



SAFETY DATA SHEET

CRUZOR RUTILE SANDS

Infosafe No.: GEN0Z

ISSUED Date : 29/07/2016

ISSUED by: SIBELCO AUSTRALIA LIMITED

1. IDENTIFICATION

GHS Product Identifier

CRUZOR RUTILE SANDS

Company Name

SIBELCO AUSTRALIA LIMITED

Address

49-55 Woodlands Drive Braeside
Vic 3195 Australia

Telephone/Fax Number

Tel: (03)9586 5400

Fax: (03)9586 5413

Emergency phone number

1800 638 556

Recommended use of the chemical and restrictions on use

Raw material for manufacture of titanium dioxide pigments, titanium metal and welding rod electrodes.

2. HAZARD IDENTIFICATION

GHS classification of the substance/mixture

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Signal Word (s)

DANGER

Hazard Statement (s)

May cause cancer by inhalation.

Pictogram (s)

Health hazard

**Precautionary statement – Prevention**

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves/protective clothing/eye protection/face protection.

Precautionary statement – Response

IF exposed or concerned: Get medical advice/attention.

Precautionary statement – Storage

Store locked up.

Precautionary statement – Disposal

Dispose of contents/container to an approved waste disposal plant.

Other Information

HMIS rating: Not available

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients

Name	CAS	Proportion
Titanium Dioxide (Rutile)	1317- 80- 2	> 95 %
Aluminium	7429- 90- 5	0. 1- <1 %
Quartz [Silica Crystalline]	14808- 60- 7	0. 1- <1 %
Chromium	7440- 47- 3	0. 1- <1 %
Iron Oxide (as Fe2O3)	1309- 37- 1	0. 1- <1 %
Zirconium	7440- 67- 7	0. 1- <1 %
Ingredients determined not to be hazardous		Balance

4. FIRST-AID MEASURES

Inhalation

If inhaled, remove affected person from contaminated area. Apply artificial respiration if not breathing. Seek medical attention.

Ingestion

Do not induce vomiting. Wash out mouth thoroughly with water. Seek medical attention.

Skin

Wash affected area thoroughly with soap and water. If symptoms develop seek medical attention.

Eye contact

If in eyes, hold eyelids apart and flush the eyes continuously with running water. Remove contact lenses. Continue flushing for several minutes until all contaminants are washed out completely. If symptoms develop and/or persist seek medical attention.

First Aid Facilities

Eyewash and normal washroom facilities.

Advice to Doctor

Treat symptomatically.

Indication of immediate medical attention and special treatment needed if necessary

No further relevant information available.

Most important symptoms/effects, acute and delayed

No further relevant information available.

Other Information

For advice in an emergency, contact a Poisons Information Centre or a doctor at once.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Use appropriate fire extinguisher for surrounding environment.

Hazards from Combustion Products

Non combustible material.

Specific Hazards Arising From The Chemical

This product is non combustible. However heating can cause expansion or decomposition leading to violent rupture of containers.

Decomposition Temperature

Not available

Precautions in connection with Fire

Fire fighters should wear full protective clothing and self-contained breathing apparatus (SCBA) operated in positive pressure mode. Fight fire from safe location. Water spray may be used to cool down heat-exposed containers.

Other Information

NFPA rating: Not available

6. ACCIDENTAL RELEASE MEASURES

Emergency Procedures

Increase ventilation. Evacuate all unprotected personnel. Wear sufficient respiratory protection and full protective clothing to prevent exposure. Sweep up material avoiding dust generation or dampen spilled material with water to avoid airborne dust, then transfer material to a suitable container. Wash surfaces well with soap and water. Seal all wastes in labelled containers for subsequent recycling or disposal. Dispose of waste according to the applicable local and national regulations. If contamination of sewers or waterways occurs inform the local water and waste management authorities in accordance with local regulations.

7. HANDLING AND STORAGE

Precautions for Safe Handling

Avoid inhalation of dust, and skin or eye contact. Use only in a well ventilated area. Keep containers sealed when not in use. Prevent the build up of dust in the work atmosphere. Maintain high standards of personal hygiene i.e. washing hands prior to eating, drinking, smoking or using toilet facilities.

Avoid exposure. Do not handle until all safety precautions have been read and understood.

Conditions for safe storage, including any incompatibilities

Store in a cool, dry, well-ventilated area, out of direct sunlight and moisture. Store in suitable, labelled containers. Keep containers tightly closed. Store away from incompatible materials. Ensure that storage conditions comply with applicable local and national regulations.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational exposure limit values

Substance	Regulations	Exposure Duration	Exposure Limit	Units	Notes
Chromium		TWA	0.5	mg/m ³	
Iron Oxide (as Fe ₂ O ₃)		TWA	5	mg/m ³	Iron oxide fume (Fe ₂ O ₃) (as Fe)
Quartz [Silica Crystalline]		TWA	0.1	mg/m ³	
Aluminium		TWA	10	mg/m ³	Metal dust

Biological Limit Values

No biological limits allocated.

Appropriate Engineering Controls

This substance is hazardous and should be used with a local exhaust ventilation system, drawing solid/dust away from workers' breathing zone. If the engineering controls are not sufficient to maintain concentrations of particulates below the exposure standards, suitable respiratory protection must be worn.

Respiratory Protection

If engineering controls are not effective in controlling airborne exposure then an approved respirator with a replaceable dust/particulate filter should be used. Refer to relevant regulations for further information concerning respiratory protective requirements.

Eye Protection

Safety glasses with side shields, chemical goggles or full-face shield as appropriate should be used. Final choice of appropriate eye/face protection will vary according to individual circumstances. Eye protection devices should conform to relevant regulations.

Hand Protection

Wear gloves of impervious material . Final choice of appropriate gloves will vary according to individual circumstances i.e. methods of handling or according to risk assessments undertaken. Occupational protective gloves should conform to relevant regulations.

Body Protection

Suitable protective work wear, e.g. cotton overalls or overalls of anti-static, flame retardant material, buttoned at neck and wrist is recommended. Chemical resistant apron is recommended where large quantities are handled.

Other Information

No exposure standards have been established for the mixture.

However, the recommended exposure standards for Particles (Insoluble or Poorly soluble) not otherwise specified, Inhalable Particles is: 10mg/m³

However, the recommended exposure standards for Particles (Insoluble or Poorly soluble) not otherwise specified, Respirable Particles is: 3mg/m³

American Conference of Industrial Hygienists (ACGIH)

However, the recommended exposure standards for Inert or Nuisance Dust, Respirable Fraction is: 5mg/m³

However, the recommended exposure standards for Inert or Nuisance Dust, Total Dust is: 15mg/m³

OSHA Table Z-3 (29 CFR 1910.1000)

Quartz [Silica Crystalline] , respirable: (250/(%SiO₂+5)) mppcf, 10mg/m³/(%SiO₂+2)

Crystalline silica (Quartz) , total(dust): 30mg/m³/(%SiO₂+2)

OSHA Table Z-3 (29 CFR 1910.1000)

As with all chemicals, exposure should be kept to the lowest possible levels.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form

Solid

Appearance

Dark brown to black sand

Colour

Dark brown to black

Odour

Odourless

Decomposition Temperature

Not available

Melting Point

3370°C

(6098°F)

Boiling Point

Not available

Solubility in Water

Insoluble (20°C)

(68°F)

Solubility in Organic Solvents

Not available

Specific Gravity

4.2-4.3

pH

7.1-8.8

Vapour Pressure

Not available

Vapour Density (Air=1)

Not available

Evaporation Rate

Not available

Odour Threshold

Not available

Viscosity

Refer to Section 9: Kinematic Viscosity and Dynamic Viscosity

Volatile Component

Not available

Partition Coefficient: n-octanol/water

Not available

DensityBulk density : 2400-2700 kg/m³**Flash Point**

Not applicable

Flammability

Not combustible

Auto-Ignition Temperature

Not applicable

Explosion Limit - Upper

Not applicable

Explosion Limit - Lower

Not applicable

Explosion Properties

Not applicable

Oxidising Properties

Not available

Kinematic Viscosity

Not available

Dynamic Viscosity

Not available

10. STABILITY AND REACTIVITY

Reactivity

Refer to Section 10: Possibility of hazardous reactions

Chemical Stability

Stable under normal conditions of storage and handling.

Conditions to Avoid

Moisture, extremes of temperature and direct sunlight.

Incompatible materials

Not available

Hazardous Decomposition Products

Thermal decomposition may result in the release of toxic and/or irritating fumes

Possibility of hazardous reactions

Not available

Hazardous Polymerization

Will not occur.

11. TOXICOLOGICAL INFORMATION

Toxicology Information

No toxicity data available for this material.

Ingestion

Ingestion of this product may irritate the gastric tract causing nausea and vomiting.

Inhalation

Inhalation of dusts may irritate the respiratory system. Repeated exposure to respirable crystalline silica dust may lead to silicosis, or other serious delayed lung injury. The onset of silicosis is usually slow and lung damage may occur even when no symptoms or signs of ill-health have occurred. Silicosis can develop to a more serious degree even after exposure has ceased, and may also lead to other diseases including heart disease and scleroderma. Exposure by inhalation may aggravate pre-existing upper respiratory and lung disorders such as bronchitis, emphysema and asthma.

Skin

May be irritating to skin. The symptoms may include redness, itching and swelling.

Eye

May be irritating to eyes. The symptoms may include redness, itching and tearing.

Respiratory sensitisation

Not expected to be a respiratory sensitiser.

Skin Sensitisation

Not expected to be a skin sensitiser.

Germ cell mutagenicity

Not considered to be a mutagenic hazard.

Carcinogenicity

May cause cancer by inhalation. Respirable crystalline silica is classified by International Agency for Research on Cancer (IARC) as carcinogenic to humans by inhalation (Group 1). Repeated exposure to respirable crystalline silica dust may lead to silicosis, or other serious delayed lung injury. Use approved dust respirator when grinding or machining coating or coated items.

Iron oxide is listed as a Group 3: Not classifiable as to carcinogenicity to humans according to International Agency for Research on Cancer (IARC).

Chromium, metallic is listed as a Group 3: Not classifiable as to carcinogenicity to humans according to International Agency for Research on Cancer (IARC).

Crystalline silica (Quartz) is listed as A2 – Suspected Human Carcinogen according to American Conference of Industrial Hygienists (ACGIH)

Aluminium metal and insoluble compounds is listed as A4 – Not Classifiable as a Human Carcinogen according to American Conference of Industrial Hygienists (ACGIH)

Chromium, metal is listed as A4 – Not Classifiable as a Human Carcinogen according to American Conference of Industrial Hygienists (ACGIH)

Iron oxide is listed as A4 – Not Classifiable as a Human Carcinogen according to American Conference of Industrial Hygienists (ACGIH)

Zirconium and compounds is listed as A4 – Not Classifiable as a Human Carcinogen according to American Conference of Industrial Hygienists (ACGIH)

Reproductive Toxicity

Not considered to be toxic to reproduction.

STOT-single exposure

Not expected to cause toxicity to a specific target organ.

STOT-repeated exposure

Not expected to cause toxicity to a specific target organ.

Aspiration Hazard

Not expected to be an aspiration hazard.

Other Information

RADIATION: In common with many naturally occurring mineral products, this product contains extremely low levels of naturally occurring radioactive elements – principally thorium. The main radiological hazard from the product is internal exposure to alpha particles given off in small amounts by inhaled dust. Low level gamma radiation from bulk or bagged stockpiles of this product may present a lesser, external exposure hazard.

12. ECOLOGICAL INFORMATION

Ecotoxicity

No ecological data available for this material.

Persistence and degradability

Not available

Mobility

Insoluble in water (20°C)

Bioaccumulative Potential

Not available

Other Adverse Effects

Not available

Environmental Protection

Prevent this material entering waterways, drains and sewers.

13. DISPOSAL CONSIDERATIONS

Disposal considerations

The disposal of the spilled or waste material must be done in accordance with applicable local and national regulations.

Local Legislation

Classification of waste is always the responsibility of the end user.

14. TRANSPORT INFORMATION

Transport Information

Not classified as Dangerous Goods by the criteria of the Department of Transport (DOT)

Not classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.

Not classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.

U.N. Number

None Allocated

Transport hazard class(es)

None Allocated

IMDG Marine pollutant

No

Transport in Bulk

Product does not meet the conditions to be considered 'harmful to the marine environment' under the revised MARPOL annex V.

Special Precautions for User

Not available

15. REGULATORY INFORMATION

California Proposition 65

Listed

SARA (313) Chemicals

Not Listed

Reportable Quantity

Not Listed

16. OTHER INFORMATION

Date of preparation or last revision of SDS

SDS Reviewed: July 2016, Supersedes: May 2015

References

ANSI Z400.1/Z129.1-2010. American National Standard for Hazardous Workplace Chemicals – Hazard Evaluation and Safety Data Sheet and Precautionary Labeling Preparation.

Adopted biological exposure determinants, American Conference of Industrial Hygienists (ACGIH).

OSHA Table Z-1 Limits for Air Contaminants (June 30, 1993)(29 CFR 1910.1000)(1971 Permissible Exposure Limits (PELs))

OSHA Table Z-3 (29 CFR 1910.1000)

Contact Person/Point

Emergency Advice: ACOHS ERS - 1800 638 556 (24 Hours)

PLEASE NOTE:

The information contained herein is based on data available to Sibelco Australia Limited from both our own technical sources and from recognised published references and is believed to be both accurate and reliable. Sibelco Australia Limited has made no effort to censor nor to conceal deleterious aspects of this product. Since we cannot anticipate or control the many different conditions under which this information and our products may be used, each user should review these recommendations in the specific context of the intended application and confirm whether they are appropriate. It is therefore recommended that you undertake your own risk assessment in relation to your method of handling and proposed use of this product. Sibelco Australia Limited accepts no liability whatsoever for damage or injury caused from the use of this information or of suggestions contained herein.

Other Information

Not available

END OF SDS

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