

Revision Date 06/15/2021 Print Date 06/17/2021 Version 2.0

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

JM PMMA Field Resin - White (Summer), JM PMMA Field Trade name

> Resin – White (Winter), JM PMMA Flashing Resin – White (Summer), JM PMMA Flashing Resin – White (Winter)

Manufacturer or supplier's details

Company Johns Manville Address P.O. Box 5108

Denver, CO USA 80127

Telephone +1-303-978-2000

Emergency telephone

number

24-Hour Number: +1-800-424-9300 (CHEMTREC)

Company Johns Manville Canada Inc.

Address 5301 42 Avenue

Innisfail, AB Canada T4G 1A2

+1-303-978-2000 Telephone

Emergency telephone

number

24-Hour Number: +1-800-424-9300 (CHEMTREC)

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

Specific target organ toxicity Category 2

- single exposure

Specific target organ toxicity

- single exposure

Category 3 (Respiratory system)

GHS label elements

Hazard pictograms







Signal word Danger

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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. H371 May cause damage to organs.

Precautionary statements : Prevention:

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/ 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.

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:

Disposal:

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.

F405 Store locked up

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



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Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous components

Chemical name	CAS-No.	Concentration (%)
aluminum hydroxide	21645-51-2	>= 10 - <= 30
methyl methacrylate	80-62-6	>= 10 - <= 30
titanium dioxide	13463-67-7	>= 1 - <= 10
1,1'-(p-tolylimino)dipropan-2-ol	38668-48-3	>= 0.5 - <= 1.5
poly(oxy-1,2-ethanediyl), .alpha(1-oxo-2-propenyl)omega[(1-oxo-2-propenyl)oxy]-	26570-48-9	>= 0.1 - <= 1

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,

for at least 5 minutes.

If easy to do, remove contact lens, if worn.

Protect unharmed eye.

If eye irritation persists, consult a specialist.

If swallowed : 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

Harmful if swallowed.
Causes skin irritation.

May cause an allergic skin reaction.

Causes serious eye irritation. May cause respiratory irritation. May cause damage to organs.

Protection of first-aiders : If potential for exposure exists refer to Section 8 for specific

personal protective equipment.

SECTION 5. FIREFIGHTING MEASURES



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Suitable extinguishing media : Carbon dioxide (CO2)

Foam Dry powder Water spray

Unsuitable extinguishing

nedia

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 Acrylic monomers aluminum oxides

titanium/titanium 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 emergency procedures Use personal protective equipment.

Ensure adequate ventilation.
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



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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 eves.

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 Storage period 0 - 25 °C

Further information on

storage stability

12 Months

Keep tightly closed in a dry, cool and well-ventilated place.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
aluminum hydroxide	21645-51-2	TWA (Respirable fraction)	1 mg/m3 (Aluminium)	ACGIH
methyl methacrylate	80-62-6	TWA	50 ppm	ACGIH
		STEL	100 ppm	ACGIH
		TWA	100 ppm 410 mg/m3	NIOSH REL
		TWA	100 ppm 410 mg/m3	OSHA
titanium dioxide	13463-67-7	TWA (total dust)	15 mg/m3	OSHA
		TWA	10 mg/m3 (Titanium dioxide)	ACGIH



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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

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

concentration and amount of dangerous substances, and

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 : white
Odour : solvent-like
Odour Threshold : No data available
pH : No data available
Melting point/freezing point : Not applicable

Initial boiling point and boiling : > 35 °C

range

Flash point : 2 - 22 °C

Method: Pensky-Martens closed cup

Evaporation rate : No data available Flammability (solid, gas) : Not applicable



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Upper explosion limit : No data available Lower explosion limit : No data available Vapour pressure : No data available Relative vapour density : > 1(Air = 1.0)

Relative density : No data available : 1.19 - 1.26 g/cm³ Density

Solubility(ies)

Water solubility : insoluble

Solubility in other solvents : No data available Partition coefficient: n-: No data available octanol/water

Auto-ignition temperature Thermal decomposition

Viscosity

: 2,500 - 16,000 mPa.s (20 °C) Viscosity, dynamic

Viscosity, kinematic : No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity Avoid temperatures above 60°C, direct sunlight and contact

with sources of heat.

: No data available

: No data available

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 monoxide, carbon dioxide and unburned

hydrocarbons (smoke).

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Product:

Acute oral toxicity : Acute toxicity estimate : 497.714 mg/kg

Method: Calculation method

: Acute toxicity estimate : > 40 mg/l Acute inhalation toxicity

Exposure time: 4 h Test atmosphere: vapour

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Method: Calculation method

Acute dermal toxicity : Acute toxicity estimate : > 5,000 mg/kg

Method: Calculation method

Components:

aluminum hydroxide:

Acute oral toxicity : LD50 (Rat, female): > 2,000 mg/kg

Method: OECD Test Guideline 423

GLP: yes

Acute inhalation toxicity : LC50 (Rat, male): 7.6 mg/l

Exposure time: 1 h

Test atmosphere: dust/mist

Method: OECD Test Guideline 403

Assessment: The substance or mixture has no acute

inhalation toxicity

Acute dermal toxicity : Assessment: The substance or mixture has no acute dermal

toxicity

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

titanium dioxide:

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

Acute inhalation toxicity : LC50 (Rat, male and female): > 5.09 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

Method: OECD Test Guideline 403

Acute dermal toxicity : Method: Expert judgement

Assessment: The substance or mixture has no acute dermal

toxicity

1,1'-(p-tolylimino)dipropan-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

Skin corrosion/irritation

Components:

methyl methacrylate: Result: Skin irritation



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Skin corrosion/irritation

poly(oxy-1,2-ethanediyl), .alpha.-(1-oxo-2-propenyl)-.omega.-[(1-oxo-2-propenyl)oxy]-: Result: Irritating to skin.

Serious eye damage/eye irritation

Components:

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

Species: Rabbit Result: Eye irritation

Assessment: Irritating to eyes. Method: OECD Test Guideline 405

Serious eye damage/eye irritation

poly(oxy-1,2-ethanediyl), .alpha.-(1-oxo-2-propenyl)-.omega.-[(1-oxo-2-propenyl)oxy]-:

Result: Risk of serious damage to eyes.

Respiratory or skin sensitisation

Components:

methyl methacrylate:

Assessment: May cause sensitisation by skin contact.

Result: Causes sensitisation.

Respiratory or skin sensitisation

poly(oxy-1,2-ethanediyl), .alpha.-(1-oxo-2-propenyl)-.omega.-[(1-oxo-2-propenyl)oxy]-:

Result: May cause sensitisation by skin contact.

IARC Group 2B: Possibly carcinogenic to humans

titanium dioxide 13463-67-7

OSHA No component of this product present at levels greater than or

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

Hazardous Substances).

NTP No component of this product present at levels greater than or

equal to 0.1% is identified as a known or anticipated carcinogen

by NTP.

STOT - single exposure

Product:

Assessment: May cause damage to organs.

STOT - single exposure

Components:

methyl methacrylate: Exposure routes: Inhalation

Assessment: May cause respiratory irritation.



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STOT - single exposure

poly(oxy-1,2-ethanediyl), .alpha.-(1-oxo-2-propenyl)-.omega.-[(1-oxo-2-propenyl)oxy]-:

Target Organs: Respiratory system

Assessment: May cause respiratory irritation.

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 :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): 69 mg/l

Exposure time: 48 h

Method: EPA-660/3-75-009

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

Exposure time: 72 h

Method: OECD Test Guideline 201

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

Toxicity to fish : LC50 (Danio rerio (zebra fish)): 17 mg/l

Exposure time: 96 h

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): 28.8 mg/l

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

No data available

Bioaccumulative potential

Components:

methyl methacrylate:

Partition coefficient: n- : log Pow: 1.38 (20 °C)

octanol/water pH: 7

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

Partition coefficient: n- : log Pow: 2.1 (24 °C)

octanol/water pH: 7.5

Method: OECD Test Guideline 107



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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

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.

Components:

poly(oxy-1,2-ethanediyl), .alpha.-(1-oxo-2-propenyl)-.omega.-[(1-oxo-2-propenyl)oxy]-:

Additional ecological

information

: Toxic 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



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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 produc	
		(lbs)	(lbs)
methyl methacrylate	80-62-6	1000	3333

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)

Acute toxicity (any route of exposure)

Skin corrosion or irritation

Serious eye damage or eye irritation Respiratory or skin sensitisation

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 10 - 30 %

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 10 - 30 %

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 SOCMI Intermediate or Final VOC's (40 CFR 60.489):

methyl methacrylate 80-62-6 30 - 50 %

California Prop. 65

WARNING: This product can expose you to chemicals including benzene, which is/are known to the State of California to cause cancer and 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 : All substances listed as active on the TSCA inventory



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DSL : All components of this product are on the Canadian DSL

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.