IDENTITY (as used on label and list)
Emerald Creek Garnet Abrasive Grains and Powders

SECTION I

Manufacturer's Name  Emergency Telephone Number
Emerald Creek Garnet Ltd. (208) 666-6000
Address (Street, City, State, Zip Code)  Telephone Number Information
P.O. Box 130 (208) 666-6000
Fernwood, ID 83830 January 1, 2008

SECTION II - Chemical identity and information on ingredients

Specific chemical identity:
Emerald Creek Garnet is a natural mixture of ALMANDINE GARNET, having a chemical composition of Fe₃Al₂(SiO₄)₃ with Mn and Mg in partial substitution for Fe in the formula, and other minerals. CAS No. 1302-62-1 (Almandine).

Hazardous Ingredients:
The following substances are present and regulated by OSHA and ACGIH limits:

<table>
<thead>
<tr>
<th>SUBSTANCE</th>
<th>WT.</th>
<th>OSHA/ACGIH LIMIT IN USE*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nuisance dust</td>
<td>na</td>
<td>15 mg/cu.m.</td>
</tr>
<tr>
<td>Respirable dust</td>
<td>na</td>
<td>5 mg/cu.m.</td>
</tr>
<tr>
<td>Crystalline silica</td>
<td>&lt;0.5%</td>
<td>0.10 mg/cu.m.</td>
</tr>
</tbody>
</table>

*If these levels are exceeded respiratory protection must be employed.

SECTION III - Physical and chemical characteristics

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Melting point</td>
<td>Circa 1315°C</td>
</tr>
<tr>
<td>Specific gravity (H₂O=1.0)</td>
<td>4.0 - 4.1</td>
</tr>
<tr>
<td>Solubility in water</td>
<td>Insoluble</td>
</tr>
<tr>
<td>Appearance and odor</td>
<td>Deep red to pink color, no odor</td>
</tr>
</tbody>
</table>

SECTION IV - Fire and explosion hazard data

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flash point (method used)</td>
<td>Flammable limits</td>
</tr>
<tr>
<td>Material is a non-flammable solid.</td>
<td>not applicable</td>
</tr>
</tbody>
</table>

Extinguishing media
Use extinguishing media appropriate for the surrounding fire.

Special fire fighting procedures
As appropriate to surrounding fire. Fire fighters should be protected from nuisance dust.

Unusual fire and explosion hazards
None

SECTION V - Reactivity data

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stability</td>
<td>Unstable ( )</td>
</tr>
<tr>
<td></td>
<td>INERT</td>
</tr>
<tr>
<td></td>
<td>Conditions to avoid</td>
</tr>
</tbody>
</table>

Incompatibility (materials to avoid)
None known

Hazardous decomposition or byproducts
None known

Hazardous
May occur ( )

Polymerization
Will not occur ( x)

Conditions to avoid
None known
SECTION VI - Health hazard data

<table>
<thead>
<tr>
<th>Route(s) of entry</th>
<th>Inhalation?</th>
<th>Skin?</th>
<th>Ingestion?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Possible</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

Health hazards (acute and chronic)

None known. Use care to limit possible exposure to nuisance dust during blast cleaning.

Carcinogenicity
Crystalline silica (quartz)
Contains less than 0.5%

Signs and symptoms of exposure
Exposure to nuisance dust may cause eye, throat or lung irritation, coughing, or shortness of breath.

Medical conditions generally aggravated by exposure
Chronic bronchitis, emphysema and other lung diseases may be aggravated by exposure to nuisance dust.

Emergency and first aid procedures
EYE CONTACT: Wash eyes with water to flush out dust particles.
SKIN CONTACT: Wash affected area with soap and water.

SECTION VII - Precautions for safe handling and use

Steps to be taken in case material is released or spilled
NO SPECIAL PRECAUTIONS ARE NECESSARY. Sweep or vacuum material for disposal. Prevent generation of dust during clean up.

Waste disposal methods
Follow local, state and federal guidelines for disposal of inert solid waste.

MATERIAL CONTAMINATED IN USE MAY REQUIRE SPECIAL HANDLING.

Precautions to be taken in handling and storing
NONE - Use good housekeeping practices to reduce dust; use approved hand, eye, and respiratory protection when handling material.

Other precautions
Use material ONLY for the purposes intended, and incorporate methods of dust control to maintain airborne dust within federal or local TLV limits.

SECTION VIII - Control measures

Respiratory protection (specify type)
NIOSH/MSHA approved filters and air supplied hoods for blasters.

Ventilation
Local exhaust
Use when blast cleaning

Mechanical (general)
Meet dust TLV

Protection gloves
Leather or equivalent - in use

Eye protection
Safety glasses with side shields

Other protective clothing or equipment
Hearing protection when working near blast cleaning operation.

Work hygiene practices
Maintain a clean and safe work environment and monitor work practices.