

Universal Minerals International, Inc.

4620 S. Coach Drive
Tucson, Arizona 85714 USA
Phone: (520) 917-0661
Fax: (520) 917-0664
www.umint.com



PRECISION GARNET

MATERIAL SAFETY DATA SHEET

1. Product and Company Information

Product Identification

Product name: Precision Garnet

Company Identification

Company: Universal Minerals International
Address: 4620 South Coach Drive
Tucson, AZ 85714
Telephone: (520) 838-0964
E-mail: info@umint.com

2. Composition/Information Ingredients

Typical Analysis – Mineralogical

Garnet - >90%
Ilmenite – 2-3%
Sillimanite – 2-4%
Quartz – 0.5-0.8%

Typical Analysis – Chemical

SiO₂ – 36-38%
Al₂O₃- 20-22%
Fe₂O₃ – 31-33%
TiO₂ – 0.1-0.2%
CaO – 2-4%
MgO – 7-9%
LOI – 0.01-0.5%

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3. Hazards Identification

Eye:

Solid or dust is moderate eye irritant due to its abrasive action

Inhalation:

May be regarded as nuisance dust but can be irritating if inhaled at high concentrations and may cause symptoms such as coughing and sneezing. The TLV for occupational exposure nominate 10 mg/m³ as total dust and 5 mg/m³ as a respirable dust.

Skin:

Non Hazardous

Ingestion:

There are no known hazards caused by accidental ingestion of small amounts such as might occur during normal handling. Ingestion of larger quantities might cause irritation of the gastro-intestinal system as a result of abrasive action.

Radiation:

Garnet contains trace (ppm level) amounts of the naturally occurring radioactive substance such as Uranium & Thorium. However the concentration of the Uranium & Thorium are not sufficient for garnet to be classified as a radioactive substance under the International Atomic Energy Agency Regulation for the safe transport of radioactive material.

4. First Aid Measures

Eye:

Hold eye open and rinse continuously with a gentle stream of clean running water for at least 15 minutes. Seek medical attention if any irritation or soreness of eye persists.

Inhalation:

Remove from source of exposure into fresh air and seek medical attention if any symptoms persist

Skin:

No specific first aid is required for skin contact. Remove clothing and wash skin with soap and or water. Seek medical attention if any irritation or soreness of the skin develops.

Ingestion:

First aid is unlikely to be required but if necessary rinse mouth with water ensuring that mouth wash is not swallowed and seek medical attention as a precautionary measure if large amounts have been ingested.

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5. Fire Fighting Measures

This is a non-combustible material. Use whatever protective equipment and extinguishing agent are suitable for the primary cause of fire.

6. Accidental Release Measures

Wear safety equipment for normal handling, avoid generating dust, sweep or vacuum up, recycle/reuse or dispose of in landfill subject to local regulations. Transport is not regulated and no specific storage requirements.

7. Handling and Storage

Storage:

Transport is not regulated and there is no specific storage requirement but storage should be designated to minimize creation of dust.

Spillage:

Wear Protective equipment as specified for handling. Sweep or vacuum up and reuse or dispose. Avoid generation of dust.

Waste Disposal:

Disposal to land fill in such as way as to prevent generation of dust and subject to local regulations

Fire Explosion:

Incombustible

Fire Extinguishing:

Use whatever protective equipment and extinguishing agent is suitable for primary cause of fire.

8. Exposure Controls/Personal Protection

Ventilation:

Ventilation requirement will depend upon handling methods and amount in use but extraction of make-up air may be required to minimize dust layers/level below exposure limits.

Protective Equipment:

Safety goggles or glasses. A dust type respirator may be required to prevent ingestion/inhalation.

TLV:

10 mg/m³ as total dust

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9. Physical and Chemical Properties

Specific Gravity	4.10 g/cm ³
Hardness	7.5-8 MOH Scale
Density	2.40 gm/cm ³
Conductivity	< 10 Micro Siemens/meter
Soluble Chloride	Less than 20 ppm
Carbonate Content	Free
Metal Content	Below detectable levels
pH	7.00

10. Stability and Reactivity

Chemical Stability	Stable
Reactivity	Inert
Incompatibilities	None in normal or expected use
Decomposition	Decomposition will not occur

11. Toxicological Information

Non Toxic

12. Ecological Information

The matter is unlikely to cause any environmental damage if handled, used and disposed of in the approved manner. It is insoluble in water and unlikely to contaminate waterways or enter the food chain.

13. Disposal Considerations

This is a non-hazardous material; disposal must be in accordance with federal state and local regulations. Consult and comply with current regulations. If approved, may be transferred to an approved landfill site.

14. Transport Information

Transport is not regulated and may be transported as a non-hazardous material. Trucks transporting/carrying bulk material should be covered to prevent dust generation.

Disclaimer

The above information is intended to give general health and safety guidance on the storage and transport of the substance or product to which it relates. The requirement or recommendation of any relevant site or working procedure, system or policy in force or arising from any risk assessment involving the substance or product shall take precedence over any of the guidance contained in this safety data sheet where there is a difference in the information given. The information provided in this safety data sheet is accurate at the date of publication and will be updated as and when appropriate.

Creation date: January 1, 2016