

JM PMMA Top Coat

Version 3.0

Revision Date 04/19/2021

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SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Trade name : JM PMMA Top Coat

Manufacturer or supplier's details

Company : Johns Manville
Address : P.O. Box 5108
Denver, CO USA 80127
Telephone : +1-303-978-2000
Emergency telephone : 24-Hour Number: +1-800-424-9300 (CHEMTREC)
number

Company : Johns Manville Canada Inc.
Address : 5301 42 Avenue
Innisfail, AB Canada T4G 1A2
Telephone : +1-303-978-2000
Emergency telephone : 24-Hour Number: +1-800-424-9300 (CHEMTREC)
number

Recommended use of the chemical and restrictions on use

Restrictions on use : For professional users only.
Prepared by : productsafety@jm.com

SECTION 2. HAZARDS IDENTIFICATION**GHS classification in accordance with 29 CFR 1910.1200 (OSHA HCS 2012) and the Hazardous Products Regulations (WHMIS 2015)**

Flammable liquids : Category 2

Acute toxicity (Oral) : Category 4

Skin irritation : Category 2

Eye irritation : Category 2A

Skin sensitisation : Category 1

Carcinogenicity : Category 1A

Reproductive toxicity : Category 2

Specific target organ toxicity : Category 2
- single exposure

Specific target organ toxicity : Category 3 (Respiratory system, Central nervous system)
- single exposure

Specific target organ toxicity : Category 2
- repeated exposure

GHS label elements

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Hazard pictograms

:



Signal word

:

Danger

Hazard statements

:

H225 Highly flammable liquid and vapour.
H302 Harmful if swallowed.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
H336 May cause drowsiness or dizziness.
H350 May cause cancer.
H361d Suspected of damaging the unborn child.
H371 May cause damage to organs.
H373 May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

:

Prevention:

P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P233 Keep container tightly closed.
P240 Ground/bond container and receiving equipment.
P241 Use explosion-proof electrical/ ventilating/ lighting equipment.
P242 Use only non-sparking tools.
P243 Take precautionary measures against static discharge.
P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
P264 Wash skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.
P272 Contaminated work clothing must not be allowed out of the workplace.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:

P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth.
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + P311 IF exposed or concerned: Call a POISON CENTER/doctor.
P308 + P313 IF exposed or concerned: Get medical advice/ attention.

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P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.

P337 + P313 If eye irritation persists: Get medical advice/attention.

P362 Take off contaminated clothing and wash before reuse.

P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

Storage:

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

P403 + P235 Store in a well-ventilated place. Keep cool.

P405 Store locked up.

Disposal:

P501 Dispose of contents/container to an approved facility in accordance with local, regional, national and international regulations.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous components

Chemical name	CAS-No.	Concentration (%)
methyl methacrylate	80-62-6	>= 60 - < 80
crystalline silica	14808-60-7	>= 5 - < 10
2-ethylhexyl acrylate	103-11-7	>= 10 - < 30
ethylbenzene	100-41-4	>= 0.1 - < 1
xylene	1330-20-7	>= 10 - < 30
naphtha (petroleum), hydrodesulfurized heavy	64742-82-1	>= 10 - < 30
butyl methacrylate	97-88-1	>= 10 - < 30
lithium chloride	7447-41-8	>= 5 - < 10
1,1'-(p-tolylimino)dipropen-2-ol	38668-48-3	>= 1 - < 5
toluene	108-88-3	>= 1 - < 5

Actual concentration or concentration range is withheld as a trade secret

SECTION 4. FIRST AID MEASURES

General advice	:	Handle in accordance with good industrial hygiene and safety practice. Show this safety data sheet to the doctor in attendance. Move out of dangerous area. Do not leave the victim unattended. Symptoms of poisoning may appear several hours later.
If inhaled	:	Remove person to fresh air. If signs/symptoms continue, get medical attention.
In case of skin contact	:	In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Call a physician if irritation develops or persists.
In case of eye contact	:	Rinse immediately with plenty of water, also under the eyelids,

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If swallowed	for at least 5 minutes. If easy to do, remove contact lens, if worn. Protect unharmed eye. If eye irritation persists, consult a specialist. : DO NOT induce vomiting unless directed to do so by a physician or poison control center. Gently wipe or rinse the inside of the mouth with water. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician or Poison Control Centre immediately.
Most important symptoms and effects, both acute and delayed	: Causes skin irritation. May cause an allergic skin reaction. May cause respiratory irritation. May cause cancer. Toxic if swallowed. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. May cause respiratory irritation. May cause cancer. Suspected of damaging the unborn child. Causes damage to organs through prolonged or repeated exposure.
Protection of first-aiders	: If potential for exposure exists refer to Section 8 for specific personal protective equipment.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media	: Carbon dioxide (CO ₂) Foam Dry powder Water spray
Unsuitable extinguishing media	: High volume water jet
Specific hazards during firefighting	: Vapours may form flammable mixture with air Vapours are heavier than air and may spread along floors.
Hazardous combustion products	: carbon oxides nitrogen oxides Metal oxides
Further information	: Standard procedure for chemical fires. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. For safety reasons in case of fire, cans should be stored separately in closed containments. Use a water spray to cool fully closed containers.
Special protective equipment for firefighters	: Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and	: Use personal protective equipment. Ensure adequate ventilation.
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emergency procedures	Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.
Environmental precautions	: Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.
Methods and materials for containment and cleaning up	: Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Non-sparking tools should be used. Keep in suitable, closed containers for disposal.

SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion	: Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours). Use only explosion-proof equipment. Keep away from open flames, hot surfaces and sources of ignition. Do not pressurise, cut, weld, braze, solder, drill, or grind on containers.
Advice on safe handling	: Avoid formation of aerosol. Do not breathe vapours/dust. Avoid exposure - obtain special instructions before use. Avoid contact with skin and eyes. Smoking, eating and drinking should be prohibited in the application area. Take precautionary measures against static discharges. Provide sufficient air exchange and/or exhaust in work rooms. Open drum carefully as content may be under pressure. Dispose of rinse water in accordance with local and national regulations. Persons susceptible to skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used. For personal protection see section 8.
Conditions for safe storage	: No smoking. Keep containers tightly closed in a dry, cool and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Observe label precautions. Electrical installations / working materials must comply with the technological safety standards.
Materials to avoid	: Keep away from oxidizing agents and strongly acid or alkaline materials.
Recommended storage temperature	: 0 - 25 °C

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Storage period : 12 Months
 Further information on storage stability : Do not freeze.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION
Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
methyl methacrylate	80-62-6	TWA	50 ppm	ACGIH
		STEL	100 ppm	ACGIH
		TWA	100 ppm 410 mg/m ³	NIOSH REL
		TWA	100 ppm 410 mg/m ³	OSHA
crystalline silica	14808-60-7	TWA (Respirable fraction)	0.025 mg/m ³	ACGIH
		TWA (respirable)	10 mg/m ³ / %SiO ₂ +2	OSHA
		TWA (respirable)	250 mppcf / %SiO ₂ +5	OSHA
		TWA (Respirable dust)	0.05 mg/m ³	NIOSH REL
		TWA (Respirable dust)	0.05 mg/m ³	OSHA
ethylbenzene	100-41-4	TWA	20 ppm	ACGIH
		TWA	100 ppm 435 mg/m ³	NIOSH REL
		ST	125 ppm 545 mg/m ³	NIOSH REL
		TWA	100 ppm 435 mg/m ³	OSHA
xylene	1330-20-7	TWA	100 ppm 435 mg/m ³	OSHA
		TWA	100 ppm 435 mg/m ³	OSHA
		TWA	100 ppm	ACGIH
		STEL	150 ppm	ACGIH
		TWA	500 ppm 2,000 mg/m ³	OSHA
naphtha (petroleum), hydrodesulfurized heavy toluene	108-88-3	TWA	20 ppm	ACGIH
		TWA	100 ppm 375 mg/m ³	NIOSH REL
		ST	150 ppm 560 mg/m ³	NIOSH REL
		TWA	200 ppm	OSHA
		CEIL	300 ppm	OSHA
		Peak	500 ppm (10 minutes)	OSHA

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Biological occupational exposure limits

Components	CAS-No.	Control parameters	Biological specimen	Sampling time	Permissible concentration	Basis
ethylbenzene	100-41-4	Sum of mandelic acid and phenyl glyoxylic acid	Urine	End of shift (As soon as possible after exposure ceases)	0.15 g/g creatinine	ACGIH BEI
xylene	1330-20-7	Methylhippuric acids	Urine	End of shift (As soon as possible after exposure ceases)	1.5 g/g creatinine	ACGIH BEI
toluene	108-88-3	Toluene	In blood	Prior to last shift of workweek	0.02 mg/l	ACGIH BEI
		Toluene	Urine	End of shift (As soon as possible after exposure ceases)	0.03 mg/l	ACGIH BEI
		o-Cresol	Urine	End of shift (As soon as possible after exposure ceases)	0.3 mg/g Creatinine	ACGIH BEI

Engineering measures : Use a local and/or general ventilation system.
Provide exhaust ventilation close to floor level.

Personal protective equipment

Respiratory protection : General and local exhaust ventilation is recommended to maintain vapor exposures below recommended limits. Where concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn. Follow OSHA respirator regulations (29 CFR 1910.134) and use NIOSH/MSHA approved respirators. Protection provided by air purifying respirators against exposure to any hazardous chemical is limited. Use a positive pressure air supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstance where air purifying respirators may not provide adequate protection.

Hand protection
Material : Protective gloves

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Remarks	: Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact).
Eye protection	: Wear safety glasses with side shields or goggles. Wear face-shield and protective suit for abnormal processing problems.
Skin and body protection	: Wear protective clothing, such as long-sleeved shirts and pants. Remove and wash contaminated clothing before re-use. Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place.
Hygiene measures	: Handle in accordance with good industrial hygiene and safety practice. When using do not eat, drink or smoke. Wash hands before breaks and at the end of workday. Written instructions for handling must be available at the work place.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: liquid
Colour	: clear, colorless
Odour	: strong, solvent-like
Odour Threshold	: No data available
pH	: No data available
Melting point/freezing point	: No data available
Initial boiling point and boiling range	: No data available
Flash point	: -2 °C
Evaporation rate	: No data available
Flammability (solid, gas)	: No data available
Upper explosion limit	: No data available
Lower explosion limit	: No data available
Vapour pressure	: No data available
Relative vapour density	: No data available
Relative density	: No data available
Density	: ca. 0.99 g/cm ³
Water solubility	: No data available
Solubility in other solvents	: No data available
Partition coefficient: n-octanol/water	: No data available
Auto-ignition temperature	: No data available
Thermal decomposition	: No data available
Viscosity	
Viscosity, dynamic	: No data available
Viscosity, kinematic	: > 20.5 mm ² /s (40 °C)

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SECTION 10. STABILITY AND REACTIVITY

Reactivity	: Avoid temperatures above 60°C, direct sunlight and contact with sources of heat.
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: No dangerous reaction known under conditions of normal use. Vapours may form explosive mixture with air. Polymerisation is a highly exothermic reaction and may generate sufficient heat to cause thermal decomposition and/or rupture containers.
Conditions to avoid	: Avoid temperatures above 60°C, direct sunlight and contact with sources of heat.
Incompatible materials	: Strong oxidizing agents Strong acids and strong bases Reducing agents halogenated compounds
Hazardous decomposition products	: In case of fire hazardous decomposition products may be produced such as: carbon oxides nitrogen oxides Hydrocarbons Metal oxides

SECTION 11. TOXICOLOGICAL INFORMATION**Acute toxicity****Product:**

Acute oral toxicity	: Acute toxicity estimate : 347.9 mg/kg Method: Calculation method
Acute inhalation toxicity	: Acute toxicity estimate : 28.07 mg/l Exposure time: 4 h Test atmosphere: vapour Method: Calculation method
Acute dermal toxicity	: Acute toxicity estimate : > 5,000 mg/kg Method: Calculation method

Acute toxicity**Components:****methyl methacrylate:**

Acute oral toxicity	: LD50 (Rat): > 5,000 mg/kg Method: OECD Test Guideline 401
Acute inhalation toxicity	: LC50 (Rat): 29.8 mg/l Exposure time: 4 h Test atmosphere: vapour
Acute dermal toxicity	: LD50 (Rabbit): > 5,000 mg/kg

Acute toxicity

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crystalline silica:

- Acute oral toxicity : LD50 (Rat): > 22,500 mg/kg
- Acute inhalation toxicity : Assessment: The substance or mixture has no acute inhalation toxicity
- Acute dermal toxicity : Assessment: The substance or mixture has no acute dermal toxicity

Acute toxicity

2-ethylhexyl acrylate:

- Acute oral toxicity : LD50 (Rat, male and female): 4,435 mg/kg
Method: OECD Test Guideline 401
- Acute inhalation toxicity : LC50 (Rat, male and female): > 1.19 mg/l
Exposure time: 8 h
Test atmosphere: vapour
Method: OECD Test Guideline 403
Assessment: The substance or mixture has no acute inhalation toxicity
- Acute dermal toxicity : LD50 (Rabbit): 7,522 mg/kg

Acute toxicity

ethylbenzene:

- Acute oral toxicity : LD50 (Rat, male and female): ca. 3,500 mg/kg
Method: standard acute method
GLP: no
- Acute inhalation toxicity : LC50 (Rat, male): 17.8 mg/l
Exposure time: 4 h
Test atmosphere: vapour
Method: standard acute method
- Acute dermal toxicity : LD50 (Rabbit, male): ca. 15,400 mg/kg
Method: standard acute method

Acute toxicity

xylene:

- Acute oral toxicity : LD50 (Rat, male): 3,523 mg/kg
Method: EC Directive 92/69/EEC B.1 Acute Toxicity (Oral)
- Acute inhalation toxicity : LC50 (Rat, male): 29 mg/l, 6700 ppm
Exposure time: 4 h
Test atmosphere: vapour
Method: Regulation (EC) No. 440/2008, Annex, B.2
- Acute dermal toxicity : LD50 (Rabbit, male): 12,126 mg/kg

Acute toxicity

naphtha (petroleum), hydrodesulfurized heavy:

- Acute oral toxicity : LD50 (Rat, male and female): > 5,000 mg/kg
Method: OECD Test Guideline 401
Remarks: Information given is based on data obtained from

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similar substances.

Acute inhalation toxicity : LC50 (Rat, male and female): > 5.61 mg/l
Exposure time: 4 h
Test atmosphere: vapour
Method: OECD Test Guideline 403
Assessment: The substance or mixture has no acute inhalation toxicity
Remarks: Information given is based on data obtained from similar substances.

Acute dermal toxicity : LD50 (Rabbit, male and female): > 2,000 mg/kg
Method: OECD Test Guideline 402
Remarks: Information given is based on data obtained from similar substances.

Acute toxicity

butyl methacrylate:

Acute oral toxicity : LD0 (Rat, male and female): > 2,000 mg/kg
Method: OECD Test Guideline 401
Remarks: No mortality was observed.

Acute inhalation toxicity : (Rat, male and female): 29 mg/l
Exposure time: 4 h
Method: OECD Test Guideline 403

Acute dermal toxicity : LD0 (Rabbit, male and female): > 2,000 mg/kg
Method: OECD Test Guideline 402
Remarks: No mortality was observed.

Acute toxicity

lithium chloride:

Acute oral toxicity : LD50 (Rat): 526 mg/kg

Acute inhalation toxicity : LC50 (Rat, male and female): > 5.57 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist

Acute dermal toxicity : LD50 (Rat, male and female): > 2,000 mg/kg

Acute toxicity

1,1'-(p-tolylimino)dipropen-2-ol:

Acute oral toxicity : LD50 (Rat, male and female): > 25 mg/kg
Method: OECD Test Guideline 423

Acute dermal toxicity : LD50 (Rat, male and female): > 2,000 mg/kg
Method: OECD Test Guideline 402

Acute toxicity

toluene:

Acute oral toxicity : LD50 Oral (Rat, male): 5,580 mg/kg

Acute inhalation toxicity : LC50 (Rat): 28.1 mg/l
Exposure time: 4 h

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Test atmosphere: vapour

Acute dermal toxicity : LD50 (Rabbit): > 12,267 mg/kg

Skin corrosion/irritation**Components:****methyl methacrylate:**

Result: Skin irritation

Skin corrosion/irritation**2-ethylhexyl acrylate:**

Species: Rabbit

Assessment: Irritating to skin.

Result: Irritating to skin.

Skin corrosion/irritation**xylene:**

Species: Rabbit

Exposure time: 4 h

Method: Regulation (EC) No. 440/2008, Annex, B.4

Result: Skin irritation

Skin corrosion/irritation**naphtha (petroleum), hydrodesulfurized heavy:**

Species: Rabbit

Method: OECD Test Guideline 404

Result: irritating

Remarks: Information taken from reference works and the literature.

Skin corrosion/irritation**butyl methacrylate:**

Species: Rabbit

Result: Skin irritation

Skin corrosion/irritation**lithium chloride:**

Result: Irritating to skin.

Remarks: largely based on human evidence

Skin corrosion/irritation**toluene:**

Species: Rabbit

Result: Irritating to skin.

Serious eye damage/eye irritation**Components:****2-ethylhexyl acrylate:**

Species: Rabbit

Result: No eye irritation

Assessment: No eye irritation

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Serious eye damage/eye irritation**butyl methacrylate:**

Species: Rabbit

Result: irritating

Method: OECD Test Guideline 405

Method: Regulation (EC) No. 440/2008, Annex, B.5

Serious eye damage/eye irritation**lithium chloride:**

Species: Rabbit

Result: Irritating to eyes.

Method: OECD Test Guideline 405

Serious eye damage/eye irritation**1,1'-(p-tolylimino)dipropen-2-ol:**

Species: Rabbit

Result: Eye irritation

Assessment: Irritating to eyes.

Method: OECD Test Guideline 405

Respiratory or skin sensitisation**Components:****methyl methacrylate:**

Assessment: May cause sensitisation by skin contact.

Result: Causes sensitisation.

Respiratory or skin sensitisation**2-ethylhexyl acrylate:**

Species: Mouse

Result: May cause sensitisation by skin contact.

Respiratory or skin sensitisation**butyl methacrylate:**

Species: Mouse

Method: OECD Test Guideline 429

Result: May cause sensitisation by skin contact.

Method: Regulation (EC) No. 440/2008, Annex, B.42 (LLNA)

IARC

Group 1: Carcinogenic to humans

crystalline silica

14808-60-7

Group 2B: Possibly carcinogenic to humans

2-ethylhexyl acrylate

103-11-7

ethylbenzene

100-41-4

OSHA

No component of this product present at levels greater than or

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equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA (29 CFR 1910 Subpart Z, Toxic and Hazardous Substances).

NTP

Known to be human carcinogen

crystalline silica

14808-60-7

Reproductive toxicity**Components:****toluene:**

Reproductive toxicity - Assessment : Some evidence of adverse effects on sexual function and fertility, and/or on development, based on animal experiments.

STOT - single exposure**Product:**

Assessment: May cause damage to organs., May cause drowsiness or dizziness., May cause respiratory irritation.

STOT - single exposure**Components:****methyl methacrylate:**

Exposure routes: Inhalation

Assessment: May cause respiratory irritation.

STOT - single exposure**2-ethylhexyl acrylate:**

Assessment: The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with respiratory tract irritation.

STOT - single exposure**naphtha (petroleum), hydrodesulfurized heavy:**

Exposure routes: Inhalation

Target Organs: Central nervous system

Assessment: May cause drowsiness or dizziness.

STOT - single exposure**butyl methacrylate:**

Assessment: The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with respiratory tract irritation.

STOT - single exposure**toluene:**

Assessment: May cause drowsiness or dizziness.

STOT - repeated exposure**Product:**

Assessment: May cause damage to organs through prolonged or repeated exposure.

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STOT - repeated exposure**Components:****ethylbenzene:**

Exposure routes: Inhalation

Target Organs: Auditory system

Assessment: May cause damage to organs through prolonged or repeated exposure.

STOT - repeated exposure**naphtha (petroleum), hydrodesulfurized heavy:**

Target Organs: Central nervous system

Assessment: Causes damage to organs through prolonged or repeated exposure.

STOT - repeated exposure**toluene:**

Assessment: May cause damage to organs through prolonged or repeated exposure.

Aspiration toxicity**Components:****ethylbenzene:**

May be fatal if swallowed and enters airways.

naphtha (petroleum), hydrodesulfurized heavy:

May be fatal if swallowed and enters airways.

toluene:

May be fatal if swallowed and enters airways.

Experience with human exposure**Components:****toluene:**

Skin contact:

Remarks:

Prolonged skin contact may defat the skin and produce dermatitis.

SECTION 12. ECOLOGICAL INFORMATION**Ecotoxicity****Components:****methyl methacrylate:**

Toxicity to fish : LC50 (Oncorhynchus kisutch (coho salmon)): > 79 mg/l
Exposure time: 96 h
Method: EPA OTS 797.1400

Toxicity to daphnia and other : EC50 (Daphnia magna (Water flea)): 69 mg/l
aquatic invertebrates : Exposure time: 48 h
Method: EPA-660/3-75-009

Toxicity to algae : EC50 (Pseudokirchneriella subcapitata (algae)): > 110 mg/l

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Exposure time: 72 h
Method: OECD Test Guideline 201

crystalline silica:

Toxicity to fish : LC50 (Cyprinus carpio (Carp)): > 10,000 mg/l
Exposure time: 72 h

2-ethylhexyl acrylate:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 1.81 mg/l
End point: mortality
Exposure time: 96 h
Test Type: semi-static test
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 1.3 mg/l
Exposure time: 48 h
Test Type: static test
Method: OECD Test Guideline 202

Toxicity to algae : EC50 (Desmodesmus subspicatus (green algae)): 1.71 mg/l
Exposure time: 72 h
Test Type: static test
Method: OECD Test Guideline 201

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia magna (Water flea)): 0.136 mg/l
Exposure time: 21 d
Test Type: semi-static test
Method: OECD Test Guideline 211

naphtha (petroleum), hydrosulfurized heavy:

Toxicity to fish : LL50 (Pimephales promelas (fathead minnow)): 8.2 mg/l
End point: mortality
Exposure time: 96 h
Test Type: semi-static test

Toxicity to daphnia and other aquatic invertebrates : EL50 (Daphnia magna (Water flea)): 4.5 mg/l
End point: Immobilization
Exposure time: 48 h
Test Type: static test
Method: OECD Test Guideline 202

Toxicity to algae : EL50 (Pseudokirchneriella subcapitata (algae)): 3.7 mg/l
Exposure time: 96 h
Test Type: static test
Method: OECD Test Guideline 201

NOELR (Pseudokirchneriella subcapitata (algae)): 0.5 mg/l
Exposure time: 72 h
Test Type: static test
Method: OECD Test Guideline 201

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOELR (Daphnia magna (Water flea)): 2.6 mg/l
Exposure time: 21 d
Test Type: semi-static test
Method: OECD Test Guideline 211

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butyl methacrylate:

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 5.6 - 11 mg/l
Exposure time: 96 h

Toxicity to daphnia and other : EC50 (Daphnia magna (Water flea)): 25 mg/l
aquatic invertebrates
Exposure time: 48 h
Test Type: static test
Method: OECD Test Guideline 202

Toxicity to algae : EC50 (Pseudokirchneriella subcapitata (green algae)): 31.2
mg/l
Exposure time: 72 h
Test Type: static test
Method: OECD Test Guideline 201

Toxicity to daphnia and other : NOEC: 1.69 mg/l
aquatic invertebrates
(Chronic toxicity)

1,1'-(p-tolylimino)dipropen-2-ol:

Toxicity to fish : LC50 (Danio rerio (zebra fish)): 17 mg/l
Exposure time: 96 h

Toxicity to daphnia and other : EC50 (Daphnia magna (Water flea)): 28.8 mg/l
aquatic invertebrates
Exposure time: 48 h
Method: OECD Test Guideline 202

Toxicity to algae : EC50 (Desmodesmus subspicatus (green algae)): 245 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

Persistence and degradability**Components:****2-ethylhexyl acrylate:**

Biodegradability : Result: Readily biodegradable.
Biodegradation: 75 %
Exposure time: 15 d

ethylbenzene:

Biodegradability : Result: Readily biodegradable.

xylene:

Biodegradability : Result: Readily biodegradable.

butyl methacrylate:

Biodegradability : Result: Readily biodegradable.
Biodegradation: 85 %
Exposure time: 7 d
Method: OECD Test Guideline 301C
Remarks: Expected to be biodegradable

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Result: Readily biodegradable.
Biodegradation: 88 %
Exposure time: 28 d
Method: OECD Test Guideline 301C
Remarks: Expected to be biodegradable

Bioaccumulative potential**Components:****methyl methacrylate:**

Partition coefficient: n-octanol/water : log Pow: 1.38 (20 °C)
pH: 7

2-ethylhexyl acrylate:

Partition coefficient: n-octanol/water : log Pow: 4.64 (25 °C)
Method: OECD Test Guideline 107

ethylbenzene:

Bioaccumulation : Bioconcentration factor (BCF): 110

Partition coefficient: n-octanol/water : log Pow: 3.6 (20 °C)
pH: 7.84

xylene:

Bioaccumulation : Bioconcentration factor (BCF): 25.9

Partition coefficient: n-octanol/water : log Pow: 3.16 (20 °C)
pH: 7

butyl methacrylate:

Partition coefficient: n-octanol/water : log Pow: 3 (25 °C)
Method: OECD Test Guideline 107

1,1'-(p-tolylimino)dipropen-2-ol:

Partition coefficient: n-octanol/water : log Pow: 2.1 (24 °C)
pH: 7.5
Method: OECD Test Guideline 107

toluene:

Partition coefficient: n-octanol/water : Pow: 2.7

Mobility in soil

No data available

Other adverse effects**Product:**

Ozone-Depletion Potential : Regulation: 40 CFR Protection of Environment; Part 82
Protection of Stratospheric Ozone - CAA Section 602 Class I
Substances
Remarks: This product neither contains, nor was

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manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

Additional ecological information : Harmful to aquatic life.
Harmful to aquatic life with long lasting effects.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : Dispose of contents/container to an approved facility in accordance with local, regional, national and international regulations.
The product should not be allowed to enter drains, water courses or the soil.

Contaminated packaging : Empty remaining contents.
Dispose of as unused product.
Do not re-use empty containers.
Do not burn, or use a cutting torch on, the empty drum.

SECTION 14. TRANSPORT INFORMATION

International transport regulations

Land transport
USDOT: UN1263, Paint, 3, II
TDG: UN1263, Paint, 3, II

LIMITED QUANTITY if shipped in inner packagings not over 5.0 L (1.3 gallons) net capacity each, packed in a strong outer packaging.

Sea transport
IMDG: UN1263, Paint, 3, II (-2 °C c.c.)

Air transport
IATA/ICAO: UN1263, Paint, 3, II

SECTION 15. REGULATORY INFORMATION

TSCA list

TSCA - 5(a) Significant New Use Rule List of Chemicals : No substances are subject to a Significant New Use Rule.

U.S. Toxic Substances Control Act (TSCA) Section 12(b) Export Notification (40 CFR 707, Subpart D) : No substances are subject to TSCA 12(b) export notification requirements.

EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity

Components	CAS-No.	Component RQ	Calculated product RQ
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		(lbs)	(lbs)
methyl methacrylate	80-62-6	1000	1667
xylene	1330-20-7	100	1000

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards : Flammable (gases, aerosols, liquids, or solids)
 Skin corrosion or irritation
 Serious eye damage or eye irritation
 Respiratory or skin sensitisation
 Carcinogenicity
 Reproductive toxicity
 Acute toxicity (any route of exposure)
 Specific target organ toxicity (single or repeated exposure)

SARA 302 : This material does not contain any components with a section 302 EHS TPQ.

SARA 313 : The following components are subject to reporting levels established by SARA Title III, Section 313:

methyl methacrylate	80-62-6	60 - 80 %
ethylbenzene	100-41-4	0.1 - 1 %
xylene	1330-20-7	10 - 30 %
toluene	108-88-3	1 - 5 %

Clean Air Act

The following chemical(s) are listed as HAP under the U.S. Clean Air Act, Section 12 (40 CFR 61):

methyl methacrylate	80-62-6	60 - 80 %
ethylbenzene	100-41-4	0.1 - 1 %
xylene	1330-20-7	10 - 30 %
toluene	108-88-3	1 - 5 %

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

The following chemical(s) are listed under the U.S. Clean Air Act Section 111 SOCM Intermediate or Final VOC's (40 CFR 60.489):

methyl methacrylate	80-62-6	60 - 80 %
ethylbenzene	100-41-4	0.1 - 1 %
xylene	1330-20-7	10 - 30 %
toluene	108-88-3	1 - 5 %

California Prop. 65

 **WARNING:** This product can expose you to chemicals including ethylbenzene, which is/are known to the State of California to cause cancer, and toluene, which is/are known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

The components of this product are reported in the following inventories:

TSCA : On the inventory, or in compliance with the inventory

DSL : On the inventory, or in compliance with the inventory

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SECTION 16. OTHER INFORMATION**Further information**

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The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.