Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

Date of issue: 25/4/2018 Revision date: 25/4/2018 Version: 1.00

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. **Product identifier**

: KRONES celerol SP 7409 Trade name

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.2.1. Relevant identified uses

Use of the substance/mixture : Lubricant

Uses advised against 1.2.2.

No additional information available

Details of the supplier of the safety data sheet

Supplier **Email competent person** sds@kft.de

KIC KRONES Internationale Cooperationsgesellschaft mbH

Böhmerwaldstraße 5 93073 Neutraubling

T +49 9401 70-3020 - F +49 9401 70-3696 kic@kic-krones.de - www.kic-krones.com

Emergency telephone number

Emergency number : For Hazardous Materials [or Dangerous Goods] Incidents

Spill, Leak, Fire, Exposure, or Accident

Call CHEMTREC Day or Night

Within USA and Canada: 1-800-424-9300

Outside USA and Canada: +1 703-741-5970 (collect calls accepted)

SECTION 2: Hazards identification

Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Aerosol, Category 1 H222;H229 Skin corrosion/irritation, Category 2 H315 Specific target organ toxicity — Single H336 exposure, Category 3, Narcosis H304 Aspiration hazard, Category 1 Hazardous to the aquatic environment — H411

Chronic Hazard, Category 2

Full text of H statements : see section 16

Adverse physicochemical, human health and environmental effects

Pressurised container: May burst if heated. Extremely flammable aerosol. May cause drowsiness or dizziness. Causes skin irritation. Toxic to aquatic life with long lasting effects.

2.2. Label elements

Signal word (CLP)

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)



GHS07





GHS02

: Danger

Hazardous ingredients : Hydrocarbons, C7-C9, isoalkanes Hazard statements (CLP) : H222 - Extremely flammable aerosol.

H229 - Pressurised container: May burst if heated. H304 - May be fatal if swallowed and enters airways.

H315 - Causes skin irritation.

H336 - May cause drowsiness or dizziness. H411 - Toxic to aquatic life with long lasting effects.

Precautionary statements (CLP) : P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No

smoking.

P211 - Do not spray on an open flame or other ignition source.

P251 - Do not pierce or burn, even after use.

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P261 - Avoid breathing mist.

P273 - Avoid release to the environment.

P280 - Wear protective gloves, protective clothing, eye protection, face protection.

P301+P310+P331 - IF SWALLOWED: Immediately call a POISON CENTER, a doctor. Do NOT

induce vomiting.

P410+P412 - Protect from sunlight. Do not expose to temperatures exceeding 50 °C.

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Hydrocarbons, C7-C9, isoalkanes (Note P)	(CAS-No.) 64741-66-8 (EC-No.) 921-728-3 (REACH-no) 01-2119471305-42-xxxx	>=25 - <30	Flam. Liq. 2, H225 Skin Irrit. 2, H315 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Chronic 2, H411
butane substance with national workplace exposure limit(s) (GB) (Note C)(Note U)	(CAS-No.) 106-97-8 (EC-No.) 203-448-7 (EC Index-No.) 601-004-00-0	>=1 - <10	Flam. Gas 1, H220 Press. Gas (Comp.), H280

Note C: Some organic substances may be marketed either in a specific isomeric form or as a mixture of several isomers. In this case the supplier must state on the label whether the substance is a specific isomer or a mixture of isomers.

Note P: 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 benzene (EINECS No 200-753-7). When the substance is not classified as a carcinogen at least the precautionary statements (P102-)P260-P262-P301 + P310-P331 (Table 3.1) or the S-phrases (2-)23-24-62 (Table 3.2) shall apply. This note applies only to certain complex oil-derived substances in Part 3

Note U (Table 3): When put on the market gases have to be classified as 'Gases under pressure', in one of the groups compressed gas, liquefied gas, refrigerated liquefied gas or dissolved gas. The group depends on the physical state in which the gas is packaged and therefore has to be assigned case by case.

Full text of H-statements: see section 16

SECTION 4: First aid measures

First-aid measures after eye contact

First-aid measures general : Take off contaminated clothing and wash it before reuse. Call a poison center or a doctor if you

feel unwell.

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Make the affected person rest

and keep at warm. Immediately call a POISON CENTER/doctor. If unconscious, place in the

recovery position and seek medical advice. Artificial respiration if indicated.

First-aid measures after skin contact : Gently wash with plenty of soap and water. Take off contaminated clothing. If skin irritation occurs: Get medical advice/attention.

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to

do. Continue rinsing. Get medical advice/attention.

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First-aid measures after ingestion : Move the affected person to the fresh air. Rinse mouth out with water. Do not induce vomiting.

Call a poison center or a doctor if you feel unwell.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects : May cause drowsiness or dizziness.

Symptoms/effects after inhalation : Respiratory difficulties. Depression of the central nervous system, headaches, dizziness,

drowsiness, loss of coordination. Vomiting.

Symptoms/effects after skin contact : Irritation

Symptoms/effects after eye contact : Direct contact with the eyes is likely to be irritating.

Symptoms/effects after ingestion : CNS depression.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

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SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media : Use fire fighting measures suiting the environment.

Unsuitable extinguishing media : Strong water jet.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Extremely flammable aerosol.

Explosion hazard : Pressurised container: May burst if heated. Vapours may form explosive mixture with air.

Hazardous decomposition products in case of

fire

: Toxic fumes may be released. Carbon monoxide. Carbon dioxide. Metal oxides. Phosphorus

5.3. Advice for firefighters

Precautionary measures fire : Evacuate unnecessary personnel.

Firefighting instructions : Cool down the containers exposed to heat with a water spray.

Protection during firefighting In case of fire and/or explosion do not breathe fumes. Do not attempt to take action without

suitable protective equipment. Self-contained breathing apparatus. Complete protective

Other information Do not allow run-off from fire fighting to enter drains or water courses. Disposal must be done

according to official regulations.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Remove ignition sources. Evacuate unnecessary personnel. Ensure adequate air ventilation.

For non-emergency personnel 6.1.1.

Protective equipment : Wear personal protective equipment.

Emergency procedures Ventilate spillage area. No open flames, no sparks, and no smoking. Avoid breathing spray.

Avoid contact with skin and eves.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information

refer to section 8: "Exposure controls/personal protection".

6.2 **Environmental precautions**

Avoid sub-soil penetration. Prevent entry to sewers and public waters.

6.3. Methods and material for containment and cleaning up

For containment : Collect spillage.

Methods for cleaning up Take up liquid spill into a non combustible material e.g.: sand, earth, vermiculite kieselguhr,

powdered limestone. Mechanically recover the product. Disposal must be done according to

official regulations. Non- sparking tools should be used.

Other information : Disposal must be done according to official regulations.

Reference to other sections 6.4.

Information for safe handling. See section 7. Concerning personal protective equipment to use, see section 8. For further information refer to section 13.

SECTION 7: Handling and storage

Precautions for safe handling

Avoid contact with skin and eyes. Ensure adequate ventilation, especially in confined areas. Precautions for safe handling

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use. Use only outdoors or in a well-ventilated area. Avoid breathing spray. Wear personal

protective equipment. Provide local exhaust or general room ventilation.

Take off immediately all contaminated clothing and wash it before reuse. Hand protection: skin Hygiene measures cream may be used. Do not eat, drink or smoke when using this product. Always wash hands

after handling the product. Wash hands before breaks and after work.

Conditions for safe storage, including any incompatibilities

Storage conditions Keep only in original container. Keep container tightly closed. Do not expose to temperatures

exceeding 50 °C/ 122 °F. Store in a well-ventilated place. Keep cool.

Incompatible materials : oxidizing materials.

Information about storage in one common

storage facility

: Keep away from food, drink and animal feeding stuffs.

: Keep away from heat and direct sunlight. Storage area

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7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

butane (106-97-8)		
United Kingdom	Local name	Butane
United Kingdom	WEL TWA (mg/m³)	1450 mg/m³
United Kingdom	WEL TWA (ppm)	600 ppm
United Kingdom	WEL STEL (mg/m³)	1810 mg/m³
United Kingdom	WEL STEL (ppm)	750 ppm
United Kingdom	Remark (WEL)	Carc (Capable of causing cancer and/or heritable genetic damage. See paragraphs 49–51), (only applies if Butane contains more than 0.1% of buta-1,3-diene)
United Kingdom	Regulatory reference	EH40. HSE

Hydrocarbons, C7-C9, isoalkanes (64741-66-8)		
DNEL/DMEL (Workers)		
Long-term - systemic effects, dermal	773 mg/kg bodyweight/day	
Long-term - systemic effects, inhalation	2035 mg/m³	
DNEL/DMEL (General population)		
Long-term - systemic effects,oral	699 mg/kg bodyweight/day	
Long-term - systemic effects, inhalation	608 mg/m³	
Long-term - systemic effects, dermal	699 mg/kg bodyweight/day	

8.2. Exposure controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

Hand protection:

Choosing the proper glove is a decision that depends not only on the type of material, but also on other quality features, which differ for each manufacturer. Please follow the instructions related to the permeability and the penetration time provided by the manufacturer. Gloves must be replaced after each use and whenever signs of wear or perforation appear

Туре	Material	Permeation	Thickness (mm)	Penetration	Standard
Chemically resistant protective gloves	Nitrile rubber	No information available	-	1 (< 4.0)	EN 374

Eye protection:

Safety glasses with side shields. EN 166

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

Not required for normal conditions of use. EN 143

Device	Filter type	Condition	Standard
Breathing apparatus with filter	A-P2	In case of unintentional release of substance, exceeding the occupational exposure limit value	EN 143

Environmental exposure controls:

Avoid release to the environment.

Other information:

Use only in well ventilated areas. Wash hands before breaks and after work. Apply emollient cream. Do not breathe gas/vapour/aerosol.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid
Appearance : Aerosol.
Colour : Grey.
Odour : characteristic.

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Odour threshold : No data available pH : No data available Relative evaporation rate (butylacetate=1) : No data available Melting point : Not applicable Freezing point : No data available

Boiling point : <-10 °C

Flash point : -80 °C (closed cup)

Auto-ignition temperature : > 350 °C

Decomposition temperature : No data available Flammability (solid, gas) : Not applicable

Extremely flammable aerosol.

Vapour pressure : 2700 hPa (20°C)
Relative vapour density at 20 °C : No data available
Relative density : No data available
Density : 0,6 g/cm³ (20°C)
Solubility : Insoluble.

Log Pow : No data available
Viscosity, kinematic : No data available
Viscosity, dynamic : No data available

Explosive properties : Pressurised container: May burst if heated.

Oxidising properties : No data available
Lower explosive limit (LEL) : 1,5 vol %
Upper explosive limit (UEL) : 11,2 vol %

9.2. Other informationNo additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Extremely flammable aerosol. Pressurised container: May burst if heated.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No additional information available

10.4. Conditions to avoid

No flames, no sparks. Eliminate all sources of ignition. Avoid contact with hot surfaces.

10.5. Incompatible materials

Oxidizing agent.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified (Based on available data, the classification criteria are not met)

Acute toxicity (dermal) : Not classified (Based on available data, the classification criteria are not met)

Acute toxicity (inhalation) : Not classified (Based on available data, the classification criteria are not met)

Hydrocarbons, C7-C9, isoalkanes (64741-6	66-8)
LD50 oral rat	7100 - 7800 mg/kg bodyweight (OECD 401 method)
LD50 dermal rabbit	2200 - 2500 mg/kg bodyweight (OECD 402 method)
Skin corrosion/irritation	: Causes skin irritation.

Additional information : Defatting effect on the skin

Serious eye damage/irritation : Not classified (Based on available data, the classification criteria are not met)

Additional information : (OECD 405 method)

Respiratory or skin sensitisation : Not classified (Based on available data, the classification criteria are not met)

Additional information : (OECD 406 method)

Germ cell mutagenicity : Not classified (Based on available data, the classification criteria are not met)

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Additional information : Mutagenic effects are possible

Carcinogenicity : Not classified (Based on available data, the classification criteria are not met)

Reproductive toxicity : Not classified (Based on available data, the classification criteria are not met)

STOT-single exposure : May cause drowsiness or dizziness.

Additional information : Causes damage to organs (Central nervous system.) (Inhalation).

STOT-repeated exposure : Not classified (Based on available data, the classification criteria are not met)

Aspiration hazard : May be fatal if swallowed and enters airways. (Based on available data, the classification

criteria are not met)

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Toxic to aquatic life with long lasting effects.

Acute aquatic toxicity : Not classified (Based on available data, the classification criteria are not met)

Chronic aquatic toxicity : Toxic to aquatic life with long lasting effects.

Hydrocarbons, C7-C9, isoalkanes (64	4741-66-8)	
LC50 fish 1	0,11 mg/l (96h;Oncorhynchus mykiss; (OECD 203 method))	
EC50 Daphnia 1	0,4 mg/l (48h;Daphnia magna)	
NOEC chronic fish	0,778 mg/l (28d;Oncorhynchus mykiss)	
NOEC chronic crustacea	0.17 mg/l (21d: Daphnia magna)	

12.2. Persistence and degradability

Hydrocarbons, C7-C9, isoalkanes (64741-66-8	
Persistence and degradability	Not readily biodegradable. (OECD 301F method).
Biodegradation	51,3 % (28d)

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

Component	
butane (106-97-8)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII
	This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

12.6. Other adverse effects

Other adverse effects : Harmful effect due to pH-value shift.

Additional information : Neutralisation is necessary before draining of to the purification plant

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Disposal must be done according to official regulations. European waste catalogue. Do not

dispose of with domestic waste. Do not discharge into drains or the environment.

Product/Packaging disposal recommendations : Entrust the uncontaminated packaging to a licensed waste contractor.

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HP Code

- : HP3 "Flammable:"
 - flammable liquid waste: liquid waste having a flash point below 60 °C or waste gas oil, diesel and light heating oils having a flash point > 55 °C and ≤ 75 °C;
 - flammable pyrophoric liquid and solid waste: solid or liquid waste which, even in small quantities, is liable to ignite within five minutes after coming into contact with air;
 - flammable solid waste: solid waste which is readily combustible or may cause or contribute to fire through friction;
 - flammable gaseous waste: gaseous waste which is flammable in air at 20 $^{\circ}$ C and a standard pressure of 101.3 kPa;
 - water reactive waste: waste which, in contact with water, emits flammable gases in dangerous quantities;
 - other flammable waste: flammable aerosols, flammable self-heating waste, flammable organic peroxides and flammable self-reactive waste.
 - HP5 "Specific Target Organ Toxicity (STOT)/Aspiration Toxicity:" waste which can cause specific target organ toxicity either from a single or repeated exposure, or which cause acute toxic effects following aspiration.
 - HP4 "Irritant skin irritation and eye damage:" waste which on application can cause skin irritation or damage to the eye.
 - HP14 "Ecotoxic:" waste which presents or may present immediate or delayed risks for one or more sectors of the environment

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	IATA	ADN	RID
14.1. UN number			•	•
1950	1950	1950	1950	1950
14.2. UN proper shippi	ng name			
AEROSOLS	AEROSOLS	Aerosols, flammable	AEROSOLS	AEROSOLS
Transport document descr	iption			
UN 1950 AEROSOLS, 2.1, (D), ENVIRONMENTALLY HAZARDOUS	UN 1950 AEROSOLS, 2.1, MARINE POLLUTANT/ENVIRONM ENTALLY HAZARDOUS	UN 1950 Aerosols, flammable, 2.1, ENVIRONMENTALLY HAZARDOUS	UN 1950 AEROSOLS, 2.1, ENVIRONMENTALLY HAZARDOUS	UN 1950 AEROSOLS, 2.1, ENVIRONMENTALLY HAZARDOUS
14.3. Transport hazard	class(es)			
2.1	2.1	2.1	2.1	2.1
**************************************	Y 2	Y	**************************************	
14.4. Packing group				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.5. Environmental hazards				
Dangerous for the environment : Yes	Dangerous for the environment : Yes Marine pollutant : Yes	Dangerous for the environment : Yes	Dangerous for the environment : Yes	Dangerous for the environment : Yes
	No supplementary information available			

14.6. Special precautions for user

- Overland transport

Classification code (ADR) : 5F

Special provisions (ADR) : 190, 327, 344, 625

Limited quantities (ADR) : 11
Excepted quantities (ADR) : E0
Transport category (ADR) : 2
Tunnel restriction code (ADR) : D

- Transport by sea

Special provisions (IMDG) : 63, 190, 277, 327, 344, 381, 959

EmS-No. (Fire): F-DEmS-No. (Spillage): S-UStowage and handling (IMDG): SW1, SW22Segregation (IMDG): SG69

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- Air transport

PCA Excepted quantities (IATA) : E0
PCA Limited quantities (IATA) : Y203
PCA limited quantity max net quantity (IATA) : 30kgG
PCA packing instructions (IATA) : 203
PCA max net quantity (IATA) : 75kg
CAO max net quantity (IATA) : 150kg

Special provisions (IATA) : A145, A167, A802

- Inland waterway transport

Classification code (ADN) : 5F

Special provisions (ADN) : 190, 327, 344, 625

Limited quantities (ADN) : 1 L

Excepted quantities (ADN) : E0

- Rail transport

Special provisions (RID) : 190, 327, 344, 625

Limited quantities (RID) : 1L

Excepted quantities (RID) : E0

Transport category (RID) : 2

Hazard identification number (RID) : 23

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1. EU-Regulations

The following restrictions are applicable according to Annex XVII of the REACH Regulation (EC) No 1907/2006:

3. Liquid substances or mixtures which are regarded as dangerous in accordance with Directive 1999/45/EC or are fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008	Hydrocarbons, C7-C9, isoalkanes
3(a) Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 2.1 to 2.4, 2.6 and 2.7, 2.8 types A and B, 2.9, 2.10, 2.12, 2.13 categories 1 and 2, 2.14 categories 1 and 2, 2.15 types A to F	KRONES celerol SP 7409 - Hydrocarbons, C7- C9, isoalkanes
3(b) Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10	KRONES celerol SP 7409 - Hydrocarbons, C7- C9, isoalkanes
3(c) Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard class 4.1	KRONES celerol SP 7409 - Hydrocarbons, C7- C9, isoalkanes
40. Substances classified as flammable gases category 1 or 2, flammable liquids categories 1, 2 or 3, flammable solids category 1 or 2, substances and mixtures which, in contact with water, emit flammable gases, category 1, 2 or 3, pyrophoric liquids category 1 or pyrophoric solids category 1, regardless of whether they appear in Part 3 of Annex VI to Regulation (EC) No 1272/2008 or not.	butane - isobutane - propane

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Other information, restriction and prohibition

: Take note of Directive 94/33/EC on the protection of young people at work.

regulations

Directive 2012/18/EU (SEVESO III) : E2 Hazardous to the Aquatic Environment in Category Chronic 2

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Abbreviations and acronyms:

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ADN European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways ADR European Agreement concerning the International Carriage of Dangerous Goods by Road ATE Acute Toxicity Estimate BCF Bioconcentration factor CLP Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008 DMEL Derived Minimal Effect level DNEL Derived-No Effect Level DPD Dangerous Preparations Directive 1999/45/EC DSD Dangerous Substances Directive 67/548/EEC EC50 Median effective concentration IARC International Agency for Research on Cancer IATA International Air Transport Association IMDG International Maritime Dangerous Goods LC50 Median lethal concentration LD50 Median lethal dose LOAEL Lowest Observed Adverse Effect Level NOAEC No-Observed Adverse Effect Level NOAEC No-Observed Adverse Effect Level NOAEL No-Observed Effect Concentration OECD Organisation for Economic Co-operation and Development PBT Persistent Bioaccumulative Toxic				
ATE Acute Toxicity Estimate BCF Bioconcentration factor CLP Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008 DMEL Derived Minimal Effect level DNEL Derived-No Effect Level DPD Dangerous Preparations Directive 1999/45/EC DSD Dangerous Substances Directive 67/548/EEC EC50 Median effective concentration IARC International Agency for Research on Cancer IATA International Agency for Research on Cancer IATA International Maritime Dangerous Goods LC50 Median lethal concentration LD50 Median lethal concentration LD50 Median lethal dose LOAEL Lowest Observed Adverse Effect Level NOAEC No-Observed Adverse Effect Concentration NOAEL No-Observed Adverse Effect Concentration OECD Organisation for Economic Co-operation and Development		European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways		
BCF Bioconcentration factor CLP Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008 DMEL Derived Minimal Effect level DNEL Derived-No Effect Level DPD Dangerous Preparations Directive 1999/45/EC DSD Dangerous Substances Directive 67/548/EEC EC50 Median effective concentration IARC International Agency for Research on Cancer IATA International Air Transport Association IMDG International Maritime Dangerous Goods LC50 Median lethal concentration LD50 Median lethal dose LOAEL Lowest Observed Adverse Effect Level NOAEC No-Observed Adverse Effect Concentration NOAEL No-Observed Adverse Effect Level NOEC No-Observed Effect Concentration OECD Organisation for Economic Co-operation and Development				
CLP Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008 DMEL Derived Minimal Effect level DNEL Derived-No Effect Level DPD Dangerous Preparations Directive 1999/45/EC DSD Dangerous Substances Directive 67/548/EEC EC50 Median effective concentration IARC International Agency for Research on Cancer IATA International Air Transport Association IMDG International Maritime Dangerous Goods LC50 Median lethal concentration LD50 Median lethal dose LOAEL Lowest Observed Adverse Effect Level NOAEC No-Observed Adverse Effect Level NOAEL No-Observed Effect Concentration DECD Organisation for Economic Co-operation and Development	ATE	Acute Toxicity Estimate		
DMEL Derived Minimal Effect level DNEL Derived-No Effect Level DPD Dangerous Preparations Directive 1999/45/EC DSD Dangerous Substances Directive 67/548/EEC EC50 Median effective concentration IARC International Agency for Research on Cancer IATA International Air Transport Association IMDG International Maritime Dangerous Goods LC50 Median lethal concentration LD50 Median lethal dose LOAEL Lowest Observed Adverse Effect Level NOAEC No-Observed Adverse Effect Concentration NOAEL No-Observed Effect Concentration NOAEL No-Observed Effect Concentration OECD Organisation for Economic Co-operation and Development	BCF	Bioconcentration factor		
DNEL Derived-No Effect Level DPD Dangerous Preparations Directive 1999/45/EC DSD Dangerous Substances Directive 67/548/EEC EC50 Median effective concentration IARC International Agency for Research on Cancer IATA International Air Transport Association IMDG International Maritime Dangerous Goods LC50 Median lethal concentration LD50 Median lethal dose LOAEL Lowest Observed Adverse Effect Level NOAEC No-Observed Adverse Effect Concentration NOAEL No-Observed Effect Concentration OECD Organisation for Economic Co-operation and Development	CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008		
DPD Dangerous Preparations Directive 1999/45/EC DSD Dangerous Substances Directive 67/548/EEC EC50 Median effective concentration IARC International Agency for Research on Cancer IATA International Air Transport Association IMDG International Maritime Dangerous Goods LC50 Median lethal concentration LD50 Median lethal dose LOAEL Lowest Observed Adverse Effect Level NOAEC No-Observed Adverse Effect Concentration NOAEL No-Observed Effect Concentration OECD Organisation for Economic Co-operation and Development	DMEL	Derived Minimal Effect level		
DSD Dangerous Substances Directive 67/548/EEC EC50 Median effective concentration IARC International Agency for Research on Cancer IATA International Air Transport Association IMDG International Maritime Dangerous Goods LC50 Median lethal concentration LD50 Median lethal dose LOAEL Lowest Observed Adverse Effect Level NOAEC No-Observed Adverse Effect Concentration NOAEL No-Observed Adverse Effect Level NOEC No-Observed Effect Concentration OECD Organisation for Economic Co-operation and Development	DNEL	Derived-No Effect Level		
EC50 Median effective concentration IARC International Agency for Research on Cancer IATA International Air Transport Association IMDG International Maritime Dangerous Goods LC50 Median lethal concentration LD50 Median lethal dose LOAEL Lowest Observed Adverse Effect Level NOAEC No-Observed Adverse Effect Concentration NOAEL No-Observed Adverse Effect Level NOEC No-Observed Effect Concentration OECD Organisation for Economic Co-operation and Development	DPD	Dangerous Preparations Directive 1999/45/EC		
IARC International Agency for Research on Cancer IATA International Air Transport Association IMDG International Maritime Dangerous Goods LC50 Median lethal concentration LD50 Median lethal dose LOAEL Lowest Observed Adverse Effect Level NOAEC No-Observed Adverse Effect Concentration NOAEL No-Observed Adverse Effect Level NOEC No-Observed Effect Concentration OECD Organisation for Economic Co-operation and Development	DSD	Dangerous Substances Directive 67/548/EEC		
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LC50 Median lethal concentration LD50 Median lethal dose LOAEL Lowest Observed Adverse Effect Level NOAEC No-Observed Adverse Effect Concentration NOAEL No-Observed Adverse Effect Level NOEC No-Observed Effect Concentration OECD Organisation for Economic Co-operation and Development	IATA			
LD50 Median lethal dose LOAEL Lowest Observed Adverse Effect Level NOAEC No-Observed Adverse Effect Concentration NOAEL No-Observed Adverse Effect Level NOEC No-Observed Effect Concentration OECD Organisation for Economic Co-operation and Development	IMDG	International Maritime Dangerous Goods		
LOAEL Lowest Observed Adverse Effect Level NOAEC No-Observed Adverse Effect Concentration NOAEL No-Observed Adverse Effect Level NOEC No-Observed Effect Concentration OECD Organisation for Economic Co-operation and Development	LC50	Median lethal concentration		
NOAEC No-Observed Adverse Effect Concentration NOAEL No-Observed Adverse Effect Level NOEC No-Observed Effect Concentration OECD Organisation for Economic Co-operation and Development	LD50	Median lethal dose		
NOAEL No-Observed Adverse Effect Level NOEC No-Observed Effect Concentration OECD Organisation for Economic Co-operation and Development	LOAEL	Lowest Observed Adverse Effect Level		
NOEC No-Observed Effect Concentration OECD Organisation for Economic Co-operation and Development	NOAEC	No-Observed Adverse Effect Concentration		
OECD Organisation for Economic Co-operation and Development	NOAEL	No-Observed Adverse Effect Level		
	NOEC	No-Observed Effect Concentration		
PBT Persistent Bioaccumulative Toxic	OECD			
	PBT	Persistent Bioaccumulative Toxic		
PNEC Predicted No-Effect Concentration	PNEC			
REACH Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006	REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006		
RID Regulations concerning the International Carriage of Dangerous Goods by Rail	RID	Regulations concerning the International Carriage of Dangerous Goods by Rail		
SDS Safety Data Sheet	SDS			
STP Sewage treatment plant	STP	Sewage treatment plant		
TLM Median Tolerance Limit	TLM	Median Tolerance Limit		
vPvB Very Persistent and Very Bioaccumulative	vPvB	Very Persistent and Very Bioaccumulative		

Data sources : Information provided by the manufacturer.

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Full text of H- and EUH-statements:

Full text of H- and EUH-statements:				
Aerosol 1	Aerosol, Category 1			
Aquatic Chronic 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2			
Asp. Tox. 1	Aspiration hazard, Category 1			
Flam. Gas 1	Flammable gases, Category 1			
Flam. Liq. 2	Flammable liquids, Category 2			
Press. Gas (Comp.)	Gases under pressure: Compressed gas			
Skin Irrit. 2	Skin corrosion/irritation, Category 2			
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Narcosis			
H220	Extremely flammable gas.			
H222	Extremely flammable aerosol.			
H225	Highly flammable liquid and vapour.			
H229	Pressurised container: May burst if heated.			
H280	Contains gas under pressure; may explode if heated.			
H304	May be fatal if swallowed and enters airways.			
H315	Causes skin irritation.			
H336	May cause drowsiness or dizziness.			
H411	Toxic to aquatic life with long lasting effects.			

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Aerosol 1	H222;H229	
Skin Irrit. 2	H315	Calculation method
STOT SE 3	H336	Calculation method
Asp. Tox. 1	H304	
Aquatic Chronic 2	H411	Calculation method

KFT SDS EU 00

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product

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