

SAFETY DATA SHEET according to regulation 1907/2006

silco®**Product name: 9650 UHS Hardener****Creation date: 17.02.2021, Revision: 19.04.2022, version: 1.4**

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

1.1 Product identifier

Product name

9650 UHS Hardener

<https://my.chemius.net/p/wUrY8Q/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

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. 3; H226 Flammable liquid and vapour.

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

STOT SE 3; H336 May cause drowsiness or dizziness.

2.2 Label elements

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



Signal word: Warning

H226 Flammable liquid and vapour.

H317 May cause an allergic skin reaction.

H336 May cause drowsiness or dizziness.

EUH066 Repeated exposure may cause skin dryness or cracking.

P240 Ground and bond container and receiving equipment.

P272 Contaminated work clothing should not be allowed out of the workplace.

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.

P403 + P235 Store in a well-ventilated place. Keep cool.

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

Contains:

1,6-hexamethylene diisocyanate homopolymer

n-butyl acetate

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
1,6-hexamethylene diisocyanate homopolymer	28182-81-2 500-060-2 -	40-60	Skin Sens. 1; H317	/	/
n-butyl acetate	123-86-4 204-658-1 607-025-00-1	40-60	Flam. Liq. 3; H226 STOT SE 3; H336 EUH066	/	/
2-methoxy-1-methylethyl acetate	108-65-6 203-603-9 607-195-00-7	15-30	Flam. Liq. 3; H226	/	/
2-butoxyethyl acetate	112-07-2 203-933-3 607-038-00-2	1-3	Acute Tox. 4; H312 Acute Tox. 4; H332	/	/
p-toluenesulphonyl isocyanate	4083-64-1 223-810-8 615-012-00-7 01-2119980050-47	0-0,5	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%	/

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. Victim should rest in a

warm place. If difficulties with breathing do not stop, search for medical help.

Following skin contact

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 running water, keeping eyelids apart. If irritation persists, seek professional medical attention.

Following ingestion

Do not induce vomiting! Immediately consult a doctor.

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

No information.

Following skin contact

No data available.

Following eye contact

No information.

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**

Carbon dioxide (CO₂).

Fire extinguishing powder.

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

Full protective clothing and self-contained breathing apparatus.

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

Ensure adequate ventilation.

Emergency procedures

No information.

For emergency responders

No information.

6.2 Environmental precautions

Do not allow product to reach water/drains/sewage systems or permeable soil. 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 ³	ml/m ³	Short-term value mg/m ³	Short-term value ml/m ³	Remark	Biological Tolerance Values
1-Methoxypropyl acetate (108-65-6)	274	50	548	100	Sk	/
2-Butoxyethyl acetate (112-07-2)	133	20	332	50	Sk	/
Butyl acetate (123-86-4)	724	150	966	200	/	/

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**

No information.

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

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	No information.
Density / weight	Density: 0.99 – 1.02 g/cm ³
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

Solids content	49.3 %
Weight organic solvents	670 g/l (VOC)

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. Alkali metal.

10.6 Hazardous decomposition products

Inflammable gases and vapours are generated. It may generate toxic gases on contact with oxidising mineral acids and powerful oxidising agents. It may generate flammable gases and powerful reducing agents on contact with metals.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

(a) Acute toxicity

For components

Name	Exposure route	Type	Species	Time	value	Method	Remark
n-butyl acetate	oral	LD ₅₀	mouse	/	6 mg/kg	/	/
n-butyl acetate	oral	LD ₅₀	rat	/	10768 mg/kg	/	/
2-methoxy-1-methylethyl acetate	dermal	LD ₅₀	rat	/	5000 mg/kg	/	/
2-methoxy-1-methylethyl acetate	oral	LD ₅₀	rat	/	8532 mg/kg	/	/
2-butoxyethyl acetate	dermal	LD ₅₀	rat	/	1580 mg/kg	/	/

(b) Skin corrosion/irritation

No information.

(c) Serious eye damage/irritation

No information.

(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
n-butyl acetate	EC ₅₀	32 mg/L	48 h	crustacea	/	/	/
n-butyl acetate	LC ₅₀	18 - 19 mg/L	96 h	fish	/	/	/
n-butyl acetate	LC ₅₀	62 mg/L	96 h	fish	/	/	/
n-butyl acetate	LC ₅₀	185 mg/L	96 h	fish	/	/	/
n-butyl acetate	LC ₅₀	18 mg/L	96 h	fish	/	/	/
n-butyl acetate	LC ₅₀	100 mg/L	96 h	fish	/	/	/
2-methoxy-1-methylethyl acetate	LC ₅₀	100 - 180 mg/L	96 h	fish	/	/	/
2-methoxy-1-methylethyl acetate	EC ₅₀	500 mg/L	48 h	crustacea	/	/	/

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.

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, <u>S-E</u> Flash point 25 °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
14.7 Transport in bulk according to Annex II of Marpol and the IBC Code			
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

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

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

H226 Flammable liquid and vapour.
H312 Harmful in contact with skin.
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.
H335 May cause respiratory irritation.
H336 May cause drowsiness or dizziness.



- ☒ 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.