

MATERIAL SAFETY DATA SHEET

Ventilation Duct

FILE NO.:

MSDS DATE: 1/06/2018

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME:

Ventilation Duct

MANUFACTURER:

Rivers Carbon Technologies

DIVISION:

Rivers Mining

ADDRESS:

49b William Pickering Drive
Rosedale, Albany
Auckland,
New Zealand

TELEPHONE: +64 2 352592

FAX PHONE:

EMERGENCY PHONE: +64 2 352592

PRODUCT USE:

Underground mine ventilation ducting

PREPARED BY:

Stephen Beaumont
General Manager
Rivers Carbon Technologies

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENTS:

Carbon fibre cloth, Poly honeycomb core, Epoxy resin system

CAS NO.

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Carbon fibre cloth	7440-44-0	42.9%
Poly honey comb core		28.6%
Epoxy Resin System		28.4%

OSHA PEL-TWA:

Dust 15mg/m3

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ACCIH TLV.TWV:

Dust 1 Omg/m³

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SECTION 3: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:

May cause temporary mechanical irritation of the eyes, skin or upper respiratory tract. If sized, vapor or fumes generated from heating or burning of this product may cause eye and respiratory tract irritation. Carbon fibre or dust are electrically conductive and may create electrical short-circuits which could result in damage to and malfunction of electrical equipment and/or personal injury.

POTENTIAL HEALTH EFFECTS

EYES:

Dust may cause irritation or scratch the surface of the eye.

SKIN:

Skin contact with dust or fibres of this product may produce itching and transient mechanical irritation.

INGESTION:

Ingestion is not expected to be a route of exposure. If ingestion occurs, treat symptomatically.

INHALATION:

Inhalation of dust may result in itching and upper respiratory tract irritation.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:

Persons with a history of chronic lung disease, eye or skin disorders may be at increased risk from exposure to excessive levels of nuisance dusts. Persons with medical conditions generally aggravated by mechanical irritants in the air or on the skin may be at increased risk for a worsening of the underlying condition if exposed.

CARCINOGENICITY

When mechanically working with these products, some dust may be generated. Generated dust can cause eye irritation, coughing and sneezing. Repeated excessive exposures may cause chronic lung disorders. Repeated exposure to dust may cause chronic lung disorders.

SECTION 4: FIRST AID MEASURES

EYES:

Flush with water for 15. Seek medical attention if irritation persists.

SKIN:

Wash exposed area with soap and water. Do not rub or scratch irritated area. If carbon fibres become deeply imbedded, seek medical attention.

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INGESTION:

Avoid ingestion. Treat symptomatically.

INHALATION:

Move to fresh air. Seek medical attention if irritation persists.

SECTION 5: FIRE-FIGHTING MEASURES

FLAMMABLE LIMITS IN AIR, UPPER: Not applicable (%BY VOLUME) LOWER: Not applicable

FLASH POINT:

F: Not applicable

C: Not applicable

METHOD USED: Not applicable

AUTOIGNITION TEMPERATURE:

F: Not applicable

C: Not applicable

NFPA HAZARD CLASSIFICATION

HEALTH:

FLAMMABILITY: 1

REACTIVITY:

OTHER: None

HMIS HAZARD CLASSIFICATION

HEALTH: 1

FLAMMABILITY: 1

PHYSICAL HAZARD: 0

PROTECTION:

EXTINGUISHING MEDIA:

Foam, carbon dioxide, water fog or dry powder.

SPECIAL FIRE FIGHTING PROCEDURES:

Wear positive pressure self-contained breathing apparatus with full face shield. Fire fighting should only be performed by professionals trained and equipped to handle hazardous material incidents.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

Decomposition and combustion products may be toxic

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HAZARDOUS DECOMPOSITION PRODUCTS:

Carbon monoxide, carbon dioxide, nitrogen oxides, hydrocarbons, hydrogen cyanide.

SECTION 6: ACCIDENTAL RELEASE MEASURES

ACCIDENTAL RELEASE MEASURES:

Product is inert and should pose no significant hazard to the environment.

SECTION 7: HANDLING AND STORAGE

HANDLING AND STORAGE:

Store away from direct sunlight and UV light sources.

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

VENTILATION:

Provide general engineering controls such as enclosures, exhaust, and dust collection systems whenever possible to maintain airborne vapors, dust and fibres below established exposure limits.

RESPIRATORY PROTECTION:

Where dust is generated use a NIOSH approved half or full face air purifying respirator with dust/mist filter cartridges. Use in accordance with OSHA regulations under 29 CFR 1910.134

EYE PROTECTION:

If dust is generated wear glasses with side shields.

SKIN PROTECTION:

Wear loose fitting, long sleeved clothing and long pants. Wear gloves impermeable to fibres.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT:

Wear closed footwear.

WORK HYGIENIC PRACTICES:

The health hazards associated with this material when used as recommended are mechanical skin, eye and respiratory irritation associated with the generation of fiberglass composite dusts during machining or cutting. The following general hygiene considerations are recognized as common, good industrial hygiene practices:

- Wash hands after use and before eating or using the toilet, with soap and water
- Shower at the end of the workday.
- Wash work clothes separately and wipe out washer at the end of the cycle.
- Avoid breathing dust
- Use vacuum to remove dust from clothing and work areas.

EXPOSURE GUIDELINES:

There are no hazardous components in this material as received; however cutting, sanding, drilling, or other fabricating this material may produce dust.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:

Black pipe

ODOR:

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None

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PHYSICAL STATE:

Solid

pH AS SUPPLIED:

Not applicable

BOILING PONT:

Not applicable

MELTING POINT:

F: 6512 °F

c: 3600°C

FREEZING POINT:

Not applicable

VAPOR PRESSURE (mmHg):

Not applicable

VAPOR DENSITY (AIR - 1):

Not applicable

SPECIFIC GRAVITY (H2O - 1):

1.g-2 @

o
o

EVAPORATION RATE:

Not applicable

SOLUBILITY IN WATER:

No

PERCENT SOLIDS BY WEIGHT:

100%

PERCENT VOLATILE:

Not applicable

VOLATILE ORGANIC COMPOUNDS (VOC):

Not applicable

VISCOSITY:

Not applicable

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SECTION 10: STABILITY AND REACTIVITY

STABILITY:

Stable

CONDITIONS TO AVOID (STABILITY):

Strong oxidizing agents, strong acids and bases.

INCOMPATIBILITY (MATERIAL TO AVOID):

None

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS:

Toxic fumes and gases, carbon dioxide, carbon monoxide, hydrogen cyanide, oxides of nitrogen and other toxic and irritation gases can be produced depending on condition of combustion.

HAZARDOUS POLYMERIZATION:

Will not occur.

SECTION 11: TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION:

For detailed toxicological information on the components of this material, contact the address listed in section 1 of this MSDS

SECTION 12: ECOLOGICAL INFORMATION

ECOLOGICAL INFORMATION:

None found. However any discharge to the environment should be avoided.

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD:

If material as supplied becomes a waste, incinerate or landfill in accordance with local, state and federal laws and regulations. Incinerate only if incinerator is capable of scrubbing out hydrogen fluoride and other acidic combustion products.

SECTION 14: TRANSPORT INFORMATION

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Product is considered nonhazardous by DOT, IMDG and IATA

SECTION 15: OTHER INFORMATION

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