



Material Safety Data Sheet

(complies with 29 CFR 1910.1200)

IDENTITY (as used on label and list) _____

Bengal Bay Garnet Abrasive Grains and Powders

SECTION I _____

Manufacturer's Name

Transworld Garnet Pvt. Ltd.

Emergency Telephone Number

(208) 666-6000

Address (Street, City, State, Zip Code)

Tuticorin, India

Telephone Number Information

(208) 666-6000

August 24, 2000 L.E. Gorrill 8/24/00

SECTION II — Chemical Identity and Information on Ingredients _____

Specific Chemical Identity:

Bengal Bay Garnet is a natural mixture of **ALMANDINE GARNET**, having a chemical composition of $Fe_3Al_2(SiO_4)_3$ 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:

<u>SUBSTANCE</u>	<u>WT. %</u>	<u>OSHA/ACGIH LIMIT IN USE*</u>	*If these levels are exceeded, adequate respiratory protection must be employed.
Nuisance dust	na	15 mg/m ³	
Respirable dust	na	5 mg/m ³	
Crystalline silica	<0.5%	0.10 mg/m ³	

SECTION III — Physical and chemical characteristics _____

Melting point

Circa 1315°C

Specific gravity (H₂O = 1.0)

4.0 - 4.1

Solubility in water

Insoluble

Appearance and odor

Deep red, reddish brown; no odor

SECTION IV — Fire and explosion hazard data _____

Flash point (method used)

Material is a non-flammable solid.

Flammable limits

not applicable

LEL

na

UEL

na

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 _____

Stability

INERT

Unstable ()

Stable (x)

Conditions to avoid

Almandine garnet is an inert, stable solid needing no special handling in normal use.

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

Route(s) of entry	Inhalation? Possible	Skin? None	Ingestion? None
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Health hazards (acute and chronic)

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

Carcinogenicity	NTP?	IARC Monographs?	OSHA regulations
Crystalline silica (quartz) Contains less than 0.5%		No. 42 na	0.1 mg/m ³

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	Special
YES	Use when blast cleaning	NONE

Mechanical (general)	Other
Meet dust TLV	NONE

Protection gloves	Eye protection
Leather or equivalent — in use	Safety glasses with side shields

Other protective clothing or equipment

Hearing protection when working near blast cleaning operation.

Work/hygienic practices

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