

JM Membrane Bonding Adhesive (TPO & EPDM)

Version 3.0

Revision Date 03/03/2025

Print Date 03/03/2025

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Trade name : JM Membrane Bonding Adhesive (TPO & EPDM)

Manufacturer or supplier's details

Company : Johns Manville
Address : P.O. Box 5108
Denver, CO USA 80217-5108
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 : Adhesives
Restrictions on use : For professional users only.
Prepared by : productsafety@jm.com

SECTION 2. HAZARDS IDENTIFICATION**GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200) and the Hazardous Products Regulations**

Flammable liquids : Category 2
Skin irritation : Category 2
Eye irritation : Category 2A
Reproductive toxicity : Category 2
Specific target organ toxicity : Category 3 (Central nervous system)
- single exposure
Specific target organ toxicity : Category 2 (Auditory system, Nervous system)
- repeated exposure
(Inhalation)
Aspiration hazard : Category 1

GHS label elements

Hazard pictograms :



Signal word : Danger

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- Hazard statements : H225 Highly flammable liquid and vapor.
H304 May be fatal if swallowed and enters airways.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.
H361 Suspected of damaging fertility or the unborn child.
H373 May cause damage to organs (Auditory system, Nervous system) through prolonged or repeated exposure if inhaled.
- 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 mist or vapours.
P264 Wash skin thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
- Response:**
P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
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 + P313 IF exposed or concerned: Get medical advice/ attention.
P331 Do NOT induce vomiting.
P332 + P313 If skin irritation 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:**

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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

Chemical nature

Mixture

Hazardous components

Chemical name	CAS-No.	Concentration (% w/w)
Benzene, methyl-; Toluene	108-88-3	>= 30 - < 60
Hexane	110-54-3	>= 10 - < 30
2-Propanone; Acetone	67-64-1	>= 10 - < 30

Actual concentration or concentration range is withheld as a trade secret

SECTION 4. FIRST AID MEASURES

- General advice : Move out of dangerous area.
Show this safety data sheet to the doctor in attendance.
Do not leave the victim unattended.
Symptoms of poisoning may appear several hours later.
- 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.
- 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.
Get medical attention immediately.
If breathing is irregular or stopped, administer artificial respiration.
- Most important symptoms and effects, both acute and delayed : May be fatal if swallowed and enters airways.
Causes skin irritation.
Causes serious eye irritation.
May cause drowsiness or dizziness.
Suspected of damaging fertility or the unborn child.
May cause 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.

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SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Carbon dioxide (CO₂)
Water spray
Dry chemical
Foam
- Unsuitable extinguishing media : High volume water jet
- Specific hazards during firefighting : Vapours are heavier than air and may spread along floors.
Flash back possible over considerable distance.
Vapours may form flammable mixture with air
- Hazardous combustion products : carbon oxides
- Further information : Standard procedure for chemical fires.
- 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 : Evacuate personnel to safe areas.
Keep people away from and upwind of spill/leak.
Use personal protective equipment.
Remove all sources of ignition.
Ensure adequate ventilation.
Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.
Refer to protective measures listed in sections 7 and 8.
- Environmental precautions : Should not be released into the environment.
- 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).
Keep in suitable, closed containers for disposal.

SECTION 7. HANDLING AND STORAGE

- Advice on protection against fire and explosion : Use explosion-proof equipment.
Electrical equipment should be protected to the appropriate standard.
Take measures to prevent the build up of electrostatic charge.
Use only in area provided with appropriate exhaust ventilation.
Keep away from open flames, hot surfaces and sources of ignition.
Vapours are heavier than air and may spread along floors.
Prevent the creation of flammable or explosive concentrations of vapour in air and avoid vapour concentration higher than the occupational exposure limits.
No sparking tools should be used.
To avoid ignition of vapours by static electricity discharge, all

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metal parts of the equipment must be grounded.

- Advice on safe handling : Take precautionary measures against static discharges. Smoking, eating and drinking should be prohibited in the application area.
For personal protection see section 8.
- Conditions for safe storage : Keep containers tightly closed in a dry, cool and well-ventilated place.
To maintain product quality, do not store in heat or direct sunlight.
Use explosion-proof equipment.
Keep away from sources of ignition - No smoking.
- Materials to avoid : Keep away from oxidizing agents and strongly acid or alkaline materials.
- Recommended storage temperature : 60 - 80 °F / 16 - 27 °C
- Further information on storage stability : Keep tightly closed in a dry, cool and well-ventilated place.
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
Benzene, methyl-; Toluene	108-88-3	TWA	50 ppm 188 mg/m3	CA AB OEL
		TWA	20 ppm	CA BC OEL
		TWA	20 ppm	ACGIH
		TWA	100 ppm 375 mg/m3	NIOSH REL
		ST	150 ppm 560 mg/m3	NIOSH REL
		TWA	200 ppm	OSHA
		CEIL	300 ppm	OSHA
		Peak	500 ppm (10 minutes)	OSHA
Hexane	110-54-3	TWA	50 ppm 176 mg/m3	CA AB OEL
		TWA	20 ppm	CA BC OEL
		TWAEV	50 ppm 176 mg/m3	CA QC OEL
		TWA	50 ppm	ACGIH
		TWA	50 ppm 180 mg/m3	NIOSH REL
		TWA	500 ppm 1,800 mg/m3	OSHA
2-Propanone; Acetone	67-64-1	TWA	500 ppm 1,200 mg/m3	CA AB OEL
		STEL	750 ppm 1,800 mg/m3	CA AB OEL
		TWA	250 ppm	CA BC OEL
		STEL	500 ppm	CA BC OEL

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		STEV	1,000 ppm 2,380 mg/m ³	CA QC OEL
		TWAEV	500 ppm 1,190 mg/m ³	CA QC OEL
		TWA	250 ppm	ACGIH
		STEL	500 ppm	ACGIH
		TWA	250 ppm 590 mg/m ³	NIOSH REL
		TWA	1,000 ppm 2,400 mg/m ³	OSHA

Biological occupational exposure limits

Components	CAS-No.	Control parameters	Biological specimen	Sampling time	Permissible concentration	Basis
Benzene, methyl-; 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
Hexane	110-54-3	2,5-Hexanedione	Urine	End of shift	0.5 mg/l	ACGIH BEI
2-Propanone; Acetone	67-64-1	Acetone	Urine	End of shift (As soon as possible after exposure ceases)	25 mg/l	ACGIH BEI

Engineering measures : Use only in an area equipped with explosion proof exhaust ventilation.
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

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	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	:	Nitrile rubber
Material	:	Solvent-resistant gloves
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.
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. Contaminated work clothing should not be allowed out of the workplace.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	liquid
Colour	:	yellow
Odour	:	aromatic
Odour Threshold	:	No data available
pH	:	No data available
Melting point/freezing point	:	No data available
Initial boiling point and boiling range	:	≥ 56.05 °C
Flash point	:	-18.0 °C
Evaporation rate	:	No data available
Flammability (solid, gas)	:	Not applicable
Upper explosion limit	:	13 %(V) Information taken from reference works and the literature.
Lower explosion limit	:	1.1 %(V) Information taken from reference works and the literature.
Vapour pressure	:	> 30 hPa (ca. 20 °C) Information taken from reference works and the literature.
Relative vapour density	:	> 1 Vapors are heavier than air and may travel along the floor and in the bottom of containers.
Relative density	:	0.86
Density	:	0.86 g/cm ³
Water solubility	:	No data available

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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	: 1,000 - 3,000 mPa.s
Viscosity, kinematic	: No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity	: No dangerous reaction known under conditions of normal use.
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: Will ignite Hazardous decomposition products formed under fire conditions.
Conditions to avoid	: Heat, flames and sparks.
Incompatible materials	: Oxidizing agents Strong acids and strong bases
Hazardous decomposition products	: Hazardous decomposition products formed under fire conditions.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Product:

Acute inhalation toxicity	: Acute toxicity estimate : > 40 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

Components:

Benzene, methyl-; Toluene:

Acute oral toxicity	: LD50 Oral (Rat, male): 5,580 mg/kg Method: Regulation (EC) No. 440/2008, Annex, B.1 bis GLP: no
Acute inhalation toxicity	: LC50 (Rat): > 20 mg/l Exposure time: 4 h Test atmosphere: vapour Method: OECD Test Guideline 403 GLP: no
Acute dermal toxicity	: LD50 (Rabbit): > 5,000 mg/kg GLP: no

Hexane:

Acute oral toxicity	: LD50 (Rat, male and female): 15,864 mg/kg Method: OECD Test Guideline 401
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Acute inhalation toxicity : LC50 (Rat, male): 259.354 mg/l
Exposure time: 4 h
Test atmosphere: vapour
Method: OECD Test Guideline 403

Acute dermal toxicity : LD50 (Rabbit, male): 3,350 mg/kg
Method: OECD Test Guideline 402

2-Propanone; Acetone:

Acute oral toxicity : LD50 (Rat, female): 5,800 mg/kg
GLP: no

Acute inhalation toxicity : LC50 (Rat, female): 76.0 mg/l
Exposure time: 4 h
Test atmosphere: vapour
GLP: no

Acute dermal toxicity : LD50 (Rabbit): > 15,800 mg/kg

Skin corrosion/irritation

Causes skin irritation.

Components:**Benzene, methyl-; Toluene:**

Species: Rabbit

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

Result: Irritating to skin.

Skin corrosion/irritation**Hexane:**

Species: Rabbit

Method: OECD Test Guideline 404

Result: Skin irritation

Serious eye damage/eye irritation

Based on available data, the classification criteria are not met.

Components:**Benzene, methyl-; Toluene:**

Species: Rabbit

Result: No eye irritation

Method: OECD Test Guideline 405

GLP: yes

Serious eye damage/eye irritation**2-Propanone; Acetone:**

Species: Rabbit

Result: Eye irritation

Exposure time: 24 h

Assessment: Irritating to eyes.

Method: Draize Test

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Respiratory or skin sensitisation

Skin sensitisation: Based on available data, the classification criteria are not met.

Components:**Benzene, methyl-; Toluene:**

Species: Guinea pig

Method: Regulation (EC) No. 440/2008, Annex, B.6

Result: Not a skin sensitizer.

GLP: yes

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 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

Suspected of damaging fertility or the unborn child.

Components:**Benzene, methyl-; Toluene:**

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

Reproductive toxicity**Hexane:**

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

STOT - single exposure

May cause drowsiness or dizziness.

Components:**Benzene, methyl-; Toluene:**

Exposure routes: Inhalation

Target Organs: Central nervous system

Assessment: May cause drowsiness or dizziness.

STOT - single exposure**Hexane:**

Exposure routes: Inhalation

Target Organs: Central nervous system

Assessment: May cause drowsiness or dizziness.

STOT - single exposure**2-Propanone; Acetone:**

Exposure routes: inhalation (vapour)

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Target Organs: Nervous system
Assessment: May cause drowsiness or dizziness.

STOT - repeated exposure

May cause damage to organs (Auditory system) through prolonged or repeated exposure.

Components:**Benzene, methyl-; Toluene:**

Target Organs: Auditory system

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

STOT - repeated exposure**Hexane:**

Exposure routes: Inhalation

Target Organs: Nervous system

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

Aspiration toxicity**Components:****Benzene, methyl-; Toluene:**

May be fatal if swallowed and enters airways.

Hexane:

May be fatal if swallowed and enters airways.

Experience with human exposure**Components:****Benzene, methyl-; Toluene:**

Skin contact:

Remarks:

Prolonged skin contact may defat the skin and produce dermatitis.

SECTION 12. ECOLOGICAL INFORMATION**Ecotoxicity****Components:****Benzene, methyl-; Toluene:**

Toxicity to fish : LC50 (Oncorhynchus kisutch (coho salmon)): 5.5 mg/l
End point: mortality
Exposure time: 96 h

Toxicity to daphnia and other : LC50: 3.78 mg/l
aquatic invertebrates End point: mortality
Exposure time: 48 h

Toxicity to fish (Chronic : NOEC (Oncorhynchus kisutch (coho salmon)): 1.39 mg/l
toxicity) Exposure time: 40 d

Toxicity to daphnia and other : NOEC (Ceriodaphnia dubia): 0.74 mg/l
aquatic invertebrates Exposure time: 7 d

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(Chronic toxicity)

Toxicity to microorganisms : EC50: 84 mg/l
Exposure time: 24 h

Hexane:

Toxicity to fish : LL50 (Oncorhynchus mykiss (rainbow trout)): 12.51 mg/l
End point: mortality
Exposure time: 96 h
Remarks: The value is given based on a SAR/AAR approach using OECD Toolbox, DEREK, VEGA QSAR models (CAESAR models), etc.

Toxicity to daphnia and other aquatic invertebrates : EL50 (Daphnia magna (Water flea)): 21.85 mg/l
End point: Immobilization
Exposure time: 48 h
Remarks: The value is given based on a SAR/AAR approach using OECD Toolbox, DEREK, VEGA QSAR models (CAESAR models), etc.

Toxicity to algae/aquatic plants : EL50 (Pseudokirchneriella subcapitata (algae)): 9.285 mg/l
Exposure time: 72 h
Remarks: The value is given based on a SAR/AAR approach using OECD Toolbox, DEREK, VEGA QSAR models (CAESAR models), etc.

Toxicity to fish (Chronic toxicity) : NOELR (Oncorhynchus mykiss (rainbow trout)): 2.8 mg/l
Exposure time: 28 d
Remarks: The value is given based on a SAR/AAR approach using OECD Toolbox, DEREK, VEGA QSAR models (CAESAR models), etc.

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOELR (Daphnia magna (Water flea)): 4.888 mg/l
Exposure time: 21 d
Remarks: The value is given based on a SAR/AAR approach using OECD Toolbox, DEREK, VEGA QSAR models (CAESAR models), etc.

Persistence and degradability

Components:

Benzene, methyl-; Toluene:

Biodegradability : Result: Readily biodegradable.
Remarks: Readily biodegradable, according to appropriate OECD test.

Hexane:

Biodegradability : aerobic
Inoculum: activated sludge
Concentration: 100 mg/l
Biodegradation: 81 %
Exposure time: 28 d
Method: OECD Test Guideline 301F
Remarks: Based on data from similar materials

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2-Propanone; Acetone:

Biodegradability : Result: Readily biodegradable.
Biodegradation: 100 %

Bioaccumulative potential**Components:****Benzene, methyl-; Toluene:**

Partition coefficient: n- : Pow: 2.73 (68 °F / 20 °C)
octanol/water pH: 7

Hexane:

Partition coefficient: n- : log Pow: 4 (68 °F / 20 °C)
octanol/water pH: 7

2-Propanone; Acetone:

Partition coefficient: n- : log Pow: -0.24 (68 °F / 20 °C)
octanol/water

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 : Toxic to aquatic life with long lasting effects.
information

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.
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 (Special Provision 149): UN1133, Adhesives, 3, II

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TDG: UN1133, Adhesives, 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: UN1133, Adhesives, 3, II

Air transport

IATA/ICAO: UN1133, Adhesives, 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 (lbs)	Calculated product RQ (lbs)
Benzene, methyl-; Toluene	108-88-3	1000	1667

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)
Reproductive toxicity
Specific target organ toxicity (single or repeated exposure)
Aspiration hazard
Skin corrosion or irritation
Serious eye damage or eye irritation

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:

Benzene, methyl-; Toluene	108-88-3	30 - 60 %
Hexane	110-54-3	10 - 30 %

Clean Air Act

The following chemical(s) are listed as HAP under the U.S. Clean Air Act, Section 112 (40 CFR 61):

Benzene, methyl-; Toluene	108-88-3	30 - 60 %
Hexane	110-54-3	10 - 30 %

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

Benzene, methyl-;	108-88-3	30 - 60 %
Toluene		
2-Propanone; Acetone	67-64-1	10 - 30 %

Massachusetts Right To Know

Benzene, methyl-; Toluene	108-88-3
Hexane	110-54-3
2-Propanone; Acetone	67-64-1

Pennsylvania Right To Know

Benzene, methyl-; Toluene	108-88-3
Hexane	110-54-3
2-Propanone; Acetone	67-64-1
Zinc oxide (ZnO)	1314-13-2

California Prop. 65

⚠️ WARNING: This product can expose you to chemicals including Benzene, methyl-; Toluene, Hexane, 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.

California List of Hazardous Substances

Benzene, methyl-; Toluene	108-88-3
Hexane	110-54-3
2-Propanone; Acetone	67-64-1

California Permissible Exposure Limits for Chemical Contaminants

Benzene, methyl-; Toluene	108-88-3
Hexane	110-54-3
2-Propanone; Acetone	67-64-1

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

TSCA	: All substances listed as active on the TSCA inventory
DSL	: All components of this product are on the Canadian DSL

SECTION 16. OTHER INFORMATION

Further information

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Full text of other abbreviations

ACGIH	: USA. ACGIH Threshold Limit Values (TLV)
ACGIH BEI	: ACGIH - Biological Exposure Indices (BEI)
CA AB OEL	: Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
CA BC OEL	: Canada. British Columbia OEL
CA QC OEL	: Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants
NIOSH REL	: USA. NIOSH Recommended Exposure Limits

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Revision Date 03/03/2025

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OSHA	:	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
OSHA	:	USA. Occupational Exposure Limits (OSHA) - Table Z-2
ACGIH / TWA	:	8-hour, time-weighted average
ACGIH / STEL	:	Short-term exposure limit
CA AB OEL / TWA	:	8-hour Occupational exposure limit
CA AB OEL / STEL	:	15-minute occupational exposure limit
CA BC OEL / TWA	:	8-hour time-weighted average
CA BC OEL / STEL	:	short-term exposure limit
CA QC OEL / TWA EV	:	Time-weighted average exposure value
CA QC OEL / STEV	:	Short-term exposure value
NIOSH REL / TWA	:	Time-weighted average concentration for up to a 10-hour workday during a 40-hour workweek
NIOSH REL / ST	:	STEL - 15-minute TWA exposure that should not be exceeded at any time during a workday
OSHA / TWA	:	8-hour time weighted average
OSHA / TWA	:	8-hour time weighted average
OSHA / CEIL	:	Acceptable ceiling concentration
OSHA / Peak	:	Acceptable maximum peak above the acceptable ceiling concentration for an 8-hr shift

AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECl - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

Disclaimer

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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.