

Material Safety Data Sheet

Update: 08/31/2021

Version: 1.0



Epoxy.com #689

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1. Chemical Product and Company Identification

EPOXY.COM PRODUCT #689 MMA MV/WET Area Sealer

Synonyms: Solution of an acrylic polymer in methacrylic acid esters / acrylic acid esters

Supplier: 800-633-8253
EPOXY SYSTEMS, INC – dba EPOXY.COM
20774 W. Pennsylvania Ave. Dunnellon, FL 34431
USA

352-489-1666 (phone)
352-489-1625 (fax)

Product Information Number 352-489-1666
24 Hour Emergency Number, PERS 1-800-633-8253 (USA); 1-801-629-0677 (International)

Product Use: binder for floor-coating

2. Composition/Information on Ingredients

This material is classified as hazardous under OSHA regulations.

<u>Ingredients</u>	<u>CAS Reg. No.</u>	<u>Weight %</u>
methyl methacrylate	80-62-6	40 - 70
2-ethylhexyl acrylate	103-11-7	7 - 13
acrylic polymer	trade secret	15 - 40
methacrylic acid ester	trade secret	1 - 5
substituted tertiary amine	trade secret	0.5 - 1.5

NJT SR # 80100103-5142P

See Section 8, Exposure Controls/Personal Protection

3. Hazards Identification

Emergency Overview

Color: bluish, slightly turbid
Appearance: liquid
Odor: ester-like

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Flammable liquid and vapor.
May be ignited by heat, sparks or flame.
Vapors can travel to a source of ignition and flash back.
Danger of bursting of closed systems due to vigorous exothermic polymerization.
Avoid uncontrolled polymerization.
May cause eye, skin and respiratory tract irritation.
May cause sensitisation by skin contact.
Container may explode when heated.

Primary Routes of Exposure

Inhalation
Skin contact

Potential Health Effects

Inhalation

May cause irritation to the respiratory tract.

Eye Contact

May cause eye irritation.

Skin Contact

May cause irritation and sensitization of the skin.
Not expected to be absorbed through the skin in toxic amounts.

Ingestion

Expected to be slightly toxic by ingestion.

Chronic Effects

No chronic (long-term) effects are known for humans.

Aggravated Medical Conditions

Conjunctivitis of the eye, dermatitis of the skin, asthma and respiratory diseases.

Potential Environmental Effects

See SECTION 12, Ecological Information

4. First Aid Measures

First Aid Procedures

Inhalation

Remove to fresh air. Obtain medical attention if irritation develops or persists. If breathing is difficult, give oxygen.

Eye Contact

In case of contact, immediately flush eyes with plenty of water for at least 20 minutes. Hold eyelids apart during flushing to ensure rinsing of the entire surface of the eye with water. Obtain medical attention if irritation develops or persists. **DO NOT WEAR CONTACT LENSES WHEN USING THIS PRODUCT.**

Skin Contact

Wash off with water and soap. Obtain medical attention if irritation develops or persists.

Ingestion

If swallowed, call a Poison Control Centre or doctor immediately.

Note to Physician

May cause eye/skin irritation. , Skin Sensitisation, Excessive or prolonged exposure can cause the following: , headache, Numbness

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5. Fire-Fighting Measures

Flash point	10 °C (DIN 51755) (methyl methacrylate) 50 °F (DIN 51755) (methyl methacrylate)
Ignition temperature	430 °C (DIN 51794) (methyl methacrylate) 806 °F (DIN 51794) (methyl methacrylate)
Lower explosion limit	2.1 %(V) (methyl methacrylate) at 10,5°C
Upper explosion limit	12.5 %(V) (methyl methacrylate)
OSHA Flammability Classification	Flammable liquid

Other Flammable Properties

Vapours are heavier than air and can form an explosive mixture with air. Vapors can travel to a source of ignition and flash back.

Unusual Hazards

May be released in case of fire: carbon monoxide, carbon dioxide, organic products of decomposition. -

Extinguishing Media

Use the following extinguishing media when fighting fires involving this material:
dry chemical - carbon dioxide - alcohol-resistant foam

Fire Fighting Procedures

Evacuate enclosed and surrounding areas. As in any fire, wear self-contained breathing apparatus pressure-dem and, MSHA/NIOSH (approved or equivalent) and full protective gear. Use water spray to cool containers exposed to fire and disperse vapors. Keep spills away from sources of ignition.

6. Accidental Release Measures

Procedures

Remove sources of ignition and ventilate area. Absorb spill with inert material and place in a chemical waste container. Obey relevant local, state, provincial and federal laws and regulations. Do not contaminate any lakes, streams, ponds, groundwater or soil. Use personal protective equipment. See Material Safety Data Sheet section 8, Exposure Controls/Personal Protection.

7. Handling and Storage

Handling

Product is supplied in a stabilized form. Stir well before decanting from drum. Avoid contact with eyes, skin and clothing. Use explosion-proof equipment. Ground and bond containers when transferring material. Use with adequate ventilation. Open valve slowly to avoid pressure shock. Avoid breathing vapor or mist. Follow all MSDS/label precautions even after the container is emptied because it may retain product residues. Wash thoroughly after handling.

Storage

Keep away from sparks, flames and other sources of ignition. Keep container closed when not in use. Ensure there is good room ventilation. Limit storage of flammable liquids to approved areas equipped with overhead sprinklers. Residual vapors might explode on ignition; do not apply heat, cut, drill, grind or weld on or near this container. Keep away from heat. Keep in the original container at a temperature not exceeding 35 °C (95 °F). Do not store in direct sunlight.

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8. Exposure Controls/Personal Protection

Exposure Limit Information

METHYL METHACRYLATE

(CAS Number 80-62-6)

Carcinogen designation(s) USA: EPA-NL; IARC-3; TLV-A4

Occupational Exposure Values :

Remark(s):

Occupational Exposure Values :	Remark(s):
ACGIH TLV-TWA	50 ppm 205 mg/m ³ Sensitiser
ACGIH TLV-STEL	100 ppm 410 mg/m ³ Sensitiser
OSHA PEL-TWA	100 ppm 410 mg/m ³
OSHA PEL-STEL	not established
OEL-TWA (Alberta)	50 ppm 205 mg/m ³
OEL-STEL (Alberta)	100 ppm 410 mg/m ³
OEL-TWA (British Columbia)	50 ppm Capable of causing respiratory, dermal or conjunctival sensitization.
OEL-STEL (British Columbia)	100 ppm Capable of causing respiratory, dermal or conjunctival sensitization.
OEL-TWA (Ontario)	50 ppm
OEL-STEL (Ontario)	100 ppm
OEL-TWA (Quebec)	50 ppm 205 mg/m ³ Sensitiser
OEL-STEL (Quebec)	not established
OEL-TWA (Mexico)	100 ppm 410 mg/m ³ Carcinogen Category 4 - not classifiable as a human carcinogen
OEL-STEL (Mexico)	125 ppm 510 mg/m ³ Carcinogen Category 4 - not classifiable as a human carcinogen

2-ETHYLHEXYL ACRYLATE

(CAS Number 103-11-7)

No Occupational Exposure Values established (ACGIH, OSHA, Canada and Mexico).

Engineering Controls (Ventilation)

In industrial situations, concentration values below TWA value should be maintained. Values may be reduced by process modification, use of local exhaust ventilation, capturing substances at the source, or other methods. If you believe airborne concentrations of mists, dust or vapours are high, you are advised to modify the process or environment to reduce the problem.

Respiratory Protection

A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 or applicable federal/provincial requirements must be followed whenever workplace conditions warrant respirator use. NIOSH's "Respirator Decision Logic" may be useful in determining the suitability of various types of respirators.

Eye Protection

Use chemical splash goggles and face shield (ANSI Z87.1) or approved equivalent.

Skin Protection

On handling of larger quantities: face mask, chemical-resistant boots and apron

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Hand Protection

Use supported neoprene gloves for routine work and butyl rubber gloves when there is a probability of liquid contact.

Gloves should be removed and replaced immediately if there is any indication of degradation or chemical breakthrough.

Other Protective Equipment

A safety shower and eye wash fountain should be readily available. To identify additional Personal Protective Equipment (PPE) requirements, it is recommended that a hazard assessment in accordance with the OSHA PPE Standard (29CFR1910.132) be conducted before using this product.

9. Physical and Chemical Properties

Appearance	bluish, slightly turbid
Physical state	liquid
Odor	ester-like
Flash point	10 °C (DIN 51755) (methyl methacrylate) 50 °F (DIN 51755) (methyl methacrylate)
pH-value	not applicable
Viscosity (dynamic)	180 - 250 mPa·s at 23 °C / 73 °F (Brookfield d)
Specific gravity (water = 1)	0.979 g/cm ³ at 20 °C / 68 °F (DIN 51757)
Vapor density (air = 1)	> 1 at 20 °C / 68 °F
Vapor pressure	ca. 40 hPa (= mbar) at 20 °C / 68 °F
Freezing Temperature	-48 °C / -54 °F (methyl methacrylate) Paraffin Separation < 15°C
Boiling Temperature	ca. 100 °C / 212 °F at 1,013 hPa (= mbar)
Solubility in water	ca. 20 g/l at 20 °C / 68 °F
n-Octanol/water partition coefficient	not available
Evaporation rate	is faster than butyl acetate
Odor threshold	< 1 ppm
Further information	none

See Section 5, Fire Fighting Measures

10. Stability and Reactivity

Stability

This product is stable under normal storage conditions.

Conditions To Avoid

Heat and ignition sources, aging, contamination, oxygen free atmosphere. Ultraviolet light.

Incompatibility With Other Materials

Peroxides, amines, sulfur compounds, heavy metal ions, alkalis, reducing agents and oxidizing agents.

Hazardous Decomposition Products

None when used as directed.

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Hazardous Polymerization

May occur when exposed to excessive heating or contaminated with incompatible materials.

11. Toxicological Information

Acute Oral Toxicity

LD50 rat, OECD 401, limit test > 5,000 mg/kg

Related to substance: methyl methacrylate

LD50 rat > 2,000 mg/kg

Related to substance: 2-ethylhexyl acrylate

LD50 rat > 2,000 mg/kg

(analogy)

Related to substance: butyldiglycol methacrylate

Acute Inhalational Toxicity

LC50 rat, 4 h 29.8 mg/l

Related to substance: methyl methacrylate

LCLo mouse 0.6 mg/l

Related to substance: 2-ethylhexyl acrylate

Acute Dermal Toxicity

LD50 rabbit > 5,000 mg/kg

Related to substance: methyl methacrylate

LD50 rabbit > 5,000 mg/kg

Related to substance: 2-ethylhexyl acrylate

Irritant Effect on the Skin

irritating

(analogy)

Contact with skin may cause irritations. Properties of components in summary.

Related to substance: product

Irritant Effect on the Eyes

Contact with the eyes may cause irritation. Properties of components in summary.

Related to substance: product

Sensitization

May cause sensitisation by skin contact.

Related to substance: 2-ethylhexyl acrylate

In sensitization tests on guinea pigs with and without adjuvant, both positive and negative results were found. In humans various types of allergic reactions have been observed (symptoms: headache, eye irritations, skin affections).

Related to substance: methyl methacrylate

Toxicity on Repeated Administration

rat, inhalation

NOAEL 25 ppm

Findings: Damage to mucous membranes in the nose at 400 ppm

Related to substance: methyl methacrylate

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rat, in drinking water

NOAEL 2000 ppm

Findings: no toxic effects

Related to substance: methyl methacrylate

Mutagenicity

Positive as well as negative results in *in vitro* mutagenicity/ genotoxicity tests.

No experimental indication of genotoxicity *in vivo* available.

In summary not mutagenic according to internationally accepted criteria.

Related to substance: methyl methacrylate

Carcinogenicity

Non-carcinogenic in inhalation and feeding studies carried out on rats, mice and dogs.

Related to substance: methyl methacrylate

Reprotoxicity / teratogenicity

No indications of teratogenic effects in experimental animals.

Related to substance: methyl methacrylate

No indications of toxic effects were observed in reproduction studies in animals.

Related to substance: methyl methacrylate

Further Information on Toxicology

There are no toxicological data available for the product as such. Avoid contact with the skin and eyes and inhalation of the product vapours.

Avoid contact with the skin and eyes and inhalation of the product vapours.

Methaemoglobinemia possible after skin contact.

Symptoms of poisoning may occur many hours after contact.

Possibility of liver damage.

Related to substance: N,N-dimethyl-p-toluidine

12. Ecological Information

Information on Elimination (Persistence and Degradability)

Biodegradability

biodegradable

(monomer constituent)

Bioaccumulation

no evidence for hazardous properties

Ecotoxicological Effect

Fish Toxicity

LC50 Oncorhynchus mykiss, rainbow trout, OECD 203, flow through, GLP, 96 h

> 79 mg/l

Related to substance: methyl methacrylate

Daphnia Toxicity

EC50 Daphnia magna, OECD 202, flow through, 48 h

69 mg/l

Related to substance: methyl methacrylate

NOEC Daphnia magna, OECD 202 part 2, flow through, 21 d

37 mg/l

Related to substance: methyl methacrylate

EC50 Daphnia magna, 48 h

> 100 mg/l

(analogy)

Related to substance: product

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Algae Toxicity

EC3 Scenedesmus quadricauda, cell proliferation inhibition test, 8 d 37 mg/l

Related to substance: methyl methacrylate

EC50 Desmodesmus subspicatus, 48 h (analogy) > 10 mg/l

Related to substance: product

Bacteria Toxicity

EC0 Pseudomonas putida 100 mg/l

Related to substance: methyl methacrylate

Further Information on Ecology

Prevent substance from entering soil, natural bodies of water and sewer systems.

13. Disposal Considerations

Procedures

Waste must be disposed of in accordance with federal, state and local regulations. Incineration is the preferred method. Empty containers must be handled with care due to product residue. DO NOT HEAT OR CUT THE EMPTY CONTAINER WITH ELECTRIC OR GAS TORCH.

14. Transport Information

US DOT Hazard Classification

Proper Shipping Name RESIN SOLUTION

Hazard Class 3

ID/UN Number 1866

Packing Group II

ERG: 127

Canadian TDG Classification

Refer to the classification US DOT

Shipment by sea IMDG/GGVSee

UN number 1866

Class 3

EmS F-E, S-E

Marine pollutant No

Packaging group II

Proper Shipping Name RESIN SOLUTION

Air transport ICAO/IAT A

UN number 1866

Class 3

Packing Group II

Proper Shipping Name RESIN SOLUTION

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15. Regulatory Information

INVENTORY INFORMATION

REACH (EU)	preregistered, registered or exempted
TSCA (USA)	listed or exempted
DSL (CDN)	listed or exempted
AICS (AUS)	listed or exempted
METI (J)	listed or exempted
ECL (KOR)	listed or exempted
PICCS (RP)	listed or exempted
IECSC (CN)	listed or exempted
HSNO (NZ)	listed or exempted
	HSR001626
ECS (Taiwan)	listed or exempted

US FEDERAL REGULATORY INFORMATION

Component / CASRN	TPQ [lbs]	CERCLARQ [lbs] (40CFR302.4)	SARA 302 List of EHS	SARA 313 (40CFR372)	TSCA 12b
methyl methacrylate / 80-62-6	NONE	1000	NO	YES	NO

COMPONENT CLASSIFICATION UNDER CLEAN AIR ACT SECTION 112

Component / CASRN	Weight %	HAP	EHAP
methyl methacrylate / 80-62-6		YES	NO

PRODUCT CLASSIFICATION UNDER SECTION 311/312 OF SARA (40CFR370)

ACUTE, FIRE, REACTIVE,

US STATE REGULATORY INFORMATION

Component / CASRN	New Jersey RTK	Pennsylvania RTK	Massachusetts RTK	California Proposition 65 Cancer	California Proposition 65 Reproductive
methyl methacrylate / 80-62-6	YES	YES	YES	NO	NO
2-ethylhexyl acrylate / 103-11-7	YES	YES	YES	NO	NO
methacrylic acid ester / trade secret	NO	NO	NO	NO	NO
acrylic polymer	NO	NO	NO	NO	NO
substituted tertiary amine / trade secret	NO	NO	NO	NO	NO

This product contains (a) chemical(s) known to the State of California to cause cancer and birth defects or other reproductive harm.

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CANADIAN REGULATION

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulation and the MSDS contains all information required by the Controlled Products Regulations.

This is a controlled product.

WHMIS: B2,D2B

Component / CASRN	NPRI
methyl methacrylate / 80-62-6	YES
2-ethylhexyl acrylate / 103-11-7	NO
methacrylic acid ester / trade secret	NO

16. Other Information

	Health	Flammability	Physical Hazard
HMIS-Ratings	2	3	2
NFPA-Ratings	2	3	2

HMIS Hazard Ratings	NFPA Hazard Ratings
4 = severe	4 = extreme
3 = serious	3 = high
2 = moderate	2 = moderate
1 = slight	1 = slight
0 = minimal	0 = insignificant
N = no rating for powders	N = no rating for powders
* = chronic health hazard	

This MSDS was prepared in accordance with ANSI Z400.1-1998.

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