroleum gas  (A complex combination of hydrocarbons produced by the distillation of the products of a steam cracking process. It consists predominantly of hydrocarbons having a carbon number of C <sub>4</sub> , predominantly 1-butene and 2-butene, containing also butane and isobutene and boiling in the range of approximately – 12 °C to 5 °C.)	649-116-00-9	295-405-4	92045-23-3	H, K
Petroleum gases, liquefied, sweetened, C <sub>4</sub> fraction; Petroleum gas  (A complex combination of hydrocarbons obtained by subjecting a liquified petroleum gas mix to a sweetening process to oxidize mercaptans or to remove acidic impurities. It consists predominantly of C <sub>4</sub> saturated and unsaturated hydrocarbons.)	649-117-00-4	295-463-0	92045-80-2	H, K, S
Raffinates (petroleum), steam-cracked C <sub>4</sub> fraction cuprous ammonium acetate extn., C <sub>3-5</sub> and C <sub>3-5</sub> unsatd., butadiene-free; Petroleum gas	649-119 -00-5	307-769-4	97722-19-5	H, K

Substances	Index number	EC number	CAS number	Notes
Gases (petroleum), amine system feed; Refinery gas  (The feed gas to the amine system for removal of hydrogen sulphide. It consists primarily of hydrogen. Carbon monoxide, carbon dioxide, hydrogen sulfide and aliphatic hydrocarbons having carbon numbers predominantly in the range of C <sub>1</sub> through C <sub>5</sub> may also be present.)	649-120-00-0	270-746-1	68477-65-6	H, K
Gases (petroleum), benzene unit hydrodesulphurizer off; Refinery gas  (Off gases produced by the benzene unit. It consists primarily of hydrogen. Carbon monoxide and hydrocarbons having carbon numbers predominantly in the range of C <sub>1</sub> through C <sub>6</sub> , including benzene, may also be present.)	649-121-00-6	270-747-7	68477-66-7	H, K
Gases (petroleum), benzene unit recycle, hydrogen-rich; Refinery gas  (A complex combination of hydrocarbons obtained by recycling the gases of the benzene unit. It consists primarily of hydrogen with various small amounts of carbon monoxide and hydrocarbons having carbon numbers in the range of C <sub>1</sub> through C <sub>6</sub> .)	649-122-00-1	270-748-2	68477-67-8	H, K
Gases (petroleum), blend oil, hydrogen-nitrogen-rich; Refinery gas  (A complex combination of hydrocarbons obtained by distillation of a blend oil. It consists primarily of hydrogen and nitrogen with various small amounts of carbon monoxide, carbon dioxide, and aliphatic hydrocarbons having carbon numbers predominantly in the range of C <sub>1</sub> through C <sub>5</sub> .)	649-123-00-7	270-749-8	68477-68-9	H, K
Gases (petroleum), catalytic reformed naphtha stripper overheads; Refinery gas  (A complex combination of hydrocarbons obtained from stabilization of catalytic reformed naphtha. It consists of hydrogen and saturated hydrocarbons having carbon numbers predominantly in the range of C <sub>1</sub> through C <sub>4</sub> .)	649-124-00-2	270-759-2	68477-77-0	H, K

Substances	Index number	EC number	CAS number	Notes
Gases (petroleum), C <sub>6-8</sub> catalytic reformer recycle; Refinery gas  (A complex combination of hydrocarbons produced by distillation of products from catalytic reforming of C <sub>6</sub> -C <sub>8</sub> feed and recycled to conserve hydrogen. It consists primarily of hydrogen. It may also contain various small amounts of carbon monoxide, carbon dioxide, nitrogen, and hydrocarbons having carbon numbers predominantly in the range of C <sub>1</sub> through C <sub>6</sub> .)	649-125-00-8	270-761-3	68477-80-5	H, K
Gases (petroleum), C <sub>6-8</sub> catalytic reformer; Refinery gas  (A complex combination of hydrocarbons produced by distillation of products from catalytic reforming of C <sub>6</sub> -C <sub>8</sub> feed. It consists of hydrocarbons having carbon numbers in the range of C <sub>1</sub> through C <sub>5</sub> and hydrogen.)	649-126-00-3	270-762-9	68477-81-6	H, K
Gases (petroleum), C <sub>6-8</sub> catalytic reformer recycle, hydrogen-rich; Refinery gas	649-127-00-9	270-763-4	68477-82-7	H, K
Gases (petroleum), C <sub>2</sub> -return stream; Refinery gas  (A complex combination of hydrocarbons obtained by the extraction of hydrogen from a gas stream which consists primarily of hydrogen with small amounts of nitrogen, carbon monoxide, methane, ethane, and ethylene. It contains predominantly hydrocarbons such as methane, ethane, and ethylene with small amounts of hydrogen, nitrogen and carbon monoxide.)	649-128-00-4	270-766-0	68477-84-9	H, K
Gases (petroleum), dry sour, gas-concn.-unit-off; Refinery gas  (The complex combination of dry gases from a gas concentration unit. It consists of hydrogen, hydrogen sulphide and hydrocarbons having carbon numbers predominantly in the range of C <sub>1</sub> through C <sub>3</sub> .)	649-129-00-X	270-774-4	68477-92-9	H, K

Substances	Index number	EC number	CAS number	Notes
Gases (petroleum), gas concn. reabsorber distn.; Refinery gas  (A complex combination of hydrocarbons produced by distillation of products from combined gas streams in a gas concentration reabsorber. It consists predominantly of hydrogen, carbon monoxide, carbon dioxide, nitrogen, hydrogen sulphide and hydrocarbons having carbon numbers in the range of C <sub>1</sub> through C <sub>3</sub> .)	649-130-00-5	270-776-5	68477-93-0	H, K
Gases (petroleum), hydrogen absorber off; Refinery gas  (A complex combination obtained by absorbing hydrogen from a hydrogen rich stream. It consists of hydrogen, carbon monoxide, nitrogen, and methane with small amounts of C <sub>2</sub> hydrocarbons.)	649-131-00-0	270-779-1	68477-96-3	H, K
Gases (petroleum), hydrogen-rich; Refinery gas  (A complex combination separated as a gas from hydrocarbon gases by chilling. It consists primarily of hydrogen with various small amounts of carbon monoxide, nitrogen, methane, and C <sub>2</sub> hydrocarbons.)	649-132-00-6	270-780-7	68477-97-4	H, K
Gases (petroleum), hydrotreater blend oil recycle, hydrogen-nitrogen-rich; Refinery gas  (A complex combination obtained from recycled hydrotreated blend oil. It consists primarily of hydrogen and nitrogen with various small amounts of carbon monoxide, carbon dioxide and hydrocarbons having carbon numbers predominantly in the range of C <sub>1</sub> through C <sub>5</sub> .)	649-133-00-1	270-781-2	68477-98-5	H, K
Gases (petroleum), recycle, hydrogen-rich; Refinery gas  (A complex combination obtained from recycled reactor gases. It consists primarily of hydrogen with various small amounts of carbon monoxide, carbon dioxide, nitrogen, hydrogen sulphide, and saturated aliphatic hydrocarbons having carbon numbers in the range of C <sub>1</sub> through C <sub>5</sub> .)	649-134-00-7	270-783-3	68478-00-2	H, K

Substances	Index number	EC number	CAS number	Notes
Gases (petroleum), reformer make-up, hydrogen-rich; Refinery gas  (A complex combination obtained from the reformers. It consists primarily of hydrogen with various small amounts of carbon monoxide and aliphatic hydrocarbons having carbon numbers predominantly in the range of C <sub>1</sub> through C <sub>5</sub> .)	649-135-00-2	270-784-9	68478-01-3	H, K
Gases (petroleum), reforming hydrotreater; Refinery gas  (A complex combination obtained from the reforming hydrotreating process. It consists primarily of hydrogen, methane, and ethane with various small amounts of hydrogen sulphide and aliphatic hydrocarbons having carbon numbers predominantly in the range C <sub>3</sub> through C <sub>5</sub> .)	649-136-00-8	270-785-4	68478-02-4	H, K
Gases (petroleum), reforming hydrotreater, hydrogen-methane-rich; Refinery gas  (A complex combination obtained from the reforming hydrotreating process. It consists primarily of hydrogen and methane with various small amounts of carbon monoxide, carbon dioxide, nitrogen and saturated aliphatic hydrocarbons having carbon numbers predominantly in the range of C <sub>2</sub> through C <sub>5</sub> .)	649-137-00-3	270-787-5	68478-03-5	H, K
Gases (petroleum), reforming hydrotreater make-up, hydrogen-rich; Refinery gas  (A complex combination obtained from the reforming hydrotreating process. It consists primarily of hydrogen with various small amounts of carbon monoxide and aliphatic hydrocarbons having carbon numbers predominantly in the range of C <sub>1</sub> through C <sub>5</sub> .)	649-138-00-9	270-788-0	68478-04-6	H, K

Substances	Index number	EC number	CAS number	Notes
<p>Gases (petroleum), thermal cracking distn.; Refinery gas</p> <p>(A complex combination produced by distillation of products from a thermal cracking process. It consists of hydrogen, hydrogen sulphide, carbon monoxide, carbon dioxide and hydrocarbons having carbon numbers predominantly in the range of C<sub>1</sub> through C<sub>6</sub>.)</p>	649-139-00-4	270-789-6	68478-05-7	H, K
<p>Tail gas (petroleum), catalytic cracker refractionation absorber; Refinery gas</p> <p>(A complex combination of hydrocarbons obtained from refractionation of products from a catalytic cracking process. It consists of hydrogen and hydrocarbons having carbon numbers predominantly in the range of C<sub>1</sub> through C<sub>3</sub>.)</p>	649-140-00-X	270-805-1	68478-25-1	H, K
<p>Tail gas (petroleum), catalytic reformed naphtha separator; Refinery gas</p> <p>(A complex combination of hydrocarbons obtained from the catalytic reforming of straight-run naphtha. It consists of hydrogen and hydrocarbons having carbon numbers predominantly in the range of C<sub>1</sub> through C<sub>6</sub>.)</p>	649-141-00-5	270-807-2	68478-27-3	H, K
<p>Tail gas (petroleum), catalytic reformed naphtha stabilizer; Refinery gas</p> <p>(A complex combination of hydrocarbons obtained from the stabilization of catalytic reformed naphtha. It consists of hydrogen and hydrocarbons having carbon numbers predominantly in the range of C<sub>1</sub> through C<sub>6</sub>.)</p>	649-142-00-0	270-808-8	68478-28-4	H, K
<p>Tail gas (petroleum), cracked distillate hydrotreater separator; Refinery gas</p> <p>(A complex combination of hydrocarbons obtained by treating cracked distillates with hydrogen in the presence of a catalyst. It consists of hydrogen and saturated aliphatic hydrocarbons having carbon numbers predominantly in the range of C<sub>1</sub> through C<sub>5</sub>.)</p>	649-143-00-6	270-809-3	68478-29-5	H, K

Substances	Index number	EC number	CAS number	Notes
<p>Tail gas (petroleum), hydrodesulphurized straight-run naphtha separator; Refinery gas</p> <p>(A complex combination of hydrocarbons obtained from hydrodesulphurization of straight-run naphtha. It consists of hydrogen and saturated aliphatic hydrocarbons having carbon numbers predominantly in the range of C<sub>1</sub> through C<sub>6</sub>.)</p>	649-144-00-1	270-810-9	68478-30-8	H, K
<p>Gases (petroleum), catalytic reformed straight-run naphtha stabilizer overheads; Refinery gas</p> <p>(A complex combination of hydrocarbons obtained from the catalytic reforming of straight-run naphtha followed by fractionation of the total effluent. It consists of hydrogen, methane, ethane and propane.)</p>	649-145-00-7	270-999-8	68513-14-4	H, K
<p>Gases (petroleum), reformer effluent high-pressure flash drum off; Refinery gas</p> <p>(A complex combination produced by the high-pressure flashing of the effluent from the reforming reactor. It consists primarily of hydrogen with various small amounts of methane, ethane, and propane.)</p>	649-146-00-2	271-003-4	68513-18-8	H, K
<p>Gases (petroleum), reformer effluent low-pressure flash drum off; Refinery gas</p> <p>(A complex combination produced by low-pressure flashing of the effluent from the reforming reactor. It consists primarily of hydrogen with various small amounts of methane, ethane, and propane.)</p>	649-147-00-8	271-005-5	68513-19-9	H, K
<p>Gases (petroleum), oil refinery gas distn. off; Refinery gas</p> <p>(A complex combination separated by distillation of a gas stream containing hydrogen, carbon monoxide, carbon dioxide and hydrocarbons having carbon numbers in the range of C<sub>1</sub> through C<sub>6</sub> or obtained by cracking ethane and propane. It consists of hydrocarbons having carbon numbers predominantly in the range of C<sub>1</sub> through C<sub>2</sub>, hydrogen, nitrogen, and carbon monoxide.)</p>	649-148-00-3	271-258-1	68527-15-1	H, K

Substances	Index number	EC number	CAS number	Notes
<p>Gases (petroleum), benzene unit hydrotreater depentanizer overheads; Refinery gas</p> <p>(A complex combination produced by treating the feed from the benzene unit with hydrogen in the presence of a catalyst followed by depentanizing. It consists primarily of hydrogen, ethane and propane with various small amounts of nitrogen, carbon monoxide, carbon dioxide and hydrocarbons having carbon numbers predominantly in the range of C<sub>1</sub> through C<sub>6</sub>. It may contain trace amounts of benzene.)</p>	649-149-00-9	271-623-5	68602-82-4	H, K
<p>Gases (petroleum), secondary absorber off, fluidized catalytic cracker overheads fractionator; Refinery gas</p> <p>(A complex combination produced by the fractionation of the overhead products from the catalytic cracking process in the fluidized catalytic cracker. It consists of hydrogen, nitrogen, and hydrocarbons having carbon numbers predominantly in the range of C<sub>1</sub> through C<sub>3</sub>.)</p>	649-150-00-4	271-625-6	68602-84-6	H, K
<p>Petroleum products, refinery gases; Refinery gas</p> <p>(A complex combination which consists primarily of hydrogen with various small amounts of methane, ethane and propane.)</p>	649-151-00 -X	271-750-6	68607-11-4	H, K
<p>Gases (petroleum), hydrocracking low-pressure separator; Refinery gas</p> <p>(A complex combination obtained by the liquid-vapour separation of the hydrocracking process reactor effluent. It consists predominantly of hydrogen and saturated hydrocarbons having carbon numbers predominantly in the range of C<sub>1</sub> through C<sub>3</sub>.)</p>	649-152-00-5	272-182-1	68783-06-2	H, K
<p>Gases (petroleum), refinery; Refinery gas</p> <p>(A complex combination obtained from various petroleum refining operations. It consists of hydrogen and hydrocarbons having carbon numbers predominantly in the range of C<sub>1</sub> through C<sub>3</sub>.)</p>	649-153-00-0	272-338-9	68814-67-5	H, K

Substances	Index number	EC number	CAS number	Notes
<p>Gases (petroleum), platformer products separator off; Refinery gas</p> <p>(A complex combination obtained from the chemical reforming of naphthenes to aromatics. It consists of hydrogen and saturated aliphatic hydrocarbons having carbon numbers predominantly in the range of C<sub>2</sub> through C<sub>4</sub>.)</p>	649-154-00-6	272-343-6	68814-90-4	H, K
<p>Gases (petroleum), hydrotreated sour kerosine depentanizer stabilizer off; Refinery gas</p> <p>(The complex combination obtained from the depentanizer stabilization of hydrotreated kerosine. It consists primarily of hydrogen, methane, ethane, and propane with various small amounts of nitrogen, hydrogen sulphide, carbon monoxide and hydrocarbons having carbon numbers predominantly in the range of C<sub>4</sub> through C<sub>5</sub>.)</p>	649-155-00-1	272-775-5	68911-58-0	H, K
<p>Gases (petroleum), hydrotreated sour kerosine flash drum; Refinery gas</p> <p>(A complex combination obtained from the flash drum of the unit treating sour kerosine with hydrogen in the presence of a catalyst. It consists primarily of hydrogen and methane with various small amounts of nitrogen, carbon monoxide, and hydro-carbons having carbon numbers predominantly in the range of C<sub>2</sub> through C<sub>5</sub>.)</p>	649-156-00-7	272-776-0	68911-59-1	H, K
<p>Gases (petroleum), distillate unifier desulphurization stripper off; Refinery gas</p> <p>(A complex combination stripped from the liquid product of the unifier desulphurization process. It consists of hydrogen sulphide, methane, ethane, and propane.)</p>	649-157-00-2	272-873-8	68919-01-7	H, K
<p>Gases (petroleum), fluidized catalytic cracker fractionation off; Refinery gas</p> <p>(A complex combination produced by the fractionation of the overhead product of the fluidized catalytic cracking process. It consists of hydrogen, hydrogen sulphide, nitrogen, and hydrocarbons having carbon numbers predominantly in the range of C<sub>1</sub> through C<sub>5</sub>.)</p>	649-158-00-8	272-874-3	68919-02-8	H, K

Substances	Index number	EC number	CAS number	Notes
Gases (petroleum), fluidized catalytic cracker scrubbing secondary absorber off; Refinery gas  (A complex combination produced by scrubbing the overhead gas from the fluidized catalytic cracker. It consists of hydrogen, nitrogen, methane, ethane and propane.)	649-159-00-3	272-875-9	68919-03-9	H, K
Gases (petroleum), heavy distillate hydrotreater desulphurization stripper off; Refinery gas  (A complex combination stripped from the liquid product of the heavy distillate hydrotreater desulphurization process. It consists of hydrogen, hydrogen sulphide, and saturated aliphatic hydrocarbons having carbon numbers predominantly in the range of C <sub>1</sub> through C <sub>5</sub> .)	649-160-00-9	272-876-4	68919-04-0	H, K
Gases (petroleum), platformer stabilizer off, light ends fractionation; Refinery gas  (A complex combination obtained by the fractionation of the light ends of the platinum reactors of the platformer unit. It consists of hydrogen, methane, ethane and propane.)	649-161-00-4	272-880-6	68919-07-3	H, K
Gases (petroleum), preflash tower off, crude distn.; Refinery gas  (A complex combination produced from the first tower used in the distillation of crude oil. It consists of nitrogen and saturated aliphatic hydrocarbons having carbon numbers predominantly in the range of C <sub>1</sub> through C <sub>5</sub> .)	649-162-00-X	272-881-1	68919-08-4	H, K
Gases (petroleum), tar stripper off; Refinery gas  (A complex combination obtained by the fractionation of reduced crude oil. It consists of hydrogen and hydrocarbons having carbon numbers predominantly in the range of C <sub>1</sub> through C <sub>4</sub> .)	649-163-00-5	272-884-8	68919-11-9	H, K

Substances	Index number	EC number	CAS number	Notes
Gases (petroleum), unifiner stripper off; Refinery gas  (A combination of hydrogen and methane obtained by fractionation of the products from the unifiner unit.)	649-164-00-0	272-885-3	68919-12-0	H, K
Tail gas (petroleum), catalytic hydrodesulphurized naphtha separator; Refinery gas  (A complex combination of hydrocarbons obtained from the hydrodesulphurization of naphtha. It consists of hydrogen, methane, ethane, and propane.)	649-165-00-6	273-173-5	68952-79-4	H, K
Tail gas (petroleum), straight-run naphtha hydrodesulphurizer; Refinery gas  (A complex combination obtained from the hydrodesulphurization of straight-run naphtha. It consists of hydrogen and hydrocarbons having carbon numbers predominantly in the range of C <sub>1</sub> through C <sub>5</sub> .)	649-166-00-1	273-174-0	68952-80-7	H, K
Gases (petroleum), sponge absorber off, fluidized catalytic cracker and gas oil desulphurizer overhead fractionation; Refinery gas  (A complex combination obtained by the fractionation of products from the fluidized catalytic cracker and gas oil desulphurizer. It consists of hydrogen and hydrocarbons having carbon numbers predominantly in the range of C <sub>1</sub> through C <sub>4</sub> .)	649-167-00-7	273-269-7	68955-33-9	H, K
Gases (petroleum), crude distn. and catalytic cracking; Refinery gas  (A complex combination produced by crude distillation and catalytic cracking processes. It consists of hydrogen, hydrogen sulphide, nitrogen, carbon monoxide and paraffinic and olefinic hydrocarbons having carbon numbers predominantly in the range of C <sub>1</sub> through C <sub>6</sub> .)	649-168-00-2	273-563-5	68989-88-8	H, K

Substances	Index number	EC number	CAS number	Notes
Gases (petroleum), gas oil diethanolamine scrubber off; Refinery gas  (A complex combination produced by desulphurization of gas oils with diethanolamine. It consists predominantly of hydrogen sulphide, hydrogen and aliphatic hydrocarbons having carbon numbers in the range of C <sub>1</sub> through C <sub>5</sub> .)	649-169-00-8	295-397-2	92045-15-3	H, K
Gases (petroleum), gas oil hydrodesulphurization effluent; Refinery gas  (A complex combination obtained by separation of the liquid phase from the effluent from the hydrogenation reaction. It consists predominantly of hydrogen, hydrogen sulphide and aliphatic hydrocarbons having carbon numbers predominantly in the range of C <sub>1</sub> through C <sub>3</sub> .)	649-170-00-3	295-398-8	92045-16-4	H, K
Gases (petroleum), gas oil hydrodesulphurization purge; Refinery gas  (A complex combination of gases obtained from the reformer and from the purges from the hydrogenation reactor. It consists predominantly of hydrogen and aliphatic hydrocarbons having carbon numbers predominantly in the range of C <sub>1</sub> through C <sub>4</sub> .)	649-171-00-9	295-399-3	92045-17-5	H, K
Gases (petroleum), hydrogenator effluent flash drum off; Refinery gas  (A complex combination of gases obtained from flash of the effluents after the hydrogenation reaction. It consists predominantly of hydrogen and aliphatic hydrocarbons having carbon numbers predominantly in the range of C <sub>1</sub> through C <sub>6</sub> .)	649-172-00-4	295-400-7	92045-18-6	H, K

Substances	Index number	EC number	CAS number	Notes
<p>Gases (petroleum), naphtha steam cracking high-pressure residual; Refinery gas</p> <p>(A complex combination obtained as a mixture of the non-condensable portions from the product of a naphtha steam cracking process as well as residual gases obtained during the preparation of subsequent products. It consists predominantly of hydrogen and paraffinic and olefinic hydrocarbons having carbon numbers predominantly in the range of C<sub>1</sub> through C<sub>5</sub> with which natural gas may also be mixed.)</p>	649-173-00-X	295-401-2	92045-19-7	H, K
<p>Gases (petroleum), residue visbaking off; Refinery gas</p> <p>(A complex combination obtained from viscosity reduction of residues in a furnace. It consists predominantly of hydrogen sulphide and paraffinic and olefinic hydrocarbons having carbon numbers predominantly in the range of C<sub>1</sub> through C<sub>5</sub>.)</p>	649-174-00-5	295-402-8	92045-20-0	H, K
<p>Gases (petroleum), C<sub>3-4</sub>; Petroleum gas</p> <p>(A complex combination of hydrocarbons produced by distillation of products from the cracking of crude oil. It consists of hydrocarbons having carbon numbers in the range of C<sub>3</sub> through C<sub>4</sub>, predominantly of propane and propylene, and boiling in the range of approximately -51 °C to -1 °C.)</p>	649-177-00-1	268-629-5	68131-75-9	H, K
<p>Tail gas (petroleum), catalytic cracked distillate and catalytic cracked naphtha fractionation absorber; Petroleum gas</p> <p>(The complex combination of hydrocarbons from the distillation of the products from catalytic cracked distillates and catalytic cracked naphtha. It consists predominantly of hydrocarbons having carbon numbers in the range of C<sub>1</sub> through C<sub>4</sub>.)</p>	649-178-00-7	269-617-2	68307-98-2	H, K

Substances	Index number	EC number	CAS number	Notes
Tail gas (petroleum), catalytic polymn. naphtha fractionation stabilizer; Petroleum gas  (A complex combination of hydrocarbons from the fractionation stabilization products from polymerization of naphtha. It consists predominantly of hydrocarbons having carbon numbers in the range of C <sub>1</sub> through C <sub>4</sub> .)	649-179-00-2	269-618-8	68307-99-3	H, K
Tail gas (petroleum), catalytic reformed naphtha fractionation stabilizer, hydrogen sulphide-free; Petroleum gas  (A complex combination of hydrocarbons obtained from fractionation stabilization of catalytic reformed naphtha and from which hydrogen sulphide has been removed by amine treatment. It consists predominantly of hydrocarbons having carbon numbers predominantly in the range of C <sub>1</sub> through C <sub>4</sub> .)	649-180-00-8	269-619-3	68308-00-9	H, K
Tail gas (petroleum), cracked distillate hydrotreater stripper; Petroleum gas  (A complex combination of hydrocarbons obtained by treating thermal cracked distillates with hydrogen in the presence of a catalyst. It consists predominantly of saturated hydrocarbons having carbon numbers predominantly in the range of C <sub>1</sub> through C <sub>6</sub> .)	649-181-00-3	269-620-9	68308-01-0	H, K
Tail gas (petroleum), straight-run distillate hydrodesulphurizer, hydrogen sulphide-free; Petroleum gas  (A complex combination of hydrocarbons obtained from catalytic hydrodesulphurization of straight run distillates and from which hydrogen sulphide has been removed by amine treatment. It consists predominantly of hydrocarbons having carbon numbers predominantly in the range of C <sub>1</sub> through C <sub>4</sub> .)	649-182-00-9	269-630-3	68308-10-1	H, K
Tail gas (petroleum), gas oil catalytic cracking absorber; Petroleum gas  (A complex combination of hydrocarbons obtained from the distillation of products from the catalytic cracking of gas oil. It consists predominantly of hydrocarbons having carbon numbers predominantly in the range of C <sub>1</sub> through C <sub>5</sub> .)	649-183-00-4	269-623-5	68308-03-2	H, K

Substances	Index number	EC number	CAS number	Notes
Tail gas (petroleum), gas recovery plant; Petroleum gas  (A complex combination of hydrocarbons from the distillation of products from miscellaneous hydrocarbon streams. It consists predominantly of hydrocarbons having carbon numbers predominantly in the range of C <sub>1</sub> through C <sub>5</sub> .)	649-184-00-X	269-624-0	68308-04-3	H, K
Tail gas (petroleum), gas recovery plant deethanizer; Petroleum gas  (A complex combination of hydrocarbons from the distillation of products from miscellaneous hydrocarbon streams. It consists of hydrocarbon having carbon numbers predominantly in the range of C <sub>1</sub> through C <sub>4</sub> .)	649-185-00-5	269-625-6	68308-05-4	H, K
Tail gas (petroleum), hydrodesulphurized distillate and hydrodesulphurized naphtha fractionator, acid-free; Petroleum gas  (A complex combination of hydrocarbons obtained from fractionation of hydrodesulphurized naphtha and distillate hydrocarbon streams and treated to remove acidic impurities. It consists predominantly of hydrocarbons having carbon numbers predominantly in the range of C <sub>1</sub> through C <sub>5</sub> .)	649-186-00-0	269-626-1	68308-06-5	H, K
Tail gas (petroleum), hydrodesulphurized vacuum gas oil stripper, hydrogen sulphide-free; Petroleum gas  (A complex combination of hydrocarbons obtained from stripping stabilization of catalytic hydrodesulphurized vacuum gas oil and from which hydrogen sulphide has been removed by amine treatment. It consists predominantly of hydrocarbons having carbon numbers predominantly in the range of C <sub>1</sub> through C <sub>6</sub> .)	649-187-00-6	269-627-7	68308-07-6	H, K

Substances	Index number	EC number	CAS number	Notes
Tail gas (petroleum), light straight-run naphtha stabilizer, hydrogen sulphide-free; Petroleum gas  (A complex combination of hydrocarbons obtained from fractionation stabilization of light straight-run naphtha and from which hydrogen sulphide has been removed by amine treatment. It consists predominantly of hydrocarbons having carbon numbers predominantly in the range of C <sub>1</sub> through C <sub>5</sub> .)	649-188-00-1	269-629-8	68308-09-8	H, K
Tail gas (petroleum), propane-propylene alkylation feed prep deethanizer; Petroleum gas  (A complex combination of hydrocarbons obtained from the distillation of the reaction products of propane with propylene. It consists of hydrocarbons having carbon numbers predominantly in the range of C <sub>1</sub> through C <sub>4</sub> .)	649-189-00-7	269-631-9	68308-11-2	H, K
Tail gas (petroleum), vacuum gas oil hydrodesulphurizer, hydrogen sulphide-free; Petroleum gas  (A complex combination of hydrocarbons obtained from catalytic hydrodesulphurization of vacuum gas oil and from which hydrogen sulphide has been removed by amine treatment. It consists predominantly of hydrocarbons having carbon numbers predominantly in the range of C <sub>1</sub> through C <sub>6</sub> .)	649-190-00-2	269-632-4	68308-12-3	H, K
Gases (petroleum), catalytic cracked overheads; Petroleum gas  (A complex combination of hydrocarbons produced by the distillation of products from the catalytic cracking process. It consists of hydrocarbons having carbon numbers predominantly in the range of C <sub>3</sub> through C <sub>5</sub> and boiling in the range of approximately -48 °C to 32 °C.)	649-191-00-8	270-071-2	68409-99-4	H, K
Alkanes, C <sub>1-2</sub> ; Petroleum gas	649-193-00-9	270-651-5	68475-57-0	H, K
Alkanes, C <sub>2-3</sub> ; Petroleum gas	649-194-00-4	270-652-0	68475-58-1	H, K
Alkanes, C <sub>3-4</sub> ; Petroleum gas	649-195-00-X	270-653-6	68475-59-2	H, K

Substances	Index number	EC number	CAS number	Notes
Alkanes, C <sub>4-5</sub> ; Petroleum gas	649-196-00-5	270-654-1	68475-60-5	H, K
Fuel gases; Petroleum gas  (A combination of light gases. It consists predominantly of hydrogen and/or low molecular weight hydrocarbons.)	649-197-00-0	270-667-2	68476-26-6	H, K
Fuel gases, crude oil of distillates; Petroleum gas  (A complex combination of light gases produced by distillation of crude oil and by catalytic reforming of naphtha. It consists of hydrogen and hydrocarbons having carbon numbers predominantly in the range of C <sub>1</sub> through C <sub>4</sub> and boiling in the range of approximately -217 °C to -12 °C.)	649-198-00-6	270-670-9	68476-29-9	H, K
Hydrocarbons, C <sub>3-4</sub> ; Petroleum gas	649-199-00-1	270-681-9	68476-40-4	H, K
Hydrocarbons, C <sub>4-5</sub> ; Petroleum gas	649-200-00-5	270-682-4	68476-42-6	H, K
Hydrocarbons, C <sub>2-4</sub> , C <sub>3</sub> -rich; Petroleum gas	649-201-00-0	270-689-2	68476-49-3	H, K
Petroleum gases, liquefied; Petroleum gas  (A complex combination of hydrocarbons produced by the distillation of crude oil. It consists of hydrocarbons having carbon numbers predominantly in the range of C <sub>3</sub> through C <sub>7</sub> and boiling in the range of approximately -40 °C to 80 °C.)	649-202-00-6	270-704-2	68476-85-7	H, K, S
Petroleum gases, liquefied, sweetened; Petroleum gas  (A complex combination of hydrocarbons obtained by subjecting liquefied petroleum gas mix to a sweetening process to convert mercaptans or to remove acidic impurities. It consists of hydrocarbons having carbon numbers predominantly in the range of C <sub>3</sub> through C <sub>7</sub> and boiling in the range of approximately -40 °C to 80 °C.)	649-203-00-1	270-705-8	68476-86-8	H, K, S

Substances	Index number	EC number	CAS number	Notes
<p>Gases (petroleum), C<sub>3-4</sub>, isobutane-rich; Petroleum gas</p> <p>(A complex combination of hydrocarbons from the distillation of saturated and unsaturated hydrocarbons usually ranging in carbon numbers from C<sub>3</sub> through C<sub>6</sub>, predominantly butane and isobutane. It consists of saturated and unsaturated hydrocarbons having carbon numbers in the range of C<sub>3</sub> through C<sub>4</sub>, predominantly isobutane.)</p>	649-204-00-7	270-724-1	68477-33-8	H, K
<p>Distillates (petroleum), C<sub>3-6</sub>, piperylene-rich; Petroleum gas</p> <p>(A complex combination of hydrocarbons from the distillation of saturated and unsaturated aliphatic hydrocarbons usually ranging in the carbon numbers C<sub>3</sub> through C<sub>6</sub>. It consists of saturated and unsaturated hydrocarbons having carbon numbers in the range of C<sub>3</sub> through C<sub>6</sub>, predominantly piperylenes.)</p>	649-205-00-2	270-726-2	68477-35-0	H, K
<p>Gases (petroleum), butane splitter overheads; Petroleum gas</p> <p>(A complex combination of hydrocarbons obtained from the distillation of the butane stream. It consists of aliphatic hydrocarbons having carbon numbers predominantly in the range of C<sub>3</sub> through C<sub>4</sub>.)</p>	649-206-00-8	270-750-3	68477-69-0	H, K
<p>Gases (petroleum), C<sub>2-3</sub>; Petroleum gas</p> <p>(A complex combination of hydrocarbons produced by the distillation of products from a catalytic fractionation process. It contains predominantly ethane, ethylene, propane, and propylene.)</p>	649-207-00-3	270-751-9	68477-70-3	H, K

Substances	Index number	EC number	CAS number	Notes
<p>Gases (petroleum), catalytic-cracked gas oil depropanizer bottoms, C<sub>4</sub>-rich acid-free; Petroleum gas</p> <p>(A complex combination of hydrocarbons obtained from fractionation of catalytic cracked gas oil hydrocarbon stream and treated to remove hydrogen sulphide and other acidic components. It consists of hydrocarbons having carbon numbers in the range of C<sub>3</sub> through C<sub>5</sub>, predominantly C<sub>4</sub>.)</p>	649-208-00-9	270-752-4	68477-71-4	H, K
<p>Gases (petroleum), catalytic-cracked naphtha debutanizer bottoms, C<sub>3,5</sub>-rich; Petroleum gas</p> <p>(A complex combination of hydrocarbons obtained from the stabilization of catalytic cracked naphtha. It consists of aliphatic hydrocarbons having carbon numbers predominantly in the range of C<sub>3</sub> through C<sub>5</sub>.)</p>	649-209-00-4	270-754-5	68477-72-5	H, K
<p>Tail gas (petroleum), isomerized naphtha fractionation stabilizer; Petroleum gas</p> <p>(A complex combination of hydrocarbons obtained from the fractionation stabilization products from isomerized naphtha. It consists predominantly of hydrocarbons having carbon numbers predominantly in the range of C<sub>1</sub> through C<sub>4</sub>.)</p>	649-210-00-X	269-628-2	68308-08-7	H, K''

- (b) The entries with index numbers 024-002-00-6, 024-003-00-1, 024-004-00-7, 024-004-01-4, 048-006-00-2 and 048-008-00-3 are replaced by the following:

Substances	Index number	EC number	CAS number	Notes
Potassium dichromate	024-002-00-6	231-906-6	7778-50-9	E
Ammonium dichromate	024-003-00-1	232-143-1	7789-09-5	E
Sodium dichromate anhydrate	024-004-00-7	234-190-3	10588-01-9	E
Sodium dichromate, dihydrate	024-004-01-4	234-190-3	7789-12-0	E
Cadmium fluoride	048-006-00-2	232-222-0	7790-79-6	E
Cadmium chloride	048-008-00-3	233-296-7	10108-64-2	E''

5. In the list under heading “Point 31 - Toxic to reproduction: category 1”, the entries with index numbers 082-001-00-6 and 082-002-00-1 are replaced by the following:

Substances	Index number	EC number	CAS number	Notes
“Lead compounds with the exception of those specified elsewhere in the Annex I of Dir 67/548/EEC	082-001-00-6	—	—	A,E
Lead alkyls	082-002-00-1	—	—	A,E”

6. The list under heading “Point 31 - Toxic to reproduction: category 2” is amended as follows:

(a) The following entries are inserted:

Substances	Index number	EC number	CAS number	Notes
Linuron (ISO) 3-(3,4-dichlorophenyl)-1-methoxy-1-methylurea	006-021-00-1	206-356-5	330-55-2	E
Potassium dichromate	024-002-00-6	231-906-6	7778-50-9	E
Ammonium dichromate	024-003-00-1	232-143-1	7789-09-5	E
Sodium dichromate anhydrate	024-004-00-7	234-190-3	10588-01-9	E
Sodium dichromate, dihydrate	024-004-01-4	234-190-3	7789-12-0	E
Sodium chromate	024-018-00-3	231-889-5	7775-11-3	E
Cadmium sulphate	048-009-00-9	233-331-6	10124-36-4	E
1-Bromopropane Propyl bromide n-Propyl bromide	602-019-00-5	203-445-0	106-94-5	
1,2,3-Trichloropropane	602-062-00-X	202-486-1	96-18-4	D
Diphenylether; octabromo derivate	602-094-00-4	251-087-9	32536-52-0	
1,2-Dimethoxyethane ethylene glycol dimethyl ether EGDME	603-031-00-3	203-794-9	110-71-4	
1,2-Bis(2-methoxyethoxy)ethane TEGDME ; Triethylene glycol dimethyl ether ; Triglyme	603-176-00-2	203-977-3	112-49-2	
Tetrahydrothiopyran-3-carboxaldehyde	606-062-00-0	407-330-8	61571-06-0	

Substances	Index number	EC number	CAS number	Notes
1,2-benzenedicarboxylic acid, dipentylester, branched and linear [1] n-pentyl-isopentylphthalate [2] di-n-pentyl phthalate [3] Diisopentylphthalate [4]	607-426-00-1	284-032-2 [1] - [2] 205-017-9 [3] -[4]	84777-06-0 [1] - [2] 131-18-0 [3] 42925-80-4 [4]	
Benzyl butyl phthalate BBP	607-430-00-3	201-622-7	85-68-7	
1,2-Benzenedicarboxylic acid di-C7-11-branched and linear alkylesters	607-480-00-6	271-084-6	68515-42-4	
A mixture of: disodium 4-(3-ethoxycarbonyl-4-(5-(3-ethoxycarbonyl-5-hydroxy-1-(4-sulfonatophenyl)pyrazol-4-yl)penta-2,4-dienylidene)-4,5-dihydro-5-oxopyrazol-1-yl)benzenesulfonate; trisodium 4-(3-ethoxycarbonyl-4-(5-(3-ethoxycarbonyl-5-oxido-1-(4-sulfonatophenyl)pyrazol-4-yl)penta-2,4-dienylidene)-4,5-dihydro-5-oxopyrazol-1-yl)benzenesulfonate	607-487-00-4	402-660-9	—	
Dinocap (ISO)	609-023-00-6	254-408-0	39300-45-3	E
2-[2-hydroxy-3-(2-chlorophenyl)carbamoyl-1-naphthylazo]-7-[2-hydroxy-3-(3-methylphenyl)carbamoyl-1-naphthylazo]fluoren-9-one	611-131-00-3	420-580-2	—	
Azafenidin	611-140-00-2	—	68049-83-2	
Carbendazim (ISO) methyl benzimidazol-2-ylcarbamate	613-048-00-8	234-232-0	10605-21-7	
Benomyl (ISO) methyl 1-(butylcarbamoyl)benzimidazol-2-ylcarbamate	613-049-00-3	241-775-7	17804-35-2	
3-Ethyl-2-methyl-2-(3-methylbutyl)-1,3-oxazolidine	613-191-00-6	421-150-7	143860-04-2	

Substances	Index number	EC number	CAS number	Notes
<p>A mixture of: 1,3,5-tris(3-aminomethylphenyl)-1,3,5-(1H,3H,5H)-triazine-2,4,6-trione;</p> <p>a mixture of oligomers of 3,5-bis(3-aminomethylphenyl)-1-poly[3,5-bis(3-aminomethylphenyl)-2,4,6-trioxo-1,3,5-(1H,3H,5H)-triazin-1-yl]-1,3,5-(1H,3H,5H)-triazine-2,4,6-trione</p>	613-199-00-X	421-550-1	—“	

- (b) The entries with index numbers 048-006-00-2, 048-008-00-3 and 603-063-00-8 are replaced by the following:

Substances	Index number	EC number	CAS number	Notes
Cadmium fluoride	048-006-00-2	232-222-0	7790-79-6	E
Cadmium chloride	048-008-00-3	233-296-7	10108-64-2	E
2,3-Epoxypropan-1-ol; glycidol oxiranemethanol	603-063-00-8	209-128-3	556-52-5	E