

Section 1 - Product and Company Identification**Hazard Label** No label required**Company Information**Johns Manville
Roofing Systems
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 Inside Corners;
JM TPO Outside Corners;
JM TPO Peel & Stick Pipe Boots;JM TPO Peel & Stick Walkpad;
JM TPO Penetration Pockets;
JM TPO Pipe Boots; JM TPO-1 Universal Corners**Section 2 - Hazards Identification****Emergency Overview**

Heating this product may release harmful vapors. Excessive inhalation of processing vapors from this product may be harmful to the respiratory tract.

Inhalation

Thermal processing or heating of this product may produce vapors or fumes that may cause irritation.

Skin

Not expected under normal conditions of use.

Eyes

Thermal processing or heating of this product may produce vapors or fumes that may cause irritation.

Primary Routes of Entry (Exposure)

Inhalation, skin, and eye contact.

Section 3 - Composition/Information on Ingredients

CAS #	Component	Percent
9003-07-0	Polypropylene	<100
Not Available	White Tape Backing	<65*
9010-79-1	Ethylene-Propylene polymer	<40*
1317-65-3	Calcium carbonate	25-99
Not Available	Filled Polypropylene	<20*
13463-67-7	Titanium dioxide (white colored products only)	<10
Not Available	Stabilizers (encapsulated)	<5*
1309-42-8	Magnesium hydroxide	<5
1333-86-4	Carbon black (encapsulated) (grey colored products only)	<3
7440-66-6	Zinc	<0.1

Component Information

* Ingredient of TPO Peel & Stick products only

Pigments, additives, and stabilizers are fully encapsulated and are not expected to cause any hazardous conditions when processed in accordance with normal roofing practices.

General Product Description

Solid, white, grey, or tan composite plastic structure. No 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: 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 determined**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. If exposed to fire, product may melt and drops of molten product may cause burns.

Extinguishing Media

Carbon dioxide (CO₂), dry chemical.

Fire Fighting Equipment/Instructions

Use NIOSH-approved self-contained breathing apparatus operating in the pressure demand mode and full fire fighting protective clothing. Avoid inhalation of vapors.

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. If sweeping is necessary, use a dust suppressant such as water. Do not dry sweep dust accumulation. These procedures will help to minimize potential exposures.

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****Calcium carbonate (1317-65-3)**

OSHA: 15 mg/m³ TWA (total dust); 5 mg/m³ TWA (respirable fraction)

Titanium dioxide (white colored products only) (13463-67-7)

OSHA: 15 mg/m³ TWA (total dust)

10 mg/m³ TWA (total dust)

ACGIH: 10 mg/m³ TWA

Carbon black (encapsulated) (grey colored products only) (1333-86-4)

OSHA: 3.5 mg/m³ TWA

ACGIH: 3.5 mg/m³ TWA

PERSONAL PROTECTIVE EQUIPMENT**Personal Protective Equipment: Eyes/Face**

Safety glasses with side shields or chemical goggles are recommended.

Personal Protective Equipment: Skin

Leather or cotton gloves should be worn to protect against mechanical abrasion.

Personal Protective Equipment: Respiratory

A NIOSH approved respirator must be used if vapor concentrations exceed exposure limits.

Section 9 - Physical & Chemical Properties

Appearance:	Solid, white, grey or tan composite plastic structure	Odor:	No odor
Physical State:	Solid	pH:	Not applicable
Vapor Pressure:	Not applicable	Vapor Density:	Not applicable
Boiling Point:	Not determined	Melting Point:	Not determined
Solubility (H₂O):	Not determined	Specific Gravity:	Not determined
Freezing Point:	Not applicable	Evaporation Rate:	Not applicable
Percent Volatile:	0	VOC:	Not applicable

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

These products are not reactive.

Hazardous Decomposition

Irritating and/or toxic fumes and gases may be released during a fire. Upon decomposition, this product emits carbon monoxide, carbon dioxide, and/or low molecular weight hydrocarbons.

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 (white colored products only) (13463-67-7)

Oral LD50 Rat: >10000 mg/kg

Magnesium hydroxide (1309-42-8)

Oral LD50 Rat: 8500 mg/kg

Carbon black (encapsulated) (grey colored products only) (1333-86-4)

Oral LD50 Rat: >15400 mg/kg; Dermal LD50 Rabbit:>3 g/kg

Component Carcinogenicity**Polypropylene (9003-07-0)**

IARC: Group 3 - Not Classifiable (IARC Supplement 7 [1987], Monograph 19 [1979])

Titanium dioxide (white colored products only) (13463-67-7)

ACGIH: A4 - Not Classifiable as a Human Carcinogen

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

Carbon black (encapsulated) (grey colored products only) (1333-86-4)

ACGIH: A4 - Not Classifiable as a Human Carcinogen

IARC: Group 2B - Possibly Carcinogenic to Humans (IARC Monograph 93 [in preparation], Monograph 65 [1996])

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

No data available for this product.

B: Component Analysis - Ecotoxicity - Aquatic Toxicity

Carbon black (encapsulated) (grey colored products only) (1333-86-4)

24 Hr EC50 Daphnia magna: >5600 mg/L

Zinc (7440-66-6)

96 Hr LC50 Pimephales promelas: 2.16-3.05 mg/L [flow-through]; 96 Hr LC50 Pimephales promelas:0.211-0.269 mg/L [semi-static]; 96 Hr LC50 Pimephales promelas:2.66 mg/L [static]; 96 Hr LC50 Cyprinus carpio:30 mg/L; 96 Hr LC50 Cyprinus carpio:0.45 mg/L [semi-static]; 96 Hr LC50 Cyprinus carpio:7.8 mg/L [static]; 96 Hr LC50 Lepomis macrochirus:3.5 mg/L [static]; 96 Hr LC50 Oncorhynchus mykiss:0.24 mg/L [flow-through]; 96 Hr LC50 Oncorhynchus mykiss:0.59 mg/L [semi-static]; 96 Hr LC50 Oncorhynchus mykiss:0.41 mg/L [static]
96 Hr EC50 Selenastrum capricornutum: 30 µg/L
72 Hr EC50 water flea: 5 µg/L

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
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US Federal Regulations**A: General Product Information**

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

B: Component Analysis

This material contains one or more of the following chemicals required to be identified under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65) and/or CERCLA (40 CFR 302.4).

Zinc (7440-66-6)

CERCLA: 1000 lb final RQ (no reporting of releases of this hazardous substance is required if the diameter of the pieces of the solid metal released is larger than 100 micrometers); 454 kg final RQ (no reporting of releases of this hazardous substance is required if the diameter of the solid metal released is larger than 100 micrometers)

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
Calcium carbonate	1317-65-3	No	No	Yes	Yes	Yes	Yes
Titanium dioxide (white colored products only)	13463-67-7	No	No	Yes	Yes	Yes	Yes
Carbon black (encapsulated) (grey colored products only)	1333-86-4	Yes	No	Yes	Yes	Yes	Yes
Zinc	7440-66-6	Yes	No	Yes	No	Yes	Yes

A: 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

The following components are identified under the Canadian Hazardous Products Act Ingredient Disclosure List:

Component	CAS #	Minimum Concentration
Carbon black (encapsulated) (grey colored products only)	1333-86-4	1 %

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**

Prepared for:
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Roofing Systems
P. O. Box 5108
Denver, CO USA 80217-5108

Prepared by:
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P.O. Box 625005
Littleton, CO USA 80162-5005

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
03/29/05	3216-1.0000	New MSDS. Products moved from MSDS 3214.
02/23/07	3216-1.0001	Changed UltraGard to JM in trade names.
07/20/07	3216-1.0002	Addition of JM TPO-1 products to trade names. Minor edits throughout. Moved JM TPO Walkway Pad to MSDS 3147.
09/24/09	3216-1.0003	Addition of TPO Peel & Stick Walkpad
10/23/09	3216-1.0004	Addition of TPO Penetration Pockets.
08/10/10	3216.1.0005	Removed TPO-1 Pipe Boots from trade names.

End of Sheet 3216