

# SAFETY DATA SHEET according to Regulation 1907/2006

Product name: **EX4-2**

Creation date: **8.6.2015** · Revision: **29.11.2016** · Version: **1**

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

### 1.1. Product identifier

Product name

**EX4-2**



chemius.net/CnQbd

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

Use

Hardener

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

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.

Aquatic Chronic 3; H412 Harmful 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**

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.

H412 Harmful to aquatic life with long lasting effects.

P273 Avoid release to the environment.

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

P301 + P330 + P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

P302 + P350 IF ON SKIN: Gently wash with plenty of soap and water.

P305 + P351 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Immediately call a POISON CENTER or doctor/physician.

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

### 2.2.2. Contains:

3-aminomethyl-3,5,5-trimethylcyclohexylamine (CAS: 2855-13-2, EC: 220-666-8, Index: 612-067-00-9)

2-methylpentane-1,5-diamine (CAS: 15520-10-2, EC: 239-556-6)

### 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

Chemical name	CAS EC Index	%	Classification according to Regulation (EC) No 1272/2008 [CLP]	REACH reg. number
3-aminomethyl-3,5,5-trimethylcyclohexylamine	2855-13-2 220-666-8 612-067-00-9	60-100	Acute Tox. 4; H302 Acute Tox. 4; H312 Skin Corr. 1B; H314 Skin Sens. 1; H317 Aquatic Chronic 3; H412	-
2-methylpentane-1,5-diamine	15520-10-2 239-556-6 -	13-30	Acute Tox. 4; H302 Skin Corr. 1B; H314 Skin Sens. 1; H317 Eye Dam. 1; H318	-

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## 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.

No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

#### Inhalation

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

#### 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, keeping eyelids open. Consult a physician.

#### Ingestion

Do not induce vomiting. Rinse mouth with water and drink a glass of water by sips! Immediately consult a doctor. Show the physician the Safety Data Sheet or label.

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

#### Inhalation

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

#### Skin contact

Redness, sores, pain.

#### Eye contact

Corrosive! Causes permanent eye damage.

#### Ingestion

Causes corrosions in mouth, throat, digestive tract.

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

Treat symptomatic. 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.

## SECTION 5. FIREFIGHTING MEASURES

### 5.1. Extinguishing media

#### Suitable extinguishing media

Carbon dioxide. Dry chemical powder. Water spray. Alcohol resistant 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 (CO<sub>2</sub>).  
Nitrogen oxides (NO<sub>x</sub>).

### 5.3. Advice for firefighters

#### Protective actions

In case of fire or heating do not breathe fumes/vapours.

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## 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.

#### 6.1.2. For emergency responders

-

### 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.

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

#### 6.3.1. For containment

Limit spillages with non-combustible absorbents, e.g. sand, earth, vermiculite, diatomaceous earth.

#### 6.3.2. For cleaning up

In case of bigger spill, dam the spillage, pump the liquid into appropriate labelled containers, absorb a residue with absorbent material and dispose of according to local regulations.

#### 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**

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. Persons with a history of skin sensitisation should not be employed in any process in which this product is used.

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

### 7.2.1. Technical measures and storage conditions

Store in the original, tightly sealed container in a cool and well ventilated place. Keep away from food, drink and animal feedingsuffs. Store between: 2 - 40 °C Keep away from Incompatible products (see section 10). Do not store in open or unlabelled containers.

### 7.2.2. Packaging materials

-

### 7.2.3. Requirements for storage rooms and vessels

-

### 7.2.4. Storage class

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### 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

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

##### For components

Chemical name	Type	exp. route	exp. frequency	value	Remark
3-aminomethyl-3,5,5-trimethylcyclohexylamine (2855-13-2)	Worker	inhalation	short term (systemic effects)	20,1 mg/m³	
3-aminomethyl-3,5,5-trimethylcyclohexylamine (2855-13-2)	Worker	inhalation	short term (local effects)	20,1 mg/m³	
3-aminomethyl-3,5,5-trimethylcyclohexylamine (2855-13-2)	Consumer	oral	long term (systemic effects)	0,526 mg/kg bw	

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## 8.1.4. PNEC values

### For components

Chemical name	exp. route	value	Remark
3-aminomethyl-3,5,5-trimethylcyclohexylamine (2855-13-2)	fresh water	0,06 mg/l	
3-aminomethyl-3,5,5-trimethylcyclohexylamine (2855-13-2)	marine water	0,006 mg/l	
3-aminomethyl-3,5,5-trimethylcyclohexylamine (2855-13-2)	water treatment plant	3,18 mg/l	
3-aminomethyl-3,5,5-trimethylcyclohexylamine (2855-13-2)	fresh water sediment	5,784 mg/kg	
3-aminomethyl-3,5,5-trimethylcyclohexylamine (2855-13-2)	marine water sediment	0,578 mg/kg	
3-aminomethyl-3,5,5-trimethylcyclohexylamine (2855-13-2)	soil	1,121 mg/kg	

## 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
Ethyl vinyl alcohol copolymers laminated ("EVAL")		> 480 min	
Nitrile		< 480 min	

#### Skin protection

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

#### Respiratory protection

Not needed under normal use and adequate ventilation. In case of insufficient ventilation wear mask with filter A (EN 14387)

#### 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>	yellow
-	<b>Odour:</b>	amine like

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## Important health, safety and environmental information

-	<b>pH</b>	13, conc. 50 %
-	<b>Melting point</b>	No information
-	<b>Boiling point/boiling range</b>	171 °C
-	<b>Flashpoint</b>	108 °C (DIN 51758 EN 22719 (Pensky-Martens Closed Cup))
-	<b>Evaporation rate</b>	No information
-	<b>Ignition temperature</b>	No information
-	<b>Explosion limits (vol%)</b>	No information
-	<b>Vapour pressure</b>	No information
-	<b>Vapour density</b>	No information
-	<b>Density</b>	<b>Density:</b> 0,91 – 0,92 g/cm <sup>3</sup> at 25 °C
-	<b>Solubility</b>	<b>Water:</b> Partially soluble
-	<b>Partition coefficient</b>	No information
-	<b>Auto-ignition temperature</b>	No information
-	<b>Decomposition temperature</b>	> 200 °C
-	<b>Viscosity</b>	<b>dynamic:</b> 2 – 25 mPas at 25 °C
-	<b>Explosive properties</b>	No information
-	<b>Oxidising properties</b>	No information

## 9.2. Other information

-	<b>Remarks:</b>	
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## SECTION 10. STABILITY AND REACTIVITY

### 10.1. Reactivity

-

### 10.2. Chemical stability

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

### 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

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.

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## SECTION 11. TOXICOLOGICAL INFORMATION

### 11.1. Information on toxicological effects

#### 11.1.1. Acute toxicity

##### For product

exp. route	Type	species	Time	value	Method	Remark
oral	LD <sub>50</sub>	rat		1200 mg/kg		

##### For components

Chemical name	exp. route	Type	species	Time	value	Method	Remark
3-aminomethyl-3,5,5-trimethylcyclohexylamine (2855-13-2)	oral	LD <sub>50</sub>	rat		1030 mg/kg		
2-methylpentane-1,5-diamine (15520-10-2)	oral	LD <sub>50</sub>	rat		1690 mg/kg		
2-methylpentane-1,5-diamine (15520-10-2)	inhalation	LC <sub>50</sub>	rat	1 h	2,9 – 4,1 mg/l		

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

No information

#### 11.1.3. Respiratory or skin sensitisation

No information

#### 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

No information

#### 11.1.5. STOT - single and repeated exposure

No information

#### 11.1.6. Aspiration hazard

No information



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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
3-aminomethyl-3,5,5-trimethylcyclohexylamine (2855-13-2)	EC <sub>50</sub>	37 mg/L	72 h	algae			
	EC <sub>10</sub>	1120 mg/L	18 h	bacteria			
	EC <sub>50</sub>	23 mg/L	48 h	crustacea	<i>Daphnia magna</i>	202 (Daphnia sp. Acute Immobilisation Test)	
	LC <sub>50</sub>	110 mg/L	96 h	fish			
2-methylpentane-1,5-diamine (15520-10-2)	EC <sub>50</sub>	25,1 mg/L	96 h	algae			
	LC <sub>50</sub>	24,2 mg/L	48 h	crustacea	<i>Daphnia magna</i>		
	LC <sub>50</sub>	130 mg/L	48 h	fish			

#### 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

##### For components

Substance (CAS Nr.)	Media	value	Temperature	pH	Concentration	Method
3-aminomethyl-3,5,5-trimethylcyclohexylamine (2855-13-2)	Octanol-water (log Pow)	0,99				**no_trans(22500)**
2-methylpentane-1,5-diamine (15520-10-2)	Log Pow	0,27				

#### 12.3.2. Bioconcentration factor (BCF)

##### For components

Substance (CAS Nr.)	species	organism	value	Duration	Evaluation	Method	Remark
2-methylpentane-1,5-diamine (15520-10-2)	BCF		3				

### 12.4. Mobility in soil

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

No information

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## 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**

Harmful to aquatic organisms.

## **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 containers leave to approved waste disposal authorities in charge.

#### 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 2735

### **14.2. UN proper shipping name**

AMINES, LIQUID, CORROSIVE, N.O.S. (3-aminomethyl-3,5,5-trimethylcyclohexylamine, 2-methylpentane-1,5-diamine)

### **14.3. Transport hazard class(es)**

8

### **14.4. Packing group**

II

### **14.5. Environmental hazards**

NO



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## 14.6. Special precautions for user

### Limited quantities

1 L

### Tunnel restriction code

(E)

### IMDG flashpoint

108 °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

-

#### Key literature references and sources for data

-

#### 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.  
H412 Harmful to aquatic life with long lasting effects.

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- ☒ 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.