May 2015

MATERIAL SAFETY DATA SHEET

INDUSTRIES 3R

IDENTITY

Part Number: **3R 4080 (Transite HT)**
Identity: Calcium Silicate Board
Description: Calcium Silicate Board

SUPPLIER

Industries 3R inc.
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COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL NAME	*# CAS*	*%*	*ACGIH / TLV*	*OSHA / PEL*
Calcium Silicate	1344-95-2	55 – 75	10 mg/ m³	5 mg/ m³
Calcium Metasilicate (Wollastonite)	13983-17-0	20 – 40	3 mg/ m³	5 mg/ m³
Natural Organic fibers	65996-61-4	0 – 5	None	None
Crystalline Silica (Quartz)	14808-60-7	0.1-2	0.025 mg/ m³	10 mg/ m³/SiO2+2)

Key: TLV= ACGIH, 8 hr. time weighted average (TWA)
PEL=OSHA permissible exposure limit.
TLV and PEL limits are for total respirable (Inhalable) dust.
Note: (1) TLV and PEL values are 8-hour time-weighted averages for respirable dust, unless otherwise specified. (2) The TLV values are for particulate matter containing no asbestos and <1% crystalline silica. (3)*= Total Dust.

PHYSICAL AND CHEMICAL PROPERTIES

Physical Form: Solid sheets. Gray. No characteristic odor.
Odor Threshold: N/A
Boiling Point N/A
Melting Point: > 2300°F (1260°C)
Specific Gravity: approx.. 1.6
pH: N/A
Solubility in Water (%): Insoluble
Evaporation Rate: N/A
Solubility in Water: Insoluble
Density @ 68°F(20°C): N/A
Vapor Pressure: N/A
% Volatile by Vol./ Wt.: N/A
Viscosity: N/A

FIRE-FIGHTING MEASURES

NFPA Classification: Not classified by the National Fire Protection Agency (NFPA).
Flammable Properties and Explosive Limits:
Flash Point: non-flammable.
Autoignition: N/A
UFL/UEL: N/A
LFL/LEL: N/A
Extinguishing Method: Dry chemical, carbon dioxide (CO_2), water fog, or foam.
Fire and explosion Hazards: This product is non-flammable and does not pose a significant fire or

explosion hazard.
Special Fire-fighting Procedures: No special firefighting equipment is necessary. Use extinguishing media appropriate for the surrounding fire. Firefighters should wear protective clothing and use a self-contained breathing apparatus (SCBA).
Hazardous Products of Combustion: During initial exposure to service temperatures, smoke may be emiited which can cause transitory irritation to the lungs and upper respiratory system.

STABILITY AND REACTIVITY INFORMATION

Stability: Product is stable under normal conditions.
Incompatibilities: Crystalline silica (quartz) is incompatible with hydrofluoric acid, fluorine, chloride trifluoride and oxygen difluoride.
Conditions to avoid: Avoid strong acids and ammonium salts. Contact with powerful oxidizing agents (i.e. fluorine, chlorine trifluoride) may present a fire hazard.
Hazardous polymerization: Will not occur.
Hazardous Products of Decomposition: Crystalline silica will dissolve in hydrofluoric acid and product silicon tetrafluoride, a corrosive gas.

EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls: Maintain sufficient mechanical or natural ventilation to assure dust concentrations remain below the established PEL/TLV. Use local exhaust if necessary. Power equipment should be equipped with properly designed dust collection devices.
Respiratory protection: Wear a NIOSH-approved dust mask (i.e., 3M 8511 N-95 or equivalent) to limit exposure to product dust. Respiratory selection should be based on the level of exposure as measured by dust sampling. Concentrations that exceed the recommended dust mask limits may require a higher level of protection, such as a half-mask respirator with appropriate dust filters.
Eye protection: Wear safety glasses with side shields, goggles or face shield when cutting, milling or abrading to protect eyes against dust and airborne particulates. Selection and use of eye protection should comply with ANSI Z87.1-1-1989 and applicable OSHA standards.
Skin protection: Under normal conditions, protective gloves and a clean body covering are sufficient. Direct skin contact with dust and debris can be further minimized by wearing long-sleeved shirts and long trousers.

ACCIDENTAL RELEASE MEASURES

Personal Precautions: If dusty conditions exist (i.e. during cutting, sanding or milling), wear a NIOSH-approved dust mask, such as the 3M 8511 N-95. Or equivalent.
Environmental Precautions: Environmental precautions are not normally required. This product does not pose a significant threat to the environment.
Clean-Up Procedures: Before clean-up, wet down dust and debris with a fine water spray to supress airborne particulates. Pick up, shovel or sweep material into an approved waste disposal container. Use equipment fitted with a high-efficiency particulate (HEPA) filter to vacuum clean dust.

DISPOSAL CONSIDERATIONS

Waste Disposal Method: May be disposed in an approved landfill in accordance with local, state and federal regulations. If this product has become contaminated in service, place in an approved hazardous waste container. Seal and properly label the container, and send to a Transportation, Storage and Disposal (TSD) facility via an approved waste hauler.

HAZARDS IDENTIFICATION

Emergency Overview: This product contains crystalline silica, a chronic health hazard by inhalation. Prolonged exposure may cause permanent and irreversible lung damage, including silicosis, and increase the risk of lung cancer, kidney and liver damage. Silicosis is a rapidly progressive, non-cancerous lung disease that is often fatal. Symptoms include shortness of breath, cough, fever, weight-loss and chest pain.

Cigarette smoking may increase the risk of silicosis, bronchitis, pneumoconiosis, and lung cancer in persons also exposed to crystalline silica.

NFPA Rating: **Health:** 1 **Fire:** 0 **Physical Hazard:** 0 **Special Hazard:** 0

HMIS Rating: **Health:** 1 **Fire:** 0 **Physical Hazard:** 0 **PPE Code:** E

Hazard Category: Acute (Immediate) Health Hazard; Chronic (Delayed) Health Hazard

Routes of Entry: Lungs and respiratory system via respirable dust (inhalation), and eyes via coarse dust and particles.

Target Organs: Lungs, respiratory system, and eyes.

Signs and Symptoms of Overexposure:

Inhalation: Respirable airborne particle may cause transitory irritation to the lungs and upper respiratory system. Symptoms of overexposure may include shortness of breath, coughing and chest pain.

Skin Contact: Long-term exposure to product dust may cause dryness and/or irritation.

Eye Contact: Product dust is a mechanical irritant which may cause moderate to severe eye irritation and dryness.

Ingestion: Non-hazardous when ingested. May cause mild irritation to the gastro-intestinal (GI) tract and mouth if excessive quantities are ingested.

Medical Conditions Aggravated by Exposure: Medical conditions which may be aggravated by exposure to this product include dry skin and/or dermatitis, and pre-existing chronic upper respiratory and lung disease such as bronchitis, emphysema and asthma.

Carcinogenicity: Crystalline silica, inhaled in the form of quarts and/or cristobalite, has been classified by the International Agency for Research on Cancer (IARC) as a Group 1 – known human carcinogen, and by the Associated of Governmental Industrial Hygienists (ACGIH) as a Group A2 – suspected human carcinogen.

FIRST AID MEASURES

Inhalation: Remove to fresh air. Drink water to clear throat and blow nose to evacuate remaining dust. If coughing and irritation develop, seek medical attention.

Eye Contact: Flush with large amounts of water until irritation subsides, as least 15 minutes. Seek medical attention if irritation persists.

Skin Contact: Normal good personal hygiene practices. Wash with mild soap and warm water after each exposure.

Ingestion: Emergency first-aid procedures are not normally required following ingestion. However, this product may cause temporary irritation to the gastro-intestinal (GI) tract and mouth if excessive quantities are ingested.

HANDLING AND STORAGE

Storage Requirements: Store in a cool, dry, well ventilated area away from food and beverages. Keep away from reactive materials and always separate materials by hazard class. Refer to *Stability and Reactivity Information* for incompatibility information and conditions to avoid.

Handling Precautions: Calcium silicate boards do not present a hazard in their intact state. Assure proper respiratory protection during cutting, milling or sanding, or if the dust potential exceeds the established TLV/PEL. Refer to *Exposure Controls and Personal Protection* for incompatibility information and conditions to avoid.

TRANSPORTATION INFORMATION

U.S. Department of Shipping (DOT)

Shipping Name: Not a U.S. Department of Transportation (DOT) controlled substance.

Hazard Class: N/A

UN/NA Number: N/A

Label/ Placard: N/A

Packing Group: N/A

International Dangerous Goods Information:

ICAO: Not regulated as a dangerous good according to the International Aviation Organization (ICAO) technical instructions.

IMO/IMDG: Not regulated as dangerous good according to the International Maritime Organization's (IMO) dangerous goods code.

TDG/ TDGA: Not regulated as dangerous good according to the Canadian Transportation of Dangerous Goods (TDG) Act.

Special Provision: This product does not require special transport provisions.

TOXICOLOGICALE / ECOLOGICAL INFORMATION

Toxicological Hazards:

Wollastonite: Studies of wollastonite mill and mine workers suggest that long-term cumulative exposure to wollastonite dust may cause decreased pulmonary function and/or mild industrial bronchitis, particularly in workers who smoke.

Crystalline silica will:	Long-term overexposure to respirable crystalline silica may cause permanent and irreversible lung damage, including silicosis, and increase the rusk of lung cancer, kidney and liver damage. Silicosis is a rapidly progressive, non-cancerous lung disease that is often fatal.
Teratogenic Effects:	No additional information is available.
Mutagenic Effects:	No additional information is available.
Ecotoxicity:	Most ingredients in this product are naturally occurring minerals and, unless contaminated in service, are not hazardous to the environment.
BOD5/ COD:	No additional information is available.

Products of Biodegradation: No additional information is available.

REGULATORY INFORMATION

TSCA Inventory: All ingredients are listed on the Toxic Substances Control Act (TSCA) inventory.

DSL (Canada): All ingredients are listed, or exempt from inclusion, on the Canadian Domestic Substances List (DSL).

CERCLA Reportable Quantity (RQ): Does not contain any hazardous substances in excess of the CERCLA de minimis reportable quantity.

Superfund Amendments and Reauthorization Act (SARA) Title III

Section 302/304: This product contains the following Extremely Hazardous Substances (EHS) as defined and listed under SARA Title III, Sections 302 and 304:

Chemical Name	***Sec 302 TPQ***	***Section 304 RQ***
None		

Section 311/312: This product meets the following EPA Hazard Categories as defines and listed under SARA Title III, Section 311 and 312:

Acute Hazard: Yes

Chronic Hazard: Yes

Fire Hazard: No

Reactivity Hazard: No

Pressure Hazard: No

Section 313: This product contains the following substances subject to the reporting requirements of SARA Title III, Section 313:

Chemical Name	***Sec 302 TPQ***	***Section 304 RQ***

None

Other regulatory Classification:

California Proposition 65: This product contains the following substances known to the State of California to cause cancer: Crystalline silica.

State RTK Lists: Crystalline silica (quartz), (CAS No.: 14808-60-7): MA, MN, NJ, PA, RI

WHMIS (Canada): Class D-2A: Material causing other toxic effects: Very Toxic – Chronic

DSCL (Europe): R48/20: Harmful – Danger of serious damage to health by prolonged exposure through inhalation. R36: Irritating to the eyes. R39: Danger of serious irreversible effects. R45: May cause cancer.

ADDITIONAL INFORMATION

The information, details, dimensions and values indicated are to our best knowledge. We recommend testing according to local conditions. The specifications are subject to change without notice.