Section 1 - Chemical Product and Company Identification

Product Name MBR® Roofing Cements
CAS# Mixture/None Assigned
Generic Name Mixture
Formula Mixture
Chemical Name: Mixture
Hazard Label RSD-011

Manufacturer Information

Johns Manville
Roofing Systems Group
P.O. Box 5108
Denver, CO 80127

Telephone: 303-978-2000
Internet Address: http://www.jm.com
Emergency: 800-424-9300 (Chemtrec)

Trade Names: MBR® Bonding Cement Base; MBR® Flashing Cement Base

Section 2 - Composition / Information on Ingredients

CAS #	Component	Percent
8052-42-4	Petroleum Asphalt	20-80
8052-41-3	Stoddard solvent	0-30
Not Available	Amine compounds, including amine derivatives	0-10
64742-95-6	Petroleum distillate, light aromatic	0-2

Additional Component Information

Note: Due to product form, hazardous exposure to fumes is not expected to occur. Exposure limits are given for reference only.

Section 3 - Hazards Identification

Emergency Overview

APPEARANCE AND ODOR: Viscous black liquid. Petroleum odor.

Under normal conditions of use, this product is not expected to create any unusual emergency hazards.

Combustible liquid. Keep away from heat and flame.

Inhalation of vapors may cause upper respiratory irritation, and other effects--remove affected individuals to fresh air.

Skin irritation may be treated by gently washing affected area with soap and warm water.

Eye irritation may be treated by flushing eyes with large amounts of water. If irritation persists, contact a physician.

In the event of fire, use normal fire fighting procedures to prevent inhalation of smoke, gases and vapors.

Potential Health Effects

Summary

The primary hazards associated with the use of this product are due to skin contact and inhalation of vapors or fumes. High exposure to vapors or fumes may cause nausea and dizziness. Getting this material on the skin, or in the eyes may cause rash, or redness. Exposure to vapors or fumes can cause drowsiness, headache and nausea, as well as irritation to upper respiratory tract and eyes. Studies of workers exposed to asphalt fume have been classified as providing inadequate evidence of carcinogenicity. Asphalt fume condensate skin painting studies on animals have shown tumor development.

Inhalation

Irritation of the upper respiratory tract, nausea, and dizziness may occur.

Skin

Temporary irritation or redness may occur. Contact with hot materials can cause thermal burns.

Absorption
Not applicable.

Ingestion
This product is not intended to be ingested or eaten under normal conditions of use. If ingested, it may cause temporary irritation to the gastrointestinal (GI) tract, especially the stomach.

Eyes
Irritation, redness, and burning in eyes may occur.

Target Organs
Upper respiratory passages, skin, and eyes.

Primary Routes of Entry (Exposure)
Inhalation, skin, and eye contact.

Medical Conditions Aggravated by Exposure
Pre-existing chronic respiratory, skin, or eye diseases or conditions.

Section 4 - First Aid Measures

First Aid: Inhalation
Remove individual to fresh air and administer artificial respiration or oxygen as necessary.

First Aid: Skin
Wash exposed skin with soap and warm water. Do not use industrial solvents to remove material from skin. Wash hands before eating or using the restroom.

First Aid: Ingestion
Product is not intended to be ingested or eaten. If this product is ingested, irritation of the GI (gastrointestinal) tract may occur, and should be treated symptomatically. Do not induce vomiting. Give water or milk and call physician.

First Aid: Eyes
Flush eyes with large amounts of water for 5-15 minutes. If irritation persists, contact a medical professional.

First Aid: Notes to Physician
This product is an irritant and is not expected to produce any chronic health effects. Treatment should be directed toward removing the source of irritation with symptomatic treatment as necessary.

Section 5 - Fire Fighting Measures

Flash Point: 38°C/101°F
Upper Flammable Limit (UFL): 6.0%
Auto Ignition: >260°C/500°F
Rate of Burning: Not determined
Method Used: COC
Lower Flammable Limit (LFL): 1.0%
Flammability Classification: Not determined

General Fire Hazards
Burning of this material will produce thick black smoke.

Extinguishing Media
Dry chemical, foam, carbon dioxide, water fog.

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.

Section 6 - Accidental Release Measures

Containment Procedures
Combustible liquid. Remove sources of ignition. Dam, mop, absorb onto sawdust or other absorbent, and place in suitable container. Do not allow liquid to contaminate sewers, or other water sources. Allow to cool and solidify for reuse or disposal.

Clean-Up Procedures
This product is classified an ignitable hazardous waste by the Resource Conservation and Recovery Act (RCRA; 40 CFR 261: Waste # D001). Dispose of spilled material in accordance with federal, state, and local regulations in a hazardous waste facility. Incineration is the preferred method of disposal. Empty containers must be handled with care due to product residue. Decontaminate empty containers prior to disposal. Do not heat or cut empty containers with electric or gas torch. If you are unsure of the regulations, contact your local Public Health Department, or the local office of the Environmental Protection Agency (EPA).

Section 7 - Handling and Storage

Handling Procedures
Use protective equipment as described in Section 8 of this material safety data sheet when handling uncontained material.

Storage Procedures

Combustible liquid. Remove sources of ignition. Solvents contained in this product evaporate and form vapor (fumes) which catch fire and burn with explosive violence. Invisible vapor spreads easily and can be set on fire by many sources, such as cigarettes, pilot lights, welding equipment, electrical motors and switches and static discharge. Fire hazard is greater as liquid temperature rises.

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. Wash hands thoroughly before eating or using the bathroom.

B: Component Exposure Limits

Petroleum Asphalt (8052-42-4)

ACGIH: 0.5 mg/m3 TWA (inhalable fraction); (as benzene-soluble aerosol)

Stoddard solvent (8052-41-3)

ACGIH: 100 ppm TWA
OSHA: 100 ppm TWA; 525 mg/m3 TWA

PERSONAL PROTECTIVE EQUIPMENT

Personal Protective Equipment: Eyes/Face

Safety glasses with sideshields are recommended.

Personal Protective Equipment: Skin

Solvent-resistant gloves are recommended.

Personal Protective Equipment: Respiratory

If vapor levels are above the applicable exposure limits, a NIOSH-approved organic vapor respirator must be provided and worn.

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

Use proper equipment when using product in confined or enclosed areas.

Section 9 - Physical & Chemical Properties

Appearance:	Black	**Odor:**	Strong hydrocarbon odor
Physical State:	liquid	**pH:**	Not determined
Vapor Pressure:	3 mm Hg (20°C/68°F)	**Vapor Density:**	4.9 (Approximately)
Boiling Point:	155°C/310°F	**Melting Point:**	Not determined
Solubility (H2O):	Minimal	**Specific Gravity:**	0.9 (20°C/68°F)
Freezing Point:	Not Applicable	**Solids Content**	Not Applicable
Evaporation Rate:	Not Applicable	**Viscosity:**	Not Applicable
Percent Volatile:	<15%	**VOC:**	Not determined

Section 10 - Chemical Stability & Reactivity Information

Chemical Stability

This is a stable material.

Hazardous Decomposition

The decomposition products from this material are those that would be expected from any organic (carbon-containing) material, and are mainly derived from pyrolysis, or burning, of the resin. These decomposition products may include carbon monoxide, carbon dioxide, carbon particles, and partially oxidized hydrocarbons.

Hazardous Polymerization

Will not occur.

Section 11 - Toxicological Information

Acute Toxicity

A: General Product Information

Skin or eye contact can cause irritation and redness. Inhalation can cause temporary irritation of the eyes and upper respiratory tract. If the material is hot, thermal burns can occur. Nausea and dizziness can occur upon inhalation of the vapors o fumes.

B: Component Analysis - LD50/LC50

Petroleum distillate, light aromatic (64742-95-6)

Oral LD50 Rat : 8400 mg/kg

Carcinogenicity

A: General Product Information

The Occupational Safety and Health Administration (OSHA), National Toxicology Program (NTP), International Agency for Research on Cancer (IARC), and American Conference of Governmental Industrial Hygienists (ACGIH) have not classified this product in its entirety as a carcinogen.

B: Component Carcinogenicity

Petroleum Asphalt (8052-42-4)

ACGIH: A4 - Not Classifiable as a Human Carcinogen (Benzene-soluble aerosol)

IARC: Supplement 7, 1987; Monograph 35, 1985; (extracts of steam and air refined bitumens) (Group 2B (possibly carcinogenic to humans))

Chronic Toxicity

Asphalt: In 1994, IARC reconfirmed its earlier assessment that studies of workers exposed to asphalt provide inadequate evidence of carcinogenicity. IARC had previously classified asphalt as a Group 3 substance. Animal studies in which high concentrations of asphalt fumes were breathed for extended periods of time did not indicate any cancer effects. Bronchitis and pneumonitis were observed. Two studies where condensed fractions of certain asphalt fume condensates were repeatedly applied to the skin of laboratory animals reported the induction of skin cancers. The asphalt fume condensates collected for these studies were subjected to extremely high temperatures (316°C/601°F) and were heated for seven to ten hours while being continually stirred. This is not typical of any asphalt application. Trace amounts of polynuclear aromatic hydrocarbons (PAHs) may be present in some asphalts and can be generated upon excessive heating, which results in thermal cracking of the asphalt compounds. Some of these PAHs have been identified as having potential carcinogenic and reproductive health effects.

Moderate irritation of skin, eyes, and upper respiratory tract on prolonged, repeated contact. Dermatitis and defatting of the skin. Pre-existing eye skin, and pulmonary disorders may be aggravated by exposure to this product. Reports have associated permanent brain and nervous system damage with prolonged (>12-14 yr.) occupational overexposure to high levels of solvents.

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 classified an ignitable hazardous waste by the Resource Conservation and Recovery Act (RCRA; 40 CFR 261: Waste # D001). Dispose of spilled material in accordance with federal, state, and local regulations in a hazardous waste facility. Incineration is the preferred method of disposal. Empty containers must be handled with care due to product residue. Decontaminate empty containers prior to disposal. Do not heat or cut empty containers with electric or gas torch. If you are unsure of the regulations, contact your local Public Health Department, or the local office of the Environmental Protection Agency (EPA).

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 - Transportation Information

US DOT Information

Shipping Name: Combustible liquid, n.o.s.
Hazard Class: Combustible liquid
UN/NA #: NA1993
Packing Group: III
Required Label(s): COMBUSTIBLE: KEEP AWAY FROM HEAT AND FLAME.

International Transportation Regulations

International Designation:
Shipping Name: Coating Solution
Hazard Class: PG III
UN/NA#: UN 1139
Required Label: FLAMMABLE LIQUID

Section 15 - Regulatory Information

US Federal Regulations

A: General Product Information

No information on this product as a whole.

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

No information available for the product.

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
Petroleum Asphalt	8052-42-4	Yes	Yes	Yes	Yes	Yes	Yes
Stoddard solvent	8052-41-3	Yes	Yes	Yes	Yes	Yes	Yes

Other Regulatory Information

A: General Product Information

No information available for the product.

B: 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.

C: Component Analysis - Inventory

Component	CAS #	TSCA	DSL	EINECS
Petroleum Asphalt	8052-42-4	Yes	Yes	Yes
Stoddard solvent	8052-41-3	Yes	Yes	Yes
Petroleum distillate, light aromatic	64742-95-6	Yes	Yes	Yes

Component Analysis - WHMIS IDL

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

Component	CAS #	
Stoddard solvent	8052-41-3	1%; English Item 1468; French Item 1498

Section 16 - Other Information

Other Information

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Date	MSDS #	Reason
08/01/00	3101-1.0000	New MSDS authoring system.
01/12/01	3101-1.0001	Update Sect. 3, 6, 7, and 14: re-designated combustible liquid. Update Sect. 8, ACGIH TWA for asphalt to 0.5 mg/m3.
03/28/01	3101-1.0101	Update Section 14 - Interntl Trans. Regs.
07/19/01	3101-1.0201	Update Section 11, LD50 Petroleum distillate

This is the end of MSDS # 3101