

SAFETY DATA SHEET according to Regulation 1907/2006

Product name: **EX9-15-B (hardener)**

Creation date: **2.12.2016** · Revision: **19.12.2016** · Version: **1**

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

1.1. Product identifier

Product name

EX9-15-B (hardener)

Chemical name

Poly[oxy(methyl-1, 2-ethanediyl)] (CAS: 9046-10-0)

REACH Registration number

No information



chemius.net/vZw80

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

Use

Formulated hardener for structural composites.

Uses advised against

No information

1.3. Details of the supplier of the safety data sheet

Supplier

SANIKOM D.O.O.

Address: Vrtna ulica 39, 4294 Križe, Slovenia

Tel.: 051-354-081

Fax: 0599-50-636

e-mail: gregor.janc@sanikom.si

Point of contact for safety info: Gregor Janc

1.4. Emergency telephone number

Emergency

112

Supplier

051-354-081

SECTION 2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Reg. 1272/2008

Skin Corr. 1C; H314 Causes severe skin burns and eye damage.

Eye Dam. 1; H318 Causes serious eye damage.

Aquatic Chronic 2; H411 Toxic to aquatic life with long lasting effects.

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2.2 Label elements

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



Signal word: **Danger**

H314 Causes severe skin burns and eye damage.

H411 Toxic to aquatic life with long lasting effects.

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P301 + P310 + P331 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Do NOT induce vomiting.

P303 + P361 + P353 + P310 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Immediately call a POISON CENTER or doctor/physician.

P304 + P340 + P310 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.

P305 + P310 IF IN EYES: Immediately call a POISON CENTER or doctor/physician.

P405 Store locked up.

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

2.2.2. Contains:

Poly[oxy(methyl-1, 2-ethanediyl)] (CAS: 9046-10-0)

2.2.3. Special provisions

Special hazards are not known or expected.

2.3. Other hazards

No information

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Product description

UVCB.

3.1. Substances

Chemical name	CAS EC Index	%	Classification according to Regulation (EC) No 1272/2008 [CLP]	REACH reg. number
Poly[oxy(methyl-1, 2-ethanediyl)]	9046-10-0 - -	60-100	Skin Corr. 1C; H314 Eye Dam. 1; H318 Aquatic Chronic 2; H411	-

3.2. Mixtures

For substances see 3.1.

SECTION 4. FIRST AID MEASURES

4.1. Description of first aid measures

General measures

Never give anything by mouth to an unconscious person. Place patient stably in side position for transportation. When in doubt or if symptoms do not disappear seek medical help. Show to physician Safety data sheet and label.

No action shall be taken involving any personal risk or without suitable training. When suspected that in the air is still present harmful vapor / fumes use respiratory protection (mask; insulating breathing apparatus). It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing with water before removing or use gloves.

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Inhalation

Seek medical help. Remove patient to fresh air-move out of dangerous area. Keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If breathing is irregular or respiratory arrest provide artificial respiration. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. In case of unconsciousness bring patient into stable side position and seek medical attention.

Respiratory tract must be clean. Loosen tight clothing such as a collar, tie, belt. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Skin contact

Immediately remove contaminated clothing. Immediately obtain professional medical help! Areas of the body that have come into contact with the product must be rinsed with water. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Chemical burns must be treated promptly by a physician. Wash contaminated clothes and shoes before reuse.

Eye contact

Consult a physician. Immediately flush eyes with running water, keeping eyelids open. Check for and remove any contact lenses. Chemical burns must be treated promptly by a physician.

Ingestion

Immediately consult a doctor. Rinse mouth with water. Remove dental prothesis if present. Remove patient to fresh air, if needed give oxygen. Give small quantities of water to drink, cca. 1 dcl. Never give anything by mouth to an unconscious person. The affected person should stop drinking water if he feels sick, because of risk of vomiting. If vomiting occurs, patient should have head lower than hips, there is lower possibility of aspiration. Chemical burns must be treated promptly by a physician. Loosen tight clothing such as a collar, tie, belt or waistband.

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

Inhalation

Excessive exposure to spray mist, fog, or vapour may cause respiratory irritation.

Coughing, sneezing, nasal discharge, labored breathing.

May give off gas, vapor or dust that is very irritating or corrosive to the respiratory system.

After inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need 48-hour medical monitoring.

Skin contact

Causes burns.

Skin burns: Signs/symptoms may include localised redness, swelling, itching, dryness, blistering.

Eye contact

Corrosive! Causes permanent eye damage.

Ingestion

May cause nausea/vomiting and diarrhea.

Can cause burns in the mouth, pharynx and abdomen.

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

Symptoms of poisoning may only appear several hours later. Keep under medical supervision for at least 48 hours.

SECTION 5. FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media

Full water jet.

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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. In the event of fire the following can be generated: carbon monoxide (CO), carbon dioxide (CO₂).

Nitrogen oxides (NO_x).

5.3. Advice for firefighters

Protective actions

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

Special protective equipment for fire-fighters

Fire-fighters should wear appropriate protective clothing for fire-fighters (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

6.1.1. For non-emergency personnel

Protective equipment

Use personal protective equipment (Section 8).

Emergency procedures

Ensure adequate ventilation. No action shall be taken involving any personal risk or without suitable training. Evacuate the danger zone. Prevent access to unprotected personnel. Do not touch or walk through spilt material. Do not breathe vapour or mist.

6.1.2. For emergency responders

Use personal protective equipment.

6.2. Environmental precautions

Do not allow product to reach water or permeable soil. If accidental entry into water or ground occurs, inform responsible authorities.

6.3. Methods and material for containment and cleaning up

6.3.1. For containment

Stem the spill if this does not pose risks.

6.3.2. For cleaning up

Move containers from spill area. Dilute with plenty of water. Small quantities: can be mopped up with dry cloth Large spill: Approach release from upwind. Wash spillages into an effluent treatment plant or proceed as follows. Absorb product (with inert material), collect it in special container and dispose it according to valid regulations on handling with waste. Contaminated absorbent material may pose the same hazard as the spilt product.

6.3.3. Other information

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6.4. Reference to other sections

See also sections 8 and 13.

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SECTION 7. HANDLING AND STORAGE

7.1. Precautions for safe handling

7.1.1. Protective measures

Measures to prevent fire

Ensure adequate ventilation.

Measures to prevent aerosol and dust generation

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Measures to protect the environment

-

7.1.2. Advice on general occupational hygiene

Use good personal hygiene practices-wash hands at breaks and when done working with material. Do not eat, drink or smoke while working. Do not ingest the product. Do not breathe vapours/mist. Avoid contact with skin, eyes and clothes. Wear suitable protective equipment; see chapter 8. Before entering areas where food is eaten, remove contaminated clothing and protective equipment.

7.2. Conditions for safe storage, including any incompatibilities

7.2.1. Technical measures and storage conditions

Store in a dry, cool and well-ventilated area, away from incompatible materials. Keep away from acids. Keep away from food, drink and animal feedstuffs. Keep in tightly closed container. Store at: <40 °C Store in accordance with local regulations. Protect from open fire, heat and direct sunlight. Keep in locked place. Do not store in open or unlabelled containers.

7.2.2. Packaging materials

The original container of producer. Keep in containers of same material as the original one. Use only containers specifically permitted for this substance/product.

7.2.3. Requirements for storage rooms and vessels

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

7.2.4. Storage class

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7.2.5. Further information on storage conditions

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7.3. Specific end use(s)

Recommendations

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Industrial sector specific solutions

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SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

8.1.1. Occupational Exposure limit values

No information

8.1.2. 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.

8.1.3. DNEL values

No information

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8.1.4. PNEC values

No information

8.2. Exposure controls

8.2.1. 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 eat, drink or smoke while working. Do not breathe vapours/aerosols. Handle in accordance with good industrial hygiene and safety practice. Keep away from foodstuffs, beverages and feed.

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 the area with increased concentration.

8.2.2. Personal protective equipment

Eye and face protection

Wear safety glasses with side shields (EN 166) against possible splashes into the eyes.

Hand protection

Protective gloves (EN 374). Chemical-resistant, impervious gloves complying with an approved standard. 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. To choose the appropriate protective gloves, consult the protective glove manufacturer.

Appropriate materials

Material	Thickness	Penetration Time	Remark
EVAL			
Butyl			
nitrile-butadiene rubber			

Skin protection

Choose body protection according to the amount and concentration of the dangerous substance at the work place. Cotton protective clothing (EN ISO 13688) and shoes that cover the entire foot (EN ISO 20345).

Respiratory protection

In case of insufficient ventilation wear suitable respiratory protection. Not needed under normal use and adequate ventilation. The correct choice of respiratory protection depends upon the chemicals being handled, the conditions of work and use, and the condition of the respiratory equipment. In case of insufficient ventilation wear mask with filter A (EN 14387)

Thermal hazards

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8.2.3. Environmental exposure controls

Substance/mixture related measures to prevent exposure

The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards. In order to maintain emissions at acceptable rates if necessary to equip the manufacturing material with air purifier or filter, or by technical change.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

-	Physical state:	liquid
-	Colour:	bright yellow
-	Odour:	like ammonia

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Important health, safety and environmental information

-	pH	12, conc. 50 %
-	Melting point	No information
-	Boiling point/boiling range	> 260 °C
-	Flashpoint	124 °C (DIN 51758 EN 22719 (Pensky-Martens Closed Cup))
-	Evaporation rate	No information
-	Ignition temperature	No information
-	Explosion limits (vol%)	No information
-	Vapour pressure	No information
-	Vapour density	No information
-	Density	Density: 0,948 g/cm ³ at 20 °C
-	Solubility	Water: miscible
-	Partition coefficient	No information
-	Auto-ignition temperature	No information
-	Decomposition temperature	> 250 °C
-	Viscosity	kinematic: 14,4 mm ² /s
-	Explosive properties	No information
-	Oxidising properties	No information

9.2. Other information

-	Remarks:	
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SECTION 10. STABILITY AND REACTIVITY

10.1. Reactivity

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10.2. Chemical stability

Product is stable under normal conditions according to handling and storage.

10.3. Possibility of hazardous reactions

The product is stable under recommended storage and handling conditions. There are no known hazardous reactions.

10.4. Conditions to avoid

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10.5. Incompatible materials

Strong oxidizing agents.
Strong acids.
Strong bases.

10.6. Hazardous decomposition products

Under normal use conditions no hazardous decomposition products expected. In case of fire/explosion vapours dangerous for health are spread. Carbon dioxide; carbon monoxide.
Nitrogen oxides;

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SECTION 11. TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

11.1.1. Acute toxicity

No information

11.1.2. Skin corrosion/irritation, serious eye damage/irritation

For components

Chemical name	exp. route	species	Time	result	Method	Remark
Poly[oxy(methyl-1, 2-ethanediyl)] (9046-10-0)	eyes			It causes serious eye damage.		Calculated
Poly[oxy(methyl-1, 2-ethanediyl)] (9046-10-0)	dermal			Causes severe skin burns.		Calculated

Additional information

Causes severe skin burns and eye damage. May give off gas, vapor or dust that is very irritating or corrosive to the respiratory system.

11.1.3. Respiratory or skin sensitisation

Additional information

Not classified as sensitizing.

11.1.4. Carcinogenicity, Mutagenicity, Reproductive toxicity

Carcinogenicity

No information

(Germ cell) mutagenicity

No information

Reproductive toxicity

No information

Summary of evaluation of the CMR properties

The product is not classified as carcinogenic, mutagenic or toxic for reproduction.

11.1.5. STOT - single and repeated exposure

Additional information

STOT RE (repeated exposure): not classified. May cause burns to mouth, throat, stomach and the respiratory tract.

11.1.6. Aspiration hazard

Additional information

Aspiration hazard: Not Classified.

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

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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

Toxic to aquatic organisms: may cause long-term adverse effects in the aquatic environment.
Do not allow to enter ground water, water course or sewage system.

SECTION 13. DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

13.1.1. Product / Packaging disposal

Waste chemical

The generation of waste should be avoided or minimised wherever possible. Recycle or dispose according to official regulations: to leave it to authorized collector/remover/transformer of hazardous waste. Do not allow product to reach drains/sewage systems.

- Waste codes / waste designations according to LoW

07 02 04* - other organic solvents, washing liquids and mother liquors

Packaging

Completely emptied containers leave to approved waste disposal authorities in charge. Empty containers or liners may retain some product residues. Unclean containers are classified as hazardous waste - should be handled the same as waste disposal. Uncontaminated packaging may be taken for recycling. Recycling is preferred to disposal or incineration.

13.1.2. Waste treatment-relevant information

Incineration or landfill should only be considered when recycling is not feasible.

13.1.3. Sewage disposal-relevant information

Do not discharge into drains.

13.1.4. Other disposal recommendations

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SECTION 14. TRANSPORT INFORMATION

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14.1. UN number

UN 2735

14.2. UN proper shipping name

AMINES, LIQUID, CORROSIVE, N.O.S. (Poly[oxy(methyl-1, 2-ethanediyl)])

14.3. Transport hazard class(es)

8

14.4. Packing group

III

14.5. Environmental hazards

Additional labeling: Dangerous for the environment

IMDG: MARINE POLLUTANT

14.6. Special precautions for user

Limited quantities

5 L

Tunnel restriction code

(E)

IMDG flashpoint

124 °C, c.c.

IMDG EmS

F-A, S-B



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

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

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Key literature references and sources for data

Safety data sheet, XB 3403 HARDENER; Date of revision 11/10/2014; Version 3.

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List of relevant H phrases

- H314 Causes severe skin burns and eye damage.
- H318 Causes serious eye damage.
- H411 Toxic 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.