

### Section 1 – Chemical Product and Company Information

**PRODUCT IDENTIFIER:** Spray-Applied Fire Resistive Material

**Synonyms:** thermal barrier, fireproofing  
**Description:** mineral wool fibres blended with binders  
**Product Type:** semi-cementitious SFRM  
 (low density, water-applied)

**PRODUCT NAME:** **HiBAR™**

**MANUFACTURER:** CCI Manufacturing Inc.  
 16355-130 Avenue  
 Edmonton, Alberta, T5V 1K5

**Emergency Phone:** 1-800-661-5031

### Section 2 – Composition / Information on Ingredients

<u>Component</u>	<u>CAS Number</u>	<u>Percent by Weight</u>	<u>Exposure Limits</u>
Mineral wool fibres (rockwool / slag wool)	#65997-17-3	Not less than 87.0 %	PEL/TWA = 15 mg/m <sup>3</sup> total dust (PNOC) PEL/TWA = 5 mg/m <sup>3</sup> respirable fraction TLV/TWA = 10 mg/m <sup>3</sup> inhalable (PNOC) TLV/TWA = 3 mg/m <sup>3</sup> respirable
Portland Cement (Type 10 / GU)	#65997-15-1	Not more than 8.0 %	PEL/TWA = 15 mg/m <sup>3</sup> total dust (PNOC) PEL/TWA = 5 mg/m <sup>3</sup> respirable fraction TLV/TWA = 10 mg/m <sup>3</sup> inhalable (PNOC)
Sodium bicarbonate Na <sub>2</sub> HCO <sub>3</sub>	#144-55-8	Not more than 2.0 %	PEL/TWA = 10 mg/m <sup>3</sup> total dust (PNOC) TLV/TWA = 10 mg/m <sup>3</sup> inhalable (PNOC)
Polyvinyl alcohol (PVOH)	#9002-89-5	Not more than 2.0 %	PEL/TWA = 10 mg/m <sup>3</sup> total dust (PNOC) TLV/TWA = 1 mg/m <sup>3</sup> inhalable (PNOC)
Sodium tetraborate pentahydrate Na <sub>2</sub> B <sub>4</sub> O <sub>7</sub> · 5H <sub>2</sub> O	#12179-04-3	Not more than 0.5 %	PEL/TWA = 10 mg/m <sup>3</sup> total dust (PNOC) TLV/TWA = 1 mg/m <sup>3</sup> inhalable (PNOC)
Paraffinic Oil (highly hydrotreated) (dust control oil)	N/A (mixture)	Not more than 0.5 %	PEL/TWA = 10 mg/m <sup>3</sup> total mist (PNOC) TLV/TWA = 5 mg/m <sup>3</sup> inhalable (PNOC)

### Section 3 – Hazard Identification

#### Emergency Overview

Product is non-combustible and fire-rated – HiBAR™ presents no unusual hazard if involved in a fire.

#### Potential Health Effects

Inhalation is the most significant route of exposure in occupational and other settings. Mild irritation of the respiratory tract is possible. HiBAR™ is considered to produce "nuisance dust" (PNOC, Particulate Not Otherwise Classified) – respiratory protection is recommended during installation or other handling of the product. Chemically sensitive individuals should avoid dust exposure during installation periods.

Mineral fibres can cause transitory skin irritation (itching) of skin under normal industrial conditions. Even though HiBAR™ exhibits relatively low acute toxicity, it is not intended for consumption. Ingestion of a small amount is not likely to cause harm – larger quantities can be anticipated to cause gastrointestinal symptoms.

HiBAR™ (fibres and additives) is not considered a carcinogen by any authority. (Non-asbestos product)

### Section 4 – First Aid Measures

**Inhalation:** If irritation or difficulty in breathing occurs, remove person to fresh air. If irritation persists, seek medical attention.

**Skin Contact:** Mineral fibres can cause transitory skin irritation. Rinse with cool water, followed by washing with soap and warm water. Launder clothing separate from other garments. If irritation persists, seek medical attention.

**Eye Contact:** For severe dust exposure, flush eyes with warm water for a minimum of 15 minutes. If irritation persists, seek medical attention. Contact lenses should not be worn when working with this product.

**Ingestion:** Although ingestion of significant amounts is unlikely, symptoms can include diarrhea, nausea and vomiting. Give two glasses of water and seek medical attention.

Note to Physicians: Severe exposure to dust may produce symptoms in sensitive persons or those with pre-existing respiratory conditions.

### Section 5 – Fire-Fighting Measures

HiBAR™ is non-combustible and designed to provide thermal protection (added fire endurance) to structural components it is applied to.

<b>Suitable Extinguishing Media:</b>	Non-combustible – use media appropriate for surrounding fire.
<b>Unsuitable Extinguishing Media:</b>	None
<b>Special Hazards in Fire:</b>	None (non-combustible)
<b>Required special PPE for Fire Fighters:</b>	Standard protective equipment

**Section 6 – Accidental Release Measures**

**Personal Precautions:** Nuisance dust.  
**Environmental Precautions:** HiBAR™ contains alkaline additives that can cause damage to vegetation when exposed in sufficient quantity. Avoid contamination of bodies of water during cleanup and disposal – additives can be hazardous to aquatic life (see Section 12).  
**Methods for Cleaning:** Sweep, shovel and/or vacuum up HiBAR™ and place in containers for disposal in accordance with applicable regulations.

**Section 7 – Handling & Storage**

**Handling:** No special handling is required. Handling on a “first in, first out” basis is recommended to maintain package integrity.  
**Storage:** Dry, indoor storage is recommended (ambient temperature and pressure).

**Section 8 – Exposure Controls / Personal Protection**

**Engineering Measures:** No specific controls needed. Use good housekeeping practices to minimize potential dust generation and accumulation.  
**Control Parameters:** Nuisance dust. Provide ventilation sufficient to maintain dust levels below exposure limits.  
**Personal Protective Equipment:** Use NIOSH-approved N95 particle mask (e.g. 3M 8210) when dust levels exceed exposure limits. Wear loose-fitting long-sleeve shirt and pants.  
**Eye Protection:** Safety glasses are recommended - goggles may be warranted if environment is excessively dusty.  
**Hand Protection:** Cloth gloves are recommended.  
**Hygiene Measures:** Standard hygienic practices are recommended. Launder clothing separate from other garments.

**Section 9 – Physical and Chemical Properties**

<b>Physical State:</b>	Solid	<b>Vapour Pressure:</b>	Not Applicable
<b>Appearance and Odour:</b>	Light beige/grey fibrous mass, low odour	<b>Vapour Density:</b>	Not Applicable
<b>Odour Threshold:</b>	Not Applicable	<b>Evaporation Rate:</b>	Not Applicable
<b>Specific Gravity:</b>	<1	<b>pH:</b>	9 (approx.)
<b>Boiling Point:</b>	Not Applicable	<b>Coefficient of water / oil</b>	
<b>Melting Point:</b>	<1200°C	<b>Distribution:</b>	Not established
<b>Water Solubility:</b>	mineral fibre negligible, additives slight		

**Section 10 – Stability and Reactivity**

**Stability of Product:** HiBAR™ Insulation is a stable product.  
**Conditions / Materials to Avoid:** Contact with strong acids.  
**Hazardous Decomposition Products:** None.  
**Hazardous Polymerization:** Will not occur.

**Section 11 – Toxicology Information**

**Acute toxicity:** HiBAR™ is considered to exhibit relatively low acute toxicity.  
**Local effects:** Mineral wool fibre and other nuisance particulates may cause transitory skin irritation (itching) and possible irritation of eyes and upper respiratory tract. Although HiBAR™ is not intended for consumption, ingestion of a small amount is not likely to cause harm – larger quantities may cause gastrointestinal symptoms.  
 HiBAR™ Insulation (fibres and additives) is not considered a carcinogen by any authority. (The International Agency for Research on Cancer (IARC) has classified mineral wool fibre as Group 3 – not classifiable as to its human carcinogenicity)  
**Excessive exposure may affect human health as follows:**  

Skin contact:	Mechanical irritant	itching is common
Eye contact:	Mechanical irritant	contact lenses should not be worn when working with this product
Ingestion:	(unlikely)	no specific recommendation
Inhalation:	possible irritant	coughing is common

**Section 12 – Ecological Information**

**Ecotoxicity:** The cementitious component of the dry (unapplied) product is alkaline and can be harmful to vegetation and aquatic life. Care should be taken to minimize the amount of cement dust released into the environment.  
**Environmental Fate:** Once components are cured (moisture-activated and dried), HiBAR™ can be treated as inert material.

**Section 13 – Disposal Considerations**

*HiBAR™ may be disposed of as a non-hazardous waste in accordance with applicable regulations.*

**Section 14 – Transport Information**

*HiBAR™ is not classified as a hazardous material for transport.*

**Section 15 – Regulatory Information**

*HiBAR™ has been classified in accordance with the hazard criteria of the Controlled Products Regulations and this MSDS contains all the information required by the Controlled Products Regulations.*

**Section 16 – Other Information**

*Information presented herein has been compiled from sources considered dependable and is accurate and reliable to the best of our knowledge and belief, but is not guaranteed to be so. Nothing herein is to be construed as recommending any practice or any product in violation of any patent or in violation of any law or regulation. The user is responsible to determine the suitability of any material for a specific purpose and adopt necessary safety precautions. We make no warranty as to results to be obtained in using any material and, since conditions or use are not under our control, we must necessarily disclaim all liability with respect to use of any material supplied by us.*

**Sources of Key Data Used to Compile MSDS:**

*American Conference of Government Industrial Hygienists ([www.acgih.org](http://www.acgih.org))  
- Guide to Occupational Exposure Values, TLVs and other Occupational Exposure Values  
Canadian Centre for Occupational Health and Safety ([www.ccohs.ca](http://www.ccohs.ca)) - Hazardous Substances Data Bank  
Health Canada, WHMIS website / Product Safety Bureau  
National Institute of Occupational Safety and Health ([www.niosh.org](http://www.niosh.org)) – Registry of Toxic Effects of Chemical Substances  
US Environmental Protection Agency, website – Integrated Risk Information  
US Public Health Service, Agency for Toxic Substances and Disease Registry – Toxicological Profiles*

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