

Material Name: Fireproofing Boards

Section 1 - Chemical Product and Company Identification

Product Name: Super Firetemp™ Calcium Silicate, Caltemp Gold 1700

CAS# Mixture/None Assigned

Generic Name: Insulation (Calcium Silicate)

Formula: Mixture

Chemical Name: Mixture

Hazard Label: CSI-003

Manufacturer Information

Industrial Insulation Group, LLC

2100 Line Street

Brunswick, Ga. 31520

Emergency: 800-872-0338

Trade Names: Super Firetemp™ L, M, H, X, S and Caltemp Gold 1700

Section 2 - Composition / Information on Ingredients

CAS #	Component	Percent
1344-95-2	Calcium silicate	>90
1302-78-9	Aluminum Silicate	>1
1309-37-1	Iron Oxide	<1
9004-34-6	Cellulose	>1
65997-17-3	Continuous filament glass fibers	>1
14808-60-7	Crystalline silica	<0.5

Component Related Regulatory Information

This product may be regulated, have exposure limits or other information identified as the following: Glass filaments, Silica, crystalline (general form).

Additional Component Information

This product may contain trace amounts of crystalline silica. 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 product form, this product qualifies as an article in that its end use is dependant upon its shape and design, and which under normal conditions of use does not release more than very small quantities of a hazardous chemical and does not pose a physical hazard or health risk to employees. Exposure limits are given for reference only.

Section 3 - Hazards Identification

Emergency Overview

APPEARANCE AND ODOR: Odorless, white or yellow insulation boards.

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.

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, and dry skin 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 applicable

Rate of Burning:

Not applicable

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 (CO₂), 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
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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
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Exposure Guidelines

A: General Product Information

This product may contain trace amounts of crystalline silica. 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.

B: Component Exposure Limits

Calcium silicate (1344-95-2)

ACGIH: 10 mg/m³ TWA (The value is for particulate matter containing no asbestos and < 1% crystalline silica)
OSHA: total dust: 15 mg/m³ TWA; respirable fraction: 5 mg/m³ TWA

Aluminum silicate (1302-78-9)

ACGIH: 10 mg/m³ TWA (The value is for particulate matter containing no asbestos and < 1% crystalline silica)
OSHA: total dust: 15 mg/m³ TWA; respirable fraction: 5 mg/m³ TWA

Continuous filament glass fibers (65997-17-3)

ACGIH: 1 f/cc TWA for fibers longer than 5 µm with a diameter less than 3 µm; 5 mg/m³ TWA inhalable particulate; (Listed under 'Synthetic vitreous fibers') (related to Continuous filament glass fibers)
OSHA: 5 mg/m³ TWA respirable fraction (OSHA)
15 mg/m³ TWA total dust (OSHA) (related to Continuous filament glass fibers)

Cellulose (9004-34-6)

ACGIH: 10 mg/m³ TWA
OSHA: total dust: 15 mg/m³ TWA; respirable fraction: 5 mg/m³ TWA

Crystalline silica (14808-60-7)

ACGIH: 0.05 mg/m³ TWA (this TLV is for the respirable fraction of dust)
OSHA: respirable dust: 0.1 mg/m³ TWA

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 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. Clothing should be washed separately from other clothes, and the washer should be rinsed thoroughly (run empty for a complete wash cycle). This will reduce the chances of fiber glass being transferred to other clothing.

Section 9 - Physical & Chemical Properties

Appearance: White or yellow insulation boards
Odor: Odorless
Physical State: Solid
Vapor Pressure: Not applicable
Boiling Point: Not applicable
Solubility (H₂O): 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 calcium silicate dust and silica.

B: Component Analysis - LD50/LC50

Cellulose (9004-34-6)

Inhalation LC50 Rat : >5800 mg/m³/4H

Oral LD50 Rat : >5 gm/kg

Dermal LD50 Rabbit : >2 gm/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 in its entirety as a carcinogen.

B: Component Carcinogenicity

Calcium silicate (1344-95-2)

ACGIH: A4 - Not Classifiable as a Human Carcinogen

Aluminum silicate (1302-78-9)

ACGIH: A4 - Not Classifiable as a Human Carcinogen

Continuous filament glass fibers (65997-17-3)

ACGIH: A4 - Not Classifiable as a Human Carcinogen (related to Continuous filament glass fibers)

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

Crystalline silica (14808-60-7)

ACGIH: A2 - Suspected Human Carcinogen

NTP: Known Carcinogen (Select Carcinogen)

IARC: Monograph 68, 1997; (inhaled in the form of quartz or cristobalite from occupational sources)

(Group 1 (carcinogenic to humans))

Chronic Toxicity

Crystalline silica is considered a hazard by inhalation. The International Agency for Research on Cancer (IARC) has classified crystalline silica as a Group 1 substance, carcinogenic to humans. This classification is based on the findings of laboratory animal studies (inhalation and implantation) and epidemiology studies that were considered sufficient for carcinogenicity. Excessive exposure to respirable crystalline silica can cause silicosis, a non-cancerous lung disease. Crystalline silica has not been classified by the Occupational Safety and Health Administration (OSHA).

No chronic health effects are known to be associated with exposure to continuous filament fiber glass. Results from epidemiological studies have not shown any increases in respiratory disease or cancer. The International Agency for Research on Cancer (IARC) has classified continuous filament fiber glass as a Group 3 substance, not classifiable as to its carcinogenicity to humans. Because of the large diameter of continuous filament fibers, these products are not considered respirable.

A detailed listing of references on fiber glass health effects can be found in the publication HSE-64C, "Health and Safety Aspects of Fiber Glass," which can be downloaded from Johns Manville's internet homepage, www.jm.com (select "Health Safety and Environment").

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: 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.

Material Name: Calcium Silicate Insulation Material Safety Data

Sheet ID: 2005

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
Continuous filament glass fibers	65997-17-3	No	No	No	Yes	No	No
Cellulose	9004-34-6	No	No	Yes	Yes	No	Yes
Crystalline silica	14808-60-7	No	Yes	Yes	Yes	Yes	Yes

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

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
Aluminum silicate	1302-78-9	Yes	Yes	Yes
Iron Oxide	1309-37-1	Yes	Yes	Yes
Continuous filament glass fibers	65997-17-3	Yes	Yes	Yes
Cellulose	9004-34-6	Yes	Yes	Yes
Crystalline silica	14808-60-7	Yes	Yes	Yes

Component Analysis - WHMIS IDL

Component	CAS#	
Iron Oxide	1309-37-1	1% item 762 (1327)

Section 16 - Other Information**Other Information**

Prepared for:

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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.