

SECTION 1: Identification of the substance/mixture and of the company/undertaking.

1.1. Product identifier

Product form : Substance

Product name : Ilmenite

REACH registration No. : Exempted in accordance with Annex V.7

1.2. Relevant identified uses of the substance or mixture and uses advised against 1.2.1. Relevant identified uses

Use of the substance/preparation:

Substance used as such, in formulation or in formulation of products such as:

- Welding
- Glass
- Ceramics
- Steel industries

1.2.2. Uses advised against

- None

Full text of use descriptors: see section 16.

1.3. Details of the supplier of the safety data sheet

Simba Materials Limited t/a CTM Potters Supplies

Unit 7-8

Broomhouse Lane Industrial Estate

Broomhouse Lane

Edlington

Doncaster

DN12 1EQ

T +44 (0)1709 770801 - F +44 (0)1709 770803

doncaster@ctmpotterssupplies.co.uk www.ctmpotterssupplies.co.uk admin@ctmpotterssupplies.co.uk

Unit 10 A

Millpark Industrial Estate

White Cross Road

Woodbury Salterton

nr Exeter

EX5 1EL

T +44 (0)1395 233077 - F +44 (0)1395 233905

1.4. Emergency telephone number T

+44 (0)1709 770801 (Office hours only)

doncaster@ctmpotterssupplies.co.uk

SECTION 2: Hazards identification.**2.1. Classification of the substance or mixture****Classification according to Regulation (EC) No. 1272/2008 [CLP]**

Physical and chemical hazards: Not classified

Human health: Not classified

Environment: Not classified

Full text of H-phrases: see section 16

Classification according to Directive 67/548/EEC or 1999/45/EC

Not classified

Full text of R-phrases: see section 16

Adverse physicochemical, human health and environmental effects

No additional information available.

2.2. Label elements**Labelling according to Regulation (EC) No. 1272/2008 (CLP)**

No labelling applicable.

2.3. Other hazards**Other hazards not contributing to the classification.**

Chronic (long-term) health hazard. This product contains crystalline silica. Repeated inhalation of dusts containing crystalline silica over time can cause lung disease and cancer. Avoid dust creation. Do not inhale dusts from this product. Use a vacuum or wet clean-up methods to remove dusts. In common many minerals contains low levels of naturally occurring radioactive elements of the uranium and thorium series. The main radiological hazard from the product is internal exposure to alpha particles given off in small amounts by inhaled dust. Suitable dust control measures shall be employed to ensure occupational exposure to generated dust and alpha particles are kept as low as reasonably achievable. Low level gamma radiation from bulk or bagged stockpiles of the product may present a lesser, external hazard

SECTION 3: Composition/information on ingredients.**3.1. Substances**

Chemical name	CAS No.	EC-No.	%	Classification (67/548/EEC)	Classification (1272/2008/EC)
Ilmenite	103170-28-1		93 - 96	Not classified	Not classified
Rutile (TiO ₂)	1317-80-2	215-282-2	0.5 - 5	Not classified	Not classified
Zircon	149040-68-2	239-019-6	0.1 - 1	Not classified	Not classified
Staurolite	12182-56-8		<15	Not classified	Not classified
Quartz	14808-60-7	238-878-4	<0.1	Not classified	Not classified
Monazite	1306-41-8		<0.1	Not classified	Not classified

Full text of R-, H- and EUH-phrases: see section 16

SECTION 4: First aid measures.

4.1. Description of first aid measures

Inhalation: Move the exposed person to fresh air at once. Get medical attention if any discomfort continues.

Ingestion: Rinse mouth thoroughly. Get medical attention if any discomfort continues.

Skin contact: Wash skin with soap and water. Get medical attention if irritation persists after washing.

Eye contact: Make sure to remove any contact lenses from the eyes before rinsing. Rinse eye with water immediately. Get medical attention if any discomfort continues.

4.2. Most important symptoms and effects, both acute and delayed

Inhalation: May cause coughing. Irritation to respiratory tract.

Ingestion: No specific symptoms noted.

Skin contact: No specific symptoms noted.

Eye contact: May cause eye irritation. Redness of the eye tissue.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures.

5.1. Extinguishing media

Suitable extinguishing media:

All extinguishing media allowed.

Unsuitable extinguishing media:

None.

5.2. Special hazards arising from the substance or mixture

Fire hazard:

The product is not flammable.

Explosion hazard:

No explosive properties known.

Reactivity:

Stable under normal conditions of handling and storage.

5.3. Advice for firefighters

Firefighting instructions:

Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire/ Prevent fire-fighting water from entering environment.

Protection during firefighting:

Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures

General measures: Keep public away from danger area. See section 8.2. avoid dust production.

6.1.1. For non-emergency personnel

Evacuate personnel to a safe area

6.1.2. For emergency responders

Equip clean up crew with proper protection. Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if product enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up: Sweep or shovel spills into appropriate container for disposal. Avoid dust production.

6.4. Reference to other sections

See section 8 and 13 for more information.

SECTION 7: Handling and storage.

7.1. Precautions for safe handling

Precautions for safe handling: Do not breathe dust. Wash hands plentifully and other exposed areas with water after handling. Remove contaminated clothing and shoes. Wash clothing before re-using.

Packagings: Even those that have been emptied, will retain product residue. Always obey safety warnings and handle empty packages as if they were full. Avoid all contact with this substance.

Hygiene measures: When using do not eat, drink or smoke. Wash hands and other exposed areas with mild soap and water before eat, drink or smoke and when leaving work. Remove contaminated clothing and shoes.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions: Store in dry, cool, well-ventilated area. Keep away from food, drink and animal feeding stuffs.

Incompatible products: Strong bases. Strong acids

Incompatible materials: Remove all sources of ignition. Protect material from direct sunlight.

7.3. Specific end use(s)

The identified uses for this product are detailed in section 1.2

SECTION 8: Exposure controls/personal protection.**8.1. Control parameters**

Chemical Name	United Kingdom
Quartz	WEL TWA: 0.1 mg/m ³
Quartz	WEL STEL: 0.3mg/m ³ (calculated)

Exposure Limits:

Follow workplace regulatory exposure limits for all types of airborne dust (e.g. total dust, respirable dust).

Ingredients comments:

Dust contains respirable silica. Prolonged and/or massive inhalation of respirable silica dust may cause lung fibrosis. Commonly referred to as silicosis. Principal symptoms of silicosis are cough and breathlessness. Occupational exposure to respirable dust should be monitored and controlled. The product should be handled using methods and techniques that minimise or eliminate dust generation. The product contains less than 1% w/w RCS (respirable crystalline silica) as determined by the SWERF method. The respirable crystalline silica content can be measured using the "Size-Weighted Respirable Fraction – SWERF" method. All details about the SWERF method are available at www.crystallinesilica.eu

8.2. Exposure controls

Appropriate engineering controls: Use as far as possible in a closed system. Provide a regular control of the atmosphere. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Local exhaust and general ventilation must be adequate to meet exposure standards. Please refer to the annex (exposure scenarios).

Hand protection: Use gloves resistant to chemical products corresponding to EN 374:3. Take advice to gloves' manufacturer.

Eye protection: Wear safety glasses with side shields according to EN 166.

Skin and body protection: Wear closed protective clothing.

Respiratory protection: Use respiratory protection mask according to EN 140 or EN 405 with filter type P3 according to EN 143:2000 or FFP3 according to EN 149:2001.

Environmental exposure controls: Avoid release to the environment.

SECTION 9: Physical and chemical; properties.

Physical state	Solid Powder.
Colour	Black.
Odour	odourless.
Odour threshold	Not applicable
pH	Neutral
Relative evaporation rate (butylacetate=1)	No data available
Melting point	>1,000 °C
Freezing point	No data available
Boiling point	No data available
Flash point	Not flammable
Self ignition temperature	Not applicable
Decomposition temperature	No data available
Flammability (solid, gas)	Not flammable
Vapour pressure	Not applicable.
Relative vapour density at 20 °C	No data available
Relative density	2400 - 2700 kg/m ³
Density	4.1-4.6 at 20°C
Solubility	Material insoluble in water.
Log Pow	Not applicable
Log Kow	Not applicable
Viscosity, kinematic	Not applicable
Viscosity, dynamic	Not applicable
Explosive properties	Not explosive.
Oxidising properties	No data available.
Explosive limits	Not applicable

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity.**10.1. Reactivity**

No specific reactivity hazards associated with this product.

10.2. Chemical stability

Stable under normal conditions of handling and storage.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

Not relevant

10.5. Incompatible materials

Incompatible with acids (e.g. Nitric acid)

10.6. Hazardous decomposition products

May evolve toxic gases if heated to decomposition.

SECTION 11: Toxicological information.**11.1. Information on toxicological effects**

Acute toxicity	Based on available data, the classification criteria are not met.
Skin corrosion/irritation	Based on available data, the classification criteria are not met.
Serious eye damage/irritation	Based on available data, the classification criteria are not met.
Respiratory or skin sensitisation	Based on available data, the classification criteria are not met.
Germ cell mutagenicity	Based on available data, the classification criteria are not met.
Carcinogenicity	Based on available data, the classification criteria are not met.
Reproductive toxicity	Based on available data, the classification criteria are not met.
STOT – single exposure	Ilmenite sand contains a small amount of respirable crystalline silica (up to 0.01%) and precautions should be taken to avoid inhaling the dust.
STOT – repeated exposure	Radiation: Ilmenite sand contains low levels of naturally occurring radioactive elements of the uranium and thorium series. It has typical specific activities of 0.05 to 2.1 Bq/g (thorium-232) and 0.1 to 0.3 Bq/g (uranium-238). Low level gamma radiation from bulk or bagged stockpiles of ilmenite sand can increase gamma levels slightly above normal background.
Aspiration hazard	Based on available data, the classification criteria are not met.

SECTION 12: Ecological information.

12.1. Toxicity

No additional information available.

12.2. Persistence and degradability

Not established.

12.3. Bioaccumulative potential

Not established.

12.4. Mobility in soil

No additional information available.

12.5. Results of PBT and vPvB assessment

No additional information available.

12.6. Other adverse effects

Avoid release to the environment.

SECTION 13: Disposal considerations.

13.1. Waste treatment methods

Waste disposal recommendations:

Dispose of this material in a safe manner and in accordance with local authority requirements.

Ecology - waste materials:

Avoid release to the environment.

SECTION 14: Transport information.

14.1. UN number

The product is not covered by international regulation on transport of dangerous goods (IMDG, IATA, ADR/RID).

14.2. UN proper shipping name

Not classified for transportation.

14.3. Transport hazard class(es)

Not classified for transportation.

14.4. Packing group

Not classified for transportation.

14.5. Environmental hazards

Other information: No environmental hazards known with this product.

14.6. Special precautions for user

Not classified for transportation.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable.

SECTION 15: Regulatory information.

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

15.1.1. EU Regulations

No REACH Annex XVII restrictions.

Contains no REACH candidate substance.

15.1.2. National Regulations

Ensure all national/local regulations are observed.

EU Legislation:

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18th December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulations (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments. Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16th December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 with amendments.

15.2. Chemical Safety Assessment.

No chemical safety assessment has been carried out.

SECTION 16: Other information.**Indication of changes:**

The classification of the product (according to EU regulations) has been altered.

Data sources:

REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixturejs, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Training advice:

Workers must be informed of the presence of crystalline silica and trained in the proper use and handling of this product as required under applicable regulations.

Social Dialogue on Respirable Crystalline Silica

A multi-sectorial social dialogue agreement on workers Health Protection through the Good Handling and Use of Crystalline Silica Products Containing it was signed on 25th April 2006. This autonomous agreement, which receives the European Commission's financial support, is based on a Good Practices Guide. The requirements of the Agreement came into force on 25th October 2006. The Agreement was published in the Official Journal of the European Union (2006/C 279/02). The text of the Agreement and its annexes, including the Good Practices Guide, are available from <http://wwwnepssi.eu> and provide useful information and guidance for the handling of products containing respirable crystalline silica. Literature references are available on request from EUROSIL, the European Association of Industrial Silica Producers.

Health & Safety Executive (Specific for UK)

Detailed reviews of the scientific evidence on the health effects of crystalline silica have been published by HSE (Health and Safety Executive, UK) in the Hazard Assessment Documents EH75/4 (2002) and EH75/5 (2003). The HSE points out on its website that "Workers exposed to fine dust containing quartz are at risk of developing a chronic and possibly severely disabling lung disease known as "silicosis". In addition to silicosis, there is now evidence that heavy and prolonged workplace exposure to dust containing crystalline silica can lead to an increased risk of lung cancer. The evidence suggests that an increased risk of lung cancer is likely to occur only in those workers who have developed silicosis". In addition to silicosis, there is now evidence that heavy and prolonged workplace exposure to dust containing crystalline silica can lead to an increased risk of lung cancer. The evidence suggests that an increased risk of lung cancer is likely to occur only in those workers who have developed silicosis.

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

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