

PRODUCT NAME: ABRO Insta-Mix Epoxy Plastic -
Adhesive
PRODUCT NUMBER/SIZE: EP-380 / 14 mL

Revision Date: 04/29/2015

SECTION 1 Identification of the Substance and of the Company/Undertaking

MANUFACTURER'S NAME: ABRO INDUSTRIES, INC.
ADDRESS: 3580 Blackthorn Court
South Bend, IN 46628
USA
PRODUCT DESCRIPTION: Epoxy
COMPANY PHONE: 574-232-8289
EMERGENCY 24-HR TELEPHONE: Chemtrec: US/Canada 1-800-424-9300
International +1-703-527-3887

SECTION 2 Hazards Identification

Classification:

OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute toxicity - Oral	Category 4	
Skin corrosion/irritation	Category 2	Sub-category A
Serious eye damage/eye irritation	Category 2A	
Skin sensitization	Category 1	
Flammable liquids	Category 2	

Label Pictogram(s):



Signal Word: DANGER

Hazard Phrases: Harmful if swallowed. Causes skin irritation. May cause an allergic skin reaction
Causes serious eye irritation. Highly flammable liquid and vapor.

Precautionary Phrases: Wash face, hands and any exposed skin thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective gloves/protective clothing/eye protection/face protection. Avoid breathing dust/fume/gas/mist/vapors/spray. Contaminated work clothing should not be allowed out of the workplace.

Response: Specific treatment (see supplemental first aid instructions on this label). IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell Rinse mouth. Do NOT induce vomiting.

Storage / Disposal: Store in a well-ventilated place. Keep cool. Dispose of contents/container to an approved waste disposal plant.

Other: Harmful to aquatic life with long lasting effects.

Unknown acute toxicity: 17.5% of the mixture consists of ingredient(s) of unknown toxicity.

SECTION 3 Composition/Information on Ingredients

<u>CHEMICAL NAME</u>	<u>CAS NO.</u>	<u>Weight %</u>	<u>TRADE SECRET</u>
METHYL METHACRYLATE	80-62-6	30 - 60%	*
METHACRYLIC ACID	79-41-4	5 - 10%	*
TETRASODIUM EDTA	64-02-8	3 - 7%	*
P-TOLUENESULFONYL CHLORIDE	98-59-9	3 - 7%	*
ETHOXYLATED TRIMETHYLOLPROPANE TRIACRYLATE	28961-43-5	3 - 7%	*
DIMETHYLBENZYL HYDROPEROXIDE	80-15-9	3 - 7%	*
BUTYLATED HYDROXY TOLUENE	128-37-0	3 - 7%	*
ACRYLONITRILE-BUTADIENE POLYMER	9003-18-3	3 - 7%	*

*The exact percentage (concentration) of composition has been withheld as a trade secret.

SECTION 4 First Aid Measures

Description of First Aid Measures

General advice: Get medical advice/attention if you feel unwell.

Eye contact: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Skin contact: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

Inhalation IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If symptoms persist, call a physician.

Ingestion	IF SWALLOWED. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Call a physician.
Self-protection of the first aider:	Use personal protective equipment as required. Avoid contact with skin, eyes or clothing.

Most important symptoms and effects, both acute and delayed

Symptoms See section 2 for more information.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

SECTION 5 Fire Fighting Measures

Suitable extinguishing media:	Carbon dioxide (CO ₂), Dry chemical, Foam				
Unsuitable extinguishing media:	None.				
Specific hazards arising from the chemical:	None in particular.				
Explosion data:	<table> <tr> <td>Sensitivity to Mechanical Impact</td><td>None.</td></tr> <tr> <td>Sensitivity to Static Discharge</td><td>None.</td></tr> </table>	Sensitivity to Mechanical Impact	None.	Sensitivity to Static Discharge	None.
Sensitivity to Mechanical Impact	None.				
Sensitivity to Static Discharge	None.				
Protective equipment and precautions for firefighters:	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.				

SECTION 6 Accidental Release Measures

Personal precautions, protective equipment and emergency procedures:

Personal precautions: Ensure adequate ventilation, especially in confined areas. Avoid contact with eyes and skin. Use personal protective equipment as required.

Environmental precautions: Do not flush into surface water or sanitary sewer system. See Section 12 for additional ecological information.

Methods and material for containment and cleaning up:

Methods for containment: Prevent further leakage or spillage if safe to do so.

Methods for cleaning up: Eliminate all ignition sources if safe to do so. Ensure adequate ventilation. Soak up with inert absorbent material. Sweep up and shovel into suitable containers for disposal.

Prevention of secondary hazards: Clean contaminated objects and areas thoroughly observing environmental regulations.

SECTION 7 Handling and Storage

Precautions for Safe Handling

Advice on safe handling:

Handle in accordance with good industrial hygiene and safety practice. Avoid breathing vapors or mists. Avoid contact with skin, eyes or clothing. Wash thoroughly after handling. Wash contaminated clothing before reuse. Use personal protective equipment as required. Take precautionary measures against static discharges. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity).

Conditions for safe storage, including any incompatibilities:

Storage Conditions:

Store in a well-ventilated place. Keep cool. Do not expose to temperatures exceeding 50 °C/122 °F.

Incompatible materials:

Strong oxidizing agents, Reducing agent

SECTION 8 Exposure Controls/Personal Protection

Control parameters

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
METHYL METHACRYLATE 80-62-6	STEL: 100 ppm TWA: 50 ppm	TWA: 100 ppm TWA: 410 mg/m3 (vacated) TWA: 100 ppm (vacated) TWA: 410 mg/m3	IDLH: 1000 ppm TWA: 100 ppm TWA: 410 mg/m3
METHACRYLIC ACID 79-41-4	TWA: 20 ppm	(vacated) TWA: 20 ppm (vacated) TWA: 70 mg/m3 (vacated) S*	TWA: 20 ppm TWA: 70 mg/m3
BUTYLATED HYDROXY TOLUENE 128-37-0	TWA: 2 mg/m3 inhalable fraction and vapor	(vacated) TWA: 10 mg/m3	TWA: 10 mg/m3

NIOSH IDLH Immediately Dangerous to Life or Health

Other Information Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

Appropriate engineering controls

Engineering Controls	Showers Eyewash stations Ventilation systems
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Individual protection measures, such as personal protective equipment

Eye/face protection:	Wear safety glasses with side shields (or goggles).
Skin and body protection:	Wear protective gloves and protective clothing.
Respiratory protection:	Use NIOSH-approved air-purifying respirator with organic vapor cartridge or canister, as appropriate.

General Hygiene Considerations: Handle in accordance with good industrial hygiene and safety practice. Regular cleaning of equipment, work area and clothing is recommended.

SECTION 9

Physical and Chemical Properties

Physical State:	Viscous liquid
Appearance:	White
Odor:	Solvent
Odor Threshold:	0.75 ppm
pH:	Not applicable.
Melting Point/Freezing Point:	No information available.
Boiling Point/Boiling Range:	100 °C / 212 °F
Flash Point:	12 °C / 53 °F
Evaporation rate:	> 1 Butyl acetate = 1
Flammability (solid, gas):	No information available.
Flammability Limit in Air	
Upper Flammability Limit:	No information available.
Lower Flammability Limit:	No information available.
Vapor pressure:	28 mmHg @ 68°F
Vapor density:	>3 Air = 1
Relative density:	0.95
Water Solubility:	Slightly soluble.
Solubility in other solvents:	No information available.
Partition Coefficient:	No information available.
Autoignition Temperature:	421°C (789.8°F)
Decomposition Temperature:	No information available.
Kinematic Viscosity:	No information available.
Dynamic Viscosity:	No information available.
Exposive Properties:	No information available.
Oxidizing Properties:	No information available.
Other Information	
Softening point:	No information available.
Molecular weight:	No information available.
VOC Content (%):	<50 g/L
Density:	No information available.
Bulk density:	No information available.

SECTION 10

Stability and Reactivity

Reactivity	No data available.
Chemical Stability:	Stable under recommended storage conditions.
Possibility of hazardous reactions:	None under normal processing.
Conditions to avoid:	Heat, flames and sparks.
Incompatible materials:	Strong oxidizing agents, Reducing agent.

Hazardous decomposition products: Carbon oxides
Nitrogen oxides (NOx)

SECTION 11 Toxicological Information

Information on likely routes of exposure:

Inhalation: May cause irritation of respiratory tract.

Eye contact: Contact with eyes may cause irritation. May cause redness and tearing of the eyes.

Skin contact: May cause skin irritation and/or dermatitis. May cause sensitization by skin contact.

Ingestion: May be harmful if swallowed.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
METHYL METHACRYLATE 80-62-6	= 7872 mg/kg (Rat) = 7900 mg/kg (Rat)	> 5 g/kg (Rabbit)	= 4632 ppm (Rat) 4 h
METHACRYLIC ACID 79-41-4	= 1060 mg/kg (Rat)	500 - 1000 mg/kg (Rabbit) = 500 mg/kg (Rabbit)	= 7.1 mg/L (Rat) 4 h
TETRASODIUM EDTA 64-02-8	= 10 g/kg (Rat) = 1658 mg/kg (Rat)	-	-
ETHOXYLATED TRIMETHYLOLPROPANE TRIACRYLATE 28961-43-5	-	> 13 g/kg (Rabbit)	-
DIMETHYLBENZYL HYDROPEROXIDE 80-15-9	= 382 mg/kg (Rat)	= 0.126 mL/kg (Rabbit)	= 220 ppm (Rat) 4 h
BUTYLATED HYDROXY TOLUENE 128-37-0	= 890 mg/kg (Rat)	> 2000 mg/kg (Rat)	-

Information on toxicological effects

Symptoms No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization No information available.

Germ cell mutagenicity No information available.

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
METHYL METHACRYLATE 80-62-6	-	Group 3	-	-
BUTYLATED HYDROXY TOLUENE 128-37-0	-	Group 3	-	-

IARC (International Agency for Research on Cancer)
Not classifiable as a human carcinogen

Target Organ Effects Eyes, Respiratory system, Skin.

The following values are calculated based on chapter 3.1 of the GHS document.

ATEmix (oral) 1929 mg/kg
ATEmix (dermal) 3269 mg/kg
ATEmix (inhalation-dust/mist) 8.3 mg/l
ATEmix (inhalation-vapor) 6948 mg/l

SECTION 12 Ecological Information

Ecotoxicity:

30% of the mixture consists of component(s) of unknown hazards to the aquatic environment.

Chemical Name	Algae/aquatic plants	Fish	Crustacea
METHYL METHACRYLATE 80-62-6	170: 96 h Pseudokirchneriella subcapitata mg/L EC50	243 - 275: 96 h Pimephales promelas mg/L LC50 flow-through 170 - 206: 96 h Lepomis macrochirus mg/L LC50 flow-through 153.9 - 341.8: 96 h Lepomis macrochirus mg/L LC50 static 79: 96 h Oncorhynchus mykiss mg/L LC50 flow-through 79: 96 h Oncorhynchus mykiss mg/L LC50 static 125.5 - 190.7: 96 h Pimephales promelas mg/L LC50 static 326.4 - 426.9: 96 h Poecilia reticulata mg/L LC50 static	69: 48 h Daphnia magna mg/L EC50
TETRASODIUM EDTA 64-02-8	1.01: 72 h Desmodesmus subspicatus mg/L EC50	41: 96 h Lepomis macrochirus mg/L LC50 static 59.8: 96 h Pimephales promelas mg/L LC50 static	610: 24 h Daphnia magna mg/L EC50
DIMETHYLBENZYL HYDROPEROXIDE 80-15-9	-	3.9: 96 h Oncorhynchus mykiss mg/L LC50 static	7: 24 h Daphnia magna mg/L EC50
BUTYLATE HYDROXY TOLUENE 128-37-0	6: 72 h Pseudokirchneriella subcapitata mg/L EC50 0.42: 72 h Desmodesmus subspicatus mg/L EC50	5: 48 h Oryzias latipes mg/L LC50	-

Persistence and Degradability: No information available.

Bioaccumulation Potential: No information available.

Mobility: No information available.

Chemical Name	Partition coefficient
METHYL METHACRYLATE 80-62-6	0.7
METHACRYLIC ACID 79-41-4	0.93
BUTYLATED HYDROXY TOLUENE 128-37-0	4.17

Other Adverse Effects: No information available.

SECTION 13 Disposal Considerations

Waste treatment methods

Disposal of wastes: Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging: Do not reuse container.

US EPA Waste Number: D001

Chemical Name	RCRA	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes
METHYL METHACRYLATE 80-62-6	U162	Included in waste stream: F039	-	U162
DIMETHYLBENZYL HYDROPEROXIDE 80-15-9	-	-	-	U096

Chemical Name	California Hazardous Waste Status
METHYL METHACRYLATE 80-62-6	Toxic Ignitable
DIMETHYLBENZYL HYDROPEROXIDE 80-15-9	Toxic Ignitable

SECTION 14 Transport Information

DOT

UN/ID no: 1133
 Proper shipping name: Adhesives, Limited Quantity (LQ)
 Hazard Class: 3
 Packing Group: II
 Emergency Response Guide Number: 128

IATA

UN/ID no: ID 8000
 Proper shipping name: Consumer commodity

IMDG	Hazard Class:	9
	ERG Code:	9L
	UN/ID no:	1133
	Proper shipping name:	Adhesives, Limited Quantity (LQ)
	Hazard Class:	3
	Packing Group:	II
	EmS-No:	F-E, S-D

SECTION 15 Regulatory Information

International Inventories

TSCA	Complies
DSL/NDSL	Complies
EINECS/ELINCS	Not Listed.
ENCS	Not Listed.
IECSC	Complies
KECL	Complies
PICCS	Complies
AICS	Complies

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
 DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
 EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
 ENCS - Japan Existing and New Chemical Substances
 IECSC - China Inventory of Existing Chemical Substances
 KECL - Korean Existing and Evaluated Chemical Substances
 PICCS - Philippines Inventory of Chemicals and Chemical Substances
 AICS - Australian Inventory of Chemical Substances

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

Chemical Name	SARA 313 - Threshold Values %
METHYL METHACRYLATE	1.0
80-62-6	
DIMETHYLBENZYL HYDROPEROXIDE	1.0
80-15-9	

SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic Health Hazard	No
Fire hazard	Yes
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
METHYL METHACRYLATE 80-62-6	1000lb	-	-	X

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302).

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
METHYL METHACRYLATE 80-62-6	1000 lb	-	RQ 1000 lb final RQ RQ 454 kg final RQ
DIMETHYLBENZYL HYDROPEROXIDE 80-15-9	10 lb	-	RQ 10 lb final RQ RQ 4.54 kg final RQ

US State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
METHYL METHACRYLATE 80-62-6	X	X	X
METHACRYLIC ACID 79-41-4	X	X	X
DIMETHYLBENZYL HYDROPEROXIDE 80-15-9	X	X	X
BUTYLATED HYDROXY TOLUENE 128-37-0	X	X	X

U.S. EPA Label Information

EPA Pesticide Registration Number: Not applicable

NFPA Health hazards 2 Flammability 3 Instability 0
HMIS Health hazards 2 Flammability 3 Physical hazards 0 Personal protection B

NFPA (National Fire Protection Association)
HMIS (Hazardous Material Information System)

SECTION 16 Other Information

The supplier disclaims all expressed or implied warranties of merchantability or fitness for a specific use,

with respect to the product or the information provided herein, except for conformation to contracted specifications. All information appearing herein is based upon data obtained from manufacturers and/or recognized technical sources. While the information is believed to be accurate, we make no representations as to its accuracy or sufficiency. Conditions of use are beyond our control, and therefore users are responsible for verifying the data under their own operating conditions to determine whether the product is suitable for their particular purposes and they assume all risks of their use, handling, and disposal of the product. Users also assume all risks in regards to the publication or use of, or reliance upon, information contained herein.

This information relates only to the product designated herein, and does not relate to its use in combination with any other material or process.

ABBREVIATIONS:

NG="NOT GIVEN"

<="LESS THAN"

ND = Not Determined

BT="BETWEEN"

>="GREATER THAN"

NA = Not Applicable

PRODUCT NAME: ABRO Insta-Mix Epoxy Plastic -
Activator
PRODUCT NUMBER/SIZE: EP-380 / 14 mL

Revision Date: 04/29/2015

SECTION 1 Identification of the Substance and of the Company/Undertaking

MANUFACTURER'S NAME: ABRO INDUSTRIES, INC.
ADDRESS: 3580 Blackthorn Court
South Bend, IN 46628
USA
PRODUCT DESCRIPTION: Epoxy
COMPANY PHONE: 574-232-8289
EMERGENCY 24-HR TELEPHONE: Chemtrec: US/Canada 1-800-424-9300
International +1-703-527-3887

SECTION 2 Hazards Identification

Classification:

OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

AAcute toxicity - Oral	Category 4
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2B
Skin sensitization	Category 1
Flammable liquids	Category 2

Label Pictogram(s):



Signal Word: DANGER

Hazard Phrases: Harmful if swallowed. Causes skin irritation. Causes serious eye irritation. May cause an allergic skin reaction. May cause respiratory irritation. Highly flammable liquid and vapor.

Precautionary Phrases: Wash face, hands and any exposed skin thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. Do not eat, drink or smoke when using this product. Avoid breathing dust/fume/gas/mist/vapors/spray. Contaminated work clothing should not be allowed out of the workplace. Keep away from heat/sparks/open flames/hot

surfaces. No smoking. Keep container tightly closed. Use only non-sparking tools. Take precautionary measures against static discharge.

Response: Specific treatment (see supplemental first aid instructions on this label). IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Take off contaminated clothing and wash before reuse. If skin irritation or rash occurs: Get medical advice/attention. IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth.

Storage / Disposal: Store in a well-ventilated place. Keep cool. Dispose of contents/container to an approved waste disposal plant.

Other: Harmful to aquatic life with long lasting effects.

Unknown acute toxicity: 20% of the mixture consists of ingredient(s) of unknown toxicity.

SECTION 3 Composition/Information on Ingredients

<u>CHEMICAL NAME</u>	<u>CAS NO.</u>	<u>Weight %</u>	<u>TRADE SECRET</u>
METHYL METHACRYLATE	80-62-6	60 - 100%	*
ACRYLONITRILE-BUTADIENE POLYMER	9003-18-3	3 – 7%	*
3,5-DIETHYL-1,2-DIHYDRO-1-PHENYL-2-PROPYLPYRIDINE	34562-31-7	3 – 7%	*

*The exact percentage (concentration) of composition has been withheld as a trade secret.

SECTION 4 First Aid Measures

Description of First Aid Measures

General advice:	Get medical advice/attention if you feel unwell.
Eye contact:	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
Skin contact:	IF ON SKIN: Wash with soap and water. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.
Inhalation	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If symptoms persist, call a physician.
Ingestion	IF SWALLOWED. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Call a physician.
Self-protection of the first aider:	Use personal protective equipment as required. Avoid contact with skin, eyes or clothing.

Most important symptoms and effects, both acute and delayed

Symptoms See section 2 for more information.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

SECTION 5 Fire Fighting Measures

Suitable extinguishing media: Carbon dioxide (CO₂), Dry chemical, Foam

Unsuitable extinguishing media: None.

Specific hazards arising from the chemical: Highly flammable.

Explosion data: Sensitivity to Mechanical Impact None.
 Sensitivity to Static Discharge None.

Protective equipment and precautions for firefighters: As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

SECTION 6 Accidental Release Measures

Personal precautions, protective equipment and emergency procedures:

Personal precautions: Ensure adequate ventilation, especially in confined areas. Avoid contact with eyes and skin. Use personal protective equipment as required.

Environmental precautions: Do not flush into surface water or sanitary sewer system. See Section 12 for additional ecological information.

Methods and material for containment and cleaning up:

Methods for containment: Prevent further leakage or spillage if safe to do so.

Methods for cleaning up: Eliminate all ignition sources if safe to do so. Ensure adequate ventilation. Soak up with inert absorbent material. Sweep up and shovel into suitable containers for disposal.

Prevention of secondary hazards: Clean contaminated objects and areas thoroughly observing environmental regulations.

SECTION 7 Handling and Storage

Precautions for Safe Handling

Advice on safe handling: Handle in accordance with good industrial hygiene and safety practice. Avoid breathing vapors or mists. Avoid contact with skin, eyes or clothing. Wash thoroughly after handling. Wash contaminated clothing before reuse. Use personal protective equipment as required. Remove all sources of ignition. Keep away

from heat/sparks/open flames/hot surfaces. No smoking.

Conditions for safe storage, including any incompatibilities:

Storage Conditions: Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity).

Incompatible materials: Strong oxidizing agents, Reducing agent.

SECTION 8 Exposure Controls/Personal Protection

Control parameters

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
METHYL	STEL: 100 ppm	TWA: 100 ppm	IDLH: 1000 ppm
METHACRYLATE	TWA: 50 ppm	TWA: 410 mg/m ³	TWA: 100 ppm
80-62-6		(vacated) TWA: 100 ppm	TWA: 410 mg/m ³
		(vacated) TWA: 410 mg/m ³	

NIOSH IDLH Immediately Dangerous to Life or Health

Other Information: Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

Appropriate engineering controls

Engineering Controls: Showers
Eyewash stations
Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/face protection: Wear safety glasses with side shields (or goggles).
Skin and body protection: Wear protective gloves and protective clothing.
Respiratory protection: Use NIOSH-approved air-purifying respirator with organic vapor cartridge or canister, as appropriate.
General Hygiene Considerations: Handle in accordance with good industrial hygiene and safety practice. Regular cleaning of equipment, work area and clothing is recommended.

SECTION 9 Physical and Chemical Properties

Physical State:	Viscous liquid
Appearance:	White
Odor:	Solvent
Odor Threshold:	0.75 ppm
pH:	Not applicable.
Melting Point/Freezing Point:	No information available.
Boiling Point/Boiling Range:	101 °C / 213 °F
Flash Point:	12 °C / 53 °F Tag Closed Cup
Evaporation rate:	>1 Butyl acetate = 1
Flammability (solid, gas):	No information available.
Flammability Limit in Air	
Upper Flammability Limit:	12.5%
Lower Flammability Limit:	1.6%
Vapor pressure:	28 mmHg @ 68°F

Vapor density:	>3 Air = 1
Relative density:	0.95
Water Solubility:	Slightly soluble.
Solubility in other solvents:	No information available.
Partition Coefficient:	No information available.
Autoignition Temperature:	421°C (789.8°F)
Decomposition Temperature:	No information available.
Kinematic Viscosity:	No information available.
Dynamic Viscosity:	No information available.
Exposive Properties:	No information available.
Oxidizing Properties:	No information available.

Other Information

Softening point:	No information available.
Molecular weight:	No information available.
VOC Content (%):	<50 g/L
Density:	No information available.
Bulk density:	No information available.

SECTION 10

Stability and Reactivity

Reactivity	No data available.
Chemical Stability:	Stable under recommended storage conditions.
Possibility of hazardous reactions:	None under normal processing.
Conditions to avoid:	Heat, flames and sparks.
Incompatible materials:	Strong oxidizing agents, Reducing agent.
Hazardous decomposition products:	Carbon oxides Nitrogen oxides (NO _x)

SECTION 11

Toxicological Information

Information on likely routes of exposure:

Inhalation:	May cause irritation of respiratory tract.
Eye contact:	Contact with eyes may cause irritation. May cause redness and tearing of the eyes.
Skin contact:	May cause skin irritation and/or dermatitis. May cause sensitization by skin contact.
Ingestion:	Harmful if swallowed.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
METHYL METHACRYLATE 80-62-6	= 7872 mg/kg (Rat) = 7900 mg/kg(Rat)	> 5 g/kg (Rabbit)	= 4632 ppm (Rat) 4 h

Information on toxicological effects

Symptoms No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization No information available.
 Germ cell mutagenicity No information available.
 Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
METHYL METHACRYLATE 80-62-6	-	Group 3	-	-

IARC (International Agency for Research on Cancer)
 Not classifiable as a human carcinogen

Target Organ Effects Eyes, Respiratory system, Skin.

The following values are calculated based on chapter 3.1 of the GHS document:

ATEmix (oral) 7872 mg/kg
 ATEmix (dermal) 5005 mg/kg
 ATEmix (inhalation-vapor) 4632 mg/l

SECTION 12 Ecological Information

Ecotoxicity:

20% of the mixture consists of components(s) of unknown hazards to the aquatic environment.

Chemical Name	Algae/aquatic plants	Fish	Crustacea
METHYL METHACRYLATE 80-62-6	170: 96 h Pseudokirchneriella subcapitata mg/L EC50	243 - 275: 96 h Pimephales promelas mg/L LC50 flow -through 170 - 206: 96 h Lepomis macrochirus mg/L LC50 flow-through 153.9 - 341.8: 96 h Lepomis macrochirus mg/L LC50 static 79: 96 h Oncorhynchus mykiss mg/L LC50 flow-through 79: 96 h Oncorhynchus mykiss mg/L LC50 static 125.5 - 190.7: 96 h Pimephales promelas mg/L LC50 static 326.4 - 426.9: 96 h Poecilia reticulata mg/L LC50 static	69: 48 h Daphnia magna mg/L EC50

Persistence and Degradability: No information available.

Bioaccumulation Potential: No information available.

Mobility: No information available.

Chemical Name
METHYL METHACRYLATE
80-62-6

Partition coefficient
0.7

Other Adverse Effects: No information available.

SECTION 13 Disposal Considerations

Waste treatment methods

Disposal of wastes: Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging: Do not reuse container.

US EPA Waste Number: D001

Chemical Name	RCRA	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes
METHYL METHACRYLATE 80-62-6	U162	Included in waste stream: F039	-	U162

This product contains one or more substances that are listed with the State of California as a hazardous waste.

Chemical Name
METHYL METHACRYLATE
80-62-6

California Hazardous Waste Status
Toxic
Ignitable

SECTION 14 Transport Information

DOT

UN/ID no: 1133
Proper shipping name: Adhesives, Limited Quantity (LQ)
Hazard Class: 3
Packing Group: II
Emergency Response Guide Number: 128

IATA

UN/ID no: ID 8000
Proper shipping name: Consumer commodity
Hazard Class: 9
ERG Code: 9L

IMDG

UN/ID no: 1133
Proper shipping name: Adhesives, Limited Quantity (LQ)
Hazard Class: 3
Packing Group: II
EmS-No: F-E, S-D

SECTION 15 Regulatory Information

International Inventories

TSCA	Complies
DSL/NDSL	Complies
EINECS/ELINCS	Not Listed.
ENCS	Not Listed.
IECSC	Complies
KECL	Complies
PICCS	Complies
AICS	Complies

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

Chemical Name	SARA 313 - Threshold Values %
METHYL METHACRYLATE 80-62-6	1.0

SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic Health Hazard	No
Fire hazard	Yes
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
METHYL METHACRYLATE 80-62-6	1000lb	-	-	X

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302).

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
METHYL METHACRYLATE 80-62-6	1000 lb	-	RQ 1000 lb final RQ RQ 454 kg final RQ

US State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
METHYL METHACRYLATE 80-62-6	X	X	X

U.S. EPA Label Information

EPA Pesticide Registration Number: Not applicable

NFPA	Health hazards 2	Flammability 3	Instability 0	
HMIS	Health hazards 2	Flammability 3	Physical hazards 0	Personal protection B

NFPA (National Fire Protection Association)
HMIS (Hazardous Material Information System)

SECTION 16 Other Information

The supplier disclaims all expressed or implied warranties of merchantability or fitness for a specific use, with respect to the product or the information provided herein, except for conformation to contracted specifications. All information appearing herein is based upon data obtained from manufacturers and/or recognized technical sources. While the information is believed to be accurate, we make no representations as to its accuracy or sufficiency. Conditions of use are beyond our control, and therefore users are responsible for verifying the data under their own operating conditions to determine whether the product is suitable for their particular purposes and they assume all risks of their use, handling, and disposal of the product. Users also assume all risks in regards to the publication or use of, or reliance upon, information contained herein.

This information relates only to the product designated herein, and does not relate to its use in combination with any other material or process.

ABBREVIATIONS:

NG="NOT GIVEN"

<="LESS THAN"

ND = Not Determined

BT="BETWEEN"

>="GREATER THAN"

NA = Not Applicable