

MATERIAL SAFETY DATA SHEET

MANUFACTURER: Owens-Corning Fiberglas Corp.
Fiberglas Tower
Toledo, Ohio 43659

HEALTH INFORMATION PHONE & EMERGENCY PHONE:
8:00 AM-5:00 PM (EST); (419)-248-8234
Emergencies only, after 5:00 PM (EST); (419)-248-5330

PRODUCT DIVISION: Insulation Operating Division (INSOD)

TECHNICAL PRODUCT INFORMATION PHONE:
8:00 AM-5:00 PM (EST); (419)-248-8757

DATE PREPARED: February 13, 1990

SUPERSEDES MSDS DATED: November 16, 1988

PRODUCT NAME(s): KAYLOTM AF INSULATION

SECTION I - COMPONENT DATA

HAZARDOUS INGREDIENTS:

COMMON NAME	CHEMICAL NAME	CAS NUMBER	% COMPOSITION	OSHA-PEL	ACGIH-TLV
Cal Sil	Calcium Silicate	1344-95-2	90	^a	10 mg/m ³ , 8-hr TWA (total nuisance dust)
Wood Pulp	Natural cellulose	9004-34-6	8	^a	10 mg/m ³ , 8-hr TWA (total nuisance dust)
Mica	Muscovite	12001-25-2	1	20 Mppcf ^b , 8-hr TWA	3 mg/m ³ , 8-hr TWA (respirable dust)
Red Iron Oxide	Ferric Oxide or Iron (III) Oxide	1309-37-1	1	^c	5 mg/m ³ , 8-hr TWA (dusts & fumes, total)
Quartz ^d	Crystalline Silica	14808-60-7	< 1	0.1 mg/m ³ , 8-hr TWA (respirable dust)	0.1 mg/m ³ , 8-hr TWA (respirable dust)

^a For inert or nuisance dusts, the OSHA PEL is 5 mg/m³ for the respirable fraction, and 15 mg/m³ total dust for an 8-hr TWA.

^b Mppcf = million particles per cubic foot of air based on impinger samples counted by light-field techniques.

^c There is an 8-hr TWA OSHA-PEL of 10 mg/m³ for iron oxide fume. A fume is defined as an aerosol of solid particles produced by condensation of vaporized materials such as iron metal. In normally accepted uses, iron oxide pigments are not present in the form of a fume. The ACGIH-TLV of 5 mg/m³ for an 8-hr TWA is listed for both iron oxide dusts and fumes.

^d This product contains low levels of crystalline silica (less than 1 percent) as a contaminant.

SECTION II - PHYSICAL DATA

MELTING POINT (°F): 2192

BOILING POINT (°F): NA

SPECIFIC GRAVITY (H₂O=1): 2.9

PERCENT VOLATILE BY VOLUME: NA

VAPOR PRESSURE (mmHg @ 20°C): NA

VAPOR DENSITY (Air=1): NA

EVAPORATIVE RATE (Ethyl Ether=1): NA

SOLUBILITY IN WATER: NA

APPEARANCE AND ODOR: White or pink, odorless solid. Pink Kaylo contains red iron oxide pigment.

pH: NA

PLAINTIFF'S EXHIBIT

ASA-561

SECTION III - FIRE AND EXPLOSION DATA

FLASH POINT (oF): NA

METHOD USED: NA

AUTO IGNITION TEMPERATURE (oF): NA

FLAMMABILITY LIMITS (%): LEL: NA UEL: NA

EXTINGUISHING MEDIA: Not applicable, material does not burn.

SPECIAL FIRE-FIGHTING INSTRUCTIONS: Not applicable, material does not burn.

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

NA = Not Applicable ND = Not Determined

SECTION IV - REACTIVITY DATA

STABILITY (Conditions to Avoid): Product is stable.

INCOMPATIBILITY (Materials to Avoid): None known.

HAZARDOUS DECOMPOSITION PRODUCTS: None known.

HAZARDOUS POLYMERIZATION: Will not occur.

SECTION V - HEALTH HAZARD DATA

PRIMARY ROUTES OF EXPOSURE: Inhalation, skin contact.

HEALTH HAZARDS (Including acute and chronic effects and symptoms of overexposure):

ACUTE : Inhalation: Inhalation of dusts generated from sawing, grinding or other forms of mechanical alteration of this product may result in itching and mechanical irritation of the upper respiratory tract (i.e., mouth nose and throat).

Skin Contact: Skin contact may produce itching and temporary mechanical irritation.

Eye Contact: Eye contact with dusts of this product may result in mechanical irritation.

Ingestion: No known acute health effects by ingestion. Exposure by this route is unlikely to occur.

CHRONIC: Inhalation: This product contains low levels of crystalline silica as a contaminant (less than 1 percent).

Prolonged and repeated exposures through inhalation of respirable crystalline silica can cause silicosis, a chronic lung disease characterized by fibrosis and scarring of the lung tissue resulting in a decrease in lung function, breathlessness, wheezing, coughing, and sputum production. Normal conditions of use of this product are not anticipated to result in exposures to crystalline silica above the OSHA-PEL or the ACGIH-TLV. However, prudent industrial hygiene practices should be followed to minimize exposures.

The International Agency for Research on Cancer (IARC) has classified crystalline silica as a probable cancer causing agent (Group 2A). According to IARC, increased rates of lung cancer have been reported among some workers in mines, quarries, foundries, ceramics and granite and stone cutting industries. The workers were also exposed to other potential carcinogens such as radon and tars. In making it's evaluation, IARC concluded that the evidence of carcinogenicity of crystalline silica in humans is "limited".

SECTION V - HEALTH HAZARD DATA - cont.

CARCINOGENICITY:

<u>HAZARDOUS INGREDIENTS:</u>	<u>LISTED AS A CARCINOGEN BY:</u>	<u>ACGIH</u>	<u>IARC</u>	<u>NTP</u>	<u>OSHA</u>
Calcium silicate		No	No	No	No
Cellulose		No	No	No	No
Ferric Oxide		No	No ¹	No	No
Mica		No	No	No	No
Crystalline Silica		No	Yes ²	No	No

¹ IARC classified iron (III) oxide (also known as ferric oxide) as a Group 3 compound, not classifiable as to its carcinogenicity to humans. This classification was based on inadequate data in humans, and evidence in animals which suggested a lack of carcinogenicity for ferric oxide.

² IARC classified crystalline silica as a "probable human carcinogen" (Group 2A) based on sufficient evidence for carcinogenicity in animals, and limited evidence for carcinogenicity in humans.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Persons with a history of chronic lung disease may be at increased risk from exposure to excessive concentrations of dusts. Persons with medical conditions generally aggravated by mechanical irritants in the air or on the skin may be at increased risk.

SECTION VI - EMERGENCY AND FIRST-AID PROCEDURES

INHALATION: Move individual to fresh air. Seek medical attention if irritation persists.

SKIN CONTACT: Wash with mild soap and water.

EYE CONTACT: Flush eyes with flowing water for at least 15 minutes. Seek medical attention if irritation persists.

INGESTION: Observe individual; if symptoms develop, consult a physician.

Note to physician: Treat symptomatically.

SECTION VII - EMPLOYEE PROTECTION

VENTILATION: Under normal conditions of use general exhaust ventilation is sufficient. Under conditions in which the product is sawed, drilled, ground or otherwise mechanically altered local exhaust ventilation should be used to minimize exposure to dusts.

RESPIRATORY PROTECTION: Worker exposures to airborne dusts should be measured to assess the need for respiratory protection. If exposure levels are unknown, if exposure monitoring shows that the OSHA-PELs or ACGIH-TLVs are exceeded or if irritation occurs, minimal respiratory protection should be used and would consist of a NIOSH/MSHA approved air purifying respirator for dusts, such as a 3M Model 8710 or, in high humidity environments, a 3M Model 9900. Depending upon exposure levels, a more protective respirator may be necessary. Use respiratory protection in accordance with your company's respiratory protection program and OSHA regulations under 29 CFR 1910.134.

EYE PROTECTION: Safety glasses, goggles, or a face shield should be worn whenever this product is fabricated or used in such a manner that dusts are generated that could get into the eyes.

PROTECTIVE CLOTHING: Long sleeved clothing, long pants, and gloves.

WORK/HYGIENIC PRACTICES: Handle in accordance with good industrial hygiene and safety practices. These practices include avoiding unnecessary exposures to dusts, removal of the material from skin and eyes after exposure by washing with soap and water, and removal of the material from clothing. (Use vacuum equipment to remove dusts from clothing. Compressed air should never be used.) Keep the work area clean of dusts generated during fabrication. (Use vacuum equipment to clean up dusts. Avoid sweeping or using compressed air as these techniques resuspend dusts into the air.) Safety showers and eye wash stations should be available.

SECTION VIII - ENVIRONMENTAL PROTECTION

ACTION TO TAKE FOR SPILLS (Use Appropriate Safety Equipment): NA

WASTE DISPOSAL METHOD: Dispose in accordance with federal, state and local regulations as a non-hazardous solid waste.

EPA HAZARDOUS WASTE NUMBER: This product is not regulated under the "RCRA" hazardous waste regulations.

SECTION IX - STORAGE PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: No special handling procedures required.

SECTION X - SHIPPING INFORMATION

DOT SHIPPING DESCRIPTION: Not regulated by DOT.

HAZARD CLASSIFICATION: (Primary) NA

(Secondary) NA

ID NUMBER: NA

IMO CLASS NUMBER: NA

STCC NUMBER: 3299648

LABEL(S) REQUIRED (if not excepted): NA

EPA HAZARDOUS SUBSTANCE: NA

RD VALUE: NA

PACKAGING REQUIREMENTS (49CFR): (Specific) NA

(Exceptions) NA

MAXIMUM NET QUANTITY IN ONE PACKAGE: (Cargo only aircraft) NA

(Passenger aircraft) NA

IATA PACKAGING GROUP: NA

FREIGHT DESCRIPTION: Calcium silicate insulation (NMFC 103080)

ADDITIONAL INFORMATION: None

SECTION XI - ADDITIONAL INFORMATION

SARA Title III HAZARD CATEGORIES AND LISTS:

CATEGORIES:

ACUTE HEALTH:	Yes
CHRONIC HEALTH:	Yes
FIRE HAZARD:	No
PRESSURE HAZARD:	No
REACTIVITY HAZARD:	No

SARA III LISTINGS:

SEC. 302 (SEC. 304 reportable), EXTREMELY HAZARDOUS SUBSTANCES:	No
CERCLA HAZARDOUS SUBSTANCE (SEC. 304 reportable):	No
SEC. 313, TOXIC CHEMICALS:	No

NPCA - HMIS RATING:

HEALTH (acute):	1
FLAMMABILITY:	0
REACTIVITY:	0
PERSONAL PROTECTION:	*

NFPA RATING:

HEALTH:	0
FLAMMABILITY:	0
REACTIVITY:	0
UNUSUAL HAZARDS:	None

* Personal protective equipment requirements must be supplied by the user depending on use conditions.

Proposition 65: Warning: This product contains a material known to the State of California to cause cancer.