



INDUSTRIES 3R

SAFETY DATA SHEET

SECTION 1. IDENTIFICATION

IDENTITY:

Part Number:

3R872

Identity:

Compressed non-asbestos gasket sheet

Description:

Gasket material

SUPPLIER :

Industries 3R Inc.

55, route 116 Ouest

Danville (Québec) J0A 1A0

Tel: 819-839-2793

Fax: 819-839-2797

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification:

Physical	Health
Combustible Dust	Not Hazardous

Label Elements:

Warning!

May form combustible dust concentrations in air.

SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

Component	CAS#	Percentage
Mica	12001-26-2	25-50
Nitrile and Natural Rubbers	Proprietary	10-25
Fiberglass	65997-17-3	8-20
Hydrated Amorphous Silica	112926-00-8	5-10
Graphite	7782-42-5	2-8
Barium Sulfate	7727-43-7	<3
Kaolin	1332-58-7	<2
Zinc Oxide	1314-13-2	<2
Crystalline Silica, quartz*	14808-60-7	<1
Carbon Black*	1333-86-4	<1

* The crystalline silica, quartz and carbon black in this product are 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.

SECTION 4. 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.

SECTION 5. 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.

SECTION 6. 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.

SECTION 7. 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.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure guidelines:

Component	Exposure Limit/Source
Mica	20 mppcf TWA(respirable) OSHA PEL 3 mg/m ³ TWA ACGIH TLV (respirable)
Nitrile and Natural Rubbers	None Established
Fiberglass	1 fiber/cc TWA ACGIH TLV (respirable fibers) 5 mg/m ³ TWA ACGIH TLV (inhalable)
Hydrated Amorphous Silica	<u>80 mg/m³</u> TWA OSHA PEL %SiO ₂

Barium Sulfate	5 mg/m ³ (respirable), 15 mg/ m ³ (total dust) TWA OSHA PEL 10 mg/m ³ TWA ACGIH TLV (inhalable)
Graphite	1 fiber/cc TWA ACGIH TLV (respirable fibers) 5 mg/m ³ TWA ACGIH TLV (inhalable)
Kaolin	5 mg/m ³ (respirable), 15 mg/ m ³ (total dust) TWA OSHA PEL 2 mg/m ³ TWA (respirable) ACGIH TLV
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
Crystalline Silica, quartz	<u>10 mg/m³</u> TWA OSHA PEL (respirable fraction) %SiO ₂ +2 <u>30 mg/m³</u> TWA OSHA PEL (total dust) %SiO ₂ +2 0.025 mg/m ³ TWA ACGIH TLV (respirable)
Carbon Black	3.5 mg/m ³ TWA OSHA PEL 3 mg/m ³ TWA ACGIH TLV (inhalable)

Definitions:

PEL means OSHA Permissible Exposure Limit.

TLV means American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Value.

TWA means time-weighted average.

STEL means short-term exposure limit.

Appropriate engineering controls: No special ventilation required for handling solid material. Local exhaust or process enclosures may be needed if dust is generated in processing.

Personal Protective Measurers:

Respiratory Protection: None required for handling solid material. If processing generates dust and engineering controls are not available to control the exposures, appropriate respiratory protection may be required. Selection of respiratory protection depends on the contaminant type, form and concentration. Select in accordance with OSHA 1910.134 and good Industrial Hygiene practice.

Skin Protection: None normally required.

Eye Protection: Follow facility requirements.

Other Protective Equipment: None normally required. Wear protective clothing in dusty environments.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance (physical state, color, etc.): Black 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:
Flammability (solid, gas): Not applicable	
Flammable limits: LEL: Not applicable	UEL: Not applicable
Vapor pressure: Not applicable	Vapor density: Not applicable
Relative density: 1.65	Solubility: Insoluble in water
Partition coefficient: n-octanol/water: Not applicable	Auto-ignition temperature: Not available
Decomposition temperature: Not available	Viscosity: Not applicable

SECTION 10. 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.

SECTION 11. TOXICOLOGICAL 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 product contains Carbon black. Carbon black is listed by IARC as a "Possibly Carcinogenic to Humans" (Group 2B). These chemicals are 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

Nitrile and Natural Rubbers: No toxicity data available

Fiberglass: No toxicity data available

Hydrated Amorphous Silica: No toxicity data available

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

Graphite: Oral rat LD50>2000 mg/kg, Inhalation LC50 >2.0 mg/L/4 hr (no mortalities occurred)

Kaolin: No toxicity data available

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

Carbon Black: Oral rat LD50 >8000 mg/kg, Inhalation rat LC50 >4.6 mg/m³ /4 hr, Dermal rat LD50 >2000 mg/kg

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity:

Mica: No data available

Nitrile and Natural Rubbers: No data available

Fiberglass: 96 hr LC50 Danio rerio >1000 mg/L, 72 hr EC50 daphnia magna >1000 mg/L, 72 hr EC50

Hydrated Amorphous Silica: 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

Graphite: 96 hr LC50 Danio rerio >100 mg/kg, 48 hr EC50 daphnia magna >100 mg/L, 72 hr EC50

Pseudokirchnerella subcapitata >100 mg/L

Kaolin: 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
 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.

SECTION 13. 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.

SECTION 14. TRANSPORT INFORMATION

	UN Number	Proper shipping name	Hazard Class	Packing Group	Environmental Hazard
DOT		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.

SECTION 15. REGULATORY INFORMATION

Safety, health, and environmental regulations specific for the product in question.

EPA SARA 311 Hazard Classification: Not Hazardous
EPA SARA 313 Chemicals: This product contains the following chemicals listed under SARA 313:

Zinc Compounds (zinc oxide)	1314-13-2	<2%
Barium Compounds (barium sulfate)	7727-43-7	<3%

Hazardous Substance (40CFR 116) CERCLA: This product is not subject to CERCLA reporting requirements as it is sold. Many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

California Proposition 65: This product contains the following chemicals known to the State of California to cause cancer and/or reproductive toxicity:

Crystalline Silica, quartz	14808-60-7	<1%	Cancer
----------------------------	------------	-----	--------

EPA Toxic Substances Control Act (TSCA) Status: All of the components of this product are listed on the TSCA inventory.

SECTION 16. OTHER INFORMATION

NFPA Hazard Rating: Health: 0 Fire: 1 Reactivity: 0

HMIS Hazard Rating: Health: 1 Fire: 1 Reactivity: 0

DISCLAIMER – The information provided in this Safety Data Sheet is based on our current knowledge. While the information and recommendations set forth herein are believed to be accurate, Industries 3R takes no warranty with respect thereto and disclaims all liability in reliance thereon. We recommend testing according to local conditions. The specifications are subject to change without notice.