

SAFETY DATA SHEET

According to Regulation 1907/2006
Product name: BX Comp. B 180 (2.8 kg)
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
BX Comp. B 180 (2.8 kg)

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

BOLDAN OY
Matkuntie 3
05200 RAJAMÄKI
+358 (0)9 8531042
info@boldan.fi

VAT FI23555068

1.4. Emergency telephone number

Emergency 112
Supplier +358 (0)9 8531042

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.
Classification according to directive 67/548/EEC or. 99/45/EC
Xn; R21/22 Harmful 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.

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]	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	60-100	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	-
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	C; R34 Xn; R22 Xi; R43	-

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 immediately.

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 immediately!

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).

Nitrogen oxides (NOx).

5.3. Advice for firefighters

Protective actions

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

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

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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.

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

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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

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Measures to protect the environment

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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.

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 feedingstuffs. 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

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7.2.3. Requirements for storage rooms and vessels

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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

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/m ³	
3-aminomethyl-3,5,5-trimethylcyclohexylamine (2855-13-2)	Worker	inhalation	short term (local effects)	20,1 mg/m ³	
3-aminomethyl-3,5,5-trimethylcyclohexylamine (2855-13-2)	Consumer	oral	long term (systemic effects)	0,526 mg/kg bw	

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

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8.2.3. Environmental exposure controls

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SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

-	Physical state:	liquid
-	Colour:	yellow
-	Odour:	amine like

Important health, safety and environmental information

-	pH	13, conc. 50 %
-	Melting point/Freezing point	No information
-	Initial boiling point/boiling range	171 °C
-	Flashpoint	108 °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: 0,91 – 0,92 g/cm ³ at 25 °C
-	Solubility	Water: Partially soluble
-	Partition coefficient	No information
-	Auto-ignition temperature	No information
-	Decomposition temperature	> 200 °C
-	Viscosity	dynamic: 2 – 25 mPas at 25 °C
-	Explosive properties	No information
-	Oxidising properties	No information

9.2. Other information

- Remarks:

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 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.

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
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oral	LD	rat	1200 mg/kg			
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For components

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

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

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

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13.1.3. Sewage disposal-relevant information

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13.1.4. Other disposal recommendations

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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



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)
- 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 to 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

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List of relevant R phrases

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.

H412 Harmful to aquatic life with long lasting effects.