1. Product and Company Identification

Product identifier: KX-99-BF
Version #: 01
Issue date: 04-21-2015
CAS #: Mixture
Brand Code: 5916
Product use: For Industrial Use Only

Manufacturer information:
HarbisonWalker International
1305 Cherrington Parkway, Suite 100
Moon Township, Pennsylvania 15108
United States
www.thinkHWI.com
General Phone: 412-375-6600
CHEMTREC 24 HOUR EMERGENCY # 1-800-424-9300

Supplier:
Not available.

2. Hazards Identification

Emergency overview:
WARNING
Cancer hazard. Irritating to eyes and skin. Prolonged exposure may cause chronic effects.

Potential health effects:

Routes of exposure:
- Inhalation: Ingestion. Skin contact. Eye contact.
- Eyes: Contact with eyes may cause irritation. Avoid contact with eyes.
- Skin: May cause skin irritation. Avoid contact with the skin.
- Inhalation: May cause cancer by inhalation. Dusts of this product may cause irritation of the nose, throat, and respiratory tract. Repeated or prolonged inhalation may cause toxic effects. Do not breathe dust. For additional information on inhalation hazards, see Section 11 of this safety data sheet.
- Ingestion: Irritating. May cause nausea, stomach pain and vomiting. Do not ingest.

Chronic effects:
Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis. This product has the potential for generation of respirable dust during handling and use. Dust may contain respirable crystalline silica. Overexposure to dust may result in pneumoconiosis, a respiratory disease caused by inhalation of mineral dust, which can lead to fibrotic changes to the lung tissue, or silicosis, a respiratory disease caused by inhalation of silica dust, which can lead to inflammation and fibrosis of the lung tissue. Occupational exposure to respirable dust and respirable crystalline silica should be monitored and controlled.

Signs and symptoms:
Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting. Symptoms may include redness, edema, drying, defatting and cracking of the skin.

Potential environmental effects:
May cause long-term adverse effects in the environment.

3. Composition / Information on Ingredients

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS #</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIBROUS GLASS</td>
<td>65997-17-3</td>
<td>15 - 40</td>
</tr>
<tr>
<td>SILICA, CRYSTALLINE, CRISTOBALITE</td>
<td>14464-46-1</td>
<td>10 - 30</td>
</tr>
<tr>
<td>Other components below reportable levels</td>
<td></td>
<td>40 - 70</td>
</tr>
</tbody>
</table>

4. First Aid Measures

First aid procedures:
- Inhalation: Move to fresh air. Oxygen or artificial respiration if needed. Do not use mouth-to-mouth method if victim inhaled the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Get medical attention, if needed.
Skin contact
Remove and isolate contaminated clothing and shoes. Wash off immediately with soap and plenty of water. Get medical attention if irritation develops and persists. For minor skin contact, avoid spreading material on unaffected skin.

Eye contact
Immediately flush eyes with plenty of water for at least 15 minutes. If a contact lens is present, DO NOT delay irrigation or attempt to remove the lens. Continue rinsing. Get medical attention if irritation develops and persists.

Ingestion
Rinse mouth thoroughly. Never give anything by mouth to a victim who is unconscious or is having convulsions. If ingestion of a large amount does occur, call a poison control center immediately. Do not induce vomiting without advice from poison control center. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Do not use mouth-to-mouth method if victim ingested the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

Notes to physician
In case of shortness of breath, give oxygen. Symptoms may be delayed.

General advice
In case of shortness of breath, give oxygen. If you feel unwell, seek medical advice (show the label where possible). Get medical attention if symptoms occur. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Keep victim under observation. Keep victim warm.

5. Fire Fighting Measures

Flammable properties
Not available.

Extinguishing media
Suitable extinguishing media
Use fire-extinguishing media appropriate for surrounding materials.

Unsuitable extinguishing media
Not available.

Fire fighting equipment/instructions
Not available.

Explosion data
Sensitivity to static discharge
Not available.

Sensitivity to mechanical impact
Not available.

Hazardous combustion products
Not available.

6. Accidental Release Measures

Personal precautions
Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. For personal protection, see section 8 of the MSDS.

Environmental precautions
Do not contaminate water.

Methods for containment
Stop leak if you can do so without risk. Prevent entry into waterways, sewer, basements or confined areas.

Methods for cleaning up
Should not be released into the environment. Avoid the generation of dusts during clean-up. Following product recovery, flush area with water. Clean up in accordance with all applicable regulations. For waste disposal, see section 13 of the MSDS.

Other information
Clean up in accordance with all applicable regulations.

7. Handling and Storage

Handling
Minimize dust generation and accumulation. Provide appropriate exhaust ventilation at places where dust is formed. Do not breathe dust. Do not breathe dust. Avoid contact with skin. Avoid contact with eyes. Avoid prolonged exposure. When using do not eat or drink. Do not use in areas without adequate ventilation. Wear personal protective equipment. Wash thoroughly after handling. Avoid release to the environment.

Storage
Store in a closed container away from incompatible materials. Use care in handling/storage. Store away from incompatible materials (see Section 10 of the MSDS).
### 8. Exposure Controls / Personal Protection

#### Occupational exposure limits

<table>
<thead>
<tr>
<th>US. ACGIH Threshold Limit Values</th>
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<tr>
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<tr>
<td>SILICA, CRYSTALLINE, CRISTOBALITE (CAS 14464-46-1)</td>
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<tr>
<th>Canada. Alberta OELs (Occupational Health &amp; Safety Code, Schedule 1, Table 2)</th>
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<th>Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)</th>
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<th>Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act)</th>
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<th>Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)</th>
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<th>Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment)</th>
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</table>

### Biological limit values
No biological exposure limits noted for the ingredient(s).

### Exposure guidelines
Occupational exposure to nuisance dust (total and respirable) and respirable crystalline silica should be monitored and controlled.

### Engineering controls
Ensure adequate ventilation, especially in confined areas.
Personal protective equipment

Eye/face protection  Wear safety glasses with side shields (or goggles).
Skin protection  Wear suitable protective clothing. Wear protective gloves.
Respiratory protection  Use a NIOSH/MSHA approved respirator if there is a risk of exposure to dust/fume at levels exceeding the exposure limits.
Hand protection  Wear protective gloves.

9. Physical & Chemical Properties

Appearance

Physical state  Solid.
Form  Solid
Color  Not available.
Odor  Not available.
Odor threshold  Not available.
P H  Not available.
Vapor pressure  Not available.
Vapor density  Not available.
Boiling point  Not available.
Melting point/Freezing point  Not available.
Solubility (water)  Not available.
Specific gravity  Not available.
Relative density  Not available.
Flash point  Not available.
Flammability limits in air, upper, % by volume  Not available.
Flammability limits in air, lower, % by volume  Not available.
Auto-ignition temperature  Not available.
Evaporation rate  Not available.
Partition coefficient (n-octanol/water)  Not available.

10. Chemical Stability & Reactivity Information

Chemical stability  Material is stable under normal conditions.
Conditions to avoid  Contact with incompatible materials.
Incompatible materials  Incompatibility is based strictly upon potential theoretical reactions between chemicals and may not be specific to industrial application exposure. Contact your sales representative for clarification.
Hazardous decomposition products  Not available.
Possibility of hazardous reactions  Not available.

11. Toxicological Information

Toxicological data  No data available.
Acute effects  Not available.
Sensitization  Not available.
Chronic effects  Hazardous by WHMIS criteria. Prolonged exposure may cause chronic effects.
Carcinogenicity

Hazardous by WHMIS criteria. In 1997, IARC (the International Agency for Research on Cancer) concluded that crystalline silica inhaled from occupational sources can cause lung cancer in humans. However in making the overall evaluation, IARC noted that "carcinogenicity was not detected in all industrial circumstances studied. Carcinogenicity may be dependent on inherent characteristics of the crystalline silica or on external factors affecting its biological activity or distribution of its polymorphs." (IARC Monographs on the evaluation of the carcinogenic risks of chemicals to humans, Silica, silicates dust and organic fibres, 1997, Vol. 68, IARC, Lyon, France.) In June 2003, SCOEL (the EU Scientific Committee on Occupational Exposure Limits) concluded that the main effect in humans of the inhalation of respirable crystalline silica dust is silicosis. "There is sufficient information to conclude that the relative risk of lung cancer is increased in persons with silicosis (and, apparently, not in employees without silicosis exposed to silica dust in quarries and in the ceramic industry). Therefore, preventing the onset of silicosis will also reduce the cancer risk..." (SCOEL SUM Doc 94-final, June 2003) Cancer hazard. According to the current state of the art, worker protection against silicosis can be consistently assured by respecting the existing regulatory occupational exposure limits. Occupational exposure to respirable dust and respirable crystalline silica should be monitored and controlled.

ACGIH Carcinogens

FIBROUS GLASS (CAS 65997-17-3) A2 Suspected human carcinogen.
SILICA, CRYSTALLINE, CRISTOBALITE (CAS 14464-46-1) A2 Suspected human carcinogen.

IARC Monographs. Overall Evaluation of Carcinogenicity

SILICA, CRYSTALLINE, CRISTOBALITE (CAS 14464-46-1) 1 Carcinogenic to humans.

Skin corrosion/irritation Not available.
Serious eye damage/irritation Not available.
Mutagenicity Not available.
Reproductive effects Not available.
Teratogenicity Not available.
Synergistic materials Not available.

12. Ecological Information

Ecotoxicological data No ecotoxicity data noted for the ingredient(s).
Ecotoxicity Contains a substance which causes risk of hazardous effects to the environment.
Environmental effects An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Aquatic toxicity Not available.
Persistence and degradability Not available.

13. Disposal Considerations

Disposal instructions This product, in its present state, when discarded or disposed of, is not a hazardous waste according to Federal regulations (40 CFR 261.4 (b)(4)). Under RCRA, it is the responsibility of the user of the product to determine, at the time of disposal, whether the product meets RCRA criteria for hazardous waste.

14. Transport Information

TDG Not regulated as dangerous goods.
IATA Not regulated as dangerous goods.
IMDG Not regulated as dangerous goods.

15. Regulatory Information

Canadian regulations This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.
**WHMIS status**

This item is defined as an article per OSHA (29 CFR 1910.1200) and is therefore exempt from labeling. A Safety Data Sheet is available.

This item is not hazardous per OSHA 29 CFR 1910.1200(c). However, individual customer processes (such as grinding, sawing, or blasting) may result in the formation of dust that may present health hazards. May cause respiratory irritation, lung injury, or cancer by inhalation. Limit skin contact. Wash hands after handling. Dispose of waste and residues in accordance with local authority requirements. Wear protective gloves/protective clothing/eye protection. Dust may cause cancer.

**International Inventories**

<table>
<thead>
<tr>
<th>Country(s) or region</th>
<th>Inventory name</th>
<th>On inventory (yes/no)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>Australian Inventory of Chemical Substances (AICS)</td>
<td>No</td>
</tr>
<tr>
<td>Canada</td>
<td>Domestic Substances List (DSL)</td>
<td>Yes</td>
</tr>
<tr>
<td>Canada</td>
<td>Non-Domestic Substances List (NDSL)</td>
<td>No</td>
</tr>
<tr>
<td>China</td>
<td>Inventory of Existing Chemical Substances in China (IECSC)</td>
<td>Yes</td>
</tr>
<tr>
<td>Europe</td>
<td>European Inventory of Existing Commercial Chemical Substances (EINECS)</td>
<td>No</td>
</tr>
<tr>
<td>Europe</td>
<td>European List of Notified Chemical Substances (ELINCS)</td>
<td>No</td>
</tr>
<tr>
<td>Japan</td>
<td>Inventory of Existing and New Chemical Substances (ENCS)</td>
<td>No</td>
</tr>
<tr>
<td>Korea</td>
<td>Existing Chemicals List (ECL)</td>
<td>No</td>
</tr>
<tr>
<td>New Zealand</td>
<td>New Zealand Inventory</td>
<td>Yes</td>
</tr>
<tr>
<td>Philippines</td>
<td>Philippine Inventory of Chemicals and Chemical Substances (PICCS)</td>
<td>Yes</td>
</tr>
<tr>
<td>United States &amp; Puerto Rico</td>
<td>Toxic Substances Control Act (TSCA) Inventory</td>
<td>No</td>
</tr>
</tbody>
</table>

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s).

**16. Other Information**

**Recommended restrictions**

Users should be informed of the potential presence of respirable dust and respirable crystalline silica as well as their potential hazards. Appropriate training in the proper use and handling of this material should be provided as required under applicable regulations.

**HMIS® ratings**

- Health: 2*
- Flammability: 0
- Physical hazard: 0

**NFPA ratings**

- Health: 2
- Flammability: 0
- Instability: 0

**Disclaimer**

This information is based on our present knowledge on creation date. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

**Prepared by**

Not available.

**This data sheet contains changes from the previous version in section(s):**

Composition / Information on Ingredients: After Reaction Composition