Safety Data Sheet

Version: 1.0 **Issue Date:** 2019-12-20

1. Product and Company Identification

Product Name
TRYMER® Rigid Polyisocyanurate Insulation: 25-50, 200L, 250L, 350L, 400L, 1800, 2000XP, 2500, 3000, 4000, and 6000.

COMPANY IDENTIFICATION

Johns Manville
PO Box 5108
Denver, CO 80127
USA

Customer Information Number: +1 (303) 978-2000
Emergency Number: +1 (800) 424-9300 (CHEMTREC)
Product Information: ProductSafety@jm.com

Johns Manville Canada Inc.
5301 42 Avenue
Innisfail, AB T4G 1A2
Canada

Customer Information Number: +1 (303) 978-2000
Emergency Number: +1 (800) 424-9300 (CHEMTREC)
Product Information: ProductSafety@jm.com

Recommended Uses and Restrictions
Thermal insulation for industrial and commercial use.

2. Hazards Identification

Emergency Overview

Color: Gray

Physical State: Solid (bun/billet)

Odor: Odorless

Hazards of product:

Toxic fumes may be released in fire situations.

GHS classification in accordance with 29 CFR 1910.1200 (OSHA HCS 2012) and the Hazardous Products Regulations (WHMIS 2015)
Not a hazardous substance or mixture.

Potential Health Effects

Eye Contact: Solid or dust may cause irritation or corneal injury due to mechanical action. Fumes/vapor released during thermal operations such as hot-wire cutting may cause eye irritation.
Skin Contact: Essentially nonirritating to skin. Mechanical injury only.
Skin Absorption: Skin absorption is unlikely due to physical properties.
Inhalation: Dust may cause irritation to upper respiratory tract (nose and throat). Fumes or dusts generated from cutting or grinding operations may cause irritation of the upper respiratory tract and lungs. Concentrations of the blowing agents anticipated incidental to proper handling are expected to be well below those which cause acute inhalation effects and below exposure guidelines.
Ingestion: Swallowing is unlikely because of the physical state. Very low toxicity if swallowed. Harmful effects not anticipated from swallowing small amounts. May cause choking or blockage of the digestive tract if swallowed.

3. Composition Information

Component	CAS #	Amount
Modified Polyisocyanurate Rigid Cellular Polymer	Not applicable	≥85.0%
Hydrocarbon blowing agent(s)	Not applicable	≤10.0%
Tris(1-chloro-2-propyl) phosphate	13674-84-5	≤5.0%

4. First-Aid Measures

Eye Contact: Flush eyes with plenty of water; remove contact lenses after the first 1-2 minutes then continue flushing for several minutes. Only mechanical effects expected. If effects occur, consult a physician, preferably an ophthalmologist.
Skin Contact: Seek first aid or medical attention as needed.
Inhalation: Move person to fresh air; if effects occur, consult a physician.
Ingestion: If swallowed, seek medical attention. May cause gastrointestinal blockage. Do not give laxatives. Do not induce vomiting unless directed to do so by medical personnel.
Notes to Physician: No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

5. Fire Fighting Measures

Extinguishing Media: Water. Dry chemical fire extinguishers. Carbon dioxide fire extinguishers.
Fire Fighting Procedures: Keep people away. Isolate fire and deny unnecessary entry. Soak thoroughly with water to cool and prevent re-ignition. Cool surroundings with water to localize fire zone. Hand held dry chemical or carbon dioxide extinguishers may be used for small fires.
Special Protective Equipment for Firefighters: Wear positive-pressure self-contained breathing apparatus (SCBA) and protective firefighting clothing (includes firefighting helmet, coat, trousers, boots, and gloves). If protective equipment is not available or not used, fight fire from a protected location or safe distance.
Unusual Fire and Explosion Hazards: When product is stored in closed containers, a flammable atmosphere can develop. Mechanical cutting, grinding or sawing can cause formation of dusts. To reduce the potential for dust explosion, do not permit dust to accumulate. Rapid bursting of a multitude of cells such as might occur during compaction of product waste for disposal will release a flammable blowing agent which can lead to the development of a flammable atmosphere in inadequately vented equipment. This product contains a flame retardant to inhibit accidental ignition from small fire sources. This plastic foam product is combustible and should be protected from flames and other high heat sources. Dense smoke is emitted when burned without sufficient oxygen.
Hazardous Combustion Products: During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating. In smoldering or flaming conditions, carbon monoxide, carbon dioxide and carbon are generated. Combustion products may include and are not limited to: Nitrogen oxides. Combustion products may include trace amounts of: Hydrogen cyanide. Hydrogen Halides. Aromatic hydrocarbons.

6. Accidental Release Measures

Steps to be Taken if Material is Released or Spilled: Contain spilled material if possible. Collect in suitable and properly labeled containers. See Section 13, Disposal Considerations, for additional information.
Personal Precautions: Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.
Environmental Precautions: Prevent from entering into soil, ditches, sewers, waterways and/or ground water. See Section 12, Ecological Information.

7. Handling and Storage

Exposure Limits

Component	List	Type	Value
Cyclopentane	ACGIH	TWA	600 ppm
Isopentane	ACGIH	TWA	1,000 ppm

General Handling
This material is combustible and should not be exposed to flame or other ignition sources. Refer to Exposure Controls and Personal Protection, Section 8 of the SDS. No smoking, open flames or sources of ignition in handling and storage area. Fabrication methods which involve cutting into this product may release the blowing agent(s) remaining in the cells. Provide adequate ventilation to assure localized concentrations in release areas are maintained below the lower flammable limit.

Other Precautions
Good housekeeping and controlling of dusts are necessary for safe handling of product.

Storage
Keep in a cool, well-ventilated place. Minimize sources of ignition, such as static build-up, heat, spark or flame. Flammable vapors may accumulate in some storage situations. During shipment, storage, installation, and use, this material should not be exposed to flame or other ignition sources.

8. Exposure Controls / Personal Protection

Concentrations of the blowing agents anticipated incidental to proper handling are expected to be well below those which cause acute inhalation effects and below exposure guidelines.

Personal Protection
Eye/Face Protection: Eye protection should not be necessary. For fabrication operations safety glasses are recommended. If there is a potential for exposure to particles which could cause eye discomfort, wear chemical goggles.
Skin Protection: No precautions other than clean body-covering clothing should be needed.
Hand protection: Use gloves to protect from mechanical injury. Selection of gloves will depend on the task.
Respiratory Protection: Atmospheric levels should be maintained below the exposure guideline. When respiratory protection is required for certain operations, use a NIOSH-approved air-purifying respirator. In dusty or misty atmospheres, use a NIOSH-approved particulate respirator. The following should be effective types of air-purifying respirators: Particulate filter.
Ingestion: No precautions necessary due to the physical properties of the material.

Engineering Controls
Ventilation: Provide general and/or local exhaust ventilation to control airborne levels below the exposure guidelines.

9. Physical and Chemical Properties

Physical State	Solid (bun/billet)
Color	Tan
Odor	Odorless
Flash Point - Closed Cup	Not applicable
Flammable Limits In Air	**Lower**: Not applicable **Upper**: Not applicable
Autoignition Temperature	490 °C (914 °F) *ASTM D1929*

Vapor Pressure	Not applicable
Boiling Point (760 mmHg)	Not applicable
Vapor Density (air = 1)	Not applicable
Specific Gravity (water = 1)	0.02 - 0.05 *Estimated*
Freezing Point	Not applicable
Melting Point	> 150 ℃ (> 302 ℉) *Estimated,* Decomposes
Solubility in Water	Insoluble in water
pH	Not applicable
Kinematic Viscosity	Not applicable

10. Stability and Reactivity

Stability/Instability
Thermally stable at typical use temperatures.

Conditions to Avoid
Avoid temperatures above 150 °C (302 °F). Exposure to elevated temperatures can cause product to decompose. Avoid direct sunlight.

Incompatible Materials
Avoid contact with strong oxidizers.

Hazardous Polymerization
Will not occur.

Thermal Decomposition
Decomposition products depend upon temperature, air supply and the presence of other materials. Toxic gases are released during decomposition.

11. Toxicological Information

Repeated Dose Toxicity
Repeated exposures to dusts of this material are not anticipated to result in systemic toxicity or permanent lung injury; however, excessive exposures may cause less severe respiratory effects.

12. Ecological Information

CHEMICAL FATE

Movement & Partitioning
No bioconcentration is expected because of the relatively high molecular weight (MW greater than 1000). In the terrestrial environment, material is expected to remain in the soil. In the aquatic environment, material is expected to float.

Persistence and Degradability
Surface photodegradation is expected with exposure to sunlight. No appreciable biodegradation is expected.

ECOTOXICITY
Not expected to be acutely toxic to aquatic organisms.

13. Disposal Considerations

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

14. Transport Information

DOT (Bulk / Non-Bulk)
NOT REGULATED

TDG (Bulk / Non-Bulk)
NOT REGULATED

IMDG
NOT REGULATED

ICAO/IATA
NOT REGULATED

15. Regulatory Information

GHS classification in accordance with 29 CFR 1910.1200 (OSHA HCS 2012) and the Hazardous Products Regulations (WHMIS 2015)
Non-hazardous according to 29 CFR 1910.1200 (OSHA HCS 2012) and the Hazardous Products Regulations (WHMIS 2015), when used as intended.

Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Sections 311 and 312

Immediate (Acute) Health Hazard	No
Delayed (Chronic) Health Hazard	No
Fire Hazard	No
Reactive Hazard	No
Sudden Release of Pressure Hazard	No

Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Section 313
To the best of our knowledge, this product does not contain chemicals at levels which require reporting under this statute.

California Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986)
This product does not require a warning under the California Safe Drinking Water and Toxic Enforcement Act (Proposition 65).

Toxic Substances Control Act (TSCA)
All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements under 40 CFR 720.30.

CEPA - Domestic Substances List (DSL)
All substances contained in this product are listed on the Canadian Domestic Substances List (DSL) or are not required to be listed.

16. Other Information

Revision
Revision Date: 2019-12-20

Legend

TWA	Time Weighted Average
ACGIH	American Conference of Governmental Industrial Hygienists

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.

JM Single Ply Membrane Cleaner (Low VOC)

Version 2.1 Revision Date 01/18/2022 Print Date 01/18/2022

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Trade name	:	JM Single Ply Membrane Cleaner (Low VOC)

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
Telephone	:	+1-303-978-2000
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
Eye irritation	:	Category 2A
Specific target organ toxicity - single exposure	:	Category 3 (Central nervous system)

GHS label elements

Hazard pictograms :

Signal word : Danger

Hazard statements :
H225 Highly flammable liquid and vapour.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.

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.
P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P264 Wash skin thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves/ eye protection/ face protection.

Response:

P303 + P361 + P353 IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.
P304 + P340 + P312 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/ physician 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.
P337 + P313 If eye irritation persists: Get medical advice/ attention.
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

Storage:

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
P235 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

Chemical nature

Cleaning agent

Hazardous components

Chemical name	CAS-No.	Concentration (%)
acetone; 2-propanone	67-64-1	>= 80 - <= 100

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.
If inhaled	:	Consult a physician after significant exposure. If unconscious, place in recovery position and seek medical advice.
In case of skin contact	:	If on skin, rinse well with water.

		If on clothes, remove clothes.
In case of eye contact	:	Remove contact lenses. Immediately flush eye(s) with plenty of water. Protect unharmed eye. Keep eye wide open while rinsing. If eye irritation persists, consult a specialist.
If swallowed	:	Keep respiratory tract clear. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician.
Most important symptoms and effects, both acute and delayed	:	None known.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media	:	Alcohol-resistant foam Carbon dioxide (CO2) Dry chemical Water spray
Unsuitable extinguishing media	:	High volume water jet
Specific hazards during firefighting	:	Do not allow run-off from fire fighting to enter drains or water courses.
Hazardous combustion products	:	carbon oxides
Specific extinguishing methods	:	Standard procedure for chemical fires.
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).

SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion	:	Do not spray on a naked flame or any incandescent material. 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.
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. For personal protection see section 8. 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.
Conditions for safe storage	:	No smoking. Keep container tightly closed in a dry 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.
Recommended storage temperature	:	16 - 27 °C
Storage period	:	9 - 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
acetone; 2-propanone	67-64-1	TWA	250 ppm	ACGIH
		STEL	500 ppm	ACGIH
		TWA	250 ppm 590 mg/m3	NIOSH REL
		TWA	1,000 ppm 2,400 mg/m3	OSHA

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 : Impervious 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 : Impervious clothing
Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice.
When using do not eat or drink.
When using do not 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	:	colorless
Odour	:	sweet, pungent
Odour Threshold	:	No data available
pH	:	7
Melting point/freezing point	:	-94 °C
Boiling point/boiling range	:	56.1 °C
Flash point	:	-17 °C
Evaporation rate	:	No data available
Flammability (solid, gas)	:	No data available
Upper explosion limit	:	12.8 %(V)
Lower explosion limit	:	2.5 %(V)
Vapour pressure	:	241 hPa (20 °C)
Relative vapour density	:	No data available

Relative density	:	No data available
Density	:	0.79 g/cm³ (20 °C)
Solubility(ies)		
Water solubility	:	completely soluble
Solubility in other solvents	:	No data available
Partition coefficient: n-octanol/water	:	No data available
Auto-ignition temperature	:	465 °C
Thermal decomposition	:	No data available
Viscosity, dynamic	:	No data available
Viscosity, kinematic	:	No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	Stable under recommended storage conditions.
Chemical stability	:	Stable under normal conditions.
Possibility of hazardous reactions	:	No decomposition if stored and applied as directed. Vapours may form explosive mixture with air.
Conditions to avoid	:	Heat, flames and sparks. Strong sunlight for prolonged periods.
Incompatible materials	:	Oxidizing agents Acids Bases Ammonia Reducing agents halogenated compounds
Hazardous decomposition products	:	Hazardous decomposition products due to incomplete combustion carbon oxides

SECTION 11. TOXICOLOGICAL INFORMATION

Components:

acetone; 2-propanone:

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 (Guinea pig, male and female): > 7,426 mg/kg GLP: no

Serious eye damage/eye irritation

Components:

acetone; 2-propanone:

Species: Rabbit

Result: Eye irritation
Exposure time: 24 h
Assessment: Irritating to eyes.
Method: Draize Test

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.
ACGIH	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
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

Components:

acetone; 2-propanone:
Exposure routes: inhalation (vapour)
Target Organs: Nervous system
Assessment: May cause drowsiness or dizziness.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity
No data available

Persistence and degradability

Components:

acetone; 2-propanone:

Biodegradability	:	Result: Readily biodegradable. Biodegradation: 100 %

Bioaccumulative potential

Components:

acetone; 2-propanone:

Partition coefficient: n-octanol/water	:	log Pow: -0.24 (20 °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 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).

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues	:	Do not dispose of waste into sewer. Do not contaminate ponds, waterways or ditches with chemical or used container. 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: UN1090, Acetone, 3, II
TDG: UN1090, Acetone, 3, II

LIMITED QUANTITY if shipped in inner packagings not over 1.0 L (0.3 gallons) net capacity each, packed in a strong outer packaging.

Sea transport
IMDG: UN1090, Acetone, 3, II (-20 °C c.c.)

Air transport
IATA/ICAO: UN1090, Acetone, 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)
acetone; 2-propanone	67-64-1	5000	5000

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)
Serious eye damage or eye irritation
Specific target organ toxicity (single or repeated exposure)

SARA 302 : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

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).

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):

acetone; 2-propanone 67-64-1

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 : On the inventory, or in compliance with the inventory

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

SECTION 16. OTHER INFORMATION

Further information

Revision Date : 01/18/2022

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7600 Series

Version 2.3 | Revision Date 04/20/2021 | Print Date 04/20/2021

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Trade name	:	Evalith® 7603 - 7607 - 7610 - 7611 - 7613 - 7614 - 7615 - 7640 - 7694

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)

Recommended use of the chemical and restrictions on use

Recommended use	:	Carpet, Ceiling, Duct Insulation Facer, Flooring, Roof Deck Facer
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)

Not a hazardous substance or mixture.

GHS label elements

Not a hazardous substance or mixture.

Other hazards

Trace amounts of formaldehyde may be released when in contact with moisture, including humidity. This release is most prevalent in conditions of high heat and humidity.
Temporary mechanical abrasion (itching) of skin, eyes and respiratory tract may occur upon exposure to particles during handling of this product and cannot occur unless there is direct contact.
Abrasion effects should subside after cessation of exposure.
When exposures may exceed any applicable exposure limits, use an appropriate NIOSH-certified respirator or dust mask.
Exposure limits are not expected to be exceeded in typical applications.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature

Nonwoven webs composed of glass fibers oriented in a random pattern and bonded together with a modified urea formaldehyde resinous binder in a wet laid process. The sized glass fibers in these mats provide excellent mat strength and flexibility.

Hazardous components

Non-hazardous according to 29 CFR 1910.1200 (OSHA HCS 2012) and the Hazardous Products Regulations (WHMIS 2015), when used as intended.

SECTION 4. FIRST AID MEASURES

General advice	:	Get medical attention if symptoms occur.

If inhaled	:	Move to fresh air. If symptoms persist, call a physician.
In case of skin contact	:	Take off all contaminated clothing immediately. If on skin, rinse well with water. Get medical attention if irritation develops and persists.
In case of eye contact	:	In case of eye contact, remove contact lens and rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If eye irritation persists, consult a specialist.
If swallowed	:	If symptoms persist, call a physician. Rinse mouth with water to remove dust or fibers and drink plenty of water to help reduce irritation.
Most important symptoms and effects, both acute and delayed	:	None known.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media	:	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
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	:	Avoid dust formation.
Methods and materials for containment and cleaning up	:	Take up mechanically. Pick up and arrange disposal without creating dust.

SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion	:	Provide appropriate exhaust ventilation at places where dust is formed.
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	:	Keep in a dry, cool place.
Materials to avoid	:	No materials to be especially mentioned.
Further information on storage stability	:	Stable at normal ambient temperature and pressure.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis

Inert or Nuisance Dust, Particulates Not Otherwise Regulated (PNOR)	Not Assigned	PEL (Total dust)	15 mg/m³	OSHA
		PEL (Respirable fraction)	5 mg/m³	OSHA

When exposures may exceed any applicable exposure limits, use an appropriate NIOSH-certified respirator or dust mask.
Exposure limits are not expected to be exceeded in typical applications.

Personal protective equipment

Respiratory protection : No personal respiratory protective equipment normally required.
When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

Hand protection

Remarks : For prolonged or repeated contact use protective gloves.

Eye protection : Safety glasses

Skin and body protection : Long sleeved clothing

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : solid
Colour : No data available
Odour : slight
Odour Threshold : No data available

pH : Not applicable

Melting point/range : Not applicable
Boiling point/boiling range : Not applicable
Flash point : Not applicable
Evaporation rate : Not applicable

Flammability (solid, gas) : No data available
Upper explosion limit : Not applicable

Lower explosion limit : Not applicable

Vapour pressure : Not applicable

Relative vapour density : Not applicable

Relative density : No data available
Density : Not applicable

Solubility(ies)
Water solubility : Not applicable

Solubility in other solvents : No data available
Partition coefficient: n-octanol/water : No data available
Auto-ignition temperature : No data available
Thermal decomposition : Not applicable

Viscosity

Viscosity, dynamic	:	Not applicable
Viscosity, kinematic	:	Not applicable

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	No decomposition if stored and applied as directed.
Chemical stability	:	No decomposition if stored and applied as directed.
Possibility of hazardous reactions	:	Stable under recommended storage conditions. No hazards to be specially mentioned.
Conditions to avoid	:	No data available

SECTION 11. TOXICOLOGICAL INFORMATION

IARC

Group 3: Not classifiable as to its carcinogenicity to humans

Glass filament, continuous
(Continuous glass filament)

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.

Further information

Product:

Remarks: Trace amounts of formaldehyde may be released when in contact with moisture, including humidity. This release is most prevalent in conditions of high heat and humidity. During cutting, milling or other processing of these products, particles may be generated that do not represent a health hazard if below the recommended exposure limits for particles not otherwise regulated (PNOR) (inhalable and respirable fraction). Temporary mechanical abrasion (itching) of skin, eyes and respiratory tract may occur upon exposure to particles during handling of this product and cannot occur unless there is direct contact. Abrasion effects should subside after cessation of exposure. Continuous filament glass fibers do not possess cleavage planes which would allow them to split length-wise into fibers with smaller diameter; rather they break across the fiber, resulting in fibers which are of the same diameter as the original fiber. Microscopic examination of dust from highly chopped and pulverised glass demonstrated the presence of small amounts of respirable dust particles. Among these respirable particles, some were fiber-like in terms of lenghth /diameter ratio (so-called "shards"). It can be clearly observed, however, that they are not regular shaped fibers but irregular shaped particles with fiber-like dimensions. To the best of our knowledge, the exposure levels of these fiber-like dust particles measured at our manufacturing plants are, on an order of magnitude, between 50 to 1000 times below existing occupational exposure limits. Exposures will vary according to environmental and process conditions and exposure duration.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

No data available

Persistence and degradability

No data available

Bioaccumulative potential

No data available

Mobility in soil

No data available

Other adverse effects

Product:

Additional ecological information	:	Due to the properties of the product, a hazard to the environment may not be expected.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues	:	In accordance with local and national regulations.

SECTION 14. TRANSPORT INFORMATION

International transport regulations

These products are not classified as dangerous goods according to international transport regulations.

SECTION 15. REGULATORY INFORMATION

TSCA list

TSCA - 5(a) Significant New Use Rule List of Chemicals	:	Not relevant
U.S. Toxic Substances Control Act (TSCA) Section 12(b) Export Notification (40 CFR 707, Subpart D)	:	Not relevant

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

CERCLA Reportable Quantity

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

SARA 304 Extremely Hazardous Substances Reportable Quantity

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

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).

California Prop. 65

WARNING: This product can expose you to chemicals including formaldehyde, which is/are known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

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

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

SECTION 16. OTHER INFORMATION

Further information

Revision Date : 04/20/2021

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.

JM Roofing Granules

Version 3.0 | Revision Date 06/20/2019 | Print Date 06/20/2019

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Trade name : JM Roofing Granules

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 : +1-800-424-9300 (CHEMTREC)

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

Recommended use of the chemical and restrictions on use

Restrictions on use : For professional and industrial installation and use 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)

Carcinogenicity : Category 1A

Specific target organ toxicity - repeated exposure (Inhalation) : Category 1 (Respiratory system)

GHS label elements

Hazard pictograms :

Signal word : Danger

Hazard statements : H350 May cause cancer.
H372 Causes damage to organs (Respiratory 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.
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.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:

P308 + P313 IF exposed or concerned: Get medical advice/ attention.

Storage:

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 (%)
crystalline silica	14808-60-7	>= 0.1 - <= 40
titanium dioxide	13463-67-7	>= 0 - <= 1.5
diiron trioxide	1309-37-1	>= 0 - <= 1.0
carbon black	1333-86-4	>= 0 - < 1.0

SECTION 4. FIRST AID MEASURES

General advice	:	Handle in accordance with good industrial hygiene and safety practice.
If inhaled	:	If inhaled, remove to fresh air. If symptoms persist, call a physician.
In case of skin contact	:	Wash with water and soap as a precaution. Wash clothing before reuse.
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	:	No hazards which require special first aid measures.
Most important symptoms and effects, both acute and delayed	:	May cause cancer. Causes damage to organs through prolonged or repeated exposure if inhaled.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media	:	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Hazardous combustion products	:	No hazardous combustion products are known
Specific extinguishing methods	:	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
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	:	Avoid dust formation.
Methods and materials for containment and cleaning up	:	Pick up and arrange disposal without creating dust. Do not create a powder cloud by using a brush or compressed air. Keep in suitable, closed containers for disposal.

SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion	:	Provide appropriate exhaust ventilation at places where dust is formed.
Advice on safe handling	:	Minimize dust generation. Smoking, eating and drinking should be prohibited in the application area.
Conditions for safe storage	:	Keep in a dry, cool place.
Materials to avoid	:	No materials to be especially mentioned.
Further information on storage stability	:	Stable at normal ambient temperature and pressure.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis

crystalline silica	14808-60-7	TWA (Respirable fraction)	0.025 mg/m3	ACGIH
		TWA (respirable)	10 mg/m3 / %SiO2+2	OSHA
		TWA (respirable)	250 mppcf / %SiO2+5	OSHA
		TWA (Respirable dust)	0.05 mg/m3	NIOSH REL
		TWA (Respirable dust)	0.05 mg/m3	OSHA
titanium dioxide	13463-67-7	TWA (total dust)	15 mg/m3	OSHA
		TWA	10 mg/m3 (Titanium dioxide)	ACGIH
diiron trioxide	1309-37-1	TWA (Respirable fraction)	5 mg/m3	ACGIH
		TWA (Fumes)	10 mg/m3	OSHA
		TWA (total dust)	15 mg/m3	OSHA
		TWA (respirable fraction)	5 mg/m3	OSHA
		TWA (dust and fume)	5 mg/m3 (Iron)	NIOSH REL
carbon black	1333-86-4	TWA	3.5 mg/m3	ACGIH
		TWA	3.5 mg/m3	NIOSH REL
		TWA	3.5 mg/m3	OSHA
		TWA	0.1 mg/m3 (PAHs)	NIOSH REL
		TWA (inhalable fraction)	3 mg/m3	ACGIH

Personal protective equipment

Respiratory protection : No personal respiratory protective equipment normally required.
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.

Filter type : Particulates type

Hand protection

Remarks : For prolonged or repeated contact use protective gloves.

Eye protection	:	Safety glasses with side-shields Safety goggles
Skin and body protection	:	If used and stored as directed, no special protective equipment is necessary.
Protective measures	:	Do not breathe dust.
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
Color	:	various, black, brown, grey, red, tan, white
Odor	:	slight, oily
Odor Threshold	:	Not applicable
pH	:	Not applicable
Melting point/freezing point	:	Not applicable
Initial boiling point and boiling range	:	Not applicable
Flash point	:	does not flash
Evaporation rate	:	Not applicable
Flammability (solid, gas)	:	No data available
Upper explosion limit	:	Not applicable
Lower explosion limit	:	Not applicable
Vapour pressure	:	Not applicable
Relative vapour density	:	Not applicable
Relative density	:	2.55 - 2.70(Water = 1.0)
Solubility(ies)		
Water solubility	:	Not applicable
Solubility in other solvents	:	Not applicable
Partition coefficient: n-octanol/water	:	Not applicable
Auto-ignition temperature	:	No data available

Thermal decomposition	:	Not applicable
Viscosity		
Viscosity, dynamic	:	No data available
Viscosity, kinematic	:	Not applicable

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	:	No hazards to be specially mentioned.
Conditions to avoid	:	None known.
Incompatible materials	:	None known.
Hazardous decomposition products	:	No hazardous decomposition products are known.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Not classified based on available information.

Product:

Acute oral toxicity	:	Acute toxicity estimate : > 5,000 mg/kg Method: Calculation method
Acute inhalation toxicity	:	Acute toxicity estimate : > 200 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: Calculation method

Acute toxicity

Components:

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

Not classified based on available information.

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

Acute toxicity

carbon black:

Acute oral toxicity	:	LD50 (Rat, male and female): > 10,000 mg/kg Method: OECD Test Guideline 401
Acute inhalation toxicity	:	LC50 (Rat): > 5.0 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: OECD Test Guideline 403 Assessment: The substance or mixture has no acute inhalation toxicity
Acute dermal toxicity	:	Method: Expert judgement Assessment: The substance or mixture has no acute dermal toxicity

Respiratory sensitisation: Not classified based on available information.

IARC	Group 1: Carcinogenic to humans	
	crystalline silica	14808-60-7
	Group 2B: Possibly carcinogenic to humans	
	titanium dioxide	13463-67-7
	carbon black	1333-86-4
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.	
NTP	Known to be human carcinogen	
	crystalline silica	14808-60-7

STOT - repeated exposure

Not classified based on available information.

Product:

Exposure routes: Inhalation
Target Organs: Respiratory system
Assessment: The substance or mixture is classified as specific target organ toxicant, repeated exposure, category 1.

Aspiration toxicity

Not classified based on available information.

Further information

Product:

Remarks: No data available

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

crystalline silica:

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

Persistence and degradability

No data available

Bioaccumulative potential

No data available

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	:	No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Disposal of residual product	:	Dispose of contents/container to an approved facility in accordance with local, regional, national and international regulations.
Contaminated packaging	:	Dispose of as unused product.

SECTION 14. TRANSPORT INFORMATION

International transport regulations

Land transport
USDOT: Not classified as a dangerous good under transport regulations
TDG: Not classified as a dangerous good under transport regulations

Sea transport
IMDG: Not classified as a dangerous good under transport regulations

Air transport
IATA/ICAO: Not classified as a dangerous good under transport regulations

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.

SARA 304 Extremely Hazardous Substances Reportable Quantity

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

SARA 311/312 Hazards	:	Carcinogenicity 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	:	This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

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

California Safe Drinking Water and Toxic Enforcement Act (Proposition 65)

WARNING: This product can expose you to chemicals including crystalline silica, which is/are known to the State of California to cause cancer. 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

SECTION 16. OTHER INFORMATION

Further information

Revision Date : 06/20/2019

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.

OEM Fiberglass Insulation

Version 2.1 Revision Date 03/05/2021 Print Date 03/08/2021

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Trade name : DuraCore®, Equipment SPIN-GLAS® Board, Exact-O-Board®, Exact-O-Mat®, MICROLITE®, MICROLITE® MW, MICROLITE® WHR, Micromat®, Micromat® RX, SG Series SPIN-GLAS®, SPIN-GLAS® TC, TUF-GLAS® ML, TUF-GLAS®/Valulite®, Tuf-Skin®, Tuf-Skin® II, Whispertone® Micromat, Whispertone® Tackboard, Whispertone® Wallboard

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
Telephone	:	+1-303-978-2000
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 and industrial installation and use 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)

Not a hazardous substance or mixture.

GHS label elements

Not a hazardous substance or mixture.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature

Glass fiber product

Hazardous components

Non-hazardous according to 29 CFR 1910.1200 (OSHA HCS 2012) and the Hazardous Products Regulations (WHMIS 2015), when used as intended.

Relevant ingredients

Chemical name	CAS-No.	Concentration (%)
non-biopersistent (biosoluble) glass fibers	Not Assigned	>= 70 - <= 90 %

cured urea-extended phenol-formaldehyde resin	Not Assigned	>= 10 - <= 20 %

SECTION 4. FIRST AID MEASURES

General advice	:	Handle in accordance with good industrial hygiene and safety practice.
If inhaled	:	Remove person to fresh air. If signs/symptoms continue, get medical attention.
In case of skin contact	:	In case of contact, flush skin with plenty of water for at least 5 minutes while removing contaminated clothing and shoes. If skin irritation persists, call a physician. 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	:	Rinse mouth with water to remove dust or fibers and drink plenty of water to help reduce irritation. If symptoms persist, call a physician.
Most important symptoms and effects, both acute and delayed	:	Temporary mechanical abrasion (itching) of skin, eyes and respiratory tract may occur upon exposure to fibers or dust during handling of this product and cannot occur unless there is direct contact. Abrasion effects should subside after cessation of exposure.
Protection of first-aiders	:	If potential for exposure exists refer to Section 8 for specific personal protective equipment.
Notes to physician	:	Treat symptomatically.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media	:	Carbon dioxide (CO2) Foam Dry powder Water
Unsuitable extinguishing media	:	none
Specific hazards during firefighting	:	Under the influence of high temperatures, e.g. during a fire in the warehouse, decomposition products like carbon oxide may be released due to the low content of organic compounds.
Hazardous combustion products	:	carbon oxides nitrogen oxides Hydrocarbons
Specific extinguishing methods	:	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
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	:	Avoid dust formation.

Environmental precautions	:	Should not be released into the environment.
Methods and materials for containment and cleaning up	:	Clean up promptly by scoop or vacuum. Pick up and arrange disposal without creating dust.

SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion	:	Provide appropriate exhaust ventilation at places where dust is formed.
Advice on safe handling	:	Smoking, eating and drinking should be prohibited in the application area. Minimize dust generation and accumulation. Do not breathe vapours/dust. Do not get in eyes or mouth or on skin. For personal protection see section 8.
Conditions for safe storage	:	Keep in a dry, cool place.
Materials to avoid	:	No materials to be especially mentioned.
Further information on storage stability	:	Stable at normal ambient temperature and pressure.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Synthetic vitreous fibers, glass wool fibers	Not Assigned	TWA (fibers)	1 fibers/cm3	ACGIH
Particulates (insoluble or poorly soluble) Not Otherwise Specified (PNOS)	Not Assigned	TWA (respirable particles)	3 mg/m³	ACGIH
		TWA (inhalable particles)	10 mg/m³	ACGIH
Particulates Not Otherwise Regulated (PNOR)	Not Assigned	TWA (respirable)	5 mg/m³	NIOSH REL
		TWA (total)	10 mg/m³	NIOSH REL
		TWA (total dust)	15 mg/m³	OSHA
		TWA (respirable fraction)	5 mg/m³	OSHA
Fibrous glass dust	Not Assigned	TWA	3 fibers/cm3	NIOSH REL
		TWA (total)	5 mg/m³	NIOSH REL

As a member of the North American Insulation Manufacturers Association (NAIMA), JM subscribes to the NAIMA Product Stewardship Program (NPSP). Under the NPSP, JM recommends that exposures be limited to the voluntary concentration of 1 f/cc TWA. The NPSP also includes work practice and respiratory protection recommendations. For more information, see NAIMA's Health and Safety Reference Library (website: http://insulationinstitute.org/tools-

resources/resource-library/health-safety/) to find the Product Stewardship Program Pocket Folder (N052) and other Fact Sheets.

Engineering measures	:	Use a local and/or general ventilation system. During initial heat-up to operating temperatures above 177 °C (350 °F), an acrid odor and some smoke may be given off as the organic binders used in the insulation begin to decompose. When this occurs, caution should be exercised to ventilate the area well.

Personal protective equipment

Respiratory protection	:	No personal respiratory protective equipment normally required. 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	:	For prolonged or repeated contact use protective gloves.
Eye protection	:	Safety glasses with side-shields
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.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	solid
Colour	:	various, yellow, black, orange
Odour	:	slight
Odour Threshold	:	No data available
pH	:	Not applicable
	:	Not applicable
	:	Not applicable
Flash point	:	Not applicable
Evaporation rate	:	Not applicable
Flammability (solid, gas)	:	Not applicable
Upper explosion limit	:	Not applicable
Lower explosion limit	:	Not applicable
Vapour pressure	:	Not applicable
Relative vapour density	:	Not applicable

Relative density	:	No data available
Solubility(ies)		
Water solubility	:	insoluble
Solubility in other solvents	:	No data available
Partition coefficient: n-octanol/water	:	Not applicable
Auto-ignition temperature	:	No data available
Thermal decomposition	:	Not applicable
Viscosity		
Viscosity, dynamic	:	Not applicable
Viscosity, kinematic	:	Not applicable

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	:	None known.
Conditions to avoid	:	Trace amounts of formaldehyde may be released when in contact with moisture, including humidity. This release is most prevalent in conditions of high heat and humidity.
Incompatible materials	:	hydrofluoric acid
Hazardous decomposition products	:	Thermal decomposition can lead to release of irritating gases and vapors.

SECTION 11. TOXICOLOGICAL INFORMATION

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.

Further information

Product:

Remarks: Temporary mechanical abrasion (itching) of skin, eyes and respiratory tract may occur upon exposure to fibers or dust during handling of this product and cannot occur unless there is direct contact. Abrasion effects should subside after cessation of exposure. Trace amounts of formaldehyde may be released when in contact with moisture, including humidity. This release is most prevalent in conditions of high heat and humidity.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

No data available

Persistence and degradability

No data available

Bioaccumulative potential

No data available

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	:	Due to the properties of the product, a hazard to the environment may not be expected.

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.

SECTION 14. TRANSPORT INFORMATION

International transport regulations

Land transport
USDOT: Not classified as a dangerous good under transport regulations
TDG: Not classified as a dangerous good under transport regulations

Sea transport
IMDG: Not classified as a dangerous good under transport regulations

Air transport
IATA/ICAO: Not classified as a dangerous good under transport regulations

SECTION 15. REGULATORY INFORMATION

TSCA list

TSCA - 5(a) Significant New Use Rule List of Chemicals	:	Not relevant
U.S. Toxic Substances Control Act (TSCA) Section 12(b) Export Notification (40 CFR 707, Subpart D)	:	Not relevant

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

CERCLA Reportable Quantity

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

SARA 304 Extremely Hazardous Substances Reportable Quantity

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

SARA 311/312 Hazards	:	No SARA Hazards
SARA 302	:	This material does not contain any components with a section 302 EHS TPQ.
SARA 313	:	This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

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

California Prop. 65

⚠**WARNING:** This product can expose you to chemicals including formaldehyde, which is/are known to the State of California to cause cancer. 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

SECTION 16. OTHER INFORMATION

Further information

Revision Date : 03/05/2021

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.

JM TPO Membrane Cleaner

Version 3.0 | Revision Date 06/25/2019 | Print Date 06/25/2019

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Trade name	:	JM TPO Membrane Cleaner

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	:	+1-800-424-9300 (CHEMTREC)
Company	:	Johns Manville Canada Inc.
Address	:	5301 42 Avenue Innisfail, AB Canada T4G 1A2
Telephone	:	+1-303-978-2000
Emergency telephone 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 3
Acute toxicity (Dermal)	:	Category 4
Acute toxicity (Inhalation)	:	Category 4
Skin irritation	:	Category 2
Specific target organ toxicity - single exposure	:	Category 3 (Respiratory system)
Specific target organ toxicity - repeated exposure	:	Category 2
Reproductive toxicity	:	Category 2

GHS label elements

Hazard pictograms :

Signal word : Warning

Hazard statements : H226 Flammable liquid and vapour.
H312 Harmful in contact with skin.
H315 Causes skin irritation.
H332 Harmful if inhaled.
H336 May cause drowsiness or dizziness.
H361 Suspected of damaging fertility or the unborn child.
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.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P308 + P313 IF exposed or concerned: Get medical advice/ attention.
P312 Call a POISON CENTER or doctor/ physician if you feel unwell.
P332 + P313 If skin irritation occurs: Get medical advice/ attention.
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.
P235 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 (%)
m-xylene	108-38-3	>= 30 - <= 60
p-xylene	106-42-3	>= 10 - <= 30
ethylbenzene	100-41-4	>= 10 - <= 30
o-xylene	95-47-6	>= 5 - <= 30
toluene	108-88-3	>= 0.1 - < 1

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.

If inhaled : Remove person to fresh air. If signs/symptoms continue, get medical attention.
If breathing has stopped, apply artificial respiration.

In case of skin contact : In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.
Get medical attention immediately if irritation develops and persists.

In case of eye contact : Flush eyes with water at least 15 minutes. Get medical attention if eye irritation develops or persists.
Keep eye wide open while rinsing.
Remove contact lenses.
Protect unharmed eye.

If swallowed : Do NOT induce vomiting.
Rinse mouth with water.
Never give anything by mouth to an unconscious person.
If swallowed, call a poison control centre or doctor immediately.

Most important symptoms and effects, both acute and delayed : None known.

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

Notes to physician : Treat symptomatically.

SECTION 5. FIREFIGHTING MEASURES

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

		Halons Water spray
Unsuitable extinguishing media	:	High volume water jet
Specific hazards during firefighting	:	Do not use a solid water stream as it may scatter and spread fire. Do not allow run-off from fire fighting to enter drains or water courses.
Hazardous combustion products	:	carbon 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).

SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion	:	Do not spray on a naked flame or any incandescent material. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours). Keep away from open flames, hot surfaces and sources of ignition.
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.
For personal protection see section 8.
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.

Conditions for safe storage : No smoking.
Keep container tightly closed in a dry 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.

Further information on storage stability : Stable at normal ambient temperature and pressure.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
m-xylene	108-38-3	TWA	100 ppm 435 mg/m3	NIOSH REL
		ST	150 ppm 655 mg/m3	NIOSH REL
		TWA	100 ppm 435 mg/m3	OSHA
		TWA	100 ppm	ACGIH
		STEL	150 ppm	ACGIH
p-xylene	106-42-3	TWA	100 ppm 435 mg/m3	NIOSH REL
		ST	150 ppm 655 mg/m3	NIOSH REL
		TWA	100 ppm 435 mg/m3	OSHA
		TWA	100 ppm	ACGIH
		STEL	150 ppm	ACGIH
ethylbenzene	100-41-4	TWA	20 ppm	ACGIH
		TWA	100 ppm 435 mg/m3	NIOSH REL
		ST	125 ppm 545 mg/m3	NIOSH REL
		TWA	100 ppm 435 mg/m3	OSHA

o-xylene	95-47-6	ST	150 ppm 655 mg/m3	NIOSH REL
		TWA	100 ppm 435 mg/m3	NIOSH REL
		TWA	100 ppm 435 mg/m3	OSHA
		TWA	100 ppm	ACGIH
		STEL	150 ppm	ACGIH
toluene	108-88-3	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

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 : Solvent-resistant 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 : Tightly fitting safety goggles
Safety glasses with side-shields

Skin and body protection : Impervious clothing
Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice.
When using do not eat or drink.
When using do not 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
Color	:	colourless
Odor	:	pleasant
Odor Threshold	:	No data available
pH	:	No data available
Melting point/freezing point	:	No data available
Initial boiling point and boiling range	:	>= 136.67 °C
Flash point	:	26.11 °C
Evaporation rate	:	No data available
Flammability (solid, gas)	:	No data available
Upper explosion limit	:	Not applicable
Lower explosion limit	:	Not applicable
Vapour pressure	:	No data available
Relative vapour density	:	No data available
Relative density	:	No data available
Solubility(ies)		
Water solubility	:	insoluble
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	:	0.59 mPa.s
Viscosity, kinematic	:	No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	No decomposition if stored and applied as directed.

Chemical stability	:	Stable under normal conditions.
Possibility of hazardous reactions	:	Vapours may form explosive mixture with air.
Conditions to avoid	:	Heat, flames and sparks.
Incompatible materials	:	Strong oxidizing agents
Hazardous decomposition products	:	carbon oxides

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Product:

Acute oral toxicity	:	Acute toxicity estimate : 1,000 - 2,000 mg/kg Method: Calculation method
Acute inhalation toxicity	:	Acute toxicity estimate : 16843 ppm Exposure time: 4 h Test atmosphere: gas Method: Calculation method

Acute toxicity

Components:

p-xylene:

Acute oral toxicity	:	LD50 (Rat): 4,029 mg/kg LD50 (Rat): 5,000 mg/kg
Acute inhalation toxicity	:	LC50 (Rat): 4550 ppm Exposure time: 4 h LC50 (Mouse): 3900 ppm Exposure time: 6 h

Acute toxicity

ethylbenzene:

Acute oral toxicity	:	LD50 (Rat): 3,500 mg/kg
Acute inhalation toxicity	:	Assessment: The component/mixture is moderately toxic after short term inhalation.
Acute dermal toxicity	:	LD50 (Rabbit): ca. 17,800 mg/kg

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

Test atmosphere: vapour

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

Skin corrosion/irritation

Components:

p-xylene:
Species: Rabbit
Exposure time: 4 h
Result: Skin irritation

Skin corrosion/irritation

toluene:
Species: Rabbit
Result: Irritating to skin.

IARC	Group 2B: Possibly carcinogenic to humans	
	ethylbenzene	100-41-4
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.	
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:

toluene:
Reproductive toxicity - Assessment : Suspected of damaging the unborn child., Some evidence of adverse effects on development, based on animal experiments.

STOT - single exposure

Components:

toluene:
Assessment: May cause drowsiness or dizziness.

STOT - repeated exposure

Components:

ethylbenzene:
Target Organs: Sensory organs
Assessment: May cause 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.

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
No data available

Persistence and degradability

Components:

ethylbenzene:

Biodegradability	:	Result: Readily biodegradable.

Bioaccumulative potential

Components:

p-xylene:

Partition coefficient: n-octanol/water	:	log Pow: 3.15

ethylbenzene:

Bioaccumulation	:	Bioconcentration factor (BCF): 110
Partition coefficient: n-octanol/water	:	log Pow: 3.6 (20 °C) pH: 7.84

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 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	:	No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Disposal of residual product	:	Do not dispose of waste into sewer. Do not contaminate ponds, waterways or ditches with chemical or used container. 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

US DOT: UN 1993, Flammable liquid, n.o.s. (Xylenes, Ethylbenzene), 3, III.

LIMITED QUANTITY if shipped in packages less than or equal to 1.3 gallons (5.0 liters).

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)
xylene	1330-20-7	100	100
p-xylene	106-42-3	100	333

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)
Reproductive toxicity
Specific target organ toxicity (single or repeated exposure)
Skin corrosion or irritation

SARA 302 : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

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

m-xylene	108-38-3
p-xylene	106-42-3
ethylbenzene	100-41-4
o-xylene	95-47-6
toluene	108-88-3

Clean Air Act

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

m-xylene	108-38-3	30 - 60 %
p-xylene	106-42-3	10 - 30 %
o-xylene	95-47-6	5 - 30 %
toluene	108-88-3	0.1 - 0.9999 %

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):

m-xylene	108-38-3	30 - 60 %
p-xylene	106-42-3	10 - 30 %
ethylbenzene	100-41-4	10 - 30 %
o-xylene	95-47-6	5 - 30 %
toluene	108-88-3	0.1 - 0.9999 %

California Safe Drinking Water and Toxic Enforcement Act (Proposition 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 chemical substances in this product are either listed on the TSCA Inventory or are in compliance with a TSCA Inventory exemption.

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

SECTION 16. OTHER INFORMATION

Further information
Revision Date : 06/25/2019

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.

SA Primer

Version 1.2 Revision Date 02/24/2016 Print Date 02/24/2016

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Trade name : SA Primer

Manufacturer or supplier's details

Company : Johns Manville
Address : P.O. Box 5108
Denver, CO USA 80127
Telephone : +1 303-978-2000 8:00AM-5:00PM M-F
Emergency telephone number : 1-800-424-9300 (Chemtrec, in English)

Prepared by : productsafety@jm.com

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Flammable liquids : Category 2

Skin irritation : Category 2

Eye irritation : Category 2A

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

Specific target organ toxicity - repeated exposure : Category 2 (Central nervous system)

Aspiration hazard : Category 1

Reproductive toxicity : Category 2

GHS Label element

Hazard pictograms :

Signal word : Danger

Hazard statements : H225 Highly flammable liquid and vapour.
H304 May be fatal if swallowed and enters airways.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.
H335 May cause respiratory irritation.
H373 May cause damage to organs (Central nervous system) through prolonged or repeated exposure if inhaled.
H361fd Suspected of damaging fertility. Suspected of damaging the unborn child.

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.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves/ eye protection/ face protection.
P284 In case of inadequate ventilation wear respiratory protection.
Response:
P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician.
P303 + P361 + P353 IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.
P304 + P340 + P312 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/ physician 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.
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 for extinction.
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 waste disposal plant.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous components

Chemical Name	CAS-No.	Concentration (%)

Naphtha (petroleum), hydrotreated light	64742-49-0	>= 50 - < 70
acetone	67-64-1	>= 30 - < 50
heptane	142-82-5	>= 5 - < 10
n-hexane	110-54-3	>= 5 - < 10

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.

If inhaled : Consult a physician after significant exposure.
If unconscious place in recovery position and seek medical advice.

In case of skin contact : If skin irritation persists, call a physician.
If on skin, rinse well with water.
If on clothes, remove clothes.

In case of eye contact : Remove contact lenses.
Immediately flush eye(s) with plenty of water.
Protect unharmed eye.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.

If swallowed : Keep respiratory tract clear.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.
Take victim immediately to hospital.

Most important symptoms and effects, both acute and delayed : None known.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media : Alcohol-resistant foam
Carbon dioxide (CO2)
Dry chemical

Unsuitable extinguishing media : High volume water jet

Specific hazards during firefighting : Do not allow run-off from fire fighting to enter drains or water courses.

Hazardous combustion products : No hazardous combustion products are known

Specific extinguishing methods : Standard procedure for chemical fires.

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).

SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion : Do not spray on a naked flame or any incandescent material.
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.

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.
For personal protection see section 8.
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.

Conditions for safe storage : No smoking.
Keep container tightly closed in a dry 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.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Naphtha (petroleum), hydrotreated light	64742-49-0	TWA	500 ppm 2,000 mg/m3	OSHA
		TWA	400 ppm 1,600 mg/m3	OSHA
acetone	67-64-1	TWA	500 ppm	ACGIH
		STEL	750 ppm	ACGIH
		TWA	250 ppm 590 mg/m3	NIOSH REL
		TWA	1,000 ppm 2,400 mg/m3	OSHA
		TWA	750 ppm 1,800 mg/m3	OSHA
		STEL	1,000 ppm 2,400 mg/m3	OSHA
heptane	142-82-5	TWA	85 ppm 350 mg/m3	NIOSH REL
		C	440 ppm 1,800 mg/m3	NIOSH REL
		TWA	500 ppm 2,000 mg/m3	OSHA
		TWA	400 ppm 1,600 mg/m3	OSHA
		STEL	500 ppm 2,000 mg/m3	OSHA
		TWA	400 ppm	ACGIH
		STEL	500 ppm	ACGIH
n-hexane	110-54-3	TWA	50 ppm	ACGIH
		TWA	50 ppm 180 mg/m3	NIOSH REL
		TWA	500 ppm 1,800 mg/m3	OSHA
		TWA	50 ppm 180 mg/m3	OSHA

Personal protective equipment

Respiratory protection : In the case of vapour formation use a respirator with an approved filter.

Hand protection

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	:	Tightly fitting safety goggles Wear face-shield and protective suit for abnormal processing problems.
Skin and body protection	:	impervious clothing Choose body protection according to the amount and concentration of the dangerous substance at the work place.
Hygiene measures	:	Handle in accordance with good industrial hygiene and safety practice. When using do not eat or drink. When using do not 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	:	red
Odour	:	solvent-like
Odour Threshold	:	No data available
pH	:	No data available
Melting point/freezing point	:	No data available
	:	>= 38 ℃
Flash point	:	-23 ℃
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	:	0.77 g/cm3
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	:	0.25 Pas
Viscosity, kinematic	:	No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	No decomposition if stored and applied as directed.
Chemical stability	:	No decomposition if stored and applied as directed.
Possibility of hazardous reactions	:	No decomposition if stored and applied as directed. Vapours may form explosive mixture with air.
Conditions to avoid	:	Heat, flames and sparks.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Product:

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

Acute toxicity

Components:

acetone:

Acute oral toxicity	:	LD50 (Rat, female): 5,800 mg/kg
Acute inhalation toxicity	:	LC50 (Rat): 120 mg/l Exposure time: 4 h Test atmosphere: vapour
Acute dermal toxicity	:	LD50 (Rabbit): 20,000 mg/kg

Acute toxicity

heptane:

Acute oral toxicity	:	LD50 (Rat): > 15,000 mg/kg
Acute inhalation toxicity	:	LC50 (Rat): 103 mg/l Exposure time: 4 h
Acute dermal toxicity	:	LD50 (Rabbit): > 2,000 mg/kg

Acute toxicity

n-hexane:

Acute oral toxicity	:	LD50 (Rat): 25,000 mg/kg
Acute inhalation toxicity	:	LC50 (Rat): 48000 ppm Exposure time: 4 h
Acute dermal toxicity	:	LD50 (Rabbit): > 1,300 mg/kg

Skin corrosion/irritation

Product:

Remarks: May cause skin irritation and/or dermatitis.

Skin corrosion/irritation

Components:

heptane:
Result: Skin irritation

Skin corrosion/irritation

n-hexane:
Result: Skin irritation

Serious eye damage/eye irritation

Product:

Remarks: May cause irreversible eye damage.

Serious eye damage/eye irritation

Components:

acetone:
Species: Rabbit
Result: Eye irritation
Exposure time: 24 h
Assessment: Irritating to eyes.
Method: Draize Test

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.	
	Naphtha (petroleum), hydrotreated light	64742-49-0
ACGIH	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.	
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.	

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:

n-hexane:
Reproductive toxicity - Assessment : Suspected of damaging fertility.

STOT - single exposure

Components:

acetone:
Exposure routes: inhalation (vapour)
Target Organs: Nervous system
Assessment: May cause drowsiness or dizziness.

STOT - single exposure

heptane:
Assessment: May cause drowsiness or dizziness.

STOT - single exposure

n-hexane:
Assessment: May cause drowsiness or dizziness.

STOT - repeated exposure

Components:

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

Components:

heptane:
Repeated dose toxicity - Assessment : Causes skin irritation.

Aspiration toxicity

Components:

heptane:
May be fatal if swallowed and enters airways.

n-hexane:
May be fatal if swallowed and enters airways.

Experience with human exposure

Components:

n-hexane:

Repeated or prolonged exposure may cause irritation of eyes and skin.

Further information

Product:

Remarks: Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting. Concentrations substantially above the TLV value may cause narcotic effects. Solvents may degrease the skin.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

No data available

Persistence and degradability

No data available

Bioaccumulative potential

Components:

acetone:

Partition coefficient: n-octanol/water	:	log Pow: 0.24

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	:	No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Disposal of residual product	:	Do not dispose of waste into sewer. Do not contaminate ponds, waterways or ditches with chemical or used container. Send to a licensed waste management company.
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

US DOT: UN1133 Adhesive, 3, II

SECTION 15. REGULATORY INFORMATION

TSCA list

TSCA - 5(a) Significant New Use Rule List of Chemicals : Not relevant

US. Toxic Substances Control Act (TSCA) Section 12(b) Export Notification (40 CFR 707, Subpt D) : Not relevant

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

CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
acetone	67-64-1	5000	*

*: Calculated RQ exceeds reasonably attainable upper limit.

SARA 304 Extremely Hazardous Substances Reportable Quantity

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

SARA 302 : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

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

n-hexane 110-54-3 5 %

Clean Air Act

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

n-hexane 110-54-3 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 SOCMI Intermediate or Final VOC's (40 CFR 60.489):

acetone 67-64-1 35 %

California Prop 65 This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

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

TSCA	:	On TSCA Inventory
DSL	:	All components of this product are on the Canadian DSL.

SECTION 16. OTHER INFORMATION

Further information

Revision Date : 02/24/2016

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.