

# SAFETY DATA SHEET according to Regulation 1907/2006



Product name: **2120 Epoxy Hardener**

Creation date: **26.11.2006** · Revision: **12.8.2019** · Version: **1**

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

### 1.1. Product identifier

Product name

**2120 Epoxy Hardener**



chemius.net/dZj95

### 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.

Address: Šentrupert 5 a, 3303 Gomilsko, Slovenia

Phone: +386 3 703 3180

Fax: +386 3 703 3188

E-mail: n.cvilak@silco-automotive.com

Point of contact for safety info: Nejc Cvilak

### 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 Irrit. 2; H315 Causes skin irritation.

Eye Dam. 1; H318 Causes serious eye damage.

Acute Tox. 4; H332 Harmful if inhaled.

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## 2.2 Label elements

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



Signal word: **Danger**

H226 Flammable liquid and vapour.

H315 Causes skin irritation.

H318 Causes serious eye damage.

H332 Harmful if inhaled.

P102 Keep out of reach of children.

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

P271 Use only outdoors or in a well-ventilated area.

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

P337 + P313 If eye irritation persists: Get medical advice/attention.

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

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

### 2.2.2. Contains:

xylene (CAS: 1330-20-7, EC: 215-535-7, Index: 601-022-00-9)

ethylbenzene (CAS: 100-41-4, EC: 202-849-4, Index: 601-023-00-4)

n-butanol (CAS: 71-36-3, EC: 200-751-6, Index: 603-004-00-6)

### 2.2.3. Special provisions

Special hazards are not known or expected.

## 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	%	Classification according to Regulation (EC) No 1272/2008 (CLP)	Specific Conc. Limits	REACH Registration No.
xylene [C]	1330-20-7 215-535-7 601-022-00-9	25,01-50%	Flam. Liq. 3; H226 Acute Tox. 4; H312 Skin Irrit. 2; H315 Acute Tox. 4; H332		-
ethylbenzene	100-41-4 202-849-4 601-023-00-4	2,51-10%	Flam. Liq. 2; H225 Asp. Tox. 1; H304 Acute Tox. 4; H332 STOT RE 2; H373 (hearing organs)		-
n-butanol	71-36-3 200-751-6 603-004-00-6	2,51-10%	Flam. Liq. 3; H226 Acute Tox. 4; H302 Skin Irrit. 2; H315 Eye Dam. 1; H318 STOT SE 3; H335 STOT SE 3; H336		-

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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.

## SECTION 4. FIRST AID MEASURES

### 4.1. Description of first aid measures

#### General notes

-

#### Following inhalation

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

#### Following skin contact

Take off all contaminated clothing.

#### Following eye contact

If substance has got into eyes, immediately wash out with plenty of water. Consult a physician immediately!

#### Following ingestion

Do not induce vomiting! Immediately consult a doctor.

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

#### Inhalation

Coughing, sneezing, nasal discharge, labored breathing.  
May cause irritation of mucous membrane of respiratory organs.  
Negative effects can affect liver, kidney, and central nervous system.  
Intoxication, vertigo, headache, nausea.

#### Skin contact

Repeated or prolonged contact with the product may lead to removal of natural fats from the skin and non-allergic contact dermatitis.

#### Eye contact

-

#### Ingestion

-

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

-

## SECTION 5. FIREFIGHTING MEASURES

### 5.1. Extinguishing media

#### Suitable extinguishing media

Foam.  
Carbon dioxide (CO<sub>2</sub>).  
Water spray.

#### Unsuitable extinguishing media

No special precautions required.

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

### Hazardous combustion products

In case of heating harmful vapours/gases can be generated.

## 5.3. Advice for firefighters

### Protective actions

Cool the endangered containers with water spray.

### Special protective equipment for firefighters

self-contained breathing apparatus

## SECTION 6. ACCIDENTAL RELEASE MEASURES

### 6.1. Personal precautions, protective equipment and emergency procedures

#### 6.1.1. For non-emergency personnel

##### **Protective equipment**

Do not breathe vapours/smoke!

##### **Emergency procedures**

Protect from open fire and other possible sources of ignition. Ensure adequate ventilation.

#### 6.1.2. For emergency responders

-

### 6.2. Environmental precautions

Do not allow to enter water/drains/sewerage. If accidental large entry into water or ground occurs, inform responsible authorities.

### 6.3. Methods and material for containment and cleaning up

#### 6.3.1. For containment

-

#### 6.3.2. For cleaning up

Absorb with inert material (sand, flintstone (diatomite soil), universal binder, sawdust). Do not absorb spillage with sawdust or other combustible material. Pick up mechanically and remove it in accordance with regulation. Prevent product to reach water bodies or sewage systems.

#### 6.3.3. Other information

-

### 6.4. Reference to other sections

See also Sections 8 and 13.

## SECTION 7. HANDLING AND STORAGE

### 7.1. Precautions for safe handling

#### 7.1.1. Protective measures

##### **Measures to prevent fire**

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##### **Measures to prevent aerosol and dust generation**

-

##### **Measures to protect the environment**

-

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## 7.1.2. Advice on general occupational hygiene

Do not eat, drink or smoke while working. Use good personal hygiene practices – wash hands at breaks and when done working with material. Consider measures required in Section 8 of this safety data sheet.

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

### 7.2.1. Technical measures and storage conditions

Keep in cool and well ventilated area. Keep away from open fire, heat, sparks and direct sunlight. Keep away from oxidising substances. Store away from strong acids. Store away from strong bases. Do not smoke! Keep in a dry place. Store between: 0°C to +30°C

### 7.2.2. Packaging materials

-

### 7.2.3. Requirements for storage rooms and vessels

Close opened containers after use. Put the containers upright to prevent from leaking.

### 7.2.4. Storage class

-

### 7.2.5. Further information on storage conditions

-

## **7.3. Specific end use(s)**

### **Recommendations**

-

### **Industrial sector specific solutions**

-

## **SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

### **8.1. Control parameters**

#### 8.1.1. Occupational exposure limit values

Name (CAS)	Limit values		Short-term exposure limit		Remarks	Biological Tolerance Values
	ml/m <sup>3</sup> (ppm)	mg/m <sup>3</sup>	ml/m <sup>3</sup> (ppm)	mg/m <sup>3</sup>		
Butan-1-ol (71-36-3)	-	-	50	154	Sk	
Ethylbenzene (100-41-4)	100	441	125	552	Sk	
Xylene, o-,m-,p- or mixed isomers (1330-20-7)	50	220	100	441	Sk, BMGV	650 mmol methyl hippuric acid/mol creatinine in urine - Post shift

#### 8.1.2. 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 482:2012+A1:2015 Workplace exposure. General requirements for the performance of procedures for the measurement of chemical agents. BS EN 689:2018 Workplace exposure. Measurement of exposure by inhalation to chemical agents. Strategy for testing compliance with occupational exposure limit values.

#### 8.1.3. DNEL/DMEL values

No information.

#### 8.1.4. PNEC values

No information.

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## 8.2. Exposure controls

### 8.2.1. Appropriate engineering control

#### Substance/mixture related measures to prevent exposure during identified uses

Do not breathe vapours/aerosols.

#### Technical measures to prevent exposure

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

### 8.2.2. Personal protective equipment

#### Eye and face protection

Safety goggles (EN 166).

#### Hand protection

No requirements under normal use conditions.

#### Skin protection

No requirements under normal use conditions.

#### Respiratory protection

In case of insufficient ventilation wear suitable respiratory protection.

#### Thermal hazards

-

### 8.2.3. Environmental exposure controls

-

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. Information on basic physical and chemical properties

-	<b>Physical state:</b>	liquid
-	<b>Colour:</b>	colorless
-	<b>Odour:</b>	solvent like

### Important health, safety and environmental information

-	<b>pH</b>	No information.
-	<b>Melting point/freezing point</b>	No information.
-	<b>Initial boiling point/boiling range</b>	No information.
-	<b>Flash point</b>	25 °C
-	<b>Evaporation rate</b>	No information.
-	<b>Flammability (solid, gas)</b>	No information.
-	<b>Explosion limits (vol%)</b>	> 1 vol %
-	<b>Vapour pressure</b>	No information.
-	<b>Vapour density</b>	No information.
-	<b>Density</b>	No information.
-	<b>Solubility</b>	No information.
-	<b>Partition coefficient</b>	No information.
-	<b>Auto-ignition temperature</b>	No information.
-	<b>Decomposition temperature</b>	No information.
-	<b>Viscosity</b>	<b>Dynamic:</b> 32 – 48 at 25 °C (Ford 4)
-	<b>Explosive properties</b>	No information.
-	<b>Oxidising properties</b>	No information.

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## 9.2. Other information

-	Remarks:	
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## SECTION 10. STABILITY AND REACTIVITY

### 10.1. Reactivity

-

### 10.2. Chemical stability

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

### 10.3. Possibility of hazardous reactions

-

### 10.4. Conditions to avoid

No special precautions required. Consider the directions for use and storage.

### 10.5. Incompatible materials

Follow the general rule of incompatible chemicals.

### 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

No information.

#### (b) Skin corrosion/irritation

No information.

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

No information.

#### (d) Respiratory or skin sensitisation

No information.

#### (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.

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## (j) Aspiration hazard

No information.

## SECTION 12. ECOLOGICAL INFORMATION

### 12.1. Toxicity

#### 12.1.1. Acute (short-term) toxicity

No information.

#### 12.1.2. Chronic (long-term) toxicity

No information.

### 12.2. Persistence and degradability

#### 12.2.1. Abiotic degradation, physical- and photo-chemical elimination

No information.

#### 12.2.2. Biodegradation

No information.

### 12.3. Bioaccumulative potential

#### 12.3.1. Partition coefficient

No information.

#### 12.3.2. Bioconcentration factor (BCF)

No information.

### 12.4. Mobility in soil

#### 12.4.1. Known or predicted distribution to environmental compartments

No information.

#### 12.4.2. Surface tension

No information.

#### 12.4.3. 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**

No ecotoxicological data available.

Do not allow to reach ground water, water courses or sewage system.

## SECTION 13. DISPOSAL CONSIDERATIONS

### 13.1. Waste treatment methods

#### 13.1.1. Product / Packaging disposal

##### **Waste chemical**

Disposal must be made according to official regulations: deliver it to authorised collector/remover/transformer of hazardous waste.



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## Packaging

According to regulations.

### 13.1.2. Waste treatment-relevant information

-

### 13.1.3. Sewage disposal-relevant information

-

### 13.1.4. Other disposal recommendations

-

## SECTION 14. TRANSPORT INFORMATION

### 14.1. UN number

UN 1263

### 14.2. UN proper shipping name

PAINT RELATED MATERIAL

### 14.3. Transport hazard class(es)

3

### 14.4. Packing group

III

### 14.5. Environmental hazards

NO.

### 14.6. Special precautions for user

#### Limited quantities

5 L

#### Tunnel restriction code

(D/E)

#### IMDG flashpoint

25 °C, c.c.

#### IMDG EmS

F-E, S-E



### 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.

## 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

#### 15.1.1. Information according 2004/42/EC about limitation of emissions of volatile organic compounds (VOC-guideline)

Not applicable.

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## 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

-

### Abbreviations and acronyms

ATE - Acute Toxicity Estimate  
ADR - European 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  
LC<sub>50</sub> - Lethal Concentration to 50 % of a test population  
LD<sub>50</sub> - 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

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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

## Key literature references and sources for data

-

## List of relevant H phrases

H225 Highly flammable liquid and vapour.  
H226 Flammable liquid and vapour.  
H302 Harmful if swallowed.  
H304 May be fatal if swallowed and enters airways.  
H312 Harmful in contact with skin.  
H315 Causes skin irritation.  
H318 Causes serious eye damage.  
H332 Harmful if inhaled.  
H335 May cause respiratory irritation.  
H336 May cause drowsiness or dizziness.  
H373 May cause damage to organs through prolonged or repeated exposure .



- 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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