

Safety Data Sheet

GMA Ilmenite



April 2021
Revision 2

SECTION 1 – IDENTIFICATION OF MATERIAL AND SUPPLIER

- (a) GHS product identifier: **GMA Ilmenite**
- (b) Other means of identification:
Ilmenite, Ilmenite sand.
- (c) Recommended use: Feedstock for manufacture of pigments; sand component for heavy concrete.
- (d) Supplier's details:
GMA Garnet Pty Ltd
122 Goulds Rd, Geraldton, Western Australia 6532
- Telephone number: +61 8 9923 6000 (Australia) E-mail: info.global@gmagarnet.com.au
- (e) Emergency phone number:
+61 8 9923 6000; 24 hours: +61 428 218 356 / +61 407 422 032 (Australia)

SECTION 2 - HAZARDS IDENTIFICATION

- (a) Classified as Non-Hazardous and Non-Dangerous according to the criteria of Worksafe Australia.

Risk Phrases:	None
Safety Phrases:	None
UN Number:	None allocated
Class and Subsidiary Risk:	None allocated
Hazchem code:	None allocated
Poisons Schedule Number:	None allocated

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SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS

This material is a natural mixture of ilmenite and other trace minerals.

Chemical Name	CAS Number	Proportion (weight %)
Ilmenite	103170-28-1	Greater than 86%
Garnet (Almandine variety)	11302-62-1	Less than 7.0%
Calcium Carbonate	471-34-1	Less than 1.0%
Zircon	149040-68-2	Less than 1.0%
Rutile/leucoxene	1317-80-2/103170-28-1	Less than 5.0%
Quartz (crystalline silica)	14808-60-7	Less than 1.0%
Uranium	7440-61-1	Less than 10ppm
Thorium	7440-29-1	Less than 30ppm

SECTION 4 – FIRST AID MEASURES

No acute or chronic health effects known in workers arising from short or long term exposure to this product.

(a) Description of first aid measures:

Ingestion:	Nontoxic. There are no known health effects resulting from accidental ingestion of small amounts that may occur during normal handling. Ingestion of larger amounts may cause irritation of the gastrointestinal system due to abrasiveness. Seek medical attention if symptoms develop.
Eye contact:	Particle and dust exposure may cause eye irritation due to abrasiveness. Flush with plenty of clean water for at least 15 minutes or until particles are removed. Seek medical attention if irritation or soreness persists.
Skin contact:	Not absorbed through skin. May cause abrasions.
Inhalation:	Irritating if inhaled in high concentrations causing coughing, shortness of breath and/or sneezing. Move to fresh air and blow nose to remove particulates from nasal passages. Seek medical attention if symptoms persist.

(b) Most important symptoms and effects, both acute and delayed:

- Ingestion: No specific symptoms noted.
- Eye contact: No specific symptoms noted.
- Skin contact: No specific symptoms noted.
- Inhalation: No specific symptoms noted.

(c) Indication of immediate medical attention and special treatment needed, if necessary:

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- It is recommended that eyewash facilities are available in the workplace.

SECTION 5 – FIRE FIGHTING MEASURES

This product is non-flammable and does not support combustion.

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| a) Extinguishing media: | Non-flammable. Use media suitable for the surrounding materials. |
| b) Specific hazards arising from the chemical: | None known. |
| c) Special protective equipment and precautions: | No specific procedures given. Use protective equipment and precautions suitable for surrounding fire. |

SECTION 6 – ACCIDENTAL RELEASE MEASURES

- (a) Personal precautions, protective equipment and emergency procedures:
No special precautions necessary. Wear safety equipment as for normal handling.
- (b) Environmental precautions:
No special precautions necessary. This material should not be dumped in nature but collected and disposed of in accordance with local, state or federal guidelines.
- (c) Methods and materials for containment and cleaning up:
If possible, vacuum the material to avoid generating unnecessary dust, otherwise, sweep and shovel any spillages.

SECTION 7 – HANDLING AND STORAGE

- (a) Precautions for safe handling:
No special precautions necessary.
- (b) Conditions of safe storage, including any incompatibilities:
Storage areas should be ventilated and dust generation minimised when handling loose bulk product. Use good housekeeping practices to keep nuisance dust to a minimum.

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SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

(a) Control parameters/Exposure Standards:

Dust TWA – 10mg/m³ (inhalable general nuisance dust).

Radiation (combined alpha and gamma) exposure should be as low as reasonably achievable (ALARA principle) but should not exceed a total of 100 milli-sieverts over 5 consecutive years (ICRP).

(b) Engineering controls:

Ventilation requirements will depend on handling methods, the amount used should be enough to maintain dust levels below exposure limits. Points of dust generation such as conveyor and hopper discharges should be equipped with an effective extraction system.

(c) Individual protection measures:

Safety glasses with side shields or goggles. If risk of inhaling dust is present wear, at minimum, a P1 personal respirator (disposable or cartridge type).

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

(a) Appearance	: Normally a black, free running sand.
(b) Odour	: Odourless.
(c) Odour threshold	: Not applicable.
(d) pH	: 9.0 to 9.5
(e) Melting point	: Approximately 1000°C
(f) Flash point	: Non-combustible.
(g) Evaporation rate	: Not applicable.
(h) Flammability (solid, gas)	: Non-flammable.
(i) Upper/lower flammability or explosive limits	: Non-combustible.
(j) Vapour pressure	: Not applicable.
(k) Vapour density	: Not applicable.
(l) Specific gravity	: 4.5 – 4.7
(m) Solubility	: Insoluble.
(n) Particle size	: Average range between 0.1 – 0.4mm
(o) Source	: Alluvial
(p) Bulk density	: Approximately 2700 – 2900 kg/m ³
(q) Partition coefficient: n-octanol/water	: Not applicable.
(r) Auto-ignition temperature	: Not applicable.
(s) Decomposition temperature	: Not applicable
(t) Viscosity	: Not applicable.

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SECTION 10 – STABILITY AND REACTIVITY

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| (a) Reactivity | : Inert solid under normal and anticipated storage, handling and use conditions. |
| (b) Chemical stability | : Stable solid under normal and anticipated storage, handling and use conditions. |
| (c) Possibility of hazardous reactions | : None known. |
| (d) Conditions to avoid | : None known. |
| (e) Incompatible materials | : None known. |
| (f) Hazardous decomposition products | : None known. |

SECTION 11 – TOXICOLOGICAL INFORMATION

- (a) Information on toxicological effects:
No acute or chronic health effects known in workers arising from short or long term exposure to this product. This product does not contain toxic substances above known reportable limits.
- (b) Symptoms related to physical, chemical and toxicological characteristics: None known.
- (c) Delayed and immediate effects and also chronic effects from short and long term exposure: None known.
- (d) Numerical measures of toxicity: None known.

SECTION 12 – ECOLOGICAL INFORMATION

- (a) Ecotoxicity:
This product is a naturally occurring mineral with no known ecotoxicity. It is insoluble in water and unlikely to contaminate waterways or food chains.
- (b) Persistence and degradability:
Stable and inert product which is not readily biodegradable.
- (c) Bioaccumulative potential: This product is not bioaccumulating.
- (d) Mobility in soil: Below detectable limits.
- (e) Other adverse effects: None known.

SECTION 13 – DISPOSAL CONSIDERATIONS

- (a) Disposal methods:
Follow local, state or federal guidelines for disposal of inert solid waste, e.g. for landfill.

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SECTION 14 – TRANSPORT INFORMATION

- a) UN number : None allocated.
- b) UN proper shipping name: : Not classified for transportation.
- c) Transport hazard class(es) : Not classed as Dangerous under the ADG Code.
- d) Packing group : Not classified for transportation.
- e) Environmental hazards : Not classified as a marine pollutant. Does not meet the criteria of 2.9.3.3.1 “environmentally hazardous substances (aquatic environment)”.
- f) Special precautions for user : None necessary. It is recommended to keep bags closed and dry bulk loads covered to prevent dust generation and moisture incursion.
- g) Hazchem code : None allocated

SECTION 15 – REGULATORY INFORMATION

- (a) No known additional regulations for this product.

SECTION 16 – OTHER INFORMATION

This SDS has been prepared by GMA Garnet Pty Ltd and complies with the Safe Work Australia Code of Practice on the *Preparation of Safety Data Sheets for Hazardous Chemicals 2020* and follows the Globally Harmonised System of Classification and Labelling of Chemicals (the GHS).

As per Safe Work Australia Guidance Note NOHSC 3017, each user should review the information in the specific context of the intended application.

Abbreviations:

TWA	Time Weighted Average
ALARA	As Low as Reasonably Achievable
TCLP	Toxicity Characteristic Leaching Procedure
ICRP	International Commission on Radiation Protection

Date of last revision: April 2021

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End of SDS.
