

## Material Name: Calcium Silicate Insulation

### Section 1 - Chemical Product and Company Identification

**Product Name:** Thermo-12® Calcium Silicate Insulation

**CAS#** Mixture/None Assigned

**Generic Name:** Insulation (Calcium Silicate)

**Formula:** Mixture

**Chemical Name:** Calcium Silicate

**Manufacturer Information**

Industrial Insulation Group, LLC

2100 Line Street

Brunswick, Ga. 31520

Emergency: 800-872-0338

**Trade Names:** Thermo-12® Gold

### Section 2 - Composition / Information on Ingredients

CAS #	Component	Percent
1344-95-2	Calcium Silicate	> 85
51274-00-1	Iron-based color	< 1
65997-17-3	Synthetic Vitreous Fiber	0 - 5
9004-34-6	Cellulose Fiber	0 - 5
1344-09-8	Sodium Silicate	0 - 10

### Section 3 - Hazards Identification

#### Emergency Overview

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

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

Inhalation of excessive amounts of dust from 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.

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 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.

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.

**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.

**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**

**Flash Point:** Not applicable  
**Upper Flammable Limit (UFL):** Not applicable  
**Auto Ignition:** Not determined  
**Rate of Burning:** Not determined

**Method Used:** Not applicable  
**Lower Flammable Limit (LFL):** Not applicable  
**Flammability Classification:** Not determined

**General Fire Hazards**

There is no potential for fire or explosion.

**Extinguishing Media**

Carbon dioxide (CO<sub>2</sub>), water, water fog, dry chemical.

**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**

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 Resource Conservation and Recovery Act (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.

### 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 Controls / Personal Protection

### Exposure Guidelines

#### A: 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.

Note: Due to the product form, exposures to hazardous dusts or fumes are not expected to occur. Exposure limits are given for reference only.

#### B: Component Exposure Limits

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

ACGIH: 10 mg/m<sup>3</sup> TWA

OSHA: total dust: 15 mg/m<sup>3</sup> TWA; respirable fraction: 5 mg/m<sup>3</sup> TWA

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

ACGIH: 1 f/cc TWA for fibers longer than 5 µm with a diameter less than 3 µm; 5 mg/m<sup>3</sup> TWA inhalable particulate; (Listed under 'Synthetic vitreous fibers')

OSHA: 5 mg/m<sup>3</sup> TWA respirable fraction (OSHA)

15 mg/m<sup>3</sup> TWA total dust (OSHA) (related to Synthetic Vitreous Fiber)

##### Sodium silicate (1344-09-8)

ACGIH: inhalable particulate: 10 mg/m<sup>3</sup> TWA; respirable particulate: 3 mg/m<sup>3</sup> TWA (related to Particulates not otherwise classified (PNOC))

OSHA: total dust: 15 mg/m<sup>3</sup> TWA; respirable fraction: 5 mg/m<sup>3</sup> TWA (related to Particulates not otherwise regulated)

### PERSONAL PROTECTIVE EQUIPMENT

#### Personal Protective Equipment: Eyes/Face

Safety glasses with side shields are recommended to keep dust 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 a 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:** Yellow semi-circle or block insulation with yellow coloring throughout as a visual marker to indicate this is an asbestos free product.

**Odor:** Odorless

**Physical State:** Solid

**Vapor Pressure:** Not applicable

**Boiling Point:** Not applicable

**Solubility (H<sub>2</sub>O):** Nil

**Viscosity:** Not applicable

**VOC:** Not applicable

**pH:** Not applicable

**Vapor Density:** Not applicable

**Melting Point:** Not determined

**Specific Gravity:** 0.24-0.27

**Freezing Point:** Not applicable

**Evaporation Rate:** Not applicable

**Percent Volatile:** 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 amorphous silica.

#### B: Component Analysis - LD<sub>50</sub>/LC<sub>50</sub>

No LD<sub>50</sub>/LC<sub>50</sub>'s are available for this product's components.

### 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

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

ACGIH: A4 - Not Classifiable as a Human Carcinogen

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

ACGIH: A3 - 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 - Transportation 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 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
Calcium silicate	1344-95-2	No	Yes	Yes	Yes	No	Yes
Synthetic Vitreous Fiber	65997-17-3	No	No	No	Yes	No	No
Cellulose Fiber	9004-34-6	No	No	No	No	No	No
Sodium Silicate	1344-09-8	Yes	Yes	Yes	Yes	Yes	Yes
Iron Based Color	51274-00-1	No	No	No	No	No	No

**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
Calcium silicate	1344-95-2	Yes	Yes	Yes
Synthetic Vitreous Fiber	65997-17-3	Yes	Yes	Yes
Sodium Silicate	1344-09-8	Yes	Yes	Yes
Iron Based Color	51274-00-1	Yes	Yes	Yes
Cellulose Fiber	9004-34-6	Yes	Yes	Yes

**International Regulations****A: General Product Information****Canada Workplace Hazardous Materials Information System (WHMIS):**

Product classified as a manufactured article as defined in HPA section 11(1).

**B: Component Analysis - WHMIS IDL**

No components are listed in the WHMIS IDL.

**Section 16 - Other Information****Other Information**

Prepared for:

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