Material Name: Mineral Wool Insulation

1. Identification:

1.1 Product Generic Name: Mineral Wool Insulation

1.2 Product Use: Commercial and Industrial Insulation

1.3 Product: IFT – 1200 Pipe

1.4 Company Address: Industrial Fiber-Tek Inc.
   6860 Whiteoak Drive
   Richmond British Columbia Canada
   V7E 4Z9

1.5 Emergency Phone: (604) 562-9882 (M-F 9:00am – 5:00pm PST)

1.6 24 Hour Emergency: 613-996-6666 (Canada Only)

2. Product Ingredients:

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS Number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mineral Fiber</td>
<td>65997-17-3</td>
<td>94-99</td>
</tr>
<tr>
<td>Cured Urea Extended Phenol/Formaldehyde Binder</td>
<td>25104-55-6</td>
<td>1-6</td>
</tr>
</tbody>
</table>

3. Hazards Identification:

3.1 Appearance: Grey, green pre-formed pipe.

3.2 Odour: Odourless.

3.3 Emergency Overview: Acrid smoke may be generated in a fire.
   Exposure to dust may be irritating to eyes, nose, and throat.

3.4 Potential Health Effects:

   Inhalation: Temporary irritation of the upper respiratory tract – may result from exposure to dust and fibers.

   Skin Contact: Dust and fibers may cause temporary mechanical irritation to the skin or redness to the skin.

   Eye Contact: Dust and fibers may cause temporary mechanical irritation to eyes or redness to the eyes.

   Ingestion: Ingestion of this product is unlikely, should it occur, it may cause gastrointestinal irritation.
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4. First–Aid Measures:

4.1 Inhalation: If inhaled, remove the affected person to fresh air, drink water and blow nose, to clear dust and fibers from throat and nose.

4.2 Skin Contact: If irritation occurs, do not rub or scratch. Rinse under running water before washing with mild soap and water. If irritations persist get medical attention.

4.3 Eye Contact: Flush eyes with water for at least 15 minutes. Do not rub eyes. Consult with a physician if irritation persists.

4.4 Ingestion: Ingestion of this product is unlikely. If it does occur, rinse mouth with water to remove fibers. Drinking water may help reduce gastrointestinal irritation. Do not induce vomiting unless directed.

5. Fire-Fighting Measures:

5.1 Extinguishing media: Use any extinguishing media appropriate for the surrounding fire.

5.2 Extinguishing media which must not be used for safety reasons: None

5.3 Combustion products: Carbon dioxide, carbon monoxide and trace gases.

5.4 Special protective equipment for fire-fighters: Observe normal fire fighting procedures.

5.5 Flash point: None

Upper Flammable Limited (UFL): Not Applicable   Lower Flammable Limited (LFL): Not Applicable
Autoignition: Not Applicable   Explosive Properties: None

6. Accidental Release Measures:

6.1 Cleanup Procedures: Pick up large pieces and scoop up dust and fibers after they have settled out of the air. Vacuum is the preferred method. If sweeping, use a dust suppressant to minimize potential exposures.

6.2 Containment Procedures: The material will settle out of the air. It can then vacuumed and is non-hazardous waste.

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7. Handling and Storage:

7.1 Handling:
- Keep product in package until installation to avoid unnecessary handling of product.
- Keep work areas clean. Avoid unnecessary handling of scrap material and debris by placing such materials in suitable containers, which should be kept as close to the work area as possible.
- Avoid excessive eye and skin contact with dusts and fibers.
- Use recommended cleanup procedures to avoid buildup of dusts and fibers in the work area.

7.2 Storage:
- Store material in dry conditions protected from elements including precipitation.

8. Exposure Control/Personal Protection:

8.1 Exposure Guidelines:

8.1.1 General Product Information: Follow all applicable exposure limits. Local regulations may apply.

8.1.2 Component Exposure Limits:

<table>
<thead>
<tr>
<th>Source</th>
<th>Legal or Recommended Exposure Limit</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td>OSHO</td>
<td>1 f/cc TWA (recommended)</td>
<td>For fibers &gt; 5µm with diameter &lt; 3 µm</td>
</tr>
<tr>
<td>ACGIH</td>
<td>1 f/cc TWA (threshold Limit value-TLV)</td>
<td>For fibers &gt; 5µm in length with diameter &lt; 3 µm</td>
</tr>
<tr>
<td>OSHA</td>
<td>15 mg/m³ TWA – PEL (total particulate)</td>
<td>Inert dust and particulates not otherwise regulated</td>
</tr>
<tr>
<td></td>
<td>5 mg/m³ TWA – PEL (respirable particulate)</td>
<td></td>
</tr>
<tr>
<td>ACGIH</td>
<td>10 mg/m³ TWA – TLV (inhalable particulate)</td>
<td>Particulates not otherwise classified, containing no asbestos and &lt; 1% crystalline silica</td>
</tr>
<tr>
<td></td>
<td>3 mg/m³ TWA – TLV (respirable particulate)</td>
<td></td>
</tr>
</tbody>
</table>

Note: Following all applicable exposure limits. OSHA -recommended equipment and work practices, OSHA PEL of 1 f/cc – TWA and OSHA.

8.2 Personal Protective Equipment:

8.2.1 Respiratory Dust Protection
Use a 3M Model 8210 or equivalent, NIOSH certified dust respirator with efficiency rating of N95 or higher. For high humidity environments use a 3M Model 9900 or equivalent.

8.2.2 Skin Protection
Wear loose fitting, long sleeve shirts and long pants. Hats and impervious gloves are recommended. Removed fiber from clothes before leaving work to reduce potential skin irritation.

8.2.3 Eye Protection
Wear safety goggles or safety glasses with side shields protection. Use of contact lenses is not recommended.
9. Physical and Chemical Properties:

9.1 Appearance: Grey, green fibrous material
9.2 Physical State: Solid
9.3 Odour: May have slight resin odour
9.4 Boiling Point: n/a
9.5 Melting Point: > 2000 °F (1143 °C)
9.6 Vapor Pressure: n/a
9.7 Vapor Density: n/a
9.8 Specific Gravity: n/a
9.9 Evaporation Rate: n/a
9.10 Freezing Point: n/a
9.11 Viscosity: n/a
9.12 Solubility (H₂O): Insoluble

n/a = not applicable

10. Stability and Reactivity:

10.1 Stability: Stable
10.2 Reactivity: Not reactive
10.3 Hazardous Decomposition:
Primary combustion products are carbon monoxide, carbon dioxide, ammonia, and water. Other undetermined components could be released in trace quantities. Emission usually only occurs during the first heating. The released gases may be irritating to the eyes, nose and throat during initial heat up. Use appropriate respirators (air supplied) particularly in tightly confined or poorly ventilated areas during initial heat up.

10.4 Hazardous Polymerization: Will not occur
10.5 Incompatible Materials: This product reacts with hydrofluoric acid

11. Toxicological Information

11.1 Acute Toxicity:
Fibers and dust from mineral wool can cause temporary mechanical irritation of the eyes and upper respiratory tract. Inhalation may cause coughing and nose and throat irritation.

11.2 Chronic Toxicity:
In October 2001 the international Agency for Research on Cancer (IARC) concluded its re-evaluation of the carcinogenic risk of mineral wool fiber. The result was a reclassification of the fibers from Group 2B (possible carcinogenic to humans) to Group 3 (not classifiable as to the carcinogenicity to humans). Epidemiological studies published during the 15 years prior to the 2001 IARC review provide no evidence of increased risk of cancer from occupational exposure during manufacture or use of mineral wool fiber.
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11.3 Evaluation of Potential Carcinogenicity:

<table>
<thead>
<tr>
<th>Source</th>
<th>Classification</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>IARC</td>
<td>Group 3</td>
<td>Not Classifiable as a human carcinogen</td>
</tr>
<tr>
<td>ACGIH</td>
<td>Group A3</td>
<td>Confirmed animal carcinogen with unknown relevance to humans.</td>
</tr>
</tbody>
</table>

12. Ecological Information:

12.1 Ecotoxicity: No data available for the products. The products are stable, are not expected to cause harm to animals, plants or fish, and have no other known adverse environmental effects.

12.2 Environmental Fate: No data available for the products.

13. Disposal Considerations:

13.1 US EPA Waste Number and Descriptions:

13.2 General Information: The product as supplied, are not expected to be a characteristic hazardous waste under RCRA if discarded.

13.3 EPA Waste Numbers: No EPA waste number are applicable for their product’s components.

14. Transportation Information:

14.1 General Information: No special precautions.

14.2 US Dot Information: The product is not classified as a hazardous material for transportation.

15. Regulatory Information:

15.1 US Regulations:

Toxic Substances Control Act (TSCA): All Components in the product are lists, as required, on the US EPA TSCA inventory, or are not required to be listed.

CERCLA: Includes mineral fiber emissions from facilities manufacturing or processing glass, rock, or slag fibers (or other mineral derived fibers) of average diameter 1 micrometer or less; statutory RQ = 1 pound (.454 kg); no final RQ is being assigned to the generic or broad class (related to fine mineral fibers).


15.2 State and Local Regulations: State, Provincial, and Local regulations not identified in this Material Safety Data Sheet may apply.

15.3 WHMIS: The products have been classified in accordance with the hazard criteria of the Controlled Product Regulations and this Material Safety Data Sheet contains all the information required by the Controlled Product Regulations.

15.3.1 WHMIS IDL: No components are listed on the IDL.

15.3.2 WHMIS Classification: No components are classified as controlled products.
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16. Other Information:

16.1 Information about “Health and Safety of Rock and Slag Wool,” can be obtained from North American Insulation Manufacturer Association (NAIMA), 44 Canal Center Plaza, Suite 310, Alexandria, VA. 22314, USA. Home page: http://www.naima.org

16.2 Acronyms used in the MSDS:

ACGIH = American Conference of Governmental Industrial Hygienists; CAA = Clean Air Act; CAS = Chemical Abstracts Service; CERCLA = Comprehensive Environmental Response; Compensation and Liability Act; DOT = Department of Transportation; EPA = Environment Protection Agency; HIMS = Hazardous Material Identification System; HSPP = Health and Safety Partnership Program; IARC = International Agency for Research on Cancer; MSDS = Material Safety Data Sheet; NAIMA = North American Insulation Manufacturers Association; NFPA = National Fire Protection Association; NIOSH = National Institute for Occupational Safety and Health; OSHA = Occupational Safety and Health Administration; PEL = Permissible Exposure Limit; RCRA = Resource Conservation and Recovery Act; RQ = Reportable Quantity; SVF = synthetic vitreous fibers; TSCA = Toxic Substances Control Act; TWA = time-weighted average; WHMIS = Workplace hazardous Materials Information System.

16.3 NFPA Hazard Ratings:

Health: 1
Flammability: 0
Reactivity: 0

16.4 Accuracy:

The information contained herein is based upon data considered to be accurate. However, no warranty is expressed or implied regarding the accuracy of these data, the result to be obtained from the use thereof. This information is furnished as a guide only and upon the condition that the person receiving it shall make tests to determine the accuracy and suitability for his or her own purpose.

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