

1. IDENTIFICATION

Product Name	:	3D Epoxy Solvent Free (BMA-3DE000)
Color	:	Clear
Material Uses	:	Part A of a Two-component Epoxy Solvent Free for Flooring. Also refer to SDS Part B.
Manufacturer	:	BMA Commercial and Industrial s.a.r.l Industrial Valley, Ain Saade Nahr El Mot 55091, North Metn Lebanon
Telephone Number	:	+961. 1. 885385 / 485
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2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

Physical State	:	Liquid
Odor	:	Light to mild odor
Eyes	:	Particles in the eyes may cause serious eye irritation.
Skin	:	Skin irritation – Category 2 Causes skin irritation. May cause an allergic reaction.
Ingestion	:	May cause stomach pain or vomiting.
Inhalation	:	Vapours may cause drowsiness and dizziness.

Label Elements

Hazard Pictograms



Signal Word: **WARNING**

Hazard Statements

H315	: Causes skin irritation.
H317	: May cause an allergic skin reaction.
H319	: Causes serious eye irritation.
H411	: Toxic to aquatic life with long lasting effects.

Precautionary Statements

P102	: Keep out of reach of children.
P103	: Read label before use.
P233	: Keep container tightly closed.
P261	: Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P264	: Wash hands, face and all exposed skin thoroughly after handling.
P270	: Do not eat, drink or smoke when using this product.
P272	: Contaminated work clothing should not be allowed out of the workplace.
P273	: Avoid release to the environment.
P280	: Wear protective gloves/ eye protection/ face protection.
P333 + P313	: If skin irritation or rash occurs: get medical advice/ attention.
P337 + P313	: If eye irritation persists: get medical advice/ attention.
P362 + P364	: Take off contaminated clothing and wash it before reuse.

Supplemental Information

EUH205	: Contains epoxy constituents. May produce an allergic reaction.
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3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Chemical Name</u>	<u>CAS Number</u>	<u>% by weight</u>
Epoxy resin	500-033-5	50 – 100
Aliphatic glycidyl ether	68609-97-2	5 – 50

Components not listed are not physical or health hazards as defined in 29 CFR 1910.1200 Hazard Communication Standard.

4. FIRST-AID MEASURES

Eye Contact	:	Flush eyes with large amount of water for at least 15 minutes without rubbing eyes. Remove contact lenses after the initial 1-2 minutes and continue flushing for several additional minutes. Consult a physician if irritation persists.
Skin Contact	:	Remove affected person from source of contamination. Immediately remove all contaminated clothing, including footwear. Wash affected areas thoroughly with soap and water. Consult a physician in case of a lasting irritation.
Inhalation	:	If inhaled: Remove to fresh air and keep at rest in a position comfortable for breathing. In case of unconsciousness place patient stably in side position for transportation.
Ingestion	:	If swallowed, seek medical advice immediately and show this SDS. Do not induce vomiting without medical advice. If vomiting occurs, lean patient forward or place on left side (head-down position) to maintain open airway and prevent aspiration. Never give liquid to a person showing signs of being sleepy or with reduced awareness.

5. FIRE-FIGHTING MEASURES

Special Hazards arising from the product	:	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: Phenolics – Carbon monoxide – Carbon dioxide.
Suitable Extinguishing Media	:	Water fog or fine spray. Dry chemical fire extinguishers. Carbon dioxide fire extinguishers. Foam. Alcohol resistant foams are preferred.
Unsuitable Extinguishing Media	:	Do not use direct water stream. May spread fire.
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 reignition 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.
Special Protective Equipment and precautions for fire-fighters	<p>: Avoid breathing fire vapours. Cool containers exposed to flames with water. Wear breathing apparatus, protective gloves and eye protection. Use fire-fighting procedures suitable for surrounding area. Employ protective equipment commonly used in the event of fire. Avoid inhalation of fumes from residue. DO NOT approach containers suspected to be hot.</p>

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures	<p>: Isolate area. Keep unnecessary and unprotected personnel from entering the area. Ensure adequate ventilation, do not breathe dust and vapours. Use appropriate safety equipment. (see Section 8)</p>
Environmental Precautions	<p>: Prevent from entering into soil, ditches, sewers, waterways and/or groundwater.</p>
Methods and materials for containment and cleaning up	<p>: 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 information and exposure guidelines.</p>

7. HANDLING AND STORAGE

Precautions for Safe Handling	: Avoid prolonged or repeated contact with skin. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Avoid use of electric band heaters. Failures of electric band heaters have been reported to cause drums of liquid epoxy resin to explode and catch fire. Application of a direct flame to a container of liquid epoxy resin can also cause explosion and/or fire.
Conditions for Safe Storage	: Recommended pumping and storage temperature for bulk shipments is 60 °C. Store between +2 °C and + 43 °C.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with Workplace Control Parameters

Control Parameter	: ACGIH – No data available.
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Exposure Controls

Appropriate Engineering Controls	: 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.
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. Use the following CE approved air-purifying respirator: organic vapour cartridge with a particulate pre-filter, type AP2.
Eye/Face Protection	: Use safety glasses (with side shields). Safety glasses (with side shields) should be consistent with EN 166 or equivalent.
Skin Protection	: <u>Hand protection</u> : Use chemical resistant gloves classified under Standard EN374: Protective gloves against chemicals and micro-organisms. Examples

	<p>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. Glove thickness alone is not a good indicator of the level of protection a glove provides against a chemical substance as this level of protection is also highly dependent on the specific composition of the material that the glove is fabricated from. The thickness of the glove must, depending on model and type of material, generally be more than 0.35 mm to offer sufficient protection for prolonged and frequent contact with the substance.</p> <p><u>Other protection:</u> 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.</p>
<p>Hygiene Measures</p>	<p>: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Ensure that eyewash stations and safety showers are close to the workstation location.</p>

9. PHYSICAL AND CHEMICAL PROPERTIES (To start here)

<p>Physical State</p>	<p>: Liquid</p>
<p>Color</p>	<p>: Clear</p>
<p>Odor</p>	<p>: Light to mild odor</p>
<p>pH</p>	<p>: Not applicable</p>
<p>Relative Density (g.cm⁻³)</p>	<p>: (1.154 ± 0.005)</p>
<p>Flammability</p>	<p>: Not applicable</p>
<p>Flash Point °C</p>	<p>: > 65 °C</p>
<p>Flammability Limit – Lower (%)</p>	<p>: Not applicable</p>
<p>Flammability Limit – Upper (%)</p>	<p>: Not applicable</p>
<p>Lower Explosion Limit, vol / vol air</p>	<p>: Not applicable</p>

Upper Explosion Limit, vol / vol air	:	Not applicable
Boiling Point (°C)	:	No data available
Melting Point (°C)	:	Not applicable
Solubility in water at 20 °C	:	No data available
Solid Content % wt	:	100 ± 1
Partition coefficient n-Octanol/Water	:	No data available

10. STABILITY AND REACTIVITY

Stability and Reactivity	:	<p><u>Chemical stability:</u> The product is stable under recommended storage conditions.</p> <p><u>Possibility of hazardous reactions:</u> Will not occur by itself.</p> <p><u>Conditions to avoid:</u> Avoid short term exposures to temperatures above 300 °C. Potentially violent decomposition can occur above 350 °C. Avoid prolonged exposure to temperatures above 250 °C. Generation of gas during decomposition can cause pressure in closed systems.</p> <p><u>Incompatible materials:</u> Avoid contact with oxidizing materials. Avoid contact with: acids, bases and unintended contact with amines.</p>
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 phenolic, carbon monoxide and water.

11. TOXICOLOGICAL INFORMATION

Specific information about the product itself are not available.

Component: Epoxy Resin

Acute Oral Toxicity	:	LD50 (Rat) > 15,000 mg/Kg Very low toxicity if swallowed. Harmful effects not anticipated from swallowing small amounts.
Acute Dermal Toxicity	:	LD50 (Rabbit) = 23,000 mg/Kg Prolonged skin contact is unlikely to result in absorption of harmful amounts.

Acute Inhalation Toxicity	:	At room temperature, exposure to vapour is minimal due to low volatility. Vapour from heated material, mist or aerosols may cause respiratory irritation.
Skin Corrosion/irritation	:	Prolonged contact may cause skin irritation with local redness. Repeated contact may cause skin irritation with local redness.
Serious eye damage/eye irritation	:	May cause eye irritation. Corneal injury is unlikely.
Sensitization	:	Has caused allergic skin reactions in humans. Has demonstrated the potential for contact allergy in mice.
Specific Target Organ Systemic Toxicity (Single Exposure)	:	Evaluation of available data suggests that this material is not an STOT-SE toxicant.
Specific Target Organ Systemic Toxicity (Repeated Exposure)	:	Except for skin sensitization, repeated exposures to low molecular weight epoxy resins of this type are not anticipated to cause any significant adverse effects.
Carcinogenicity	:	Although some weak evidence of carcinogenicity has been reported in animals, when all of the data are considered, the weight of evidence does not show that the product is carcinogenic.
Teratogenicity	:	Did not cause birth defects or other adverse effects on the foetus when pregnant rabbits were exposed by skin contact, the most likely route of exposure, or when pregnant rats or rabbits were exposed orally.
Reproductive Toxicity	:	In animal studies, did not interfere with reproduction.
Mutagenicity	:	In vitro genetic toxicity studies were negative in some cases and positive in other cases. Animal genetic toxicity studies were negative.
Aspiration Hazard	:	Based on physical properties, not likely to be an aspiration hazard.

Component: Aliphatic glycidyl ether

Acute Oral Toxicity	:	LD50 (Rat) = 17,100 mg/Kg
Skin Irritation	:	Rabbit Draize Test: Mild irritation
Skin Sensitization	:	Guinea Pig: Sensitizer

12. TRANSPORT INFORMATION

	ADR/RID	IMDG	ICAO/IATA
TRANSPORTATION	Road	Marine	Airways
PROPER SHIPPING NAME	Environmentally Hazardous Substance, Liquid, n.o.s. (Epoxy resin)		
UN/ID No.	UN 3082		
HAZARD CLASS	9		
PACKAGING GROUP	III		
CLASSIFICATION CODE	M6		
EmS		FA, SF	
MARINE Pollutant		Yes – Epoxy Resin	
HS CODE	39073010		

13. OTHER INFORMATION

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