

**Section 1 - Product and Company Identification****Hazard Label** No label required**Company Information**Johns Manville  
Roofing Systems Group  
P.O. Box 5108  
Denver, CO 80127 USATelephone: 303-978-2000 8:00AM-5:00PM M-F  
Internet Address: <http://www.jm.com>  
Emergency: 800-424-9300 (Chemtrec, In English)**Trade Names:** JM TPO Detail Membrane; JM TPO Membrane**Use:** These products are designed for use in mechanically fastened and adhered roofing applications.**Section 2 - Hazards Identification****Emergency Overview**

Under normal conditions of use and handling, this product is not expected to create any health or safety hazards.

**Inhalation**

Not expected under normal conditions of use. However, irritation of the upper respiratory tract (scratchy throat), coughing, and congestion may occur in extreme exposures.

**Skin**

Not expected under normal conditions of use.

**Ingestion**

This product is not intended to be ingested (eaten). If ingested, it may cause temporary irritation to the gastrointestinal (digestive) tract.

**Eyes**

Not expected under normal conditions of use.

**Section 3 - Composition/Information on Ingredients**

CAS #	Component	Percent
9010-79-1	Ethylene-Propylene polymer	20-80
Not Available	Polyester Fabric	1-30*
Not Available	Filled Polypropylene	0-40
13463-67-7	Titanium dioxide	<10
1309-42-8	Magnesium hydroxide	<15
Not Available	Stabilizers	0-7

**Component Information**

\*Ingredient of JM TPO Membrane only.

Under normal conditions of use and handling, this product is not expected to create any health or safety hazards. Processing of this product can result in formation of vapors or fumes that may be irritating to eyes, skin, &amp; respiratory system.

**General Product Description**

Solid tan, gray, or white membrane with characteristic odor.

**Section 4 - First Aid Measures****First Aid: Inhalation**

Remove to fresh air. If symptoms persist contact a physician.

**First Aid: Skin**

Wash exposed skin with soap and water. If irritation develops or persists, seek medical attention.

**First Aid: Ingestion**

Product is not intended to be ingested or eaten. If this product is ingested, do not induce vomiting and seek medical attention immediately.

**First Aid: Eyes**

Flush eyes with large amounts of water until irritation subsides. If irritation persists, seek medical attention.

**Section 5 - Fire Fighting Measures****Flash Point:** Not applicable**Upper Flammable Limit (UFL):** Not applicable**Auto Ignition:** Not determined**Rate of Burning:** Not determined**General Fire Hazards**

There is no potential for spontaneous fire or explosion.

**Extinguishing Media**Carbon dioxide (CO<sub>2</sub>), dry chemical.**Fire Fighting Equipment/Instructions**

No special procedures are expected to be necessary for this product. Normal fire fighting procedures should be followed to avoid inhalation of smoke and gases.

NFPA Ratings: Health = 1, Fire = 1, Reactivity = 0

**Method Used:** Not applicable**Lower Flammable Limit (LFL):** Not applicable**Flammability Classification:** Not determined**Section 6 - Accidental Release Measures****Clean-Up Procedures**

Pick up large pieces. Vacuum dusts.

**Section 7 - Handling and Storage****Handling Procedures**

Use protective equipment as described in Section 8 of this safety data sheet when handling uncontained material. Handle in accordance with good industrial hygiene and safety practices.

**Storage Procedures**

Warehouse storage should be in accordance with package directions, if any. Material should be kept clean, dry, and in original packaging.

**Section 8 - Exposure Controls / Personal Protection****A: Component Exposure Limits****Titanium dioxide (13463-67-7)**ACGIH: 10 mg/m<sup>3</sup> TWAOSHA: 15 mg/m<sup>3</sup> TWA (total dust)**PERSONAL PROTECTIVE EQUIPMENT****Personal Protective Equipment: Eyes/Face**

Safety glasses with side shields or chemical goggles are recommended.

**Personal Protective Equipment: Skin**

Impervious gloves such as nitrile rubber should be used to help prevent excessive skin contact.

**Personal Protective Equipment: Respiratory**

None required

**Personal Protective Equipment: General**

Protective equipment should be provided as necessary to prevent irritation of the throat, eyes, and skin, and to keep exposures below the applicable exposure limits identified in Section 8.

**Section 9 - Physical & Chemical Properties**

<b>Appearance:</b>	Solid film/sheet	<b>Odor:</b>	Characteristic odor
<b>Physical State:</b>	Solid	<b>pH:</b>	Not applicable
<b>Vapor Pressure:</b>	Not applicable	<b>Vapor Density:</b>	Not applicable
<b>Boiling Point:</b>	Not determined	<b>Melting Point:</b>	Not determined
<b>Solubility (H<sub>2</sub>O):</b>	Not determined	<b>Specific Gravity:</b>	0.8-1.0
<b>Freezing Point:</b>	Not applicable	<b>Solids Content</b>	100%
<b>Evaporation Rate:</b>	Not applicable	<b>Percent Volatile:</b>	0
<b>VOC:</b>	Not applicable		

**Section 10 - Stability & Reactivity Information****Stability**

These products are not reactive.

**Hazardous Decomposition**

Irritating and/or toxic fumes and gases may be emitted.

**Hazardous Polymerization**

Will not occur.

**Section 11 - Toxicological Information****Acute Toxicity****A: General Product Information**

Vapors from this product may cause eye, respiratory and skin irritation,

**B: Component Analysis - LD50/LC50****Titanium dioxide (13463-67-7)**

Oral LD50 Rat: >10000 mg/kg

**Magnesium hydroxide (1309-42-8)**

Oral LD50 Rat: 8500 mg/kg

**Component Carcinogenicity****Titanium dioxide (13463-67-7)**

ACGIH: A4 - Not Classifiable as a Human Carcinogen

IARC: Group 2B - Possibly Carcinogenic to Humans (IARC Monograph 93 posted, Monograph 47 [1989])

**Section 12 - Ecological Information****Ecotoxicity****A: General Product Information**

No data available for this product.

**B: Component Analysis - Ecotoxicity - Aquatic Toxicity**

No ecotoxicity data are available for this product's components.

**Section 13 - Disposal Considerations****US EPA Waste Number & Descriptions****A: General Product Information**

This product is not expected to be a hazardous waste when it is disposed of according to the U.S. Environmental Protection Agency (EPA) under Resource Conservation and Recovery Act (RCRA) regulations. Product characterization after use is recommended to ensure proper disposal under federal and/or state requirements.

**B: Component Waste Numbers**

No EPA Waste Numbers are applicable for this product's components.

**Disposal Instructions**

Dispose of waste material according to Local, State, Federal, and Provincial Environmental 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****US Federal Regulations****A: General Product Information**

SARA 311/312: This product is not classified as hazardous under SARA 311/312.

**B: Component Analysis**

None of this products components are listed under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), or CERCLA (40 CFR 302.4).

**State Regulations****A: General Product Information**

Other state regulations may apply. Check individual state requirements.

**B: Component Analysis - State**

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS #	CA	FL	MA	MN	NJ	PA
Titanium dioxide	13463-67-7	No	No	Yes	Yes	Yes	Yes

**TSCA Status**

This product and its components are listed on the TSCA 8(b) inventory.

None of the components listed in this product are listed on the TSCA Export Notification 12(b) list.

**International Regulations**

**A: General Product Information**

These products are considered articles under both U.S. and international product regulations and as such, these products do not require registration or notification on the various country-specific inventories.

**B: Component Analysis - WHMIS IDL**

No components are listed in the WHMIS IDL.

**WHMIS Classification**

This is not a WHMIS controlled product. This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations. This SDS contains all the information required by the Controlled Products Regulations.

**Section 16 - Other Information**

**Other Information**

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Prepared by:  
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The information herein is presented in good faith and believed to be accurate as of the effective date given. However, no warranty, expressed or implied, is given. It is the buyer's responsibility to ensure that its activities comply with Federal, State or provincial, and local laws.

Date	MSDS #	Reason
08/01/00	3214-1.0000	New MSDS authoring system. Sect. 2: Added trade name "UltraGard® TPO Walkway Pad"; changed "UltraGard® TPO Flashing Membrane" to "UltraGard® TPO Detail Membrane."
02/13/03	3214-1.0002	Sect. 1: Added UltraGard® TPO Penetration Pan
09/03/03	3214-1.0003	Sect. 1, Added: UG TPO Sealant Pockets; UG TPO Peel & Stick Products.
01/30/04	3214-1.0003	Sect. 1 added Ultragard TPO Square Tubing Wrap
02/09/04	3214-1.0004	Regulatory update. Minor edits.
03/29/05	3214-1.0005	Replaced TPO Detail Membrane and TPO Membrane with new products. Removed remaining trade names in section 1 to separate MSDSs.
02/23/07	3214-1.0006	Changed UltraGard to JM in trade names.
04/25/08	3216-1.0008	Updated SDS to GHS format.

End of Sheet 3214