

SAFETY DATA SHEET ACCORDING TO REGULATION (EC) 1907/2006

silco®**Product name: 5082 Adhesion Primer****Creation date: 11.08.2008, Revision: 17.03.2023, version: 1.4**

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Product name

5082 Adhesion Primer

UFI:

3371-83AA-E00Y-PRRY

<https://my.chemius.net/p/bqCB9d/en/pd/en>

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

Relevant identified uses

Black primer

Uses advised against

No information.

1.3 Details of the supplier of the safety data sheet

Manufacturer

SILCO, D.O.O.

Šentrupert 5 a

3303 Gomilsko, Slovenia

+386 3 703 3180

msds@silco.si

1.4 Emergency Telephone Number

Emergency

112

Manufacturer

+386 3 703 3180

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

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

Flam. Liq. 2; H225 Highly flammable liquid and vapour.

Skin Irrit. 2; H315 Causes skin irritation.

Skin Sens. 1; H317 May cause an allergic skin reaction.

Eye Irrit. 2; H319 Causes serious eye irritation.

Acute Tox. 4; H332 Harmful if inhaled.

Resp. Sens. 1; H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Carc. 2; H351 Suspected of causing cancer.

Aquatic Chronic 3; H412 Harmful to aquatic life with long lasting effects.

2.2 Label elements

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



Signal word: DANGER

H225 Highly flammable liquid and vapour.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H351 Suspected of causing cancer.
H412 Harmful to aquatic life with long lasting effects.
P102 Keep out of reach of children.
P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.
P403 + P235 Store in a well-ventilated place. Keep cool.
P501 Dispose of contents/container in accordance with national regulation.

Contains:
Aromatic, aliphatic polyisocyanate
POLY(HEXAMETHYLENE DIISOCYANATE)
diphenylmethanediisocyanate, isomers and homologues
Tris(p-isocyanatophenyl) thiophosphate

Special provisions
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.

2.3 Other hazards
PBT/vPvB
No information.
Endocrine disrupting properties
No information.
Additional information
No information.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances
For mixtures see 3.2.

3.2 Mixtures

Name	CAS EC Index Reach	%	Classification according to Regulation (EC) No 1272/2008 (CLP)	Specific Conc. Limits	Notes for substances
ethyl methyl ketone	78-93-3 201-159-0 606-002-00-3 01-2119457290-43	20-50	Flam. Liq. 2; H225 Eye Irrit. 2; H319 STOT SE 3; H336 EUH066	/	/

xylene	1330-20-7 215-535-7 601-022-00-9 01-2119488216-32	5-10	Flam. Liq. 3; H226 Acute Tox. 4; H312 Skin Irrit. 2; H315 Acute Tox. 4; H332	/	C
n-butyl acetate	123-86-4 204-658-1 607-025-00-1 01-2119485493-29	5-10	Flam. Liq. 3; H226 STOT SE 3; H336 EUH066	/	/
ethyl acetate	141-78-6 205-500-4 607-022-00-5 01-2119475103-46	4-8	Flam. Liq. 2; H225 Eye Irrit. 2; H319 STOT SE 3; H336 EUH066	/	/
Aromatic, aliphatic polyisocyanate	26426-91-5 - -	4-8	Skin Sens. 1; H317	/	/
POLY(HEXAMETHYLEN E DIISOCYANATE)	28182-81-2 500-060-2 - 01-2119485796-17	2-5	Skin Sens. 1; H317 Acute Tox. 4; H332 STOT SE 3; H335 Aquatic Chronic 3; H412	/	/
diphenylmethanediisocya nate, isomers and homologues	9016-87-9 - -	2,5-5	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 STOT RE 2; H373	/	/
Tris(p- isocyanatophenyl) thiophosphate	4151-51-3 223-981-9 -	<2,5	Resp. Sens. 1; H334	/	/
[3-(2,3- epoxypropoxy)propyl]tr imethoxysilane	2530-83-8 219-784-2 - 01-2119513212-58	<1,5	Eye Dam. 1; H318	/	/
dibutyltin dichloride	683-18-1 211-670-0 050-022-00-X 01-2119496066-31	<0,1	Acute Tox. 3; H301 Acute Tox. 4; H312 Skin Corr. 1B; H314 Acute Tox. 2; H330 Muta. 2; H341 Repr. 1B; H360FD STOT RE 1; H372 Aquatic Acute 1; H400; M = 10 Aquatic Chronic 1; H410; M = 10	Skin Corr. 1B; H314; C ≥ 5% Skin Irrit. 2; H315; 0.01% ≤ C < 5% Eye Dam. 1; H318; 3% ≤ C < 5% Eye Irrit. 2; H319; 0.01% ≤ C < 3%	E, SVHC

Notes for substances

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.
SVHC	Substance of very high concern.

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

General notes
No information.

Following inhalation
Remove patient to fresh air - move out of dangerous area. Victim should rest in a warm place. If breathing is irregular or respiratory arrest occurs provide artificial respiration. In case of unconsciousness bring patient into stable side position and seek medical attention.

Following skin contact

Immediately remove contaminated clothing. Areas of the body that have come into contact with the product immediately rinse with plenty of water and possibly with mild cleaner. Do not use solvents or thinners.

Following eye contact

Immediately flush eyes with plenty of water, keeping eyelids open (for at least 10 minutes). Consult a physician immediately!

Following ingestion

Immediately consult a doctor. Keep person warm and at rest. Do not induce vomiting!

4.2 Most important symptoms and effects, both acute and delayed**Following inhalation**

Causes irritation of mucous membrane. Coughing, sneezing, nasal discharge, labored breathing. Negative effects can affect liver, kidney, and central nervous system. Symptoms include: headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, unconsciousness. Asthmatic problems. Signs/symptoms are heavy breathing, wheezing and a tightness of the chest. Repeated exposure may cause permanent respiratory problems.

Following skin contact

Causes irritation of mucous membrane. Repeated or prolonged contact with the product may lead to removal of natural fats from the skin and non-allergic contact dermatitis. Product may be absorbed through the skin.

Following eye contact

Splashes of product cause usual reversible eye irritation.

Following ingestion

Causes diarrhoea. May cause irritation of the digestive tract.

4.3 Indication of any immediate medical attention and special treatment needed

No information.

SECTION 5: FIREFIGHTING MEASURES**5.1 Extinguishing media****Suitable extinguishing media**

Foam.
Water spray.
Fire extinguishing powder.
Carbon dioxide (CO₂).

Unsuitable extinguishing media

Full water jet.

5.2 Special hazards arising from the substance or mixture**Hazardous combustion products**

In the event of fire the following is released: nitrogen oxides (NO_x). In the event of fire carbon monoxide (CO) is released. Isocyanates and HCN can be formed.
Isocyanates.

5.3 Advice for firefighters**Protective actions**

In case of fire or heating do not breathe fumes/vapours.

Special protective equipment for fire-fighters

Firefighters should wear appropriate protective clothing for firefighters (including helmets, protective boots and gloves) (EN 469) and self-contained breathing apparatus (SCBA) with a full face-piece (EN 137).

Additional information

No information.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Protective equipment

Do not breathe vapours/smoke! Refer to protective measures listed in Sections 7 and 8.

Precautionary measures

Keep away sources of ignition. Ensure adequate ventilation.

Emergency procedures

Evacuate personnel and ventilate the premises.

For emergency responders

No information.

6.2 Environmental precautions

Do not allow product to reach water/drains/sewage systems and ground water. If accidental large entry into water or ground occurs, inform responsible authorities.

6.3 Methods and material for containment and cleaning up

For containment

No information.

For cleaning up

Absorb product (with inert material), collect it in special container and dispose it to a licensed hazardous-waste disposal contractor.

OTHER INFORMATION

No information.

6.4 Reference to other sections

See also sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Protective measures

Measures to prevent fire

Ensure adequate ventilation. Protect from heat and direct sunlight. Do not smoke. Vapours are heavier than air and spread along floor. Vapours and air form explosive mixtures.

Measures to prevent aerosol and dust generation

No information.

Measures to protect the environment

No information.

Other measures

No information.

Advice on general occupational hygiene

Do not breathe vapours/mist. Avoid contact with skin and eyes. Use safety glasses and safety gloves. Wear suitable respiratory protection (section 8).

7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions

Keep in well closed containers. Keep unauthorized personnel away. Keep in tightly closed container. Keep away from moisture. The product reacts with water, forming an insoluble polymer and liberating carbon dioxide which could cause an excessive pressure increase in the closed containers. Keep away from oxidising substances. Store away from alkaline substances. Store away from strong acids. Follow label instructions. Keep container in a well ventilated place. Keep in a dry place. Protect from open fire, heat and direct sunlight.

Packaging materials

No information.

Requirements for storage rooms and vessels

Electro installations must be explosively safe. Floors should be of the conducting type. Close opened containers after use. Put the containers upright to prevent from leaking. Keep only in original container.

Storage class

No information.

Further information on storage conditions

No information.

7.3 Specific end use(s)

Recommendations

Do not empty the container under pressure.

Industrial sector specific solutions

No information.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Occupational Exposure limit values

Name	mg/m ³	ml/m ³	Short-term value mg/m ³	Short-term value ml/m ³	Remark	Biological Tolerance Values
xylene	440	100	/	/	/	/
Butan-2-one (methyl ethyl ketone) (78-93-3)	600	200	899	300	Sk, BMGV	70 µmol butan-2-one/L in urine - Post shift 70 µmol butan-2-one/L in urine - Post shift
Xylene, o-,m-,p- or mixed isomers (1330-20-7)	220	50	441	100	Sk, BMGV	650 mmol methyl hippuric acid/mol creatinine in urine - Post shift 650 mmol methyl hippuric acid/mol creatinine in urine - Post shift 650 mmol methyl hippuric acid/mol creatinine in urine - Post shift
Butyl acetate (123- 86-4)	724	150	966	200	/	/
Ethyl acetate (141- 78-6)	734	200	1468	400	/	/

Information on monitoring procedures

BS EN 14042:2003 Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents. BS EN 689:2018 Workplace exposure. Measurement of exposure by inhalation to chemical agents. Strategy for testing compliance with occupational exposure limit values. BS EN 482:2021 Workplace exposure. Procedures for the determination of the concentration of chemical agents. Basic performance requirements.

DNEL/DMEL values

For product

No information.

For components

Name	Type	Exposure route	exp. frequency	Remark	value
ethyl methyl ketone	Worker	dermal	long term systemic effects	/	1161 mg/kg
ethyl methyl ketone	Worker	inhalation	long term systemic effects	/	600 mg/m³
ethyl methyl ketone	Consumer	oral	long term systemic effects	/	31 mg/kg
ethyl methyl ketone	Consumer	dermal	long term systemic effects	/	412 mg/kg
ethyl methyl ketone	Consumer	inhalation	long term systemic effects	/	106 mg/m³

PNEC values

For product

No information.

For components

No information.

8.2 Exposure controls

Appropriate engineering control

Substance/mixture related measures to prevent exposure during identified uses

Use good personal hygiene practices – wash hands at breaks and when done working with material. Avoid contact with eyes and skin. Do not breathe vapours/aerosols.

Structural measures to prevent exposure

No information.

Organisational measures to prevent exposure

No information.

Technical measures to prevent exposure

Provide good ventilation and local exhaust in areas with increased concentration.

Personal protective equipment

Eye and face protection

Safety glasses with side protection (BS EN ISO 16321-1:2022).

Hand protection

Protective gloves (EN 374).

Appropriate materials

Material	Thickness	Penetration Time	Remark
PVA	/	/	/
Natural rubber	/	/	/

Skin protection

Cotton protective clothing and shoes that cover the entire foot (BS EN ISO 20345:2022). Protective shoes.

Respiratory protection

Wear suitable protective breathing mask (EN 136) with filter A2-P2 (EN 14387). In case of insufficient ventilation wear mask with filter A (EN 14387).

Thermal hazards

No information.

Environmental exposure controls

Substance/mixture related measures to prevent exposure

No information.

Instruction measures to prevent exposure

No information.

Organisational measures to prevent exposure

No information.

Technical measures to prevent exposure

No information.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical state
liquid

Colour
black

Odour
solvent like

Important health, safety and environmental information

Odour threshold	No information.
Melting point/Freezing point	No information.
Boiling point or initial boiling point and boiling range	79 °C
Flammability	200 °C
Lower and upper explosion limit	1.8 — 11.5 vol %
Flash point	-8 °C
Auto-ignition temperature	No information.
Decomposition temperature	No information.
pH	No information.
Viscosity	Dynamic: 20 mPas at 20 °C
Solubility	No information.
Partition coefficient	No information.
Vapour pressure	101 hPa at 20 °C
Density and/or relative density	Relative density: 1.03 g/cm ³ at 20 °C
Relative vapour density	No information.
Particle characteristics	No information.

9.2 OTHER INFORMATION

Solids content	48 %
Weight organic solvents	52 %
Explosive properties	Product is not explosive. However, formation of explosive air/ vapour mixtures are possible.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

No information.

10.2 Chemical stability

Product is stable under normal conditions of use, recommended handling and storage conditions.

10.3 Possibility of hazardous reactions

No information.

10.4 Conditions to avoid

Avoid high temperatures.

10.5 Incompatible materials

Alkalis.
Acids.
Oxidants. Water. Amines. Alcohols.

10.6 Hazardous decomposition products

In case of fire/explosion vapours/gases that pose a health hazard are released.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

(a) Acute toxicity

For components

Name	Exposure route	Type	Species	Time	value	Method	Remark
ethyl methyl ketone	oral	LD ₅₀	rat	/	3300 mg/kg	/	/
ethyl methyl ketone	dermal	LD ₅₀	rabbit	/	5000 mg/kg	/	/
ethyl methyl ketone	inhalation	LC ₅₀	rat	4 h	23.5 mg/l	/	vapour
xylene	oral	LD ₅₀	rat	/	8700 mg/kg	/	/
xylene	dermal	LD ₅₀	rabbit	/	2000 mg/kg	/	/
xylene	inhalation	LC ₅₀	rat	4 h	6350 mg/l	/	vapour
n-butyl acetate	oral	LD ₅₀	rabbit	/	20 - 30 mg/kg	/	/
n-butyl acetate	dermal	LD ₅₀	rat	/	40 - 50 mg/kg	/	/
n-butyl acetate	inhalation	LC ₅₀	rat	4 h	70 - 80 mg/l	/	vapour
ethyl acetate	oral	LD ₅₀	rabbit	/	4935 mg/kg	/	/
ethyl acetate	inhalation	LC ₅₀	rat	4 h	1600 mg/l	/	vapour
diphenylmethane diisocyanate, isomers and homologues	oral	LD ₅₀	rat	/	2000 mg/kg	/	/
diphenylmethane diisocyanate, isomers and homologues	inhalation	LC ₅₀	rat	4 h	490 mg/l	/	vapour
dibutyltin dichloride	oral	LD ₅₀	rat	/	100 mg/kg	/	/

(b) Skin corrosion/irritation

For product

Species	Time	result	Method	Remark
/	/	Irritating to skin.	/	/

For components

Name	Species	Time	result	Method	Remark
ethyl methyl ketone	/	/	Irritating.	/	/
xylene	/	/	Irritating.	/	/

(c) Serious eye damage/irritation

For product

Species	Time	result	Method	Remark
/	/	Irritating to eyes.	/	/

For components

Name	Exposure route	Species	Time	result	Method	Remark
ethyl methyl ketone	/	/	/	Irritating.	/	/
xylene	/	/	/	Irritating.	/	/

(d) Respiratory or skin sensitisation

For product

Exposure route	Species	Time	result	Method	Remark
dermal	/	/	Sensitizing.	/	/
inhalation	/	/	Sensitising.	/	/

(e) (Germ cell) mutagenicity

No information.

(f) Carcinogenicity

No information.

(g) Reproductive toxicity

No information.

Summary of evaluation of the CMR properties

Suspected of causing cancer.

(h) STOT-single exposure

No information.

(i) STOT-repeated exposure

No information.

(j) Aspiration hazard

No information.

Symptoms related to the physical, chemical and toxicological characteristics

No information.

Interactive effects

No information.

11.2 Information on other hazards

Endocrine disrupting properties

No information.

Other information

No information.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

Acute (short-term) toxicity

For components

Name	Type	value	Exposure time	Species	organism	Method	Remark
ethyl methyl ketone	EC ₅₀	5091 mg/L	48 h	crustacea	/	/	/
ethyl methyl ketone	LC ₅₀	3220 mg/L	96 h	fish	/	/	/
ethyl methyl ketone	EC ₅₀	1150 mg/L	/	bacteria	/	/	/
xylene	LC ₅₀	2.6 - 8.4 mg/L	96 h	fish	/	/	/
xylene	EC ₅₀	1 - 4.7 mg/L	48 h	crustacea	/	/	/
xylene	EC ₅₀	1 - 8.4 mg/L	72 h	algae	/	/	/
n-butyl acetate	EC ₅₀	44 mg/L	48 h	crustacea	<i>Daphnia magna</i>	/	/

n-butyl acetate	LC ₅₀	18 mg/L	96 h	fish	<i>Oncorhynchus mykiss</i>	/	/
ethyl acetate	LC ₅₀	220 - 250 mg/L	96 h	fish	<i>Pimephales promelas</i>	/	/
ethyl acetate	LC ₅₀	352 - 500 mg/L	96 h	fish	<i>Oncorhynchus mykiss</i>	/	/
ethyl acetate	EC ₅₀	560 mg/L	48 h	daphnia	<i>Daphnia magna</i>	/	/
ethyl acetate	EC ₅₀	3300 mg/L	48 h	algae	<i>Desmodesmus subspicatus</i>	/	/
diphenylmethane diisocyanate, isomers and homologues	LC ₅₀	1000 mg/L	96 h	fish	/	/	/
diphenylmethane diisocyanate, isomers and homologues	EC ₅₀	1000 mg/L	24 h	daphnia	/	/	/
diphenylmethane diisocyanate, isomers and homologues	EC ₅₀	100 mg/L	/	bacteria	/	/	/

Chronic (long-term) toxicity

No information.

12.2 Persistence and degradability

Abiotic degradation, physical- and photo-chemical elimination

No information.

Biodegradation

No information.

12.3 Bioaccumulative potential

Partition coefficient

No information.

Bioconcentration factor (BCF)

No information.

12.4 Mobility in soil

Known or predicted distribution to environmental compartments

No information.

Surface tension

No information.

Adsorption/Desorption

No information.

12.5 Results of PBT and vPvB assessment

No evaluation.

12.6 Endocrine disrupting properties

No information.

12.7 Other adverse effects

No information.

12.8 Additional information

For product

Do not allow to reach ground water, water courses or sewage system. Harmful to aquatic organisms. May cause long term adverse effects in the aquatic environment.

For components

n-butyl acetate

Water hazard class 1 (Self-assessment): slightly hazardous for water

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product / Packaging disposal

Waste chemical

Disposal must be made according to official regulations: deliver it to authorised collector/remover/transformer of hazardous waste. Do not allow product to reach drains/sewage systems.

Waste codes / waste designations according to LoW

14 06 03* - other solvents and solvent mixtures

Packaging

Completely emptied and cleaned containers leave to approved waste disposal authorities in charge. Uncleaned containers are classified as hazardous waste - they should be handled in the same manner as the contents.

Waste codes / waste designations according to LoW

No information.

Waste treatment-relevant information

No information.

Sewage disposal-relevant information

No information.

Other disposal recommendations

No information.

SECTION 14: TRANSPORT INFORMATION

ADR/RID	IMDG	IATA	ADN
14.1 UN number or ID number			
UN 1866	UN 1866	UN 1866	UN 1866
14.2 UN proper shipping name			
RESIN SOLUTION	RESIN SOLUTION	RESIN SOLUTION	RESIN SOLUTION
14.3 Transport hazard class(es)			
3	3	3	3
			

14.4 Packing group			
II	II	II	II
14.5 Environmental hazards			
NO	NO	NO	NO
14.6 Special precautions for user			
Limited quantities 5 L Special provisions 640C Packing Instructions P001 Special packing provisions PP1 Transport category 2 Tunnel restriction code (D/E)	Limited quantities 5 L EmS F-E, <u>S-E</u> Flash point °C	Limited Quantity, Packing Instructions (Ltd Qty, Pkg Inst) Y341 Limited Quantity, Maximum Net Quantity/Package (Ltd Qty, Max Net Qty/Pkg) 1 L Packing Instructions (Pkg Inst) 353 Maximum Net Quantity/Package (Max Net Qty/Pkg) 5 L	Limited quantities 5 L
14.7 Maritime transport in bulk according to IMO instruments			
	Goods may not be carried in bulk in bulk containers, containers or vehicles.		

SECTION 15: REGULATORY INFORMATION

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

- Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (including last amendment Commission Regulation (EU) 2020/878)
- Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures

Information according 2004/42/EC about limitation of emissions of volatile organic compounds (VOC-guideline)
not applicable

Regulation EC 648/2004 on detergents
No information.

Special instructions
No information.

15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

SECTION 16: OTHER INFORMATION

Indication of changes
No information.

Key literature references and sources for data
No information.

Abbreviations and acronyms

ATE - Acute Toxicity Estimate
ADR - Agreement concerning the International Carriage of Dangerous Goods by Road
ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways

CEN - European Committee for Standardisation
C&L - Classification and Labelling
CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
CAS# - Chemical Abstracts Service number
CMR - Carcinogen, Mutagen, or Reproductive Toxicant
CSA - Chemical Safety Assessment
CSR - Chemical Safety Report
DMEL - Derived Minimal Effect Level
DNEL - Derived No Effect Level
DPD - Dangerous Preparations Directive 1999/45/EC
DSD - Dangerous Substances Directive 67/548/EEC
DU - Downstream User
EC - European Community
ECHA - European Chemicals Agency
EC-Number - EINECS and ELINCS Number (see also EINECS and ELINCS)
EEA - European Economic Area (EU + Iceland, Liechtenstein and Norway)
EEC - European Economic Community
EINECS - European Inventory of Existing Commercial Substances
ELINCS - European List of notified Chemical Substances
EN - European Standard
EQS - Environmental Quality Standard
EU - European Union
Euphrac - European Phrase Catalogue
EWC - European Waste Catalogue (replaced by LoW – see below)
GES - Generic Exposure Scenario
GHS - Globally Harmonized System
IATA - International Air Transport Association
ICAO-TI - Technical Instructions for the Safe Transport of Dangerous Goods by Air
IMDG - International Maritime Dangerous Goods
IMSBC - International Maritime Solid Bulk Cargoes
IT - Information Technology
IUCLID - International Uniform Chemical Information Database
IUPAC - International Union for Pure Applied Chemistry
JRC - Joint Research Centre
Kow - octanol-water partition coefficient
LC50 - Lethal Concentration to 50 % of a test population
LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose)
LE - Legal Entity
LoW - List of Wastes (see <http://ec.europa.eu/environment/waste/framework/list.htm>)
LR - Lead Registrant
M/I - Manufacturer / Importer
MS - Member States
MSDS - Material Safety Data Sheet
OC - Operational Conditions
OECD - Organization for Economic Co-operation and Development
OEL - Occupational Exposure Limit
OJ - Official Journal
OR - Only Representative
OSHA - European Agency for Safety and Health at work
PBT - Persistent, Bioaccumulative and Toxic substance
PEC - Predicted Effect Concentration
PNEC(s) - Predicted No Effect Concentration(s)
PPE - Personal Protection Equipment
(Q)SAR - Qualitative Structure Activity Relationship
REACH - Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID - Regulations concerning the International Carriage of Dangerous Goods by Rail
RIP - REACH Implementation Project
RMM - Risk Management Measure
SCBA - Self-Contained Breathing Apparatus
SDS - Safety data sheet
SIEF - Substance Information Exchange Forum
SME - Small and Medium sized Enterprises
STOT - Specific Target Organ Toxicity
(STOT) RE - Repeated Exposure

(STOT) SE - Single Exposure
SVHC - Substances of Very High Concern
UN - United Nations
vPvB - Very Persistent and Very Bioaccumulative

List of relevant H phrases

H225 Highly flammable liquid and vapour.
H226 Flammable liquid and vapour.
H301 Toxic if swallowed.
H312 Harmful in contact with skin.
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
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.
H341 Suspected of causing genetic defects.
H351 Suspected of causing cancer.
H360FD May damage fertility. May damage the unborn child.
H372 Causes damage to organs through prolonged or repeated exposure.
H373 May cause damage to organs through prolonged or repeated exposure.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.
H412 Harmful to aquatic life with long lasting effects.



- ☑ Provided correct labelling of the product
- ☑ Compliance with the local legislation
- ☑ Provided correct classification of the product
- ☑ Provided adequate transport data

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The information of this SDS is based on the present state of our knowledge and meets the requirements of EU and national laws. The user's working conditions however, are beyond our knowledge and control. The product is not to be used for purposes other than those specified under section 1 without a written permission. It remains the responsibility of the user to ensure that the necessary steps are taken to meet the laws and regulations. Handling of the product may only be done by people above 18 years of age, who are satisfactorily informed of how to do the work, the hazardous properties and necessary safety precautions. The information given in this SDS is to describe the product only in terms of health and safety requirements and should not, therefore, be construed as guaranteeing specific properties.