Section 1 - Chemical Product and Company Identification

Product Name PermaFlash™ Bituminous Flashing System Kit
CAS# None Assigned
Generic Name Bituminous Flashing System Kit
Formula NA
Chemical Name: NA
Hazard Label WARNING Flammable liquid

Manufacturer Information

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

Telephone: 303-978-2000 8:00AM-5:00PM M-F
Internet Address: http://www.jm.com
Emergency: 800-424-9300 (Chemtrec, In English)

Trade Names: PermaFlash™ Primer and PermaFlash™ Scrim Kit

Section 2 - Composition / Information on Ingredients

CAS #	Component	Percent
Not Available	Polyethylene terephthalate polymer (scrim)	100
67-63-0	Isopropyl alcohol	>99

Additional Component Information

Primer is an organosilane adhesion promoter in isopropyl alcohol solution.

Kit consists of:
One roll scrim, 300ft^2 (approx. 6.25 lbs)
Two - 1qt (0.95 liter) bottles primer

Section 3 - Hazards Identification

Emergency Overview

APPEARANCE AND ODOR: Primer is a clear liquid with rubbing alcohol odor. Scrim is solid polyester stitch bonded and knit fabric with no odor.

Primer is a flammable mixture. Use water spray or fog to cool materials in or near fire. If possible, move burning material outside. Fire is difficult to extinguish. Vapors may travel, and can be ignited by a remote source.

Inhalation of vapors may cause temporary upper respiratory irritation or central nervous system depression-remove affected individuals to fresh air. This product may be a pulmonary aspiration hazard.

Potential Health Effects

Summary

Vapors from primer may cause eye and upper respiratory irritation, nausea, headache, dizziness, drowsiness, possible unconsciousness, and even death. With normal intended use, the scrim is not expected to create any health effects or hazards.

Inhalation

Inhalation of vapors may cause irritation of the respiratory tract. Other symptoms may include signs of CNS depression involving weakness, dizziness, fatigue, and headache. Severe overexposure may cause coma and death due to respiratory failure.

Skin

Primer may cause minor skin irritation and dryness following prolonged or frequent contact.

Absorption

No additional information available.

Ingestion

Primer is harmful or fatal if swallowed. Ingestion can cause gastrointestinal irritation, nausea, vomiting, and diarrhea. This product may be an aspiration hazard.

Eyes

Primer may cause severe eye irritation. Symptoms include redness, swelling, tearing, and blurred vision.

Primary Routes of Entry (Exposure)

Inhalation, skin, and eye contact.

Target Organs

Nose, throat, upper respiratory passages, skin, eyes, kidneys, and liver for extreme exposures.

Medical Conditions Aggravated by Exposure

Pre-existing lung disorders and skin allergies.

Section 4 - First Aid Measures

First Aid: Inhalation

Remove individual to fresh air and administer artificial respiration or oxygen as necessary. Seek medical attention.

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 for 5-15 minutes. If irritation develops, or persists, seek medical attention.

First Aid: Notes to Physician

Treatment should be directed toward removing the source of irritation, with symptomatic treatment as necessary.

Section 5 - Fire Fighting Measures

Flash Point: Primer = 53ºF (11ºC)
Method Used: TCC
Upper Flammable Limit (UFL): Primer = 12%
Lower Flammable Limit (LFL): Primer = 2%
Auto Ignition: Primer = 750ºF
Flammability Classification: Flammable
Rate of Burning: Not determined

General Fire Hazards

Primer is a flammable liquid. Material is highly volatile and readily gives off vapors, which may travel along the ground or be moved by ventilation and be ignited by heat sources (such as pilot lights or other flames, sparks, heaters, smoking, electric motors, or static discharge) at locations distant from material handling point.

Vapor may form flammable atmosphere in confined spaces or low areas. Pressure build-up may also occur in closed, heated containers. Water spray or fog should be used to keep containers cool.

Primer NFPA Ratings: Health = 1 Fire = 3 Reactivity = 0; Special = 0, Class IB

Polyester scrim can burn if exposed to flame. Molten polyester generates small amounts of volatile degradation products (off-gases), one of which is acetaldehyde. Acetaldehyde vapors form explosive mixtures with air that can spontaneously ignite (auto-ignite) at temperatures above 347ºF (175ºC). There is no potential for spontaneous fire or explosion for the scrim material.

Hazardous Combustion Products

Primer = May form carbon monoxide, carbon dioxide, and water.
Scrim = Upon decomposition, may emit carbon, hydrogen, and nitrogen.

Extinguishing Media

Primer = Dry chemical, foam, carbon dioxide. Do not use a solid stream of water because it can scatter and spread fire.
Scrim = Water, dry chemical, foam

Fire Fighting Equipment/Instructions

Primer = Firefighters should wear full protective clothing including self contained breathing apparatus (SCBA).
Scrim = Normal fire fighting procedures should be followed to avoid inhalation of smoke and gases.

Section 6 - Accidental Release Measures

Containment Procedures

Primer = 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.

Scrim = No special procedures necessary.

Clean-Up Procedures

Primer = No additional information available.
Scrim = Pick up or shovel material into waste container. If cannot be reused, place in a covered container for disposal.

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.

Keep this material and vapors from this material away from ignition sources, such as heat, sparks, pilot lights, static electricity, and open flames. Containers exposed to elevated temperatures (such as heat or flames) may develop pressure build-up and rupture. Keep containers sealed when not in use and clean spills promptly to reduce air concentrations and floor hazards.

Storage Procedures

Primer = Eliminate all sources of ignition. Keep the container tightly closed.
Scrim = Warehouse storage should be in accordance with package directions, if any. Material should be kept clean, dry, and protected from moisture.

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

Isopropyl alcohol (67-63-0)

ACGIH:	200 ppm TWA
	400 ppm STEL
OSHA:	400 ppm TWA; 980 mg/m3 TWA
	500 ppm STEL; 1225 mg/m3 STEL

PERSONAL PROTECTIVE EQUIPMENT

Personal Protective Equipment: Eyes/Face

Safety glasses with sideshields or chemical goggles are recommended.

Personal Protective Equipment: Skin

Solvent-resistant gloves, protective coveralls, and long sleeves are recommended. Wash thoroughly after use.

Personal Protective Equipment: Respiratory

Use in well ventilated areas only. Wear an OSHA approved type C air supplied respirator if ventilation is inadequate to keep solvent inhalation vapors below the TLV.

Ventilation

Local exhaust or general dilution ventilation should be provided to keep exposure levels below the applicable exposure limits.

Personal Protective Equipment: General

Wear long sleeves, long trousers, and industrial shoes to protect skin from contact with product. Use personal protective equipment as discussed above.

Use good industrial hygiene practices when handling this material.

Section 9 - Physical & Chemical Properties

Appearance:	Clear liquid primer. Solid polyester fabric scrim.	**Odor:**	Primer = Rubbing alcohol odor Scrim = No odor
Physical State:	Primer = liquid Scrim = solid	**pH:**	Not determined
Vapor Pressure:	Primer = 4 mm Hg @ 77ºF (25ºC)	**Vapor Density:**	Primer = 2
Boiling Point:	Primer = 180ºF (82ºC)	**Melting Point:**	Not available
Solubility (H_2O):	Primer = Miscible in water, alcohols, ketones, and aromatic hydrocarbons. Insoluble in aliphatic hydrocarbons.	**Specific Gravity:**	Primer = 0.78
Freezing Point:	Not determined	**Evaporation Rate:**	Primer = 7.70
Viscosity:	Not determined	**Percent Volatile:**	Primer = >99
VOC:	Primer = 990 g/L		

Section 10 - Chemical Stability & Reactivity Information

Chemical Stability

This is a stable material.

Chemical Stability: Conditions to Avoid

Keep away from heat, sparks, or open flame.

Incompatibility

Primer may react with strong oxidizing materials.

Hazardous Decomposition

Primer = May form carbon monoxide, carbon dioxide, and water.
Scrim = 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

Primer =Vapors from this product may cause irritation of the eyes, and upper respiratory tract including the nose, mouth, and throat. Inhalation of vapors may cause headache, numbness of the fingers and arms, loss of coordination, weakness, slowed respiration (breathing), and narcosis (drowsiness). Prolonged skin contact may produce irritation, and dermatitis. Eye contact may result in irritation of the eyes, and lacrimation (watering).

B: Component Analysis - LD50/LC50

Isopropyl alcohol (67-63-0)

Inhalation LC50 Rat: 72.6 mg/L/4H; Oral LD50 Rat: 4396 mg/kg; Dermal LD50 Rat: 12800 mg/kg; Dermal LD50 Rabbit: 12800 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 as a carcinogen.

B: Component Carcinogenicity

Isopropyl alcohol (67-63-0)

ACGIH: A4 - Not Classifiable as a Human Carcinogen
IARC: Group 3 - Not Classifiable (IARC Monograph 71 [1999], Supplement 7 [1987], Monograph 15 [1977])

Chronic Toxicity

Primer = Prolonged, excessive exposures to vapors may cause nervous system, kidney and liver damage, possible unconsciousness, and even death. LC_{50}: 12,000 ppm (8 hr)

Section 12 - Ecological Information

Ecotoxicity

A: General Product Information

Primer may produce significant toxicity to aquatic organisms and ecosystems.

B: Component Analysis - Ecotoxicity - Aquatic Toxicity

Isopropyl alcohol (67-63-0)

96 Hr LC50 Pimephales promelas: 9640 mg/L [flow-through]; 96 Hr LC50 Pimephales promelas: 94900 mg/L [flow-through] (29 days old); 96 Hr LC50 Pimephales promelas: 61200 mg/L [flow-through] (31 days old)
96 Hr EC50 Scenedesmus subspicatus: >1000 mg/L; 72 Hr EC50 Scenedesmus subspicatus: >1000 mg/L
5 min EC50 Photobacterium phosphoreum: 35390 mg/L
48 Hr EC50 Daphnia magna: 13299 mg/L

Section 13 - Disposal Considerations

US EPA Waste Number & Descriptions

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

International Transportation Regulations

DOT: Consumer Commodity, ORM-D
Package limits 1 L inner, 30 kg outer

IATA: UN1219, Isopropanol, 3, PGII
FLAMMABLE LIQUID label required
Cargo Aircraft Only
Inner packagings must not exceed 10 L (2.6 gal) each (depending on the type of inner packaging used) and the outer package may not exceed 60 L (15.8 gal).

IMDG: UN1219, Isopropanol, 3, PGII
No label required
Inner packagings must not exceed 5 L (1.3 gal) and outer packagings must not exceed 30 kg (66 lb)

Section 15 - Regulatory Information

US Federal Regulations

A: General Product Information

Primer = SARA 311 Status. The following SARA 311 designations apply to this product: Immediate (acute) health hazard. Delayed (chronic) health hazard. Fire hazard.
Scrim = 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).

Isopropyl alcohol (67-63-0)

SARA 313: 1.0 % de minimis concentration (only if manufactured by the strong acid process, no supplier notification)

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
Isopropyl alcohol	67-63-0	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
Isopropyl alcohol	67-63-0	Yes	Yes	Yes

Component Analysis - WHMIS IDL

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

Component	CAS #	Minimum Concentration
Isopropyl alcohol	67-63-0	1 %

Section 16 - Other Information

Other Information

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Date	MSDS #	Reason
09/18/06	3303-1.0000	New MSDS authoring system.

This is the end of MSDS # 3303