

SAFETY DATA SHEET according to Regulation 1907/2006

Product name: **EX1-2**
Creation date: **1.7.2014**
Revision: **2.2.2015**
Version: 1

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

1.1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION

Product name

EX1-2



chemius.net/1drec

1.2. USE OF THE SUBSTANCE/PREPARATION

Use

Hardener

Uses advised against

No information

1.3. COMPANY/UNDERTAKING IDENTIFICATION

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

Emergency

112

Supplier

051-354-081

SECTION 2. HAZARDS IDENTIFICATION

2.1 Classification of substance/preparation

Classification according to Reg. 1272/2008

Acute Tox. 4; H302 Harmful if swallowed.
Acute Tox. 4; H312 Harmful in contact with skin.
Skin Corr. 1B; H314 Causes severe skin burns and eye damage.
Skin Sens. 1; H317 May cause an allergic skin reaction.
Acute Tox. 4; H332 Harmful if inhaled.
Aquatic Chronic 3; H412 Harmful to aquatic life with long lasting effects.

Classification according to directive 67/548/EEC or. 99/45/EC

Xn; R20/21/22 Harmful by inhalation, in contact with skin and if swallowed.
C; R34 Causes burns.
Xi; R43 May cause sensitisation by skin contact.
R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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2.2 Label elements

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



Signal word: **Danger**

H302 Harmful if swallowed.

H312 Harmful in contact with skin.

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

H332 Harmful if inhaled.

H412 Harmful to aquatic life with long lasting effects.

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

P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/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.

P405 Store locked up.

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

2.2.2. Contains:

3-aminomethyl-3,5,5-trimethylcyclohexylamine

m-phenylenebis(methylamine)

2-methylpentane-1,5-diamine

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.

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3.2. Mixtures

Chemical name	CAS EC Index	%	Classification according to Regulation (EC) No 1272/2008 [CLP]	Classification according to directive 67/548/EEC or 99/45/EC	REACH reg. number
3-aminomethyl-3,5,5-trimethylcyclohexylamine	2855-13-2 220-666-8 612-067-00-9	30-50	Acute Tox. 4; H302 Acute Tox. 4; H312 Skin Corr. 1B; H314 Skin Sens. 1; H317 Aquatic Chronic 3; H412	C; R34 Xn; R21/22 Xi; R43 R52/53	-
m-phenylenebis(methylamine)	1477-55-0 216-032-5 -	15-30	Acute Tox. 4; H302 Skin Corr. 1B; H314 Skin Sens. 1; H317 Acute Tox. 4; H332 Aquatic Chronic 3; H412	C; R34 Xn; R20/22 Xi; R43 R52/53	-
2-methylpentane-1,5-diamine	15520-10-2 239-556-6 -	5-15	Acute Tox. 4; H302 Skin Corr. 1B; H314 Skin Sens. 1; H317 Eye Dam. 1; H318	C; R34 Xn; R22 Xi; R43	-

SECTION 4. FIRST AID MEASURES

4.1. First-aid measures

General measures

Never give anything by mouth to an unconscious person.

Skin contact

Immediately remove contaminated clothing. Wash thoroughly with plenty of water and soap! If symptoms persist seek medical attention.

Eye contact

Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Consult a physician.

Inhalation

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

Ingestion

Do not induce vomiting. Rinse mouth and drink plenty of water! Immediately consult a specialist. Show the physician the Safety Data Sheet or label.

4.2. Symptoms

Skin contact

Corrosive for skin.
May cause sensitisation by skin contact.

Eye contact

Corrosive! Causes permanent eye damage.

Inhalation

Inhalation may result in irritation and burns to the respiratory tract.

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Ingestion

Causes corrosions in mouth, throat, digestive tract.

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

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SECTION 5. FIRE-FIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media

Carbon dioxide. Dry chemical powder. Alcohol or polymer foam.

Unsuitable extinguishing media

Full water jet.

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products

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

-

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) .

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.

6.1.2. For emergency responders

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6.2. Environmental precautions

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

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6.3. Methods and material for containment and cleaning up

6.3.1. For containment

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6.3.2. For cleaning up

Absorb product (with inert material), collect it in special container and dispose it according to valid regulations on handling with waste.

6.3.3. Other information

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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

Ensure adequate ventilation.

Measures to prevent aerosol and dust generation

-

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. Avoid contact with skin and eyes. Do not breathe vapours/mist.

7.2. Conditions for safe storage, including any incompatibilities

7.2.1. Technical measures and storage conditions

Keep in cool and good ventilated area. Keep away from food, drink and animal feedingstuffs

7.2.2. Packaging materials

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7.2.3. Requirements for storage rooms and vessels

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7.2.4. Storage class

-

7.2.5. Further information on storage conditions

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7.3. Specific end use(s)

Recommendations

-

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

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.

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

Tight fitting protective goggles (EN 166).

Hand protection

Protective gloves (EN 374).

Appropriate materials

Material	Thickness	Penetration Time	Remark
Butyl	mm	480 min	

Skin protection

Cotton protective clothing (EN ISO 13688) and shoes that cover the entire foot (EN ISO 20345).

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Respiratory protection

Wear suitable protective breathing mask (EN 136) with filter A2-P2.

Thermal hazards

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8.2.3. Environmental exposure controls

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SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. General information

-	Physical state:	liquid
-	Colour:	colourless
-	Odour:	mild

Important health, safety and environmental information

-	pH	No information
-	Melting point	No information
-	Boiling point/boiling range	> 200 °C
-	Flashpoint	> 100 °C
-	Evaporation rate	No information
-	Ignition temperature	No information
-	Explosion limits (vol%)	No information
-	Vapour pressure	No information
-	Vapour density	No information
-	Density	No information
-	Solubility	Water: Soluble
-	Partition coefficient n-octanol/water (log Kow)	No information
-	Auto-ignition temperature	No information
-	Decomposition temperature	No information
-	Viscosity	dynamic: 6800 mPas at 25 °C
-	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

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10.4. Conditions to avoid

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

10.5. Incompatible materials

Strong acids.
Strong bases. Strong oxidizing agents.

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.

SECTION 11. TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

11.1.1. Acute toxicity

For components

Chemical name	exp. route	Type	species	Time	value	Method	Remark
m-phenylenebis(methylamine) (1477-55-0)	inhalation	LC ₅₀	rat	4 h	1,34 mg/l		dust/aerosol
m-phenylenebis(methylamine) (1477-55-0)	dermal	LD ₅₀	rat		> 3100 mg/kg		
m-phenylenebis(methylamine) (1477-55-0)	oral	LD ₅₀	rat		930 mg/kg		
m-phenylenebis(methylamine) (1477-55-0)	oral	ATE			1576,8 mg/kg		
m-phenylenebis(methylamine) (1477-55-0)	Inhalation (dusts and mists)	ATE			2,272 mg/kg		

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

No information

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11.1.3. Respiratory or skin sensitisation

For components

Chemical name	exp. route	species	Time	result	Method	Remark
m-phenylenebis(methylamine) (1477-55-0)	dermal	mouse		Sensitizing.	OECD 429 Skin Sensitisation: Local Lymph Node Assay	

11.1.4. Carcinogenicity, Mutagenicity, Reproductive toxicity

Carcinogenicity

No information

(Germ cell) mutagenicity

No information

Reproductive toxicity

- For components

Chemical name	Reproductive toxicity type	Type	species	Time	value	result	Method	Remark
m-phenylenebis(methylamine) (1477-55-0)	Effects on fertility	NOAEL	rat		150 mg/kg		OECD 421	

Summary of evaluation of the CMR properties

No information

11.1.5. STOT-single and repeated exposure

No information

11.1.6. Repeated dose toxicity

For components

Chemical name	Type	Exposure time	Exp. route and organ	species	value	Method
m-phenylenebis(methylamine) (1477-55-0)	NOAEL, prolonged exposure	28 days	Oral (gastrointestinal tract)	rat	150 mg/kg	

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SECTION 12. ECOLOGICAL INFORMATION

12.1. Toxicity

12.1.1. Acute (short-term) toxicity

For components

Substance (CAS Nr.)	Type	Value	Exposure time	Species	Organism	Method	Remark
m-phenylenebis(methylamine) (1477-55-0)	EC ₅₀	> 1000 mg/L	30 min	activated sludge		OECD 209 Activated Sludge, Respiration Inhibition Test	
	EC ₅₀	15,2 mg/L	24 h	daphnia	<i>Daphnia magna</i>	202 (Daphnia sp. Acute Immobilisation Test)	**no_trans(16101: статички систем, свежа вода, читање преко, ефекат кретања)**
	EbC ₅₀	20,3 mg/L	72 h	algae	<i>Desmodesmus subspicatus</i>	OECD 201	
	LC ₅₀	87,6 mg/L	96 h	fish		OECD Guideline 203 (Fish, Acute Toxicity Test)	

12.1.2. Chronic (long-term) toxicity

For components

Substance (CAS Nr.)	Type	Value	Exposure time	Species	Organism	Method	Remark
m-phenylenebis(methylamine) (1477-55-0)	NOEC	4,7 mg/l	21 days	aquatic invertebrate	<i>Daphnia magna</i>	OECD 211	

12.2. Persistence and degradability

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

No information

12.2.2. Biodegradation

For components

Substance (CAS Nr.)	Organism	Rate	Time	Evaluation	Method	Remark
m-phenylenebis(methylamine) (1477-55-0)	aerobic	49 %	28 days		OECD 301B	experimental value

12.3. Bioaccumulative potential

12.3.1. Partition coefficient n-octanol/water (log Kow)

For components

Substance (CAS Nr.)	Media	value	Temperature	pH	Concentration	Method
m-phenylenebis(methylamine) (1477-55-0)	Octanol-water (log Pow)	0,18				

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12.3.2. Bioconcentration factor (BCF)

For components

Substance (CAS Nr.)	species	organism	value	Duration	Evaluation	Method	Remark
m-phenylenebis(methylamine) (1477-55-0)	BCF		< 0,3	0			

12.4. Mobility

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

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: to leave it to authorized collector/remover/transformer of hazardous waste.

- Waste codes / waste designations according to LoW

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

Packaging

Completely emptied container dispose 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

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14.1. UN number

2735

14.2. UN proper shipping name

POLYAMINES, LIQUID, CORROSIVE, N.O.S.

14.3. Transport hazard class(es)

8

14.4. Packing group

II

14.5. Environmental hazards

NO

14.6. Special precautions for user

Limited quantities

1 L

Tunnel restriction code

E

IMDG EmS

F-A, S-B

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

-



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)
- Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures
- Dangerous preparations directive (99/45/EC) as amended
- Dangerous substances directive (67/548/EEC) as amended

15.1.1. Information according 1999/13/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

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Key literature references and sources for data

-

List of relevant R phrases

- R20/22 Harmful by inhalation and if swallowed.
- R21/22 Harmful in contact with skin and if swallowed.
- R22 Harmful if swallowed.
- R34 Causes burns.
- R43 May cause sensitisation by skin contact.
- R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

List of relevant H phrases

- H302 Harmful if swallowed.
- H312 Harmful in contact with skin.
- H314 Causes severe skin burns and eye damage.
- H317 May cause an allergic skin reaction.
- H318 Causes serious eye damage.
- H332 Harmful if inhaled.
- H412 Harmful to aquatic life with long lasting effects.

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.