



Safety data sheet

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

1.1 PRODUCT IDENTIFIER

Product name

EPOKOL MIX5 Komponenta B

UFI:

CE03-K1YQ-NH1J-TEKT



<https://my.chemius.net/p/r0y7ap/en/pd/en>

1.2 RELEVANT IDENTIFIED USES OF THE SUBSTANCE OR MIXTURE AND USES ADVISED AGAINST

Relevant identified uses

Two component epoxy adhesive - component B.

Uses advised against

No information.

1.3 DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET

Supplier

MITOL, tovarna lepil, d.o.o., Sežana
Partizanska c. 78
6210 Sežana, Slovenia
+386 5 73 12 300 (8:00-16:00)
lilijana.kocjan@mitol.si

1.4 EMERGENCY TELEPHONE NUMBER

Emergency

112

Supplier

+386 5 73 12 300 (8:00-16:00)

SECTION 2: HAZARDS IDENTIFICATION

2.1 CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

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

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.
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: WARNING

H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H412 Harmful to aquatic life with long lasting effects.
P102 Keep out of reach of children.
P261 Avoid breathing vapours.
P273 Avoid release to the environment.
P280 Wear protective gloves/eye protection/face protection.
P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.
P337 + P313 If eye irritation persists: Get medical advice/attention.
P362 + P364 Take off contaminated clothing and wash it before reuse.
P501 Dispose of contents/container in accordance with national regulation.

Contains:

pentaerythritol-PO-mercaptopglycerol
N'-(3-aminopropyl)-N,N-dimethylpropane-1,3-diamine

2.3 OTHER HAZARDS

PBT/vPvB

No information.

Endocrine disrupting properties

No information.



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Additional information

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

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
pentaerythritol- PO- mercaptoglycero I	72244-98-5 615-735-8 -	50-100	Skin Sens. 1B; H317 Aquatic Chronic 3; H412	/	/
N'-(3- aminopropyl)- N,N- dimethylpropane -1,3-diamine	10563-29-8 234-148-4 - 01-2119970376- 29	1-<3	Acute Tox. 4; H302 Skin Corr. 1A; H314 Skin Sens. 1B; H317 Eye Dam. 1; H318	/	/
1,8- Diazabiciklo[5.4. 0]undec-7-en	6674-22-2 229-713-7 - 01-2119977097- 24	0,25-<0,5	Acute Tox. 3; H301 Skin Corr. 1B; H314 Eye Dam. 1; H318	/	/

Product description

Solution composed of amines.

SECTION 4: FIRST AID MEASURES

4.1 DESCRIPTION OF FIRST AID MEASURES

General notes

Take off all contaminated clothing immediately. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Never give anything by mouth to an unconscious person. Place patient in recovery position and ensure airway patency.

Following inhalation

Remove patient to fresh air - move out of dangerous area. Victim should rest in a warm place. If symptoms occur, seek medical advice. 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. Wash affected skin areas immediately with plenty of water and soap. Do not use solvents or thinners. If symptoms persist, seek medical attention. Wash contaminated clothes and shoes before reuse.

Following eye contact

Immediately flush eyes with running water, keeping eyelids apart. Remove contact lenses, if present and easy to do. Continue rinsing. If irritation does not stop, seek professional medical treatment!

Following ingestion

Do not induce vomiting! Rinse mouth thoroughly with water. Drink a small amount of water. If the affected person is lying on his back, put him into a stable side position in the case of spontaneous vomiting. Immediately consult a doctor. Show the physician the safety data sheet or label.

4.2 MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

Following inhalation

Excessive exposure to spray mist, fog, or vapours may cause respiratory irritation. Coughing, sneezing, nasal discharge, labored breathing.

Following skin contact



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Irritating to the skin. Itching, redness, pain. May cause sensitisation by skin contact (itching, redness, rashes).

Following eye contact

Causes severe eye irritation. Redness, tearing, pain.

Following ingestion

Irritates mucous membranes in the mouth, throat, esophagus and in gastrointestinal area. May cause nausea/vomiting and diarrhea. May cause abdominal discomfort.

4.3 INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED

The first aid procedure should be established in consultation with the doctor responsible for industrial medicine.

SECTION 5: FIREFIGHTING MEASURES

5.1 EXTINGUISHING MEDIA

Suitable extinguishing media

Carbon dioxide. Dry chemical powder. Water spray. Alcohol resistant foam. Use fire fighting measures that suit the environment.

Unsuitable extinguishing media

Full water jet.

5.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE

Hazardous combustion products

In case of a fire toxic gases can be generated; do not inhale gases/smoke. Gases formed in fire: carbon monoxide (CO), carbon dioxide (CO₂), nitrogen oxides (NO_x).

5.3 ADVICE FOR FIREFIGHTERS

Protective actions

In case of fire evacuate the area. In case of fire or heating do not breathe fumes/vapours. Prolonged heating can cause an explosion. Cool containers at risk with water spray. If possible remove containers from endangered area. No action shall be taken involving any personal risk or without suitable training.

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

Contaminated firefighting water must be disposed of in accordance with the regulations; do not allow to reach the sewage system.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

For non-emergency personnel

Protective equipment

Use personal protective equipment (Section 8). Refer to protective measures listed in Sections 7 and 8.

Precautionary measures

Ensure adequate ventilation.

Emergency procedures

Evacuate personnel. Prevent access to unprotected personnel. Prevent access to unauthorised personnel. Avoid contact with skin, eyes and clothing. Do not breathe vapour or mist.

For emergency responders

Use personal protective equipment.

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

Stem the spill if this does not pose risks.

For cleaning up

Absorb product (with inert material), collect it in special container and dispose it to a licensed hazardous-waste disposal contractor. Dispose in accordance with applicable regulations (see Section 13).

OTHER INFORMATION

No information.

6.4 REFERENCE TO OTHER SECTIONS

See also sections 8 and 13.

SECTION 7: HANDLING AND STORAGE



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7.1 PRECAUTIONS FOR SAFE HANDLING

Protective measures

Measures to prevent fire

Ensure adequate ventilation. Prevent contact of the substance with open flame, sparks or hot surfaces.

Measures to prevent aerosol and dust generation

Use general or local exhaust ventilation to prevent inhaling vapours and aerosols.

Measures to protect the environment

Do not discharge into drains, surface water and soil. After use immediately close container tightly.

Other measures

No information.

Advice on general occupational hygiene

Wear suitable protective equipment; see Section 8. Use good personal hygiene practices – wash hands at breaks and when done working with material. Do not eat, drink or smoke while working. Avoid contact with skin, eyes and clothes. Do not breathe vapours/mist. Do not ingest the product. Remove contaminated clothes and wash them before reuse. Persons with a history of skin sensitisation problems or asthma, allergies or chronic or recurrent respiratory disease should not be employed in any process in which this product is used.

7.2 CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

Technical measures and storage conditions

Store in accordance with local regulations. Keep in tightly closed container. Keep in a cool, dry and well ventilated place. Store at room temperature. Protect from open fire, heat and direct sunlight. Keep container closed. Keep in properly labelled containers. Keep away from moisture. Keep away from isocyanates. Keep away from acids. Keep away from oxidising substances. Keep away from food, drink and animal feeding stuffs. Keep out of the reach of children.

Packaging materials

The original container of producer.

Requirements for storage rooms and vessels

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

Storage class

No information.

Further information on storage conditions

No information.

7.3 SPECIFIC END USE(S)

Recommendations

Consult the technical guidelines for the use of this substance/mixture.

Industrial sector specific solutions

No information.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 CONTROL PARAMETERS

Occupational Exposure limit values

No information.

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

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



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Handle in accordance with good industrial hygiene and safety practice. Use good personal hygiene practices – wash hands at breaks and when done working with material. Avoid contact with skin, eyes and clothes. Do not eat, drink or smoke while working. Keep away from foodstuffs, beverages and feed. Do not breathe vapours/aerosols.

Structural measures to prevent exposure

No information.

Organisational measures to prevent exposure

Remove all contaminated clothes immediately and wash them before reuse. Keep eyewash bottles or personal eyewash units and emergency showers available.

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). Do not use contact lenses.

Hand protection

Protective gloves (BS EN ISO 374). «CE» marking, category III. The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. Observe the manufacturer's instructions regarding the use, storage, maintenance and replacement of gloves. In case of damage or at the first signs of wear and tear, change the gloves immediately. The penetration time is determined by the protective glove manufacturer and must be observed.

Appropriate materials

Material	Thickness	Penetration Time	Remark
Nitrile	/	/	EN 374
Butyl rubber	/	/	EN 374

Skin protection

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

Respiratory protection

In case of insufficient ventilation wear suitable respiratory protection. At elevated concentrations of vapours/aerosols in the air wear a mask (EN 140) with filter A2-P2 (BS EN 14387). 'High/elevated concentrations' means that the occupational exposure limit values have been exceeded. In case of intensive or longer exposure use self-contained breathing apparatus (BS EN 137).

Thermal hazards

None under normal use conditions.

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

Do not allow product to reach drains, sewage systems or ground water.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

Physical state

liquid

Colour

light yellow

Odour

like ammonia

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	> 150 °C
Flammability	No information.
Lower and upper explosion limit	No information.



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Flash point	100 °C
Auto-ignition temperature	No information.
Decomposition temperature	No information.
pH	No information.
Viscosity	Dynamic: 10000 — 20000 mPas at 25 °C
Solubility	No information.
Partition coefficient	No information.
Vapour pressure	No information.
Density and/or relative density	Density: 1.14 g/cm ³ at 25 °C
Relative vapour density	No information.
Particle characteristics	No information.

9.2 OTHER INFORMATION

Explosive properties	No information.
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SECTION 10: STABILITY AND REACTIVITY

10.1 REACTIVITY

Stable under recommended transport or storage conditions.

10.2 CHEMICAL STABILITY

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

10.3 POSSIBILITY OF HAZARDOUS REACTIONS

Reacts when mixed with acids. Reacts with strong oxidising agents.

10.4 CONDITIONS TO AVOID

Avoid contact with incompatible materials. Keep away from moisture.

10.5 INCOMPATIBLE MATERIALS

Strong acids. Strong oxidants.

10.6 HAZARDOUS DECOMPOSITION PRODUCTS

In case of fire/explosion vapours/gases that pose a health hazard are released.
Nitrogen oxides. Carbon dioxide; Carbon monoxide.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 INFORMATION ON HAZARD CLASSES AS DEFINED IN REGULATION (EC) NO 1272/2008

(a) Acute toxicity

For product

Exposure route	Type	Species	Time	value	Method	Remark
oral	ATE	/	/	> 2000 mg/kg	/	/

Additional information

The product is not classified for acute toxicity.

(b) Skin corrosion/irritation

No information.

Additional information

Causes skin irritation.

(c) Serious eye damage/irritation

No information.

Additional information

Causes serious eye irritation.

(d) Respiratory or skin sensitisation

No information.

Additional information



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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.

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

No information.

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

The product does not contain any PBT or vPvB substances in percentages greater than 0.1%.

12.6 ENDOCRINE DISRUPTING PROPERTIES

No information.

12.7 OTHER ADVERSE EFFECTS

No information.



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12.8 ADDITIONAL INFORMATION

For product

Handle in accordance with good working practices so that the product is not released into the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 WASTE TREATMENT METHODS

Product / Packaging disposal

Waste chemical

Do not allow product to reach drains/sewage systems. Do not dispose together with household garbage. Disposal must be made according to official regulations: deliver it to authorised collector/remover/transformer of hazardous waste. Dispose of in accordance with applicable waste disposal regulation.

Waste codes / waste designations according to LoW

No information.

Packaging

Dispose of in accordance with applicable waste disposal regulation. Uncleaned containers are classified as hazardous waste - they should be handled in the same manner as the contents. 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 or ID number			
Not dangerous according to transport regulations.	Not dangerous according to transport regulations.	Not dangerous according to transport regulations.	Not dangerous according to transport regulations.
14.2 UN proper shipping name			
Not given/not applicable	Not given/not applicable	Not given/not applicable	Not given/not applicable
14.3 Transport hazard class(es)			
Not given/not applicable	Not given/not applicable	Not given/not applicable	Not given/not applicable
14.4 Packing group			
Not given/not applicable	Not given/not applicable	Not given/not applicable	Not given/not applicable
14.5 Environmental hazards			
NO	NO	NO	NO
14.6 Special precautions for user			
Limited quantities Not given/not applicable	Limited quantities Not given/not applicable		Limited quantities Not given/not applicable
14.7 Maritime transport in bulk according to IMO instruments			
	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) 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



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Regulation EC 648/2004 on detergents

No information.

Special instructions

The product contains no substances from SVHC list.

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

2.2 Label elements 8.2 Exposure controls 9.1 Information on basic physical and chemical properties

Key literature references and sources for data

No information.

Abbreviations and acronyms



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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

H301 Toxic if swallowed.
 H302 Harmful if swallowed.
 H314 Causes severe skin burns and eye damage.
 H317 May cause an allergic skin reaction.
 H318 Causes serious eye damage.
 H412 Harmful to aquatic life with long lasting effects.