

Material Safety Data Sheet

Material Name: Calcium Silicate Insulation.

Section 1 - Chemical Product and Company Identification

Product Name: Thermo-12® 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, 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)

Section 2 - Composition and Information on Ingredients

CAS#	Component	Percent	OSHA	ACGIH	NIOSH	UNITS
			PEL	TLV	REL	
1344-95-2	Synthetic Calcium Silicate	>90	15(T) 5(R)	10	10(T) 5(R)	mg/M ³
1344-09-8	Sodium Silicate	0 - 6	15(T) 5(R)	10	NE	mg/M ³
9004-34-6	Cellulose Fiber	0 - 4	15(T) 5(R)	10	10(T) 5(R)	mg/M ³
61788-77-0	Synthetic Cellulose Fiber	0 - 4	15(T) 5(R)	10	10(T) 5(R)	mg/M ³

NE = Not Established

ACGIH TLV's are 2006 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.

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.

Inhalation:

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

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 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. Rinse mouth with water then 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

Method Used:

Not applicable

Upper Flammable Limit (UFL):

Not applicable

Lower Flammable Limit (LFL):

Not applicable

Auto Ignition:

Not determined

Flammability Classification:

Non combustible

Rate of Burning:

Non combustible

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 dust. 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 (worse-case) situations have not detected any reportable crystalline silica in the respirable dust 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.

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. Operations such as sawing, fabricating, or cutting may generate airborne particulate concentrations requiring a higher level of respiratory protection. 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. For exposure limits 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

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

Odor:	Odorless	pH:	Not applicable
Physical State:	Solid	Vapor Density:	Not applicable
Vapor Pressure:	Not applicable	Melting Point:	1200-1500 °C
Boiling Point:	Not applicable	Specific Gravity:	0.24 - 0.27
Solubility (H₂O):	Nil	Freezing Point:	Not applicable
Viscosity:	Not applicable	Evaporation Rate:	Not applicable
VOC:	0, None	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 dust 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:**All the components**

ACGIH: A4 - Not Classifiable as a Human Carcinogen

IARC: 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.

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 Systems (WHMIS):

WHMIS Classification: D2B - Irritant

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

Component Analysis - WHMIS IDL

None of the ingredients are listed in the CHPA 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 which replaces Revision 1.0.5. The major change is to revise the date and list of ingredients. 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.