SAFETY DATA SHEET

according to Regulation (EC) No 1907/2006 (REACH) as amended

X - PRIMER

Creation date	02. August 2019		
Revision date		Version	1.0

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

1.1. Product identifier X - PRIMER

Substance / mixture	mixture
Number	R 34266
UFI	QWV1-23S6-F00Q-D544

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

Mixture's intended use: Primer.

The use descriptors

SU 15	Manufacture of fabricated metal products, except machinery and equipment
SU 17	General manufacture, e.g. machinery, equipment, vehicles, other transport equipment
SU 19	Building and construction work
PROC 10	Roller application or brushing
ERC 8b	Widespread use of reactive processing aid (no inclusion into or onto article, indoor)

Mixture uses advised against: For professional use only.

1.3. Details of the supplier of the safety data sheet

Supplier

Name or trade name	RETECH, s.r.o.
Address	Vackova 1541/4, Praha 5 - Stodůlky, 155 00 Czech Republic
Identification number (CRN)	25018205
Phone	+420327596428
E-mail	info@retech.cz
Web address	www.retech.com

Competent person responsible for the safety data sheet

Name	RETECH, s.r.o.
E-mail	info@retech.cz

1.4. Emergency telephone number

RETECH, Suchdol 212, 285 02 Suchdol u Kutné Hory, Czech Republic; Telephone number: +420 327 596 128 (7.30-16.00 hour)
Poisoning information centre, Na Bojišti 1, Praha, Czech Republic, Tel.: non-stop +420 224 919 293 or +420 224 915 402, Information on health risks only - acute poisoning of humans and animals.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification of the mixture in accordance with Regulation (EC) No 1272/2008

The mixture is classified as dangerous.

Flam. Liq. 2, H225
Eye Irrit. 2, H319
Resp. Sens. 1, H334
STOT SE 3, H336

Full text of all classifications and hazard statements is given in the section 16.

Most serious adverse physico-chemical effects

Highly flammable liquid and vapour.

Most serious adverse effects on human health and the environment

Causes serious eye irritation. May cause drowsiness or dizziness. May cause allergy or asthma symptoms or breathing difficulties if inhaled.

2.2. Label elements

Hazard pictogram

Signal word

Danger

Hazardous substances

ethyl methyl ketone
diphenylmethane-4,4'-diisocyanate
isophorone di-isocyanate

Hazard statements

H225	Highly flammable liquid and vapour.
H319	Causes serious eye irritation.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H336	May cause drowsiness or dizziness.

Precautionary statements

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P342+P311	If experiencing respiratory symptoms: Call a POISON CENTER/doctor.
P370+P378	In case of fire: Use powder extinguisher/sand/carbon dioxide to extinguish.

Supplemental information

EUH 066	Repeated exposure may cause skin dryness or cracking.
EUH 204	Contains isocyanates. May produce an allergic reaction.

2.3. Other hazards

Mixture does not contain any substance meet the criteria for PBT or vPvB in accordance with Annex XIII of Regulation (EC) No. 1907/2006 (REACH) as amended.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization

Mixture of substances and additives specified below.

Mixture contains these hazardous substances and substances with the highest permissible concentration in the working environment

Identification numbers	Substance name	Content in % weight	Classification according to Regulation (EC) No 1272/2008	Note.
Index: 606-002-00-3 CAS: 78-93-3 EC: 201-159-0 Registration number: 01-2119457290-43	ethyl methyl ketone	62-<66	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336 EUH 066	3

Identification numbers	Substance name	Content in % weight	Classification according to Regulation (EC) No 1272/2008	Note.
Index: 615-005-00-9 CAS: 101-68-8 EC: 202-966-0 Registration number: 01-2119457014-47	diphenylmethane-4,4'-diisocyanate	0,89-<1	Skin Irrit. 2, H315 Skin Sens. 1, H317 Eye Irrit. 2, H319 Acute Tox. 4, H332 Resp. Sens. 1, H334 STOT SE 3, H335 Carc. 2, H351 Specific concentration limit: Eye Irrit. 2, H319: C ≥ 5 % Resp. Sens. 1, H334: C ≥ 0,1 % STOT SE 3, H335: C ≥ 5 % Skin Irrit. 2, H315: C ≥ 5 %	1, 2, 4
Index: 615-008-00-5 CAS: 4098-71-9 EC: 223-861-6 Registration number: 01-2119490408-31	isophorone di-isocyanate	0,44-<0,5	Skin Irrit. 2, H315 Skin Sens. 1, H317 Eye Irrit. 2, H319 Acute Tox. 1, H330 Resp. Sens. 1, H334 STOT SE 3, H335 Aquatic Chronic 2, H411 Specific concentration limit: Skin Sens. 1, H317: C ≥ 0,5 % Resp. Sens. 1, H334: C ≥ 0,5 %	2

Notes

1 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.

2 Note 2: The concentration of isocyanate stated is the percentage by weight of the free monomer calculated with reference to the total weight of the mixture.

3 Substance for which exposure limits of Community for working environment exist.

4 The use of the substance is restricted by Annex XVII of REACH Regulation

Full text of all classifications and hazard statements is given in the section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

If any health problems are manifested or if in doubt, inform a doctor and show him information from this safety data sheet.

If inhaled

Terminate the exposure immediately; move the affected person to fresh air. In the event of issues, find medical advice.

If on skin

Remove contaminated clothes. Immediately wash with water and soap and rinse thoroughly. In the event of issues, find medical advice. Wash contaminated clothing before reuse.

If in eyes

Rinse eyes immediately with a flow of running water, open the eyelids (also using force if needed); remove contact lenses immediately if worn by the affected person. In the event of issues, find medical advice.

If swallowed

DO NOT INDUCE VOMITING! Provide medical treatment.

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

If inhaled

May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause drowsiness or dizziness.

If on skin

not available

If in eyes

Causes serious eye irritation.

If swallowed

not available

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

not available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Carbon dioxide, foam, powder. Fight larger fires with water spray or alcohol resistant foam.

Unsuitable extinguishing media

Water - full jet.

5.2. Special hazards arising from the substance or mixture

Container: May burst if heated. Do not breathe smoke.

5.3. Advice for firefighters

Use a self-contained breathing apparatus and full-body protective clothing. Closed containers with the product near the fire should be cooled with water. Do not allow run-off of contaminated fire extinguishing material to enter drains or surface and ground water. Dispose of contaminated extinguishing water and remains after the fire in accordance with the official regulations.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Prevent other leakage. Use personal protective equipment for work. Prevent contact with skin and eyes. Keep unprotected persons away. Remove all ignition sources.

6.2. Environmental precautions

Prevent contamination of the soil and entering surface or ground water.

6.3. Methods and material for containment and cleaning up

Ventilate the room. Spilled product should be covered with suitable (non-flammable) absorbing material (sand, diatomaceous earth, earth and other suitable absorption materials); to be contained in well closed containers and removed as per the Section 13.

6.4. Reference to other sections

See the Section 7, 8 and 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Prevent formation of gases and vapours in flammable or explosive concentrations. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. Explosion risk in case of fire. Solvent vapours are heavier than air and accumulate especially near the floor where they may form an explosive mixture with the air. Take precautionary measures against static discharge. Ground and bond container and receiving equipment. Use of antistatic clothes and footwear is recommended. Use non-sparking tools. Do not eat, drink or smoke when using this product. Avoid release to the environment.

7.2. Conditions for safe storage, including any incompatibilities

Keep only in original container. Store in tightly closed containers in cold, dry and well ventilated areas designated for this purpose. Protect from sunlight. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.

7.3. Specific end use(s)

not available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

The mixture contains substances for which occupational exposure limits are set.

European Union

Substance name (component)	Type	Time of exposure	Value	Note	Source
ethyl methyl ketone (CAS: 78-93-3)	OEL	8 hours	600 mg/m³		EU limits
	OEL	8 hours	200 ppm		
	OEL	Short-term	900 mg/m³		
	OEL	Short-term	300 ppm		

United Kingdom of Great Britain and Northern Ireland

Substance name (component)	Type	Time of exposure	Value	Note	Source
ethyl methyl ketone (CAS: 78-93-3)	WEL	8 hours	600 mg/m³	Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity.	GBR
	WEL	15 minutes	899 mg/m³	Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity.	
	WEL	8 hours	200 ppm	Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity.	
	WEL	15 minutes	300 ppm	Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity.	

PNEC

isophorone di-isocyanate

Route of exposure	Value	Determining method
Freshwater environment	0.06 mg/l	
Seawater	0.006 mg/l	
Freshwater sediment	218.92 mg/kg	
Sea sediments	21.89 mg/kg	
Microorganisms in wastewater treatment plants	10.6 mg/l	
Soil (agricultural)	44.01 mg/kg	

8.2. Exposure controls

Follow the usual measures intended for health protection at work and especially for good ventilation. Do not eat, drink and smoke during work. Wash your hands thoroughly with water and soap after work and before breaks for a meal and rest.

Eye/face protection

Tightly sealed goggles.

Skin protection

Hand protection: Protective gloves resistant to the product. Category III. Material of gloves: Nitrile rubber, NBR. Recommended thickness of the material: ≥ 0.3 mm. When handling in long-term or repeatedly, use protective gloves. Material of gloves: Butyl rubber. Recommended thickness of the material: ≥ 0.4 mm. Penetration time of glove material: > 480 min. Other protection: protective workwear. Wear category I professional long-sleeved overalls and safety footwear.

Respiratory protection

Use a mask with filter when the exposition limits of the substances are exceeded or at the place with insufficient ventilation. Filter A.

Thermal hazard

Not available.

Environmental exposure controls

Observe usual measures for protection of the environment, see Section 6.2.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	
Physical state	liquid at 20°C
color	black
Odour	after solvents
Odour threshold	data not available
pH	data not available
Melting point/freezing point	data not available
Initial boiling point and boiling range	80 °C
Flash point	data not available
Evaporation rate	data not available
Flammability (solid, gas)	data not available
Upper/lower flammability or explosive limits	
flammability limits	data not available
explosive limits	
bottom	0.8 %
upper	11.5 %
Vapour pressure	150 mbar
Vapour density	2,5
Relative density	0.95
Solubility(ies)	
solubility in water	data not available
solubility in fats	data not available
Partition coefficient: n-octanol/water	data not available
Auto-ignition temperature	400 °C
Decomposition temperature	data not available
Viscosity	data not available
Explosive properties	data not available
Oxidising properties	data not available

9.2. Other information

Density	data not available
ignition temperature	-10 °C
content of organic solvents (VOC)	61.91 %

Max. VOC content in the product in its ready to use condition	588.1 g/l

SECTION 10: Stability and reactivity

10.1. Reactivity

When used in the standard way, there is not any dangerous reaction with other substances.
Ethyl methyl ketone: Reacts with strong oxidizing agents. Reacts with light metals. Attacks various types of plastic materials. Decomposes under the effect of heat.
Dipfenylmethan-4-4´-diisocyanate: Thermal decomposition: at 274 °C/525 °F

10.2. Chemical stability

The product is stable under normal conditions.

10.3. Possibility of hazardous reactions

Vapours mixed up with air can be explosive.
Ethyl methyl ketone: May form peroxides with: air, light, strong oxidising agents. Risk of explosion on contact with: hydrogen peroxide, nitric acid, sulphuric acid. May react dangerously with: oxidising agents, trichloromethane, alkalis. Forms explosive mixtures with air.
Dipfenylmethan-4-4´-diisocyanate: May react dangerously with: alcohols, amines, ammonia, sodium hydroxide, acids, water, strong acids, strong bases.

10.4. Conditions to avoid

Protect against flames, sparks, overheating.
Ethyl methyl ketone: Keep away from heat,open flames.

10.5. Incompatible materials

Ethyl methyl ketone: Strong oxidants, inorganic acids, ammonia, copper, chloroform.

10.6. Hazardous decomposition products

Dangerous outcomes such as carbon monoxide and carbon dioxide are formed at high temperature and in fire.
Dipfenylmethan-4-4´-diisocyanate: May develop: nitric oxide, carbon oxides, hydrogen cyanide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

No toxicological data is available for the mixture.

Acute toxicity

Based on available data the classification criteria are not met.

diphenylmethane-4,4'-diisocyanate

Route of exposure	Parameter	Value	Time of exposure	Species	Sex
Oral	LD_{50}	>2000 mg/kg		Rat	
Dermal	LD_{50}	>9400 mg/kg		Rabbit	
Inhalation	LC_{50}	2.24 mg/l		Rat	

ethyl methyl ketone

Route of exposure	Parameter	Value	Time of exposure	Species	Sex
Oral	LD_{50}	2737 mg/kg		Rat	
Dermal	LD_{50}	6480 mg/kg		Rabbit	
Inhalation	LC_{50}	23.5 mg/l	8 hour	Rat	

isophorone di-isocyanate

Route of exposure	Parameter	Value	Time of exposure	Species	Sex
Oral	LD_{50}	4814 mg/kg		Rat	
Dermal	LD_{50}	>7000 mg/kg		Rat	
Inhalation	LC_{50}	0.031 mg/l	4 hour	Rat	

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Route of exposure	Parameter	Value	Time of exposure	Species	Sex
Inhalation	LC_{50}	>5 mg/l			

Skin corrosion/irritation
Based on available data the classification criteria are not met.

Serious eye damage/irritation
Causes serious eye irritation.

Respiratory or skin sensitisation
May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Germ cell mutagenicity
Based on available data the classification criteria are not met.

Carcinogenicity
Based on available data the classification criteria are not met.

diphenylmethane-4,4'-diisocyanate

Route of exposure	Parameter	Value	Result	Species	Sex	Source
						IARC: Group 3 (not classifiable as a human carcinogen)

Reproductive toxicity
Based on available data the classification criteria are not met.

Toxicity for specific target organ - single exposure
May cause drowsiness or dizziness.

Toxicity for specific target organ - repeated exposure
Based on available data the classification criteria are not met.

Aspiration hazard
Based on available data the classification criteria are not met.

More information
Dipfenylmethan-4-4´-diisocyanate: Mucous membranes and airways may be irritated, and the central nervous system may be affected. Irritation of eye tissue layers. Causes skin irritation. Irritation of the digestion system can occur. Unconsciousness, breathing problems, dizziness, cough, nausea. Risk of pulmonary edema. Risk of pneumonia.

SECTION 12: Ecological information

12.1. Toxicity

Acute toxicity

Data for the mixture are not available.

diphenylmethane-4,4'-diisocyanate

Parameter	Value	Time of exposure	Species	Environment
LC_{50}	>1000 mg/l	96 hour	Fishes (Danio rerio)	

ethyl methyl ketone

Parameter	Value	Time of exposure	Species	Environment
LC_{50}	2993 mg/l	96 hour	Fishes (Pimephales promelas)	
EC_{50}	308 mg/l	48 hour	Daphnia (Daphnia magna)	

Chronic toxicity

diphenylmethane-4,4'-diisocyanate

Parameter	Value	Time of exposure	Species	Environment
NOEC	1640 mg/l		Algae (Desmodesmus subspicatus)	

12.2. Persistence and degradability

Biodegradability

diphenylmethane-4,4'-diisocyanate

Parameter	Value	Time of exposure	Environment	Result
	0.1-100 mg/l		Freshwater	Hardly biodegradable

ethyl methyl ketone

Parameter	Value	Time of exposure	Environment	Result
	>10000 mg/l		Freshwater	Easily biodegradable

Data not available.

12.3. Bioaccumulative potential

diphenylmethane-4,4'-diisocyanate

Parameter	Value	Time of exposure	Species	Environment	Surrounding temperature [°C]
Log Kow	4.51				

ethyl methyl ketone

Parameter	Value	Time of exposure	Species	Environment	Surrounding temperature [°C]
Log Kow	0.3				

Not available.

12.4. Mobility in soil

Not available.

12.5. Results of PBT and vPvB assessment

Product does not contain any substance meeting the criteria for PBT or vPvB in accordance with the Annex XIII of Regulation (EC) No 1907/2006 (REACH) as amended.

12.6. Other adverse effects

Not available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Proceed in accordance with valid regulations on waste disposal. Any unused product and contaminated packaging should be put in labelled containers for waste collection and submitted for disposal to a person authorised for waste removal (a specialized company) that is entitled for such activity. Do not empty unused product in drainage systems. The product must not be disposed of with municipal waste.

Waste management legislation

Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste, as amended. Decision 2000/532/EC establishing a list of wastes, as amended.

SECTION 14: Transport information

14.1. UN number

UN 1139

14.2. UN proper shipping name

COATING SOLUTION

14.3. Transport hazard class(es)

3 Flammable liquids

14.4. Packing group

II - substances presenting medium danger

14.5. Environmental hazards

No.

14.6. Special precautions for user

Reference in the Sections 4 to 8.

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

not available

Additional information

Special instructions: A3

Hazard identification No.	**33** (Kemler Code)
UN number	**1139**
Safety signs	3

Road transport - ADR

Special provision	640D
Limited quantities	5 L
Excepted quantities	E1
Transport category	3
Tunnel restriction code	(D/E)

Air transport - ICAO/IATA

Packaging instructions passenger	353
Cargo packaging instructions	364

Marine transport - IMDG

EmS (emergency plan)	F-E, S-E
Marine Pollutant	No

SECTION 15: Regulatory information

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

Regulation (EC) No. 1907/2006 of the European Parliament and of the Council of 18th December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing the European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No. 793/93 and Commission Regulation (EC) No. 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, as amended. Regulation (EC) No. 1272/2008 of the European Parliament and of the Council of 16th December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No. 1907/2006, as amended.

Restrictions pursuant to Annex XVII of Regulation (EC) No. 1907/2006 (REACH), as amended

diphenylmethane-4,4'-diisocyanate

Restriction	Conditions of restriction
56	1. Shall not be placed on the market after 27 December 2010, as a constituent of mixtures in concentrations equal to or greater than 0,1 % by weight of MDI for supply to the general public, unless suppliers shall ensure before the placing on the market that the packaging: (a) contains protective gloves which comply with the requirements of Council Directive 89/686/EEC (*********); (b) is marked visibly, legibly and indelibly as follows, and without prejudice to other Community legislation concerning the classification, packaging and labelling of substances and mixtures: "— Persons already sensitised to diisocyanates may develop allergic reactions when using this product. — Persons suffering from asthma, eczema or skin problems should avoid contact, including dermal contact, with this product. — This product should not be used under conditions of poor ventilation unless a protective mask with an appropriate gas filter (i.e. type A1 according to standard EN 14387) is used." 2. By way of derogation, paragraph 1(a) shall not apply to hot melt adhesives.

15.2. Chemical safety assessment

not available

More information

Seveso Category - Directive 2012/18/EC: P5c
Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006
Product - Point: 3 - 40
Contained substance - Point: 56 - DIPHENYLMETHANE-4,4'-DIISOCYANATE (Reg. no.: 01-2119457014-47-XXXX)

SECTION 16: Other information

A list of standard risk phrases used in the safety data sheet

H225	Highly flammable liquid and vapour.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H332	Harmful if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H351	Suspected of causing cancer.
H411	Toxic to aquatic life with long lasting effects.

Guidelines for safe handling used in the safety data sheet

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P342+P311	If experiencing respiratory symptoms: Call a POISON CENTER/doctor.
P370+P378	In case of fire: Use powder extinguisher/sand/carbon dioxide to extinguish.

A list of additional standard phrases used in the safety data sheet

EUH 066	Repeated exposure may cause skin dryness or cracking.
EUH 204	Contains isocyanates. May produce an allergic reaction.

Other important information about human health protection

The product must not be - unless specifically approved by the manufacturer/importer - used for purposes other than as per the Section 1. The user is responsible for adherence to all related health protection regulations.

Key to abbreviations and acronyms used in the safety data sheet

ADR	European agreement concerning the international carriage of dangerous goods by road
BCF	Bioconcentration Factor
CAS	Chemical Abstracts Service
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substance and mixtures
DNEL	Derived no-effect level
EC	Identification code for each substance listed in EINECS
EC_{50}	Concentration of a substance when it is affected 50% of the population
EINECS	European Inventory of Existing Commercial Chemical Substances
EmS	Emergency plan
EU	European Union
IATA	International Air Transport Association
IBC	International Code For The Construction And Equipment of Ships Carrying Dangerous Chemicals
IC_{50}	Concentration causing 50% blockade
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods
INCI	International Nomenclature of Cosmetic Ingredients
ISO	International Organization for Standardization
IUPAC	International Union of Pure and Applied Chemistry
LC_{50}	Lethal concentration of a substance in which it can be expected death of 50% of the population
LD_{50}	Lethal dose of a substance in which it can be expected death of 50% of the population
LOAEC	Lowest observed adverse effect concentration
LOAEL	Lowest observed adverse effect level
log Kow	Octanol-water partition coefficient
MARPOL	International Convention for the Prevention of Pollution From Ships
NOAEC	No observed adverse effect concentration
NOAEL	No observed adverse effect level
NOEC	No observed effect concentration
NOEL	No observed effect level
OEL	Occupational Exposure Limits
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted no-effect concentration
ppm	Parts per million
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Agreement on the transport of dangerous goods by rail
UN	Four-figure identification number of the substance or article taken from the UN Model Regulations

UVCB	Substances of unknown or variable composition, complex reaction products or biological materials
VOC	Volatile organic compounds
vPvB	Very Persistent and very Bioaccumulative

Acute Tox.	Acute toxicity
Aquatic Chronic	Hazardous to the aquatic environment
Carc.	Carcinogenicity
Eye Irrit.	Eye irritation
Flam. Liq.	Flammable liquid
Resp. Sens.	Respiratory sensitization
Skin Irrit.	Skin irritation
Skin Sens.	Skin sensitization
STOT SE	Specific target organ toxicity - single exposure

Training guidelines

Inform the personnel about the recommended ways of use, mandatory protective equipment, first aid and prohibited ways of handling the product.

Recommended restrictions of use

not available

Information about data sources used to compile the Safety Data Sheet

REGULATION (EC) No. 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL (REACH) as amended. REGULATION (EC) No. 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL as amended. Data from the manufacturer of the substance / mixture, if available - information from registration dossiers.

Statement

The safety data sheet provides information aimed at ensuring safety and health protection at work and environmental protection. The provided information corresponds to the current status of knowledge and experience and complies with valid legal regulations. The information should not be understood as guaranteeing the suitability and usability of the product for a particular application.