



# Industrial Insulation Group, LLC

A Calsilite/Johns Manville Joint Venture

Date: 7/12/2010  
MSDS ID: 20510  
Revision: 1.0.2  
Replaces: 3/15/2006

## Material Safety Data Sheet

**Material Name:** Asphalt Reinforcing Fiber

### Section 1 - Chemical Product and Company Identification

**Product Name:** ARF (Asphalt Reinforcing Fiber)

#### **Manufacturer Information**

Industrial Insulation Group, LLC  
2100 Line Street  
Brunswick, GA 31520  
Web site: www.iig-llc.com

Phone number for Health and Safety Information: 970.858.6211 (M-F, 7:00a.m. to 4:00p.m. Mountain Time)

**Trade Name:** ARF

### Section 2 - Composition and Information on Ingredients

CAS#	Component	Percent	OSHA PEL	ACGIH TLV	NIOSH REL	UNITS
65997-17-3	Synthetic Vitreous Fiber	95+	15(T) 5(R)	1f/cc	NE	mg/M <sup>3</sup>
25104-55-6	Cured Binder	0 - 5	NE	NE	NE	
617-10-4	Cationic Wetting Agent	0 - 1	NE	NE	NE	

NE = Not Established

ACGIH TLV's are 2003 values. OSHA PEL's are those in effect on the date of preparation of this MSDS. The listed PELs, TVLs and RELs are time weighted average exposure limits.

### Section 3 - Hazards Identification

#### **Emergency Overview**

APPEARANCE AND ODOR: Bulk fiber is gree/yellow or green/gray.

Inhalation of excessive amounts of dust created when handling may cause temporary upper respiratory irritation and/or congestion - 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.

Prolonged contact with dust from this product may cause Dermatitis.

Acrid smoke may be generated in a fire, use normal fire fighting procedures to prevent inhalation of smoke and gases.

HMIS Rating: Health: 1, Fire: 0, Reactivity 0, Other: 0

NFPA Rating: Health: 1, Flammability: 0, Reactivity: 0

WHMIS Class: ARF is not a controlled product.

#### **Potential Health Effects**

##### **Summary**

Breathing dust from this product may cause a scratchy throat, congestion, and slight coughing.

Getting dust or fibers on the skin, or in the eyes may cause itching, rash, or redness.

Breathing large amounts of dust or fibers from this product may lead to chronic health effects as discussed in Section 11 of this Material Safety Data Sheet.

##### **Inhalation:**

If inhaled, remove the affected person to fresh air. If irritation persists, seek medical attention.

**Skin Contact:**

Dusts and fibers from this product may cause temporary mechanical irritation to the skin.

**Eye Contact:**

Dusts and fibers from this product may cause temporary mechanical irritation to the eyes.

**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.

**Target Organs:**

Upper respiratory passages, skin and eyes.

**Primary Routes of Entry (Exposure):**

Inhalation (breathing dust), skin, and eye contact.

**Medical Conditions Aggravated by Exposure:**

Chronic respiratory or skin conditions may temporarily worsen from exposure to this product.

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

Remove to fresh air. Drink water to clear throat, and blow nose to remove dust. If irritation persists, get medical attention.

**First Aid: Skin**

Wash gently with soap and warm water to remove dust. Use a wash cloth to help remove fibers. To avoid further irritation, do not rub or scratch affected areas. Rubbing or scratching may force fibers into the skin. If irritation persists get medical attention. Never use compressed air to remove fibers from the skin. Wash hands before eating or using the rest room.

**First Aid: Ingestion**

Product is not intended to be ingested or eaten. If this product is ingested, irritation of the gastrointestinal (GI) tract may occur, and should be treated symptomatically. Watch the person for several days to make sure that partial or complete intestinal obstruction does not occur. Do not induce vomiting unless directed to do so by medical personnel. Rinse mouth with water to remove material, and drink plenty of water to help reduce the irritation. No chronic effects are expected following ingestion.

**First Aid: Eyes**

Do not rub or scratch your eyes. Fibers may cause the eye to be scratched. Flush eyes with large amounts of water for at least 15 minutes. If irritation persists, contact a medical professional.

**First Aid: Notes to Physician**

This product is a mechanical irritant, and is not expected to produce any chronic health effects from acute exposures. Treatment should be directed toward removing the source of irritation with symptomatic treatment as necessary.

**Section 5 - Fire Fighting Measures**

<b>Flash Point:</b>	Not applicable	<b>Method Used:</b>	Not applicable
<b>Upper Flammable Limit (UFL):</b>	Not applicable	<b>Lower Flammable Limit (LFL):</b>	Not applicable
<b>Auto Ignition:</b>	Not determined	<b>Flammability Classification:</b>	Non combustible
<b>Rate of Burning:</b>	Not applicable		

**General Fire Hazard:**

There is no potential for fire or explosion.

**Extinguishing Media:**

Use any extinguishing media appropriate for the surrounding fires.

**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 produced by other materials.

**Section 6 - Accidental Release Measures****Containment Procedures:**

This material will settle out of the air. If concentrated on land, it can then be scooped up for disposal as a non hazardous waste. Vacuum dusts. If sweeping is necessary, use a dust suppressant such as water. Do not dry sweep dust accumulation or use compressed air for clean-up. These procedures will help to minimize potential exposures. This material will sink and disperse along the bottom of waterways and ponds. It can not easily be removed after it is waterborne; however, the material is non-hazardous in water.

### **Clean-Up Procedures:**

Wastes are not hazardous as defined by the RCRA (40 CFR 261). Comply with state and local regulations for disposal of these products. 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. Keep product in its packaging, as long as practicable to minimize potential dust generation. Keep work areas clean. Avoid unnecessary handling of scrap materials by placing them in waste disposal containers and equipment, kept as close to working areas as possible, to prevent release of fibers and dust. Good housekeeping practices should be used to prevent generation and accumulation of dusts. After handling product, wash face and hands before eating, drinking, or smoking.

#### **Storage Procedures:**

Warehouse storage should be in accordance with package directions, if any. Material should be kept dry, and protected from the elements.

### **Section 8 - Exposure Control and Personal Protection**

#### **General Product Information:**

Follow all applicable exposure limits and use OSHA-recommended equipment and work practices. A complete copy of these practices can be obtained from IIG MinWool LLC (see Section 1 of this Material Safety Data Sheet), and is also available on the OSHA website (<http://www.osha.gov/SLTC/syntheticmineralfibers>).

#### **Personal Protective Equipment: Eyes/Face**

Safety glasses with side shields are recommended to keep product out of the eyes.

#### **Personal Protective Equipment: Skin**

Leather or cotton gloves should be worn to prevent skin contact and irritation. Barrier creams may also be used to reduce skin contact and irritation caused by mineral fibers. Normal work clothing (long sleeved shirts and long pants) is recommended. Skin irritation is known to occur chiefly at the pressure points such as around the neck, wrists, waist and between the fingers.

#### **Personal Protection Equipment: Respiratory**

A respirator should be used if ventilation is unavailable, or is inadequate for keeping dust and fiber levels below the applicable exposure limits. In those cases, use a NIOSH-certified disposable or reusable particulate respirator with an efficiency rating of N95 or higher (under 42 CFR 84) when working with this product. Operations such as dumping, blowing, and spraying may generate airborne fiber concentrations requiring a higher level of respiratory protection. For exposures up to five times the established exposure limits use a quarter-mask respirator, rated N95 or higher; and for exposures up to ten times the established exposure limits use a half-mask respirator (e.g., MSA's DM-11, Racal's Delta N95, 3M's 8210), rated N95 or higher. For exposures up to 50 times the established exposure limits use a full-face respirator, rated N99 or higher.

#### **Ventilation**

In fixed manufacturing settings, local exhaust ventilation should be provided at areas of cutting to remove airborne dust and fibers. General dilution ventilation should be provided as necessary to keep airborne dust and fibers below the applicable exposure limits and guidelines. 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**

Loose-fitting, long sleeved clothing should be worn to protect the skin from irritation. Exposed skin areas should be washed with soap and warm water after handling.

### **Section 9 - Physical & Chemical Properties**

<b>Appearance:</b>	Fibrous.	<b>pH:</b>	Not applicable
<b>Odor:</b>	Organic	<b>Vapor Density:</b>	Not applicable
<b>Physical State:</b>	Solid	<b>Melting Point:</b>	>2100°F
<b>Vapor Pressure:</b>	Not applicable	<b>Specific Gravity:</b>	Not determined
<b>Boiling Point:</b>	Not applicable	<b>Freezing Point:</b>	Not applicable
<b>Solubility (H2O):</b>	Nil	<b>Evaporation Rate:</b>	Not applicable
<b>Viscosity:</b>	Not applicable	<b>Percent Volatile:</b>	0
<b>VOC:</b>	None		

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

### **Chemical Stability**

This is a stable material. This product is not reactive.

### **Hazardous Decomposition**

None.

### **Hazardous Polymerization**

Will not occur.

### **Incompatible Materials:**

This product reacts with hydrofluoric acid.

### **Hazardous Decomposition Products:**

Primary combustion products are carbon monoxide, carbon dioxide, ammonia, and water. Other undetermined compounds could be released in small quantities.

## **Section 11 - Toxicological Information**

### **Acute Toxicity**

#### **A: General Product Information:**

Dusts may cause mechanical irritation to eyes and skin. Ingestion may cause transient irritation of throat, stomach and gastrointestinal tract. Inhalation may cause coughing, nose and throat irritation, and sneezing. Higher exposures may cause difficulty breathing, congestion, and chest tightness.

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

No LD50/LC50's are available for this product or its components.

### **Carcinogenicity**

#### **A: General Product Information:**

In October 2001 the IARC concluded its evaluation of the carcinogenic risk of man made vitreous fibers. The result was a classification of the fibers as Group 3 (not classifiable as to the carcinogenicity to humans).

OSHA, NTP, IARC, and ACGIH have not classified this product in its entirety as a carcinogen.

OSHA, NTP, IARC, and ACGIH lists have been checked for those components with CAS registry numbers.

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

##### **Cured binder (25104-55-6)**

Oral LD50 Rat: 7 gm/kg.

Oral LD50 Mouse: 7gm/kg.

#### **C: Synthetic Vitreous Fiber (65997-17-3)**

ACGIH: A3 - animal carcinogen (related to rock wool fibers) with unknown relevance to humans.

IARC: Monograph 43, 1988 (related to Glass filaments) (Group 3 (not classifiable)).

## **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 & Description**

#### **A: General Product Information:**

This product, as supplied, is not regulated as a hazardous waste by the U.S. Environmental Protection Agency (EPA) under Resource Conservation and Recovery Act (RCRA) regulations. Comply with state and local regulations for disposal. If you are unsure of the regulations, contact your local Public Health Department, or the local office of the 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 - Transport Information**

### **US DOT Information:**

Shipping Name: This product is not classified a hazardous material for transport.

## **Section 15 - Regulatory Information**

### **US Federal Regulations**

#### **A: General Product Information:**

No information on this product as a whole. Formaldehyde content is below the SARA 131 0.1% 'de minimis' concentration.

#### **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).

##### **Synthetic Vitreous Fiber (65997-17-3)**

CERCLA: includes mineral fiber emissions from facilities manufacturing or processing glass rock or slag fibers (or other mineral derived fibers) of average diameter 1 micrometer or less; Statutory RQ = 1 pound (.454 kg); no final RQ is being assigned to the generic or broad class (related to Fine mineral fibers).

### **State Regulations**

#### **A: General Product Information:**

The following statement(s) are provided under the California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): **WARNING!** This product contains a chemical known to the state of California to cause cancer.

### **Other Regulatory Information**

#### **A: General Product Information:**

No information available for the product.

#### **B: TSCA Status:**

All ingredients of this product are included in the US EPA Chemical Substance Inventory or are not required to be listed.

#### **C: CERCLA:**

Includes mineral fiber emissions from facilities manufacturing or processing glass rock or slag fibers (or other mineral derived fibers) of average diameter 1 micrometer or less; Statutory RQ = 1 pound (.454 kg); no final RQ is being assigned to the generic or broad class (related to Fine mineral fibers).

#### **D: Clean Air Act:**

Mineral wool fiber appears on the Clean Air Act - 1990 Hazardous Air Pollutants List.

### **International Regulations**

#### **A: General Product Information**

##### **Canada Workplace Hazardous Materials Information Systems (WHMIS):**

WHMIS Classification: D2B - Irritant.

##### **B: Component Analysis - WHMIS IDL**

No components are listed in the WHMIS IDL.

## **Section 16 - Other Information**

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.

This MSDS prepared by the IIG Technical Services Dept.

### **Key/Legend:**

**EPA** = Environmental Protection Agency; **TSCA** = Toxic Substance Control Act; **ACGIH** = American Conference of Governmental Industrial Hygienists; **IARC** = International Agency for Research on Cancer; **NIOSH** = National Institute for Occupational Safety and Health; **NTP** = National Toxicology Program; **OSHA** = Occupational Safety and Health Administration; **NFPA** = National Fire Protection Association; **HMIS** = Hazardous Material Identification System; **RCRA** = Resource Conservation and Recovery Act; **CERCLA** = Comprehensive Environmental Response, Compensation and Liability Act; **SARA** = Superfund Amendments and Reauthorization Act; **DSL** = Canadian Domestic Substance List; **EINECS** = European Inventory of New and Existing Chemical Substances; **WHMIS** = Workplace Hazardous Materials Information System; **CAA** = Clean Air Act; **CHPA** = Canadian Hazardous Product Act; **IDL** = Canadian Hazardous Disclosure List

### **Revision Summary:**

This is a revised MSDS and replaces Revision 1.0.1 with VOC information. Get this and other MSDS forms electronically via internet: <http://www.iig-llc.com>.

As of the date of preparation of this document, the foregoing information is believed to be accurate and is provided in good faith to comply with applicable federal and state law(s). However, no warranty or representation with respect to such information is intended or given.

**IMPORTANT SAFETY NOTICE:** The information in this MSDS relates only to the specific material described herein and does not relate to use in combination with any other material or substance or in any process. Because of the use of this information and the conditions of use of this product are not within the control of Industrial Insulation Group, it is the users obligation to determine the conditions of safe use of this product. Users of this product should study this MSDS and become aware of the product hazards and safety information before using this product. Users should also notify their employees, agents, and contractors regarding information contained in this MSDS and any product hazards and safety information in order to provide for safe use of this product.