

Section 1 - Product and Company Identification

Hazard Label CAUTION label

Company InformationJohns 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 Bonding Adhesive (Water Based); JM TPO-1 Bonding Adhesive (Water Based)

Section 2 - Hazards Identification**Emergency Overview**

HMIS Rating: Health = 1 Fire = 0 Reactivity = 0

Inhalation

Irritation of the upper respiratory tract (scratchy throat), coughing, and congestion may occur in extreme exposures.

Skin

Temporary irritation (itching) or redness may occur.

Ingestion

This product is not intended to be ingested or eaten under normal conditions of use. If ingested, seek medical attention.

Eyes

Irritation, redness, and burning in eyes may occur.

Primary Routes of Entry (Exposure)

Inhalation, skin, and eye contact.

Target Organs

Nose (nasal passages), throat, lungs, skin, eyes

Medical Conditions Aggravated by Exposure

Pre-existing chronic respiratory, skin, or eye diseases or conditions.

Section 3 - Composition/Information on Ingredients

CAS #	Component	Percent
7732-18-5	Water	20-50
Not Available	Acrylic Polymer	40-50
Proprietary	Copolymer	10-30
Not Available	Copolymer Acrylate-acrylonitrile	10-30
1332-58-7	Kaolin	5-10
108-05-4	Vinyl acetate	<1
Proprietary	Epoxy Resin	<1

General Product Description

Mobile to viscous off-white liquid with slight odor.

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

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

First Aid: Skin

Remove contaminated clothing. Wash exposed areas with soap and water. If irritation develops or persists, seek medical attention. Launder contaminated clothing before reuse.

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.

First Aid: Notes to Physician

Treatment for inhalation, skin contact, or ingestion should be symptomatic. Inhalation of high concentrations of this material, as could occur in enclosed spaces or during deliberate abuse, may be associated with cardiac arrhythmias.

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

There is no potential for spontaneous fire or explosion.

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

Hazardous Combustion Products

Carbon monoxide, carbon dioxide, halogenated hydrocarbons, nitrogen oxides, and various hydrocarbons.

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.

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

Remove all sources of ignition. Evacuate and ventilate spill area. Dam spill area with sand, earth, or other suitable absorbent. Prevent entry of material into sewers, other water sources, or land areas. Wear full protective clothing and respiratory protection during clean-up as required to maintain exposures below the applicable exposure limit. Shovel absorbed material into containers in well-ventilated area.

Clean-Up Procedures

Place in closable container for disposal.

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. Product should be kept in a cool and dry area in original packaging. Do not freeze.

Section 8 - Exposure Controls / Personal Protection**Exposure Guidelines****A: General Product Information**

Protective equipment should be provided as necessary to prevent inhalation of vapors, prolonged skin contact, and to keep exposure levels below the applicable exposure limits.

B: Component Exposure Limits**Kaolin (1332-58-7)**

ACGIH: 2 mg/m³ TWA (respirable fraction, particulate matter containing no asbestos and <1% crystalline silica)

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

Vinyl acetate (108-05-4)

ACGIH: 10 ppm TWA

15 ppm STEL

OSHA: 20 ppm STEL; 60 mg/m³ STEL

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

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

Ventilation

Local exhaust or general dilution ventilation may be required to maintain exposures below the applicable exposure limits. The need for ventilation systems should be evaluated by a professional industrial hygienist, while the design of specific ventilation systems should be conducted by a professional engineer.

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

<p>Appearance: Off-white mobile to viscous liquid</p> <p>Physical State: liquid</p> <p>Vapor Pressure: Not available</p> <p>Boiling Point: 162°F-446°F</p> <p>Solubility (H₂O): Not available</p> <p>Freezing Point: Not available</p> <p>Bulk Density: 8.8 lbs/gal</p> <p>VOC: 41.7g/L corrected for water Test Method 24</p>	<p>Odor: Slight odor</p> <p>pH: Not available</p> <p>Vapor Density: Heavier than air</p> <p>Melting Point: Not available</p> <p>Specific Gravity: Not available</p> <p>Evaporation Rate: 0.20</p> <p>Percent Volatile: 56%</p>
---	---

Section 10 - Stability & Reactivity Information
--

Stability

These products are not reactive.

Hazardous Decomposition

May form carbon dioxide and carbon monoxide.

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**Water (7732-18-5)**

Oral LD50 Rat: >90 mL/kg

Vinyl acetate (108-05-4)

Inhalation LC50 Rat: 11.4 mg/L/4H; Inhalation LC50 Rat:3200 ppm/4H; Oral LD50 Rat:2920 mg/kg; Dermal LD50 Rabbit:2320 mg/kg

Carcinogenicity**A: General Product Information**

Vinyl acetate induced tumors of the nasal cavity by inhalation in rats and mice exposed to concentrations up to 600 ppm for 104 weeks. Vinyl acetate vapor has induced tumors of the nasal cavity in rats, but not in mice.

B: Component Carcinogenicity**Kaolin (1332-58-7)**

ACGIH: A4 - Not Classifiable as a Human Carcinogen

Vinyl acetate (108-05-4)

ACGIH: A3 - Confirmed animal carcinogen with unknown relevance to humans

IARC: Group 2B – Possibly Carcinogenic to Humans (IARC Monograph 63 [1995], Supplement 7 [1987])

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

No data available for this product.

B: Component Analysis - Ecotoxicity - Aquatic Toxicity**Vinyl acetate (108-05-4)**

96 Hr LC50 Pimephales promelas: 31.0 mg/L; 96 Hr LC50 Lepomis macrochirus: 31.0 mg/L; 96 Hr LC50 Pimephales promelas: 14-15 mg/L [static]; 96 Hr LC50 Lepomis macrochirus: 18 mg/L [static]
5 min EC50 Photobacterium phosphoreum: 2080 mg/L
24 Hr EC50 water flea: 52.0 mg/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**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).

Vinyl acetate (108-05-4)

SARA 302: 1000 lb TPQ
SARA 313: 0.1 % de minimis concentration
CERCLA: 5000 lb final RQ; 2270 kg final RQ

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
Kaolin	1332-58-7	No	No	Yes	Yes	No	Yes
Vinyl acetate	108-05-4	Yes	No	Yes	Yes	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.

B: Component Analysis - Inventory

Component	CAS #	TSCA	DSL	EINECS
Water	7732-18-5	Yes	Yes	Yes
Kaolin	1332-58-7	Yes	Yes	Yes
Vinyl acetate	108-05-4	Yes	Yes	Yes

Component Analysis - WHMIS IDL

No components are listed in the WHMIS IDL.

WHMIS Classification

Controlled Product Classification: D2A

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:
Johns Manville
Roofing Systems Group
P. O. Box 5108
Denver, CO USA 80217-5108

Prepared by:
Johns Manville Technical Center
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
09/19/01	3100-1.0000	New MSDS
02/24/03	3100-1.0001	Corrected product name. Other minor edits.
04/14/03	3100-1.0002	Minor edits.
10/22/03	3100-1.0003	Section 15, TSCA 12b, Acetone is deleted
03/31/05	3100-1.0004	Section 1 new material name & trade name from Low VOC Adhesive to Bonding Adhesive (Water Based). Section 2 new compositions for Bonding Adhesive (Water Based) and remaining sections updated.
12/16/05	3100-1.0104	Regulatory update. Minor edit to Section 11 LD50. UltraGard name change to JM.
08/03/07	3100-1.0105	Addition of TPO-1 Bonding Adhesive (Water Based) to trade names. Minor edits throughout.
05/08/08	3100-1.0106	Updated composition. Update SDS to GHS format.

End of Sheet 3100