

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878 SDS Reference Number: 00295 Issue date: 4/9/2014 Revision date: 6/23/2025 Supersedes version of: 4/15/2016 Version: 1.0

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

1.1. Product identifier Product form • Substance Trade name 1,1,2,2-TETRACHLOROETHANE EXTRA PURE EC Index-No. 602-015-00-3 EC-No. 201-197-8 • CAS-No. • 79-34-5 Product code 00295 Alkyl halides Type of product C2H2Cl4 Formula · Chemical structure Synonyms : Acetylene tetrachloride 1.2. Relevant identified uses of the substance or mixture and uses advised against **Relevant identified uses** Use of the substance/mixture : Laboratory chemicals, Manufacture of substances Use of the substance/mixture Solvents 1.3. Details of the supplier of the safety data sheet LOBA CHEMIE PVT.LTD. 107 Wode House Road, Jehangir Villa, Colaba 400005 Mumbai INDIA T +91 22 6663 6663, F +91 22 6663 6699 info@lobachemie.com, www.lobachemie.com 1.4. Emergency telephone number Emergency number : + 91 22 6663 6663 (9:00am - 6:00 pm) **SECTION 2: Hazards identification** 2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]Acute toxicity (dermal), Category 1H310Acute toxicity (inhal.), Category 2H330Hazardous to the aquatic environment – Chronic Hazard,H411Category 2H330

Full text of H- and EUH-statements: see section 16

Adverse physicochemical, human health and environmental effects

Fatal in contact with skin. Fatal if inhaled. Toxic to aquatic life with long lasting effects.

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2.2. Label elements Labelling according to Regulation (EC) No. 1272/2008 [CLP] Hazard pictograms (CLP) GHS06 GHS09 Signal word (CLP) : Danger Hazard statements (CLP) : H310+H330 - Fatal in contact with skin or if inhaled. H411 - Toxic to aquatic life with long lasting effects. Precautionary statements (CLP) : P260 - Do not breathe dust/fume/gas/mist/vapours/spray. P273 - Avoid release to the environment. P280 - Wear protective gloves, protective clothing, eye protection, face protection. P304+P340+P310 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor. P302+P352+P310 - IF ON SKIN: Wash with plenty of water. Immediately call a POISON CENTER or doctor.

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients		
3.1. Substances		
Substance type :	Mono-constituent	
Name	Product identifier	%
1,1,2,2-TETRACHLOROETHANE	CAS-No.: 79-34-5 EC-No.: 201-197-8 EC Index-No.: 602-015-00-3	100

SECTION 4: First aid measures	
4.1. Description of first aid measures	
First-aid measures general First-aid measures after inhalation	 Call a physician immediately. Remove person to fresh air and keep comfortable for breathing. Allow affected person to breathe fresh air. If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a physician immediately. Call a doctor.
First-aid measures after skin contact	 Gently wash with plenty of soap and water. Take off immediately all contaminated clothing. Wash contaminated clothing before reuse. Wash skin with plenty of water. Call a physician immediately.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice/attention.
First-aid measures after ingestion	: Rinse mouth. Do not induce vomiting. Get medical advice/attention. Call a poison center or a doctor if you feel unwell.
Self protection of the first-aider	: First aid workers will be equipped with suitable personal protective equipment.
4.2. Most important symptoms and effect	ts, both acute and delayed
Symptoms/effects after inhalation Symptoms/effects after skin contact Symptoms/effects after eye contact Symptoms/effects after ingestion	 Fatal if inhaled. Fatal in contact with skin. None under normal conditions. None under normal conditions.

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

Treat symptomatically.

SECTION 5: Firefighting measures	
5.1. Extinguishing media	
Suitable extinguishing media Unsuitable extinguishing media	Carbon dioxide. Dry powder. Foam. Water spray.Do not use extinguishing media containing water.
5.2. Special hazards arising from the subst	tance or mixture
Fire hazard Explosion hazard Hazardous decomposition products in case of fire	 No fire hazard. No direct explosion hazard. Toxic fumes may be released.
5.3. Advice for firefighters	
Firefighting instructions Protection during firefighting	 Fight fire from safe distance and protected location. Do not enter fire area without proper protective equipment, including respiratory protection. Do not enter fire area without proper protective equipment, including respiratory protection. Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures	
6.1. Personal precautions, protectiv	e equipment and emergency procedures
General measures	: Stop leak if safe to do so. Notify authorities if product enters sewers or public waters. Absorb spillage to prevent material damage.
For non-emergency personnel	
Protective equipment Emergency procedures	 Wear recommended personal protective equipment. Evacuate unnecessary personnel. Only qualified personnel equipped with suitable protective equipment may intervene. Do not breathe dust/fume/gas/mist/vapours/spray.
For emergency responders	
Protective equipment	: Do not attempt to take action without suitable protective equipment. Use personal protective equipment as required. For further information refer to section 8: "Exposure controls/personal protection".
Emergency procedures	: Evacuate unnecessary personnel. Stop leak if safe to do so.
6.2. Environmental precautions	
Avoid release to the environment.	
6.3. Methods and material for conta	inment and cleaning up
For containment	: Collect spillage. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Stop leak without risks if possible.
Methods for cleaning up	: Take up liquid spill into absorbent material. On land, sweep or shovel into suitable containers. Collect spillage.
Other information	: Dispose of materials or solid residues at an authorized site.
6.4. Reference to other sections	

For further information refer to section 13.

SECTION 7: Handling and storage	
7.1. Precautions for safe handling	
Additional hazards when processed	: Not expected to present a significant hazard under anticipated conditions of normal use.

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Precautions for safe handling Hygiene measures	 Do not get in eyes, on skin, or on clothing. Do not breathe vapours. Wear personal protective equipment. Use only outdoors or in a well-ventilated area. Do not breathe dust/fume/gas/mist/vapours/spray. Do not eat, drink or smoke when using this product. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Wash contaminated clothing before reuse. Always wash hands after handling the product. 	
7.2. Conditions for safe storage, including any incompatibilities		
Technical measures Storage conditions	 Keep in a cool, well-ventilated place away from heat. Store in a well-ventilated place. Keep container tightly closed. Store locked up. Store in a well-ventilated place. Keep container tightly closed. 	
Packaging materials	: Store always product in container of same material as original container.	

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Exposure controls

Appropriate engineering controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

Personal protection equipment

Personal protective equipment:

Wear recommended personal protective equipment. **Personal protective equipment symbol(s):**



Eye and face protection

Eye protection: Chemical goggles or safety glasses

Skin protection

Skin and body protection: Wear a mask

Hand protection: Protective gloves

Respiratory protection

Respiratory protection: Wear appropriate mask

Environmental exposure controls

Environmental exposure controls: Avoid release to the environment.

SECTION 9: Physical and chemical properties	
9.1. Information on basic physical and chemical properties	
Physical state	: Liquid

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Colour	: Colourless.
Appearance	: Clear liquid.
Molecular mass	: 167.85 g/mol
Odour	: chloroform-like odor.
Odour threshold	: Not available
Melting point	: Not applicable
Freezing point	: -44 °C
Boiling point	: 146 °C
Flammability	: Non flammable.
Lower explosion limit	: Not available
Upper explosion limit	: Not available
Flash point	: Not available
Auto-ignition temperature	: Not available
Decomposition temperature	: Not available
рН	: Not available
Viscosity, kinematic	: 1.11 mm²/s at 20 °C
Solubility	: Water: 0.3 g/100ml at 20 °C - Slight
	Ether: Miscible with ether
	Acetone: Miscible with Acetone
Partition coefficient n-octanol/water (Log Kow)	: Not available
Partition coefficient n-octanol/water (Log Pow)	: 5
Vapour pressure	: 11 hPa at 20°C
Vapour pressure at 50°C	: Not available
Density	: 1.595 g/cm³ at 20 °C
Relative density	: 1.594 – 1.596
Relative vapour density at 20°C	: 5.78 (Air = 1)
Particle characteristics	: Not applicable
9.2. Other information	
o.z. other information	
Other safety characteristics	
Relative evaporation rate (butylacetate=1)	: 0.65

: 1.4941 at 20 °C/D

SECTION 10: Stability and reactivity

10.1. Reactivity

Refractive index

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Direct sunlight.

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

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

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11.1. Information on hazard classes as	defined in Regulation (EC) No 1272/2008
Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Fatal in contact with skin.
Acute toxicity (inhalation)	: Fatal if inhaled.
Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified
1,1,2,2-TETRACHLOROETHANE EXTRA	A PURE (79-34-5)
Viscosity, kinematic	1.11 mm²/s at 20 °C
11.2. Information on other hazards	
Other information	
Potential adverse human health effects and symptoms	: Fatal in contact with skin.

SECTION 12: Ecological information	
12.1. Toxicity	
Ecology - water : Hazardous to the aquatic environment, short-term : (acute)	Toxic to aquatic life with long lasting effects. Toxic to aquatic life with long lasting effects. Not classified Toxic to aquatic life with long lasting effects.
12.2. Persistence and degradability	
1,1,2,2-TETRACHLOROETHANE EXTRA PURE	E (79-34-5)
Persistence and degradability	May cause long-term adverse effects in the environment.
12.3. Bioaccumulative potential	
1,1,2,2-TETRACHLOROETHANE EXTRA PURE	E (79-34-5)
Partition coefficient n-octanol/water (Log Pow)	5
12.4. Mobility in soil	
No additional information available	
12.5. Results of PBT and vPvB assessment	
No additional information available	
12.6. Endocrine disrupting properties	
No additional information available	
12.7. Other adverse effects	
No additional information available	

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SECTION 13: Disposal considerations	
13.1. Waste treatment methods	
Regional waste regulation	: Disposal must be done according to official regulations.
Waste treatment methods Sewage disposal recommendations	Dispose of contents/container in accordance with licensed collector's sorting instructions.Disposal must be done according to official regulations.
Product/Packaging disposal recommendations	: Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation. Disposal must be done according to official regulations.
Additional information	: Do not re-use empty containers.
Ecological waste information	: Hazardous waste due to toxicity.

SECTION 14: Transport information

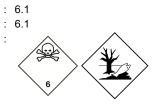
In accordance with ADR / IMDG / IATA / ADN / RID

14.1. UN number or ID number	
UN-No. (ADR)	: UN 1702
UN-No. (IMDG)	: UN 1702
UN-No. (IATA)	: UN 1702
UN-No. (ADN)	: UN 1702
UN-No. (RID)	: UN 1702
14.2. UN proper shipping name	
Proper Shipping Name (ADR)	: 1,1,2,2-TETRACHLOROETHANE
Proper Shipping Name (IMDG)	: 1,1,2,2-TETRACHLOROETHANE
Proper Shipping Name (IATA)	: 1,1,2,2-Tetrachloroethane
Proper Shipping Name (ADN)	: 1,1,2,2-TETRACHLOROETHANE
Proper Shipping Name (RID)	: 1,1,2,2-TETRACHLOROETHANE
Transport document description (ADR) (ADR)	: UN 1702 1,1,2,2-TETRACHLOROETHANE, 6.1, II, (D/E), ENVIRONMENTALLY HAZARDOUS
Transport document description (IMDG)	: UN 1702 1,1,2,2-TETRACHLOROETHANE, 6.1, II, MARINE POLLUTANT/ENVIRONMENTALLY HAZARDOUS
Transport document description (IATA)	: UN 1702 1,1,2,2-Tetrachloroethane, 6.1, II, ENVIRONMENTALLY HAZARDOUS
Transport document description (ADN)	: UN 1702 1,1,2,2-TETRACHLOROETHANE, 6.1, II, ENVIRONMENTALLY HAZARDOUS
Transport document description (RID)	: UN 1702 1,1,2,2-TETRACHLOROETHANE, 6.1, II, ENVIRONMENTALLY HAZARDOUS

14.3. Transport hazard class(es)

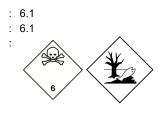
ADR

Transport hazard class(es) (ADR) Danger labels (ADR)



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IIV	DG

Transport hazard class(es) (IMDG) Danger labels (IMDG)

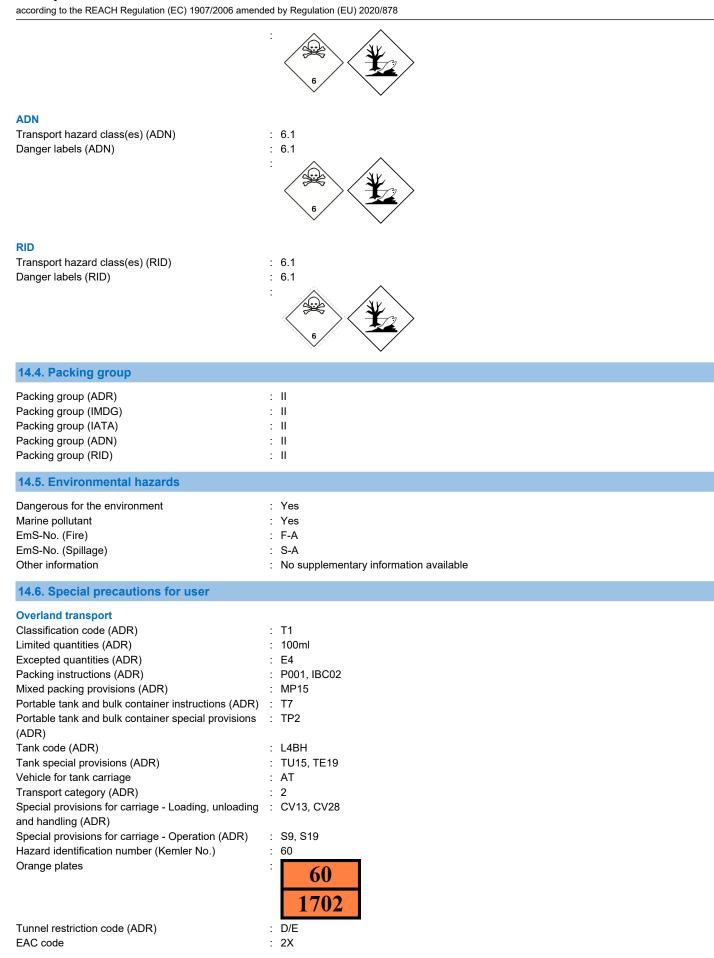


: 6.1 : 6.1

ΙΑΤΑ

Transport hazard class(es) (IATA)	
Danger labels (IATA)	

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Transport by sea Limited quantities (IMDG) Excepted quantities (IMDG) Packing instructions (IMDG) IBC packing instructions (IMDG) Tank instructions (IMDG) Tank special provisions (IMDG) Stowage category (IMDG) Stowage and handling (IMDG) Segregation (IMDG) Properties and observations (IMDG)	 100 ml E4 P001 IBC02 T7 TP2 A SW2 SGG10 Colourless liquid with a chloroform-like odour. Toxic if swallowed, by skin contact or by inhalation.
MFAG-No	: 151
Air transport PCA Excepted quantities (IATA) PCA Limited quantities (IATA) PCA limited quantity max net quantity (IATA) PCA packing instructions (IATA) PCA max net quantity (IATA) CAO packing instructions (IATA) CAO max net quantity (IATA) ERG code (IATA)	: E4 : Y641 : 1L : 654 : 5L : 661 : 60L : 6L
Inland waterway transport Classification code (ADN) Special provisions (ADN) Limited quantities (ADN) Excepted quantities (ADN) Equipment required (ADN) Ventilation (ADN) Number of blue cones/lights (ADN)	: T1 : 802 : 100 ml : E4 : PP, EP, TOX, A : VE02 : 2
Rail transportClassification code (RID)Limited quantities (RID)Excepted quantities (RID)Packing instructions (RID)Mixed packing provisions (RID)Portable tank and bulk container instructions (RID)Portable tank and bulk container special provisions (RID)Portable tank and bulk container special provisions (RID)Tank codes for RID tanks (RID)Special provisions for RID tanks (RID)Transport category (RID)Special provisions for carriage - Loading, unloading and handling (RID)Colis express (express parcels) (RID)Hazard identification number (RID)	 T1 100ml E4 P001, IBC02 MP15 T7 TP2 L4BH TU15 2 CW13, CW28, CW31 CE5 60

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

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SECTION 15: Regulatory information

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

EU-Regulations

REACH Annex XVII (Restriction List)

EU restriction list (REACH Annex XVII)	
Reference code	Applicable on
3(b)	1,1,2,2-TETRACHLOROETHANE EXTRA PURE
3(c)	1,1,2,2-TETRACHLOROETHANE EXTRA PURE
35.	1,1,2,2-TETRACHLOROETHANE EXTRA PURE

REACH Annex XIV (Authorisation List)

Not listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Not listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Listed on the PIC list (Regulation EU 649/2012): 1,1,2,2-Tetrachloroethane

POP Regulation (Persistent Organic Pollutants)

Not listed on the POP list (Regulation EU 2019/1021)

Ozone Regulation (2024/590)

Not listed on the Ozone Depletion list (Regulation EU 2024/590)

Council Regulation (EC) for the control of dual-use items

Not listed on the COUNCIL REGULATION (EC) of dual-use items.

Explosives Precursors Regulation (2019/1148)

Not listed on the Explosives Precursors list (EU)

Drug Precursors Regulation (273/2004)

Not listed on the Drug Precursors list (EU)

National regulations

Occupational diseases	
Description	
Professional poisoning with tetrachloroethane	

Germany

Water hazard class (WGK) Chemicals Prohibition Ordinance (ChemVerbotsV)	 WGK 3, Highly hazardous to water (Classification according to AwSV; ID No. 797). This product is subject to ChemVerbotsV Annex 2 Entry 1. The following requirements must be observed: authorization requirement (according to § 6 paragraph 1 sentence 1), basic requirements for carrying out the delivery (according to § 8 paragraph 1, 3 and 4), identification and documentation (according to § 9 paragraph 1 to 3) and exclusion of the shipping route (according to § 10).
Netherlands	
SZW-lijst van kankerverwekkende stoffen	: The substance is not listed
SZW-lijst van mutagene stoffen	: The substance is not listed
SZW-lijst van reprotoxische stoffen – Borstvoeding	: The substance is not listed
SZW-lijst van reprotoxische stoffen – Vruchtbaarheid	: The substance is not listed

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Denmark	
Danish National Regulations	 Young people below the age of 18 years are not allowed to use the product Pregnant/breastfeeding women working with the product must not be in direct contact with the product
Poland	
Polish National Regulations	 Act of 25 February 2011 on chemical substances and their mixtures (J. o L. No. 63, item 322 as amended; consolidated text J. o L. 2019, item 1225). Act of 14 December 2012 on waste (J. o L. 2013, item 322 as amended; consolidated text J o L. 2020, item 797). The announcement of Marshal of the Sejm of the Republic of Poland dated 19 October 2016 concerning the consolidated text announcement of the decree on the management of packaging and packaging waste (J. o L. 2016, item 1863 as amended). Decree of the Minister of Environment of 14 December 2014 on the catalogue of waste (J. o L. 2014, item 1923). Act of 19 August 2011 on the Carriage of Dangerous Goods (J. o L. 2011 No. 227, item 1367 as amended; consolidated text J. o L. 2020, item 154). Regulation of the Minister of Family, Labour and Social Policy of 12 June 2018 on the highest permissible concentration and intensity of noxious agents for health at work environment (J. o L. item 1286 as amended). The announcement of Minister of Health dated 9 September 2016 concerning the consolidated text announcement of the decree of the Minister of Health of 30 December 2004 on health and safety at work related to exposure to chemical agents at work (J. o L. of 16 September 2016, item 1488) Regulation of the Minister of Health of 2 February 2011 on tests and measurements of the noxious agents for health at work environment (J. o L. No. 33, item 166 as amended). Regulation of the Minister of Environment of 9 December 2003 on particularly hazardous substances to the environment (J. o L. No. 217, item 2141). ADR Agreement: Government Statement of 13 March 2023 on the entry into force of amendments to Annexes A and B to the Agreement concerning the International Carriage or Dangerous Goods by Road (ADR), signed in Geneva on 30 September 1957 (J. o. L. 2023, item 891)

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Abbreviations and acronyms:	
ACGIH	American Conference of Government Industrial Hygienists
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
BLV	Biological limit value
BOD	Biochemical oxygen demand (BOD)
CAS-No.	Chemical Abstract Service number
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
COD	Chemical oxygen demand (COD)
CSA	Chemical safety assessment
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level

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Abbreviations and acronyms:	
EC-No.	European Community number
EC50	Median effective concentration
ED	Endocrine disruptor
EN	European Standard
EWC	European waste catalogue
IARC	International Agency for Research on Cancer
ΙΑΤΑ	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
Log Kow	Partition coefficient n-octanol/water (Log Kow)
Log Pow	Partition coefficient n-octanol/water (Log Pow)
МАК	maximum workplace concentration
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
N.O.S.	Not Otherwise Specified
OECD	Organisation for Economic Co-operation and Development
OEL	Occupational Exposure Limit
OSHA	Occupational Safety & Health Administration
РВТ	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
PPE	Personal protection equipment
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STP	Sewage treatment plant
TF	Technical function
ThOD	Theoretical oxygen demand (ThOD)
TLM	Median Tolerance Limit
TWA	Time Weighted Average
VOC	Volatile Organic Compounds
vPvB	Very Persistent and Very Bioaccumulative
UFI	Unique Formula Identifier

Full text of H- and EUH-statements:	
Acute Tox. 1 (Dermal)	Acute toxicity (dermal), Category 1
Acute Tox. 2 (Inhalation)	Acute toxicity (inhal.), Category 2
Aquatic Chronic 2 Hazardous to the aquatic environment – Chronic Hazard, Category 2	

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Full text of H- and EUH-statements:	
H310	Fatal in contact with skin.
H330	Fatal if inhaled.
H411	Toxic to aquatic life with long lasting effects.

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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.