

JM PMMA Catalyst

Version 2.1

Revision Date 06/09/2020

Print Date 06/09/2020

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Trade name : JM PMMA Catalyst

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

Recommended use : Curing chemical

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)**

Organic peroxides : Type D
Eye irritation : Category 2A
Skin sensitisation : Category 1
Reproductive toxicity : Category 1B

GHS label elements

Hazard pictograms :



Signal word : Danger

Hazard statements : H242 Heating may cause a fire.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H360 May damage fertility or the unborn child.

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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.
 P220 Keep/Store away from clothing/ combustible materials.
 P234 Keep only in original container.
 P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
 P264 Wash skin thoroughly after handling.
 P272 Contaminated work clothing must not be allowed out of the workplace.
 P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
 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 + P313 IF exposed or concerned: Get medical advice/ attention.
 P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.
 P337 + P313 If eye irritation persists: Get medical advice/ attention.
 P363 Wash contaminated clothing before reuse.

Storage:

P405 Store locked up.
 P410 Protect from sunlight.
 P411 + P235 Store at temperatures not exceeding 30 °C/ 86 °F. Keep cool.
 P420 Store away from other materials.

Disposal:

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

Other hazards

Temperature control may be required. Hazardous decomposition may occur.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS
Hazardous components

Chemical name	CAS-No.	Concentration (%)
dibenzoyl peroxide	94-36-0	>= 30 - <= 60
dicyclohexyl phthalate	84-61-7	>= 30 - <= 60

Actual concentration or concentration range is withheld as a trade secret

SECTION 4. FIRST AID MEASURES

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General advice	:	Do not leave the victim unattended.
If inhaled	:	Remove to fresh air immediately. Get medical attention immediately. If breathing is irregular or stopped, administer artificial respiration.
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. Get medical attention immediately. Wash contaminated clothing before re-use.
In case of eye contact	:	Rinse immediately with plenty of water, also under the eyelids, for at least 15 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. Keep respiratory tract clear. Get medical attention immediately.
Most important symptoms and effects, both acute and delayed	:	May cause an allergic skin reaction. Causes serious eye irritation. May damage fertility or the unborn child. May cause an allergic skin reaction. Causes serious eye irritation. May damage the unborn child.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media	:	Dry chemical Carbon dioxide (CO ₂) Water spray Foam
Unsuitable extinguishing media	:	High volume water jet
Hazardous combustion products	:	carbon oxides Benzene phenyl benzoate Benzoic acid
Specific extinguishing methods	:	Standard procedure for chemical fires.
Further information	:	Use water spray to cool unopened containers.
Special protective equipment for firefighters	:	Wear self-contained breathing apparatus for firefighting if necessary.

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SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Remove all sources of ignition.
Avoid dust formation.
- Methods and materials for containment and cleaning up : Use approved industrial vacuum cleaner for removal.
Pick up and arrange disposal without creating dust.
Keep in suitable, closed containers for disposal.

SECTION 7. HANDLING AND STORAGE

- Advice on protection against fire and explosion : Avoid dust formation.
Keep away from open flames, hot surfaces and sources of ignition.
Keep away from combustible material.
- Advice on safe handling : For personal protection see section 8.
Smoking, eating and drinking should be prohibited in the application area.
- Conditions for safe storage : Store between 5 and 25 °C in a dry, well ventilated place away from sources of heat, ignition and direct sunlight.
Do not store near combustible materials.
Store in non-combustible containers.
Prevent unauthorized access.
Keep tightly closed.
- Materials to avoid : Keep away from oxidizing agents, strongly alkaline and strongly acid materials in order to avoid exothermic reactions.
Store away from other materials.
Keep away from solvents.
- Recommended storage temperature : < 27 °C
- Storage period : 12 Months
- Further information on storage stability : Keep in a dry 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
dibenzoyl peroxide	94-36-0	TWA	5 mg/m ³	ACGIH
		TWA	5 mg/m ³	NIOSH REL
		TWA	5 mg/m ³	OSHA

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Personal protective equipment

- Respiratory protection : Use respiratory protection unless adequate local exhaust ventilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines.
- Hand protection
Material : butyl-rubber
Break through time : > 480 min
- Remarks : Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.
- Eye protection : Wear safety glasses with side shields or goggles. Wear a faceshield or other full face protection if there is a potential for direct contact to the face with dusts, mists, or aerosols.
- Skin and body protection : Wear protective clothing, such as long-sleeved shirts and pants. Remove and wash contaminated clothing before re-use.
- Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. Written instructions for handling must be available at the work place.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance : granules
- Colour : white
- Odour : odorless
- Odour Threshold : No data available
- pH : Not applicable
- Melting point/range : Decomposes before melting.
- Initial boiling point and boiling range : Decomposition
- Flash point : Decomposition
- Evaporation rate : No data available
- Flammability (solid, gas) : No data available
- Upper explosion limit : No data available

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Lower explosion limit	: No data available
Vapour pressure	: No data available
Relative vapour density	: No data available
Relative density	: No data available
Density	: 0.778 g/cm ³ (20 °C)
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, dynamic	: No data available
Viscosity, kinematic	: No data available
Self-Accelerating decomposition temperature (SADT)	: 60 °C

SECTION 10. STABILITY AND REACTIVITY

Reactivity	: May cause or intensify fire; oxidizer.
Chemical stability	: No decomposition if stored and applied as directed.
Possibility of hazardous reactions	: Stable under recommended storage conditions.
Conditions to avoid	: Do not expose to temperatures above: 30 °C Direct heating, dirt, chemical contamination, sunlight, UV or ionising radiation. Temperatures greater than recommended storage temperature. Avoid contact with combustible material (paper, wool, oil).
Incompatible materials	: Acids Bases Combustible material Reducing agents Copper Iron Rust

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SECTION 11. TOXICOLOGICAL INFORMATION**Acute toxicity****Product:**Acute oral toxicity : Acute toxicity estimate : 5,000 mg/kg
Method: Calculation methodAcute dermal toxicity : Acute toxicity estimate : 5,000 mg/kg
Method: Calculation method**Acute toxicity****Components:****dibenzoyl peroxide:**

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg

Acute inhalation toxicity : LC50 (Rat): > 24.300 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist**Acute toxicity****dicyclohexyl phthalate:**Acute oral toxicity : LD50 (Rat, female): > 2,000 mg/kg
Method: OECD Test Guideline 423

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

Serious eye damage/eye irritation**Components:****dibenzoyl peroxide:**

Result: Eye irritation

Assessment: Irritating to eyes.

Respiratory or skin sensitisation**Components:****dibenzoyl peroxide:**

Assessment: May cause sensitisation by skin contact.

Respiratory or skin sensitisation**dicyclohexyl phthalate:**

Exposure routes: Skin contact

Species: Mouse

Assessment: May cause sensitisation by skin contact.

Method: OECD Test Guideline 442B

IARC

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

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

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.

Reproductive toxicity

Components:

dicyclohexyl phthalate:

Reproductive toxicity -
Assessment

: Clear evidence of adverse effects on sexual function and fertility, and/or on development, based on animal experiments

Repeated dose toxicity

Components:

dicyclohexyl phthalate:

Species: Rat
NOAEL: 50 mg/kg
Application Route: Oral

Further information

Product:

Remarks: No data available

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

dibenzoyl peroxide:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 0.06 mg/l
Exposure time: 96 h
Method: Regulation (EC) No. 440/2008, Annex, C.1

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 0.11 mg/l
Exposure time: 48 h
Method: Regulation (EC) No. 440/2008, Annex, C.2

Toxicity to algae : EC50 (Pseudokirchneriella subcapitata (algae)): 0.071 mg/l
Exposure time: 72 h
Method: Regulation (EC) No. 440/2008, Annex, C.3

M-Factor (Acute aquatic toxicity) : 10

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : EC10 (Daphnia magna (Water flea)): 0.001 mg/l
Exposure time: 21 d
Method: OECD Test Guideline 211

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M-Factor (Chronic aquatic toxicity) : 10

dicyclohexyl phthalate:

Toxicity to fish : LC50 (*Oryzias latipes* (Orange-red killifish)): > 2 mg/l
 Exposure time: 96 h
 Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : NOEC (*Daphnia magna* (Water flea)): > 2 mg/l
 Exposure time: 48 h
 Method: OECD Test Guideline 202

Toxicity to algae : (*Pseudokirchneriella subcapitata* (algae)): > 2 mg/l
 Exposure time: 72 h
 Method: OECD Test Guideline 201

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : LOEC (*Daphnia magna* (Water flea)): 0.572 mg/l
 Exposure time: 21 d
 Method: OECD Test Guideline 211

Persistence and degradability

Components:

dibenzoyl peroxide:

Biodegradability : Result: Readily biodegradable.
 Biodegradation: 100 %

dicyclohexyl phthalate:

Biodegradability : Result: Readily biodegradable.
 Biodegradation: 100 %

Bioaccumulative potential

Components:

dibenzoyl peroxide:

Partition coefficient: n-octanol/water : log Pow: 3.2 (22 °C)
 pH: 7.02

dicyclohexyl phthalate:

Partition coefficient: n-octanol/water : log Pow: 4.82 (25 °C)

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 : Toxic to aquatic life.
Very 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 hazard and precautionary statements displayed on the label also apply to any residues left in the container.

Contaminated packaging : Empty containers should be taken to an approved waste handling site for recycling or disposal.
Packaging that cannot be reused after cleaning must be disposed or recycled in accordance with all federal, national and local regulations.

SECTION 14. TRANSPORT INFORMATION**International transport regulations**

Land transport

USDOT: UN3106, Organic Peroxide type D, solid (Dibenzoyl peroxide >35-52%), 5.2

TDG: UN3106, Organic Peroxide type D, solid (Dibenzoyl peroxide >35-52%), 5.2

Sea transport

IMDG: UN3106, Organic Peroxide type D, solid (Dibenzoyl peroxide >35-52%), 5.2, Marine Pollutant

Air transport

IATA/ICAO: UN3106, Organic Peroxide type D, solid (Dibenzoyl peroxide >35-52%), 5.2

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**

This material does not contain any components with a CERCLA RQ.

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SARA 304 Extremely Hazardous Substances Reportable Quantity

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

SARA 311/312 Hazards : Organic peroxides
Serious eye damage or eye irritation
Respiratory or skin sensitisation
Reproductive toxicity

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:

dibenzoyl peroxide	94-36-0	30 - 60 %
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Clean Air Act

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

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).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCM Intermediate or Final VOC's (40 CFR 60.489).

California Prop. 65

This product does not require a warning under the California Safe Drinking Water and Toxic Enforcement Act (Proposition 65).

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

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

TSCA : All chemical substances in this product are either listed on the TSCA Inventory or are in compliance with a TSCA Inventory exemption.

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.