Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 01.10.2017 Version number 1 Revision : 01.10.2017

Product name *Mega Therm part b*

1. PRODUCT AND COMPANY IDENTIFICATION

Product name: *Mega Therm - part b*

Recommended use of the chemical and restrictions on use Identified uses: part b : Heat - insulated material for industry coating

COMPANY IDENTIFICATION :

EPOLAC (Eng.J.Zamlar) LTD
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2. HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) 1272/2008 (CLP)

Acute Tox. category 4 H302 ,H332
Aquatic Chronic Category 2 H411
Skin Sens. Category 1 H317
Skin Corr./Irrit. Category 2 H315
Eye Dam./Irrit. Category 2 H319

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Classification according to Directive 67/548/EEC (DSD)

The product is classified as dangerous according to Directive 67/548/EEC and its amendments.

2.2. Label elements

Hazard pictograms :

GHS07

Signal word : Warning

Hazard statements :

H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage
H317 May cause an allergic skin reaction.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H332 Harmful if inhaled

P-statements :

P101 If medical advice is needed, have product container or label at hand.
P102 Keep out of reach of children.
P103 Read label before use.
P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P241 Use explosion-proof electrical/ventilating/lighting/equipment.
P261 Avoid breathing dust fume/vapours.
P271 Use only outdoors or in a well-ventilated area.
P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection.

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P411 Store at temperatures not exceeding 45º c.
P403+233 Store in a well – ventilated place. Keep container tightly closed.
P501 Dispose of contents/container in accordance with local**/**regional/national/ international regulations**.**

2.3. Other hazards
The data show that the properties of the substance do not meet the specific criteria detailed in Annex XIII and, consequently, that the substance is not considered a PBT/vPvB.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component:
Substance/mixture : Mono-constituent substance

CASRN / EC-No. / Index-No.	**Concentration**	**Component**	**Classification**
CAS no 2855-13-2 EC-No. Reg.n 2119514687-32-01	Max 1 %	3-aminomethyl-3,5,5-trimethylcyclohexylamin	Acute Tox. 4,H312 Tox. 4, H302 Skin Corr. 1B,H314 Eye Dam. 1,Skin Sens. 1,H317 Aquatic Chronic 3,H412 
CAS no 112-24-3 EC-No. 612-059-00-5 Reg.n 2119487919-13-01	Max 1%	3,6-diazaoctanethylenediamin; triethylenetetramine	Acute Tox. 4,H312 Tox. 4, H302 Skin Corr. 1B,H314 Eye Dam. 1,Skin Sens. 1,H317 Aquatic Chronic 3,H412 

See Section 16 for full text phrases .

4. FIRST AID MEASURES

Description of first aid measures :
General advice: First Aid responders should pay attention to self-protection and use the recommended protective clothing (chemical resistant gloves, splash protection). If potential for exposure exists refer to Section 8 for specific personal protective equipment .

Inhalation: Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and 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 not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.
It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. 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: Remove material from skin immediately by washing with soap and plenty of water .
Remove contaminated clothing and shoes while washing. Seek medical attention if irritation persists .

Wash clothing before reuse. Discard items which cannot be decontaminated, including leather articles such as shoes, belts and watchbands .
Eye Contact: Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids.
Check for and remove any contact lenses. Continue to rinse for at least 10 minutes.
Chemical burns must be treated promptly by a physician.

Ingestion: No emergency medical treatment necessary .

Most important symptoms and effects, both acute and delayed :
Aside from the information found under Description of first aid measures (above) and Indication of immediate medical attention and special treatment needed (below), no additional symptoms and effects are anticipated .

Indication of immediate medical attention and special treatment needed :
No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient .

5. FIREFIGHTING MEASURES

Suitable extinguishing media :
Water fog or fine spray. Dry chemical fire extinguishers. Carbon dioxide fire extinguishers. Foam .Alcohol resistant foams (ATC type) are preferred. General purpose synthetic foams (including AFFF (or protein foams may function, but will be less effective. Water fog, applied gently may be used as a blanket for fire extinguishment .

Extinguishing Media to Avoid: Do not use direct water stream. May spread fire .

Special hazards arising from the substance or mixture :

Hazardous Combustion Products: During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating. Combustion products may include and are not limited to: Phenolic. Carbon monoxide. Carbon dioxide .

Unusual Fire and Explosion Hazards: Container may rupture from gas generation in a fire situation .Violent steam generation or eruption may occur upon application of direct water stream to hot liquids .
Dense smoke is emitted when burned without sufficient oxygen .

Advice for firefighters

Fire Fighting Procedures: Keep people away. Isolate fire and deny unnecessary entry. Use water spray to cool fire exposed containers and fire affected zone until fire is out and danger of resignation has passed. Fight fire from protected location or safe distance. Consider the use of unmanned hose holders or monitor nozzles. Immediately withdraw all personnel from the area in case of rising sound from venting safety device or discoloration of the container. Do not use direct water stream. May spread fire. Move container from fire area if this is possible without hazard. Burning liquids may be moved by flushing with water to protect personnel and minimize property damage.

Water fog, applied gently may be used as a blanket for fire extinguishment. Contain fire water run-off if possible. Fire water run-off, if not contained, may cause environmental damage. Review the “Accidental Release Measures” and the “Ecological Information” sections of this (M)SDS .

Special Protective Equipment for Firefighters: Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers ,boots, and gloves). Avoid contact

with this material during fire fighting operations. If contact is likely ,change to full chemical resistant fire fighting clothing with self-contained breathing apparatus. If this is not available, wear full chemical resistant clothing with self-contained breathing apparatus and fight fire from a remote location. For protective equipment in post-fire or non-fire clean-up situations, refer to the relevant sections .

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Isolate area. Keep unnecessary and unprotected personnel from entering the area. Refer to Section 7, Handling, for additional precautionary measures. Use appropriate safety equipment. For additional information ,refer to Section 8, Exposure Controls and Personal Protection .

Environmental precautions: Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage .Prevent from entering into soil, ditches, sewers, waterways and/or groundwater.
See Section 12, Ecological Information .

Methods and materials for containment and cleaning up: Contain spilled material if possible .Absorb with materials such as: Sand. Polypropylene fiber products. Polyethylene fiber products .Remove residual with soap and hot water. Collect in suitable and properly labeled containers .Residual can be removed with solvent. Solvents are not recommended for clean-up unless the recommended exposure guidelines and safe handling practices for the specific solvent are followed .Consult appropriate solvent Safety Data Sheet for handling information and exposure guidelines.
See Section 13, Disposal Considerations, for additional information.

7. HANDLING AND STORAGE

Handling
Protective measures : Put on appropriate personal protective equipment (see Section 8). Do not get in eyes or on skin or clothing. Do not breathe vapour or mist. Do not ingest. Avoid release to the environment. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material,
kept tightly closed when not in use. Keep away from acids. Empty containers retain product residue and can be hazardous. Do not reuse container.

General Handling: Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated contact with skin. Wash thoroughly after handling. See Section 8, EXPOSURE CONTROLS AND PERSONAL PROTECTION .

Storage : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination
Shelf life: Use within 24 months

Storage temperature : 2 - 43 ^{o}C

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Limits
None established

Personal Protection :
Eye/Face Protection: Use safety glasses (with side shields). Safety glasses (with side shield) should be consistent with EN 166 or equivalent .
Skin Protection: Use protective clothing chemically resistant to this material. Selection of specific items such as face shield, boots, apron, or full body suit will depend on the task .

Hand protection: Use chemical resistant gloves classified under Standard EN374: Protective gloves against chemicals and micro-organisms. Examples of preferred glove barrier materials include: Butyl rubber. Ethyl vinyl alcohol laminate ("EVAL"). Nitrile/butadiene rubber ("nitrile "or "NBR"). Neoprene. Polyvinyl chloride ("PVC" or "vinyl").When prolonged or frequently repeated contact may occur, a glove with a protection class of 6 (breakthrough time greater than 480 minutes according to EN 374) is recommended. When only brief contact is expected, a glove with a protection class of 1 or higher (breakthrough time greater than 10 minutes according to EN 374) is recommended. NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled ,physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier .

Respiratory Protection: Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, wear respiratory protection when adverse effects, such as respiratory irritation or discomfort have been experienced, or where indicated by your risk assessment process. For most conditions, no respiratory protection should be needed; however, if material is heated or sprayed, use an approved air-purifying respirator. Use the following CE approved air-purifying respirator: Organic vapor cartridge with a particulate pre-filter, type AP2 .

Ingestion: Use good personal hygiene. Do not consume or store food in the work area. Wash hands before smoking or eating .
Engineering Controls
Ventilation: Use local exhaust ventilation, or other engineering controls to maintain airborne levels below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, general ventilation should be sufficient for most operations. Local exhaust ventilation may be necessary for some operations.


Product:
3-aminomethyl-3,5,5-trimethylcyclohexylamine
Target: Marine water - Value: 0.006 mg/l
Target: Freshwater sediments - Value: 5.784 mg/kg
Target: Marine water sediments - Value: 0.578 mg/kg
Target: Soil (agricultural) - Value: 1.121 mg/kg
Target: Fresh Water - Value: 0.06 mg/l
Target: Marine water - Value: 0.006 mg/l
Target: Freshwater sediments - Value: 5.784 mg/kg
Target: Marine water sediments - Value: 0.578 mg/kg
Target: Soil (agricultural) - Value: 1.121 mg/kg

3,6-diazaoctanethylenediamin; triethylenetetramine
Worker Professional: 0.57 mg/kg - Exposure: Human Dermal - Frequency: Long Term, systemic effects
Worker Professional: 0.01 mg/l - Exposure: Human Inhalation - Frequency: Long Term, systemic effects
Consumer: 0.25 mg/kg - Exposure: Human Dermal - Frequency: Long Term, systemic effects
Consumer: 0.41 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects
Worker Professional: 0.57 mg/kg - Consumer: 0.25 mg/kg - Exposure: Human
Dermal - Frequency: Long Term, systemic effects
Worker Professional: 0.001 mg/l - Consumer: 0.00029 mg/l - Exposure: Human
Inhalation - Frequency: Long Term, systemic effects
Consumer: 8 mg/kg - Exposure: Human Dermal - Frequency: Short Term, systemic effects
Consumer: 0.41 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	
Physical State	Liquid
Color	colorless
Odor	Mild
Odor Threshold	No test data available
pH	Not applicable
Melting Point	Not applicable
Freezing Point	Not determined
Boiling Point (760 mmHg)	≥ 135 ^{o}c
Flash Point - Closed Cup	115 ^{o}C PMCC, ASTM D93
Evaporation Rate (Butyl Acetate = 1)	No test data available
Flammability (solid, gas)	No
Flammable Limits In Air	**Lower**: Not applicable
	Upper: Not applicable
Vapor Pressure	0.08 mmHg (room temperature)
Vapor Density (air = 1)	Not applicable
Specific Gravity (H2O = 1)	not applicable
Solubility in water (by weight)	Insoluble

Partition coefficient, n-octanol/water (log Pow)
No data available for this product.

Autoignition Temperature	Not determined
Decomposition Temperature	No test data available
Dynamic Viscosity	600 - 800 cPs @ 25 °C ASTM D445
Kinematic Viscosity	No test data available
Explosive properties	No data available
Oxidizing properties	No data available
Molecular Weight	Not determined

10. STABILITY AND REACTIVITY

Reactivity : No dangerous reaction known under conditions of normal use .

Chemical stability : Stable under recommended storage conditions. See Storage, Section 7 .

Possibility of hazardous reactions: Polymerization will not occur by itself. Masses of more than one pound (0.5 kg) of product plus an aliphatic amine will cause irreversible polymerization with considerable heat build-up .

Conditions to Avoid: Avoid short term exposures to temperatures above 300 °C. Avoid prolonged exposure to temperatures above 250 °C. Potentially violent decomposition can occur above 350 °C. Generation of gas during decomposition can cause pressure in closed systems .
Pressure build-up can be rapid .

Incompatible Materials: Avoid contact with oxidizing materials. Avoid contact with: Acids. Bases .
Avoid unintended contact with amines .

Hazardous decomposition products : Decomposition products depend upon temperature, air supply and the presence of other materials .Gases are released during decomposition. Uncontrolled exothermic reaction of epoxy resins release phenolics, carbon monoxide, and water .

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Product/ingredient name	Endpoint	Species	Result	Exposure
3-aminomethyl-3,5,5-trimethylcyclohexylamine	LD 50 : Oral Skin	Rat Rabbit	1030 mg/kg	
3,6-diazaoctanethylenediamin; triethylenetetramine	LD 50 Oral LD 50 Skin	Rat Rabbit	300 mg/kg 1000 mg/kg	8h

· **Primary irritant effect:**
· **Skin corrosion/irritation**
Causes skin irritation.
· **Serious eye damage/irritation**
Causes serious eye damage.
· **Respiratory or skin sensitisation**
May cause an allergic skin reaction.
· **CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)**
· **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
· **Carcinogenicity** Based on available data, the classification criteria are not met.
· **Reproductive toxicity** Based on available data, the classification criteria are not met.
· **STOT-single exposure** Based on available data, the classification criteria are not met.
· **STOT-repeated exposure** Based on available data, the classification criteria are not met.
· **Aspiration hazard** Based on available data, the classification criteria are not met.

12. ECOLOGICAL INFORMATION

Toxicity

Product/ingredient name	Endpoint	Exposure	Species	Result
3,6-diazaoctanethylenediamin; triethylenetetramine	Acute EC50 Acute LC50 Acute LC50	72 hours Static 48 hours Static 96 hours Static	Algae Daphnia Fish	10 mg/l 10 mg/l 100 mg/l
3-aminomethyl-3,5,5-trimethylcyclohexylamine	Acute LC50 Acute EC50 Acute EC50	96 hours Static 48 hours Static 72 hours Static	Fish Daphnia Algae	110 mg/l 23 mg/l > 50 mg/l

13. DISPOSAL CONSIDERATIONS

Disposal methods:

This product, when being disposed of in its unused and uncontaminated state should be treated as a hazardous waste according to EC Directive 2008/98/EC. Any disposal practices must be in compliance with all national and provincial laws and any municipal or local by-laws governing hazardous waste. For used, contaminated and residual materials additional evaluations may be required. Do not dump into any sewers, on the ground, or into any body of water .

14. TRANSPORT INFORMATION

Classification for ROAD and Rail transport:

Proper Shipping Name: Void
Technical Name: Void
Hazard Class: Void
ID Number: Void
Packing Group: Void

Classification: Void
Hazard identification No: Void
Environmental Hazard: Void

Classification for SEA transport (IMO-IMDG):

Proper Shipping Name: Void
Technical Name: Void.
Miscellaneous dangerous substances and articles
Hazard Class: Void
ID Number: Void
Packing Group: Void
EMS Number: Void
Marine pollutant: Void

Classification for AIR transport (IATA/ICAO):

Proper Shipping Name: Void
Technical Name: Void.
Hazard Class: Void
ID Number: Void
Packing Group: Void
Cargo Packing Instruction: Void
Passenger Packing Instruction: Void
Environmental Hazard: Void

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material .

15. REGULATORY INFORMATION

Label

US. Toxic Substances Control Act

All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements under 40 CFR 720.30

European Inventory of Existing Commercial Chemical Substances (EINECS)

Components of this product are not listed on EINECS because they are polymers or "no-longer polymers" marketed before the enforcement of the 7th Amendment to Directive 67/548/EEC .

Contains : Reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight <= 700) Contains epoxy constituents. See information supplied by the manufacturer .

Other regulations : NO

16. OTHER INFORMATION

Hazard statements

H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage
H317 May cause an allergic skin reaction.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H332 Harmful if inhaled

Precautionary statements

P101 If medical advice is needed, have product container or label at hand.
P102 Keep out of reach of children.
P103 Read label before use.
P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P241 Use explosion-proof electrical/ventilating/lighting/equipment.
P261 Avoid breathing dust fume/vapours.
P271 Use only outdoors or in a well-ventilated area.
P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P411 Store at temperatures not exceeding 45º c.
P403+233 Store in a well – ventilated place. Keep container tightly closed.
P501 Dispose of contents/container in accordance with local/regional/national/ international regulations.

EPOLAC (Eng.J.Zamlar) LTD urges each customer or recipient of this (M)SDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this (M)SDS and any hazards associated with the product. The information herein is provided in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ between various locations. It is the buyer's/user's responsibility to ensure that his activities comply with all federal, state, provincial or local laws. The information presented here pertains only to the product as shipped. Since conditions for use of the product are not under the control of the manufacturer, it is the buyer's/user's duty to determine the conditions necessary for the safe use of this product. Due to the proliferation of sources for information such as manufacturer-specific (M)SDSs, we are not and cannot be responsible for (M)SDSs obtained from any source other than ourselves. If you have obtained an (M)SDS from another source or if you are not sure that the (M)SDS you have is current ,please contact us for the most current version .