

**Section 1 - Product and Company Identification**

Hazard Label CAUTION

**Company Information**

Johns Manville  
Insulation Systems  
P.O. Box 5108  
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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:**

JM cc SPF  
JM Corbond III;  
JM Corbond III-2.8;  
JM Corbond MCS;

**Use:** Part B of a two-part closed cell polyurethane spray foam

**Section 2 - Hazards Identification**

**Inhalation**

Inhalation at levels above the occupational exposure limit could cause respiratory sensitization and risk of serious damage to the respiratory system. The onset of respiratory symptoms may be delayed for several hours after exposure.

**Skin**

This product is irritating to the skin and may cause sensitization.

**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**

Skin, eye, lungs, central nervous system (CNS), respiratory system, kidney, liver.

**Medical Conditions Aggravated by Exposure**

Pre-existing eye, skin, respiratory, central nervous system (CNS), liver and kidney diseases or conditions. May cause cardiac arrhythmia

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

CAS #	Component	Percent
Not Available	Polyol Blend	13-60
460-73-1	1,1,1,3,3-Pentafluoropropane (HFC-245fa)	6-12
68441-62-3	2-Butyne-1,4-diol, polymer with (chloromethyl)oxirane, brominated, dehydrochlorinated, methoxylated (present in Corbond III products only)	3-7
78-40-0	Triethyl phosphate (Present in Corbond III products only)	3-7
13674-84-5	2-Propanol, 1-chloro-, phosphate (3:1)	3-7
Proprietary	Proprietary Additive	0-4
68479-98-1	Diethyltoluenediamine (Present in Corbond III products only)	1-3
107-21-1	Ethylene glycol	<1
9016-45-9	Ethylene oxide-Nonylphenol polymer (Present in Corbond III products only)	0-1
Not Available	Amine Blend	0-1

**Component Information**

All products contain a non-hazardous violet dye except JM cc SPF.

**General Product Description**

Blue colored liquid with amine odor

**Section 4 - First Aid Measures**

**First Aid: Inhalation**

If the affected person is having difficulty breathing, administer oxygen or apply artificial respiration and immediately contact a medical professional.

**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:** Not Determined

**Upper Flammable Limit (UFL):** Not available

**Auto Ignition:** Not available

**Rate of Burning:** Not available

**Hazardous Combustion Products**

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

**Extinguishing Media**

Carbon dioxide (CO<sub>2</sub>), water, water fog, 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 available

**Lower Flammable Limit (LFL):** Not available

**Flammability Classification:** Not available

**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****Proprietary Additive (Proprietary)**

ACGIH: 200 ppm TWA

**Ethylene glycol (107-21-1)**

OSHA: 50 ppm Ceiling; 125 mg/m<sup>3</sup> Ceiling

ACGIH: 100 mg/m<sup>3</sup> Ceiling (aerosol only)

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

Safety glasses with side shields, chemical goggles, or a face shield is required.

**Personal Protective Equipment: Skin**

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

**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.

<b>Section 9 - Physical &amp; Chemical Properties</b>
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<b>Appearance:</b>	Blue color	<b>Odor:</b>	amine
<b>Physical State:</b>	liquid	<b>pH:</b>	Not Determined
<b>Vapor Pressure:</b>	Not Determined	<b>Melting Point:</b>	Not Determined
<b>Boiling Point:</b>	Not Determined	<b>Percent Volatile:</b>	Not Determined
<b>Solubility (H<sub>2</sub>O):</b>	Moderate		
<b>Freezing Point:</b>	Not Determined		
<b>VOC:</b>	Not Determined		

<b>Section 10 - Stability &amp; Reactivity Information</b>
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**Stability**

These products are not reactive.

**Stability: Conditions to Avoid**

Keep away from ignition sources. Do not freeze. Do not thin.

**Incompatibility**

Strong acids, alkalis, and oxidizing agents

**Hazardous Decomposition**

May form carbon dioxide, carbon monoxide, halogenated hydrocarbons, nitrogen oxides, various hydrocarbons.

**Hazardous Polymerization**

Will not occur.

<b>Section 11 - Toxicological Information</b>
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**Acute Toxicity****A: General Product Information**

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

**B: Component Analysis - LD50/LC50**

**Triethyl phosphate (Present in Corbond III products only) (78-40-0)**

Oral LD50 Rat: 1165 mg/kg

**2-Propanol, 1-chloro-, phosphate (3:1) (13674-84-5)**

Inhalation LC50 Rat: 5 mg/L/4H; Inhalation LC50 Rat:>17.8 mg/L/1H; Oral LD50 Rat:500 mg/kg; Dermal LD50 Rat:>5000 mg/kg; Dermal LD50 Rabbit:1230 mg/kg

**Proprietary Additive (Proprietary)**

Oral LD50 Rat: 1235 mg/kg; Dermal LD50 Rabbit:>5 g/kg

**Diethyltoluenediamine (Present in Corbond III products only) (68479-98-1)**

Oral LD50 Rat: 472 mg/kg

**Ethylene glycol (107-21-1)**

Oral LD50 Rat: 4000 mg/kg; Dermal LD50 Rabbit:9530 µL/kg

**Ethylene oxide-Nonylphenol polymer (Present in Corbond III products only) (9016-45-9)**

Oral LD50 Rat: 1310 mg/kg; Dermal LD50 Rabbit:2 mL/kg

**Component Carcinogenicity**

**Ethylene glycol (107-21-1)**

ACGIH: A4 - Not Classifiable as a Human Carcinogen

**Chronic Toxicity**

Prolonged, excessive exposures to vapors may cause nervous system, kidney and liver damage.

**Section 12 - Ecological Information**

**Ecotoxicity**

**A: General Product Information**

No data available for this product.

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

**2-Propanol, 1-chloro-, phosphate (3:1) (13674-84-5)**

96 Hr LC50 Brachydanio rerio: 56.2 mg/L [static]; 96 Hr LC50 Leuciscus idus: 180 mg/L [static]; 96 Hr LC50 Pimephales promelas: 98 mg/L [static]; 96 Hr LC50 Poecilia reticulata: 30 mg/L [static]  
72 Hr EC50 Scenedesmus subspicatus: 45 mg/L; 96 Hr EC50 Selenastrum capricornutum: 4 mg/L  
48 Hr EC50 Daphnia magna: 63 mg/L

**Proprietary Additive (Proprietary)**

96 Hr LC50 Lepomis macrochirus: 135 mg/L [static]

**Ethylene glycol (107-21-1)**

96 Hr LC50 Oncorhynchus mykiss: 41000 mg/L; 96 Hr LC50 Oncorhynchus mykiss:14-18 ml/L [static]; 96 Hr LC50 Lepomis macrochirus:27540 mg/L [static]; 96 Hr LC50 Oncorhynchus mykiss:40761 mg/L [static]; 96 Hr LC50 Pimephales promelas:40000-60000 mg/L [static]; 96 Hr LC50 Poecilia reticulata:16000 mg/L [static]  
96 Hr EC50 Selenastrum capricornutum: 6500 - 13000 mg/L  
48 Hr EC50 water flea: 46300 mg/L

**Section 13 - Disposal Considerations**

**US EPA Waste Number & Descriptions**

**A: General Product Information**

Cure materials prior to disposal to minimize residual resin content. After curing, comply with applicable federal, state, and local regulations for disposal. Product characterization after use is recommended to ensure proper disposal under federal and/or state requirements. If uncured materials must be disposed, the product should be characterized and disposed in accordance with all applicable federal, state, and local regulations. Do not mix with uncured Part A in disposal containers. 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**

**Proprietary Additive (Proprietary)**

RCRA: waste number U079

**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.

<b>Section 15 - Regulatory Information</b>
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**US Federal Regulations****A: General Product Information**

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

**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).

**Proprietary Additive (Proprietary)**

CERCLA: 1000 lb final RQ; 454 kg final RQ

**Ethylene glycol (107-21-1)**

CERCLA: 5000 lb final RQ; 2270 kg final RQ

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

Other state regulations may apply. Check individual state requirements.

WARNING: This product contains a substance known to the state of California to cause cancer:

Formaldehyde CAS# 50-00-0 ~0.01%

1,4 Dioxane CAS#123-91-1 ~0.04%

Dichloromethane CAS# 75-09-2 <0.0028%

**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
Proprietary Additive	Proprietary	Yes	No	Yes	No	No	Yes
Ethylene glycol	107-21-1	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
1,1,1,3,3-Pentafluoropropane (HFC-245fa)	460-73-1	Yes	Yes	No
2-Butyne-1,4-diol, polymer with (chloromethyl)oxirane, brominated, dehydrochlorinated, methoxylated (present in Corbond III products only)	68441-62-3	Yes	Yes	No
Triethyl phosphate (Present in Corbond III products only)	78-40-0	Yes	Yes	Yes
2-Propanol, 1-chloro-, phosphate (3:1)	13674-84-5	Yes	Yes	Yes
Proprietary Additive	Proprietary	Yes	Yes	Yes
Diethyltoluenediamine (Present in Corbond III products only)	68479-98-1	Yes	Yes	Yes
Ethylene glycol	107-21-1	Yes	Yes	Yes
Ethylene oxide-Nonylphenol polymer (Present in Corbond III products only)	9016-45-9	Yes	Yes	No

**International Regulations****A: General Product Information**

**JM CORBOND III AND JM CORBOND III-2.8 ARE ONLY APPROVED FOR SALE AND USE IN THE UNITED STATES AND CANADA.**

**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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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.

<b>Date</b>	<b>MSDS #</b>	<b>Reason</b>
03/01/11	1079-1.0000	New JM product

End of Sheet 1079