



# Industrial Insulation Group

A Calsilite/Johns Manville Joint Venture

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Rev: 1.0.4  
Replaces: 10/6/2003

## Material Safety Data Sheet

**Material Name:** Calcium Silicate Insulation

### Section 1— Chemical Product and Company Identification

**Product Name:** Thermo-12<sup>®</sup> Gold Calcium Silicate Insulation  
**CAS#** Mixture/None Assigned  
**Generic Name:** Insulation (Calcium Silicate)  
**Formula:** Mixture  
**Chemical Name:** Synthetic Calcium Silicate

#### **Manufacturer Information**

Industrial Insulation Group  
2100 Line Street  
Brunswick, GA. 31520

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

**Trade Name:** Thermo-12 Gold

### Section 2 — Composition and Information on Ingredients

CAS #	Component	Percent	OSHA	ACGIH	NIOSH	UNITS
			PEL	TLV	REL	
1344-95-2	Synthetic Calcium Silicate	> 93	15(T) 5(R)	10	10(T) 5(R)	mg/M <sup>3</sup>
51274-00-1	Iron-based color	< 1	15(T) 5(R)	10	NE	mg/M <sup>3</sup>
65997-17-3	Synthetic Vitreous Fiber	0 - 2	15(T) 5(R)	5	5	mg/M <sup>3</sup>
9004-34-6	Cellulose Fiber	0 - 2	15(T) 5(R)	10	10(T) 5(R)	mg/M <sup>3</sup>
1344-09-8	Sodium Silicate	0 - 6	15(T) 5(R)	10	NE	mg/M <sup>3</sup>

NE = Not Established

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

#### **Component Related Regulatory Information**

This product may be regulated, have exposure limits or other information identified as the following:  
Nuisance particulates.

### Section 3 — Hazards Identification

#### **Emergency Overview**

**APPEARANCE AND ODOR:** Odorless, Yellow semi-circle or block insulation with coloring throughout as a visual marker to indicate this is an asbestos-free product.

This product is an article and under normal conditions of use, this product is not expected to create any unusual emergency hazards. However, cutting, sawing, or abrading may increase the risk of personnel exposure.

Inhalation of excessive amounts of dust created when fabricating, cutting, or other mechanical alterations of the product 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.

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

HMIS Rating: Health: 1, Fire: 0, Reactivity 0, Other: 0  
WHMIS Class: Thermo-12 Gold is not a WHMIS 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

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

### Skin

Temporary irritation (itching) or redness may occur.

### 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

Temporary irritation (itching) or redness may occur.

### 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

Pre-existing chronic respiratory, skin, or eye diseases or conditions may be aggravated by 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.

### First Aid: Skin

Wash gently with soap and warm water to remove dust. 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 gastrointestinal (GI) tract may occur, and should be treated symptomatically. Rinse mouth with water to remove fibers, 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. Dust particles may cause the eye to be scratched. 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 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**

Pick up large pieces. 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.

### **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. 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**

This product may contain trace amounts of crystalline silica as a natural contaminant in the raw materials. However, standard industrial hygiene air monitoring surveys conducted under normal and test (worst-case) situations have not detected any airborne respirable crystalline silica in the occupational environment.

### **Personal Protective Equipment**

#### **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 fiber glass.

#### **Personal Protective 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. 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.

Operations such as sawing, blowing, tear out, and spraying may generate airborne fiber concentrations requiring a higher level of respiratory protection. 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**

**Appearance:** Semi-circle or block insulation with yellow coloring throughout as a visual marker to indicate this is an asbestos free product.

<b>Odor:</b>	Odorless	<b>pH:</b>	Not applicable
<b>Physical State:</b>	Solid	<b>Vapor Density:</b>	Not applicable
<b>Vapor Pressure:</b>	Not applicable	<b>Melting Point:</b>	1200-1500°C
<b>Boiling Point:</b>	Not applicable	<b>Specific Gravity:</b>	0.24-0.27
<b>Solubility (H2O):</b>	Nil	<b>Freezing Point:</b>	Not applicable
<b>Viscosity:</b>	Not applicable	<b>Evaporation Rate:</b>	Not applicable
<b>VOC:</b>	Not applicable	<b>Percent Volatile:</b>	0

## **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.

## **Section 11 — Toxicological Information**

### **Acute Toxicity**

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

The primary acute health effects of this product include mechanical irritation of the skin and eyes and skin dryness as a result of contact with dust, amorphous silica, and fibers.

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

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

### **Carcinogenicity**

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

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

#### **B: Component Carcinogenicity**

##### **Calcium silicate (1344-95-2)**

ACGIH: A4 - Not Classifiable as a Human Carcinogen

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

ACGIH: A4 - Not Classifiable as a Human Carcinogen (related to rock wool fiber)

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 & Descriptions**

#### **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.

#### **B: Component Analysis**

None of this product's 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.

### **Other Regulatory Information**

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

No information available for the product.

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

No information available for the product.

### **International Regulations**

#### **Canada Workplace Hazardous Materials Information System (WHMIS)**

WHMIS Classification: D2B— Irritant

Product classified as a manufactured article as defined in HPA, Section 11(1). Section 12(I) exempts it from the WHMIS supplier label and MSDS requirements of the Act.

#### **Component Analysis - WHMIS IDL**

The following components are identified under the CHPA IDL:  
Sodium Silicate—CAS 1344-09-8

## **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.

### **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; 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 which replaces Revision 1.0.3 with new formatting and clarified exposure limits. Get this and other MSDS forms electronically via Internet: <http://www.iig-llc.com> or by calling 1-970-858-6200.

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.