



INDUSTRIES 3R

MATERIAL SAFETY DATA SHEET

IDENTITY

Part Number: **3R 870**
 Identity: Compressed rubber-bonded aramid fiber gasket sheet
 Description: Aramid fiber, rubber bonded & vulcanized under pressure
 Other Generic Names: Non-asbestos sheet, compressed non-asbestos sheet, non-asbestos gasket sheet

SUPPLIER

Industries 3R inc.
 55, route 116 Ouest
 Danville (Québec) J0A 1A0
 Tel: 819-839-2793
 Fax: 819-839-2797

COMPOSITION/INFORMATION ON INGREDIENTS

COMPONENT	# CAS	%
Styrene-butadiene, Nitrile and natural Rubbers	Proprietary	10-25%
Barium Sulfate	7727-43-7	15 – 35
Hydrated Amorphous Silica	112926-00-8	5 – 12
Mica	12001-26-2	20 – 40
Zinc Oxide	1314-13-2	<2
Crystalline Silica, Quartz	14808-60-7	<2

* The crystalline silica, quartz in this product is inextricably bound in a manner that no exposure occurs during normal use and handling. Therefore the product is not classified as a carcinogen or Specific Target Organ Toxicity Repeat Exposure Category 1.

HAZARDS IDENTIFICATION

GHS Classification:

Physical: Health
 Combustible Dust: Not Hazardous

Label Elements:

Warning!
 May form combustible dust concentrations in air.

PHYSICAL AND CHEMICAL PROPERTIES

Appearance (physical state, color, etc.): White sheet. Flat or rolled sheet ranging from 1/64" through 1/8" in thickness; or material may be cut into gasket shapes.

Odor: No odor.

Odor threshold: Not applicable

pH: Not applicable

Melting point/Freezing point: Not applicable

Boiling point: Not applicable

Flash point: Not applicable

Evaporation rate: n/d

Flammability (solid, gas): Not applicable

Flammable limits: LEL: Not applicable

UEL: Not applicable

Vapor pressure: Not applicable

Vapor density:	Not applicable
Relative density:	1.96
Solubility:	Insoluble in water
Partition coefficient: n-octanol/water:	Not applicable
Auto-ignition temperature:	Not available
Decomposition temperature:	Not available
Viscosity:	Not applicable

FIRE-FIGHTING MEASURES

Suitable (and unsuitable) extinguishing media:	Use any extinguishing media that is appropriate for the surrounding fire. This product is an ordinary combustible. Water is most effective.
Specific hazards arising from the chemical:	Solid product will burn slowly under fire conditions. Avoid generating dust. Fine dust dispersed in air in sufficient concentrations and in the presence of an ignition source is a potential dust explosion hazard. Thermal decomposition can yield oxides of carbon and nitrogen, hydrogen cyanide and small amounts of aliphatic and aromatic hydrocarbons.
Special Fire Fighting Procedures:	Fight as any normal fire using self-contained breathing apparatus (SCBA) and full protective clothing where exposed to smoke.

STABILITY AND REACTIVITY

Reactivity:	Not reactive.
Chemical stability:	Stable.
Possibility of hazardous reactions:	None known.
Conditions to avoid:	Avoid open flames.
Incompatible materials:	Avoid contact with strong oxidizers
Hazardous decomposition products:	Thermal decomposition can yield oxides of carbon and nitrogen, hydrogen cyanide and small amounts of aliphatic and aromatic hydrocarbons.

EXPOSUR CONTROLS/PERSONAL PROTECTION

Exposure guidelines:

Component	Exposure Limit/Source
Mica	20 mppcf TWA(respirable) OSHA PEL 3 mg/m ³ TWA ACGIH TLV (respirable)
Barium Sulfate	5 mg/m ³ (respirable), 15 mg/ m ³ (total dust) TWA OSHA PEL 10 mg/m ³ TWA ACGIH TLV (inhalable)
Styrene-Butadiene, Nitrile and Natural Rubbers	None Established
Hydrated Amorphous Silica	80 mg/m ³ TWA OSHA PEL %SiO ₂
Crystalline Silica, quartz	10 mg/m ³ TWA OSHA PEL (respirable fraction) %SiO ₂ +2 30 mg/m ³ TWA OSHA PEL (total dust) %SiO ₂ +2 0.025 mg/m ³ TWA ACGIH TLV (respirable)
Zinc Oxide	5 mg/m ³ (respirable), 15 mg/ m ³ (total dust) TWA OSHA PEL 2 mg/m ³ TWA (respirable), 10 mg/m ³ STEL (respirable) ACGIH TLV

FIRST AID MEASURES

Eyes: Flush with plenty of water, especially under eyelids. Get medical attention if irritation persists.

Skin: No first aid should be needed. Get medical attention if irritation occurs and persists.

Inhalation: If irritation or other symptoms occur, remove to fresh air. Get medical attention if irritation or symptoms persist.

Ingestion: No adverse effects are expected. Consult a physician if large amounts are swallowed.

Most important symptoms/effects, acute and delayed: Dust may cause mechanical eye irritation. Prolonged contact may cause mild skin irritation. Inhalation of dust may cause nose, throat and upper respiratory tract irritation.

Indication of immediate medical attention and special treatment, if necessary: No immediate medical attention is required.

ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment, and emergency procedures: None required under normal conditions of use.

Environmental hazards: Report spill as required by local and federal regulations.

Methods and materials for containment and cleaning up: Pick-up solid material for reuse or disposal. Collect dust using dustless method (HEPA vacuum or wet method) and place in appropriate container for disposal or use. Do not use compressed air. Do not sweep up.

HANDLING AND STORAGE

Precautions for safe handling: Avoid creation and inhalation of dust. Provide local exhaust ventilation at points where dust may be generated during cutting and processing. Do not use compressed air for cleaning.

Follow good housekeeping procedures to minimize the accumulation of dust in the workplace.

Conditions for safe storage: No special storage required.

TOXICOLOGICAL AND ECOLOGICAL INFORMATION

The hazardous components in this product are not volatile and bound in a polymer matrix so exposure to these chemicals does not occur under normal handling conditions. Dust may be generated while cutting or processing.

Potential Health Effects:

Eye Contact: Dust may cause mechanical abrasion or injury.

Skin Contact: Prolonged contact may mild irritation.

Ingestion: No toxic effects are expected. Ingestion of large amounts may cause gastrointestinal irritation.

Inhalation: Inhalation of dust that may be generated in processing may cause nose, throat and upper respiratory tract irritation. Inhalation of zinc oxide may cause metal fume fever, characterized by metallic taste in the mouth and flu-like symptoms. Symptoms resolve in 24-48 hours.

Chronic Hazards: Prolonged inhalation of dust may cause a fibrotic lung disease (pneumoconiosis) and lung cancer. Symptoms include cough, shortness of breath, wheezing, non-specific chest illness and reduced pulmonary function. This disease is exacerbated by smoking. Individuals with pneumoconiosis are predisposed to develop tuberculosis.

Carcinogen: This product contains crystalline silica, quartz. Crystalline silica, quartz is listed by IARC as a "Carcinogenic to Humans" (Group 1) and as a "Known to be a Human Carcinogen" by NTP. This chemical is inextricably bound in a manner that no exposure occurs during normal use and handling. Therefore this product is not classified as a carcinogen. None of the other components of this product are listed as a carcinogen by IARC, NTP or OSHA.

Acute Toxicity Data:

Mica: No toxicity data available

Barium Sulfate: Oral rat LD50 307 g/kg, Dermal rat LD50 >2000 mg/kg

Styrene-Butadiene, Nitrile and Natural Rubbers: No toxicity data available

Hydrated Amorphous Silica: No toxicity data available

Crystalline Silica, Quartz: Oral rat LD50 >22,500 mg/kg

Zinc Oxide: Oral rat LD50 >5000 mg/kg; Inhalation rat LC50 > 5.7 mg/L/4 hr; Dermal rabbit LD50; > 2000 mg/kg

Ecotoxicity:

Mica: No data available

Barium Sulfate: 96 hr LC50 Danio rerio >3.5 mg/L, 48 hr EC50 daphnia magna 14500 ug/L, 72 hr EC50

Pseudokirchnerella subcapitata > 1.15 mg/L

Styrene-Butadiene, Nitrile and Natural Rubbers: No data available

Hydrated Amorphous Silica: No data available

Crystalline Silica, Quartz: No data available

Zinc Oxide: 96 hr LC50 Pimephales promelas 330 µg/L; 48 hr EC50 Daphnia magna 2.6 mg/L; 72 hr EC50

Pseudokirchnerella subcapitata 136 µg/L

Persistence and degradability: No data available.

Bioaccumulative potential: No data available. Not expected to bioaccumulate.

Mobility in soil: No data available.

Other adverse effects: The product is not expected to cause adverse effects to aquatic organisms.

DISPOSAL CONSIDERATIONS

Waste Disposal Method: Dispose in accordance with all applicable local, state/provincial and federal regulations. Local regulations may be more stringent than regional and national requirements. It is the responsibility of the waste generator to determine the toxicity and physical characteristics of the material to determine the proper waste identification and disposal in compliance with applicable regulations.

TRANSPORT INFORMATION

Not Regulated

Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Not applicable – product is transported only in packaged form.

Special precautions: None known.

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.