

# SAFETY DATA SHEET according to regulation 1907/2006

**silco**<sup>®</sup>**Product name: 7082 Hardener****Creation date: 17.02.2021, Revision: 02.11.2021, version: 1.0**

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

### 1.1 Product identifier

Product name  
7082 Hardener



<https://my.chemius.net/p/nx5hdB/en/pd/en>

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

Relevant identified uses  
Hardener

Uses advised against  
No information.

### 1.3 Details of the supplier of the safety data sheet

Supplier	Manufacturer
SILCO, D.O.O. Šentrupert 5 a 3303 Gomilsko, Slovenia +386 3 703 3180 n.cvilak@silco.si	SILCO, D.O.O. Šentrupert 5 a 3303 Gomilsko, Slovenia +386 3 703 3180 n.cvilak@silco.si

### 1.4 Emergency Telephone Number

Emergency  
112

Supplier  
+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. 3; H226 Flammable liquid and vapour.

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

Eye Irrit. 2; H319 Causes serious eye irritation.

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

STOT SE 3; H336 May cause drowsiness or dizziness.

### 2.2 Label elements

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

**Signal word: Danger**

H226 Flammable liquid and vapour.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H336 May cause drowsiness or dizziness.

EUH066 Repeated exposure may cause skin dryness or cracking.

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

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].

P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P501 Dispose of contents/container in accordance with national regulation.

**Contains:**

ethyl acetate

benzene, 2,4-diisocyanat-1-methyl-, homopolymer

n-butyl acetate

1,6-hexamethylene diisocyanate homopolymer

4-methyl-m-phenylene diisocyanate

**2.3 Other hazards**

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 acetate	141-78-6 205-500-4 607-022-00-5 01-2119475103-46	<50	Flam. Liq. 2; H225 Eye Irrit. 2; H319 STOT SE 3; H336 EUH066	/	/
benzene, 2,4-diisocyanat-1-methyl-, homopolymer	26006-20-2 607-844-4 -	25-35	Skin Sens. 1; H317 Eye Irrit. 2; H319	/	/
2-methoxy-1-methylethyl acetate	108-65-6 203-603-9 607-195-00-7 01-2119475791-29	<15	Flam. Liq. 3; H226	/	/
n-butyl acetate	123-86-4 204-658-1 607-025-00-1 01-2119485493-29	<25	Flam. Liq. 3; H226 STOT SE 3; H336 EUH066	/	/

1,6-hexamethylene diisocyanate homopolymer	28182-81-2 500-060-2 - 01-2119485796-17	5-10	Skin Sens. 1; H317	/	/
p-toluenesulphonyl isocyanate	4083-64-1 223-810-8 615-012-00-7 01-2119980050-47	<0,5	Skin Irrit. 2; H315 Eye Irrit. 2; H319 Resp. Sens. 1; H334 STOT SE 3; H335 EUH014	Skin Irrit. 2; H315; C ≥ 5% Eye Irrit. 2; H319; C ≥ 5% STOT SE 3; H335; C ≥ 5%	/
4-methyl-m-phenylene diisocyanate	584-84-9 209-544-5 615-006-00-4	<0,25	Skin Irrit. 2; H315 Skin Sens. 1; H317 Eye Irrit. 2; H319 Acute Tox. 2; H330.2 Resp. Sens. 1; H334 STOT SE 3; H335 Carc. 2; H351 Aquatic Chronic 3; H412	Resp. Sens. 1; H334; C ≥ 0.1%	C

#### 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.
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## SECTION 4: FIRST AID MEASURES

### 4.1 First aid measures

#### General notes

No information.

#### Following inhalation

Ventilate the premises. Inhale fresh air. Remove patient to fresh air - move out of dangerous area. Seek medical help immediately.

#### Following skin contact

Immediately remove contaminated clothing. Wash affected skin areas thoroughly with plenty of water and soap. If symptoms develop and persist, seek medical attention.

#### Following eye contact

Immediately flush eyes with plenty of water, keeping eyelids open (for at least 10 minutes). If irritation does not stop, seek professional medical treatment!

#### Following ingestion

Do not induce vomiting! Immediately consult a doctor. Do not in any case administer milk, vegetable or animal fat.

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

#### Following inhalation

Vapours may cause drowsiness and dizziness.

#### Following skin contact

May cause sensitisation by skin contact (symptoms: itching, redness, rashes). Repeated exposure may cause dry skin or cracked skin.

#### Following eye contact

Redness, tearing, pain.

#### Following ingestion

No information.

#### 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

Fire extinguishing powder.

Carbon dioxide (CO<sub>2</sub>).

Foam.

Water spray.

#### Unsuitable extinguishing media

No special precautions required.

### 5.2 Special hazards arising from the substance or mixture

#### Hazardous combustion products

No information.

### 5.3 Advice for firefighters

#### Protective actions

In case of fire or heating do not breathe fumes/vapours. Cool containers at risk with water spray. If possible remove containers from endangered area.

#### 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

Wear suitable protective face mask, protective gloves and clothing.

##### Precautionary measures

Keep away from sources of ignition and/or heat; No smoking!

##### Emergency procedures

No information.

#### 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**

No information.

**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. Consider measures required in Section 8 of this safety data sheet. Do not eat, drink or smoke while working.

**7.2 Conditions for safe storage, including any incompatibilities**

**Technical measures and storage conditions**

Keep away from open fire, heat, sparks and direct sunlight. Keep in cool and well ventilated area.

**Packaging materials**

No information.

**Requirements for storage rooms and vessels**

No information.

**Storage class**

No information.

**Further information on storage conditions**

No information.

**7.3 Specific end use(s)**

**Recommendations**

Keep away from incompatible material (see section 10).

**Industrial sector specific solutions**

No information.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

**8.1 Control parameters**

**Occupational Exposure limit values**

NAME	MG/M <sup>3</sup>	ML/M <sup>3</sup>	SHORT-TERM VALUE MG/M <sup>3</sup>	SHORT-TERM VALUE ML/M <sup>3</sup>	REMARK	BIOLOGICAL TOLERANCE VALUES
1-Methoxypropyl acetate (108-65-6)	274	50	548	100	Sk	/
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 Title Identifier: Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents. 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

No information.

#### 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.

##### 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

Tight fitting protective goggles (EN 166).

##### Hand protection

Protective gloves (EN 374).

#### Appropriate materials

MATERIAL	THICKNESS	PENETRATION TIME	REMARK
Neoprene	/	/	/
PVC	/	/	/

#### Skin protection

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

#### Respiratory protection

Wear suitable protective breathing mask (EN 136) with filter A2-P2 (EN 14387). Filter type CEN/FFP-2(S) or CEN/FFP-3(S).

#### 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

colourless

Odour

solvent like

Important health, safety and environmental information

Odour threshold	No information.
pH	No information.
Melting point/Freezing point	No information.
Initial boiling point/boiling range	No information.
Flash point	25 °C
Evaporation rate	No information.
Flammability (solid, gas)	No information.
Explosion limits (vol%)	No information.
Vapour pressure	No information.
Vapour density	> 1
Density / weight	Density: 1.01 – 1.02 g/cm <sup>3</sup>
Solubility	No information.
Partition coefficient	No information.
Auto-ignition temperature	No information.
Decomposition temperature	No information.
Viscosity	No information.
Explosive properties	No information.
Oxidising properties	No information.

### 9.2 OTHER INFORMATION

No information.

## 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**

Protect from heat, direct sunlight, open fire, sparks.

**10.5 Incompatible materials**

Oxidants.  
Strong acids. Metals.

**10.6 Hazardous decomposition products**

Under normal use conditions no hazardous decomposition products are expected.

**SECTION 11: TOXICOLOGICAL INFORMATION****11.1 Information on toxicological effects****(a) Acute toxicity**

For components

NAME	EXPOSURE ROUTE	TYPE	SPECIES	TIME	VALUE	METHOD	REMARK
2-methoxy-1-methylethyl acetate	dermal	LD <sub>50</sub>	rat	/	5000 mg/kg	/	/
2-methoxy-1-methylethyl acetate	oral	LD <sub>50</sub>	rat	/	8532 mg/kg	/	/
n-butyl acetate	oral	LD <sub>50</sub>	mouse	/	6 mg/kg	/	/
n-butyl acetate	oral	LD <sub>50</sub>	rat	/	10768 mg/kg	/	/

**(b) Skin corrosion/irritation**

No information.

**(c) Serious eye damage/irritation**

No information.

**Additional information**

Irritating to eyes.

**(d) Respiratory or skin sensitisation**

No information.

**Additional information**

May cause an allergic skin reaction.

**(e) (Germ cell) mutagenicity**

No information.

**(f) Carcinogenicity**

No information.

**(g) Reproductive toxicity**

No information.

**Summary of evaluation of the CMR properties**

No information.

**(h) STOT-single exposure**

No information.

**(i) STOT-repeated exposure**

No information.

**(j) Aspiration hazard**

No information.



## SECTION 12: ECOLOGICAL INFORMATION

### 12.1 Toxicity

#### Acute (short-term) toxicity

##### For components

NAME	TYPE	VALUE	EXPOSURE TIME	SPECIES	ORGANISM	METHOD	REMARK
2-methoxy-1-methylethyl acetate	LC <sub>50</sub>	100 - 180 mg/L	96 h	fish	/	/	/
2-methoxy-1-methylethyl acetate	EC <sub>50</sub>	500 mg/L	48 h	crustacea	/	/	/
n-butyl acetate	EC <sub>50</sub>	32 mg/L	48 h	crustacea	/	/	/
n-butyl acetate	LC <sub>50</sub>	18 - 19 mg/L	96 h	fish	/	/	/
n-butyl acetate	LC <sub>50</sub>	62 mg/L	96 h	fish	/	/	/
n-butyl acetate	LC <sub>50</sub>	185 mg/L	96 h	fish	/	/	/
n-butyl acetate	LC <sub>50</sub>	18 mg/L	96 h	fish	/	/	/
n-butyl acetate	LC <sub>50</sub>	100 mg/L	96 h	fish	/	/	/

#### 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 Other adverse effects

No information.

## 12.7 Additional information

### For product

Do not allow to reach ground water, water courses or sewage system. Water hazard class (WGK): 3 (Self-assessment), very hazardous for water.

## SECTION 13: DISPOSAL CONSIDERATIONS

### 13.1 Waste treatment methods

#### Product / Packaging disposal

##### Waste chemical

Recycle or dispose according to official regulations: to leave it to authorized collector/remover/transformer of hazardous waste.

#### Waste codes / waste designations according to LoW

No information.

#### Packaging

Deliver completely emptied containers to approved waste disposal authorities.

#### 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			
UN 1263	UN 1263	UN 1263	UN 1263
14.2 UN proper shipping name			
PAINT RELATED MATERIAL	PAINT RELATED MATERIAL	PAINT RELATED MATERIAL	PAINT RELATED MATERIAL
14.3 Transport hazard class(es)			
3	3	3	3
			
14.4 Packing group			
III	III	III	III
14.5 Environmental hazards			
NO	NO	NO	NO
14.6 Special precautions for user			

Limited quantities 5 L Special provisions 163, 367, 650 Packing Instructions P001, IBC02, R001 Special packing provisions PP1, BB4 Transport category 3 Tunnel restriction code (E)	Limited quantities 5 L EmS F-E, S-E Flash point °C	Limited Quantity, Packing Instructions (Ltd Qty, Pkg Inst) Y344 Limited Quantity, Maximum Net Quantity/Package (Ltd Qty, Max Net Qty/Pkg) 10 L Packing Instructions (Pkg Inst) 355 Maximum Net Quantity/Package (Max Net Qty/Pkg) 25 L Special provisions A3, A72, A192	Limited quantities 5 L
<b>14.7 Transport in bulk according to Annex II of Marpol and the IBC Code</b>			
Goods may not be carried in bulk in bulk containers, containers or vehicles.	Goods may not be carried in bulk in bulk containers, containers or vehicles.	Not given/not applicable	Not given/not applicable

## 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) 2015/830)

- 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

1.2 Relevant identified uses of the substance or mixture and uses advised against 2.1 Classification of the substance or mixture 2.2 Label elements 3.2 Mixtures 4.1 First aid measures 4.2 Most important symptoms and effects, both acute and delayed 5.1 Extinguishing media 5.2 Special hazards arising from the substance or mixture 5.3 Advice for firefighters 6.1 Personal precautions, protective equipment and emergency procedures 6.3 Methods and material for containment and cleaning up 7.1 Precautions for safe handling 7.2 Conditions for safe storage, including any incompatibilities 8.1 Control parameters 8.2 Exposure controls 9.1 Information on basic physical and chemical properties 9.2 OTHER INFORMATION 11.1 Information on toxicological effects 12.1 Toxicity 12.2 Persistence and degradability 12.3 Bioaccumulative potential 12.4 Mobility in soil 13.1 Waste treatment methods 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

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.  
H315 Causes skin irritation.  
H317 May cause an allergic skin reaction.  
H319 Causes serious eye irritation.  
H330 Fatal 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.  
H412 Harmful to aquatic life with long lasting effects.