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

1.1. Product identifier Respirable Crystalline Silica Dust

Product from: Substance
Trade name: Silica sand, quarts sand, wash concrete sand, fine white sand, wash pit sand.
CAS No.: 14808-60-7
Product group: Commercial product

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

Use of the substance/preparation: Sand for specialty applications. Prohibited for use in sandblasting.

1.3. Details of the supplier of the safety data sheet

International Specialty Aggregates (ISA)
PO Box 6195
New Zealand
+64 3 214 5109
admin@isapebble.co.nz

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-classification of substance/mixture

6.7A – Substance that is known or presumed to be a human carcinogen

6.9A (repeated exposure) – Substance that is toxic to human target organs or systems.

Not classified as a Dangerous Goods for transport according to the New Zealand Standards NZS 5433:2012 Transport of Dangerous Goods on Land.

Hazard pictograms (GHS):	GHS07		GHS08	
Signal word (GHS):	Danger			
Hazard statements (GHS):	H335 - May cause respiratory irritation			

H350 - May cause cancer (inhalation)

H372 - Causes damage to organs (lung/Respiratory system) through prolonged or repeated exposure (inhalation)

Precautionary statements (GHS):

P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing

P312 - Call a POISON CENTER/doctor if you feel unwell

P308+P313 - If exposed or concerned: Get medical advice/attention

P314 - Get medical advice and attention if you feel unwell

P264 - Wash hands and forearms thoroughly after handling

P270 - Do not eat, drink or smoke when using this product

Classified as Hazardous according to the Hazardous Substances (Minimum Degree of Hazards) Regulations 2001, New Zealand.

P201 - Obtain special instructions before use

P202 - Do not handle until all safety precautions have been read and understood

P208 - Wear eye protection, protective clothing, protective gloves

P260 - Do not breathe dust

P271 - Use only outdoor or in a well-ventilated area

P403+P233 - Store in a well-ventilated place. Keep container tightly closed

P405 - Store locked up

P501 - Dispose of contents/container according to local, regional, national, and international regulations

2.2. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Name Product identifier % GHS-US classification.

Quartz (CAS No.) 14808-60-7 99 - 100 Carc. 1A, H350

STOT SE 3, H335

STOT RE 1, H372

Full text of H-phrases: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general:	If medical advice is needed, have product container or label at hand.
First-aid measures after inhalation:	If inhaled, remove to fresh air, and keep at rest in a position comfortable for breathing. Obtain medical attention if breathing difficulty persists.
First-aid measures after skin contact:	Rinse immediately with plenty of water. Gently wash with plenty of soap and water. Obtain medical attention if irritation persists.
First-aid measures after eye contact:	Immediately rinse with water for a prolonged period while holding the eyelids wide open. Seek medical attention if material is embedded in eye.
If eye irritation persists:	Get medical advice and attention.
First-aid measures after ingestion:	If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

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

Symptoms/injuries:	Repeated or prolonged inhalation may damage lungs
Symptoms/injuries after inhalation:	May cause irritation to the respiratory tract, sneezing, coughing, burning sensation of throat with constricting sensation of the larynx and difficulty in breathing.



international specialty aggregates

Symptoms/injuries after skin contact:	Prolonged contact with large amounts of dust may cause mechanical irritation. Dust may cause irritation in skin folds or by contact in combination with tight clothing.
Symptoms/injuries after eye contact:	Redness, pain.
Symptoms/injuries after ingestion:	Abdominal pain.
Chronic symptoms:	Respiratory difficulties. May cause cancer.

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

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media.

Suitable extinguishing media:	Use extinguishing media appropriate for surrounding fire.
Unsuitable extinguishing media:	None known.

5.2. Special hazards arising from the substance or mixture.

Fire hazard:	Not flammable.
Explosion hazard:	No particular fire or explosion hazard.
Reactivity:	Hazardous reactions will not occur under normal conditions.

5.3. Advice for firefighters

Precautionary measures fire:	Fight fire with normal precautions from a reasonable distance.
Firefighting instructions:	Not flammable.
Protection during firefighting:	Use normal individual fire protective equipment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment, and emergency procedures

General measures:	Do not breathe dust. Avoid generation of dust during clean-up of spills. Recover the product by vacuuming, shoveling, or sweeping. Vacuum must be fitted with HEPA filter to prevent release of particulates during clean-up. Wear Powered Air Protection Respirator (PAPR) if levels are above the Workplace Exposure Standard (WES).
-------------------	--

6.1.1. For non-emergency personnel

Protective equipment:	Wear suitable protective clothing, gloves, and eye/face protection. Use recommended respiratory protection.
Emergency procedures:	Collect as any solid.

6.1.2. For emergency responders

No additional information available

6.2. Environmental precautions

No additional information available

6.3. Methods and material for containment and cleaning up



international specialty aggregates

Methods for cleaning up: Avoid generation of dust during clean-up of spills. Recover the product by vacuuming, shoveling, or sweeping. Vacuum must be fitted with HEPA filter to prevent release of particulates during clean-up.

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed: Do not breathe dust.
Precautions for safe handling: Avoid creating or spreading dust.
Hygiene measures: Handle in accordance with good industrial hygiene and safety procedures. Always wash your hands immediately after handling this product, and once again before leaving the workplace. Do not eat, drink, or smoke in areas where the product is used.

7.2. Conditions for safe storage, including any incompatibilities.

Storage conditions: Store in a dry, cool place. Keep container tightly closed.
Incompatible material: In finely divided state reacts with (strong) oxidizers such as: hydrofluoric acid, chlorine trifluoride, oxygen difluoride, fluorine.
Storage area: Store in dry, cool area.
Special rules on packaging: Keep container closed when not in use.

7.3. Specific end use(s)

Sand for specialty applications.

SECTION 8: Exposure controls/personal protection

8.1. Occupational exposures limited values.

The Workplace Exposure Standards (WES) are intended to be used as guidelines for health risk management. PCBUs and people with duties under the Health and Safety at Work Act 2015 (HSWA) and the Hazardous Substances and New Organisms Act 1996 (HSNO Act) may use this page as a reference; but it is recommended that specialist advice is sought prior to engaging in monitoring programmes or exposure control. It is not recommended that untrained persons use WES to assess health risks. Professional judgement is required in making decisions regarding safe levels of exposure to chemicals in the workplace.

Workplace Exposure Standard Time Weighted Averages (WES-TWA) are derived on an eight-hour workday and 40-hour work week. When shifts are longer than this, either over a day or a week, the WES-TWA needs to be adjusted to account for the longer period of exposure and shorter recovery time. Various models are available to make the adjustment, and each may result in a different adjusted WES. An adjustment is made to the WES by applying the following formula:

Daily exposure adjustment:

$$\text{Adjusted WES-TWA} = \frac{8 \times (24-h) \times \text{WES-TWA}}{16 \times h}$$

Where h = hours worked per day

Seven-day work week adjustment:

$$\text{Adjusted WES-TWA} = \frac{40 \times (168-h) \times \text{WES-TWA}}{128 \times h}$$

Where h = hours worked per week

Silica Crystalline mg/m³ 0.025) Carcinogen Category 1; α quartz and cristobalite are confirmed carcinogens. Significant risk to workers will remain at WES-TWA exposures of 0.025mg/m³.

8.2. Exposure controls

Appropriate engineering controls: Ensure adequate ventilation, especially in confined areas. Avoid dust productions.

Personal protective equipment.

Skin: Ensure a light level of personal hygiene is maintained when using this product. That is; always wash hands before eating, drinking, smoking, or using the toilet. Remove all contaminated clothing. Wash gently and thoroughly with tepid water and non-abrasive soap. If irritation develops and persists, seek medical attention.

Eyes: Safety glasses with side shield or safety goggles (AS/NZ1336) or a face shield should be worn.

Respiratory: Where engineering and handling controls are not enough to minimise exposure to total dust and to respirable crystalline silica, personal respiratory protection may be required.

The type of respiratory protection required depends primarily on the concentration of the respirable crystalline silica dust in the air and the frequency and length of exposure time. The amount of exertion required during the work, and personal comfort are other considerations in choice of respirator. A suitable P3 particulate respirator chosen and used in accordance with AS/NZS 1715 and AS/NZS 1716 may be sufficient for many situations, but where high levels of dust are encountered, more efficient cartridge type or powered respirator or supplied-air helmets or suits may be necessary. Use only respirators that bear the New Zealand Standards mark and are fitted and maintained correctly.

For dust levels approaching or exceeding the WES, a more effective particulate respirator providing a greater protection factor should be worn. Procedures for effective use of respirators should be applied and supervised.

Do not contaminate the home environment with dust, work clothes and shoes. Do not shake out work clothes before laundering.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	Solid
Appearance:	Crystalline solid
Color:	Natural Color
Odor:	Odorless



international specialty aggregates

Odor threshold:	No data available
pH:	No data available
Relative evaporation rate (butylacetate=1):	No data available
Melting point:	1710°C (3110°F)
Freezing point:	No data available
Boiling point:	2230°C (4046°F)
Flash point:	No data available
Self-ignition temperature:	No data available
Decomposition temperature:	No data available
Flammability (solid, gas):	No data available
Vapor pressure:	No data available
Relative vapor density at 20°C:	No data available
Density:	2.65 (approximately)
Solubility: Water:	Insoluble
Log Pow:	No data available
Log Kow:	No data available
Explosive properties:	None known
Oxidizing properties:	None known
Explosive limits:	No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Hazardous reactions will not occur under normal conditions.

10.2. Chemical stability

Stable under normal temperature and pressure.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid.

None known.

10.5. Incompatible materials

Avoid strong oxidizers.

10.6. Hazardous decomposition products

Quartz (silica) will dissolve in hydrofluoric acid producing a corrosive gas, silicon tetrafluoride.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity: Not classified.



international specialty aggregates

Skin corrosion/irritation:	Not classified.
Serious eye damage/irritation:	Not classified.
Respiratory or skin sensitisation:	Not classified.
Germ cell mutagenicity:	Not classified.
Carcinogenicity:	May cause cancer (inhalation) Quartz (14808-60-7) IARC Group 1 National Toxicity Program (NTP) Status Known Human Carcinogen
Reproductive toxicity:	Not classified.
Specific target organ toxicity (single exposure):	May cause respiratory irritation.
Specific target organ toxicity (repeated exposure):	Causes damage to organs (lungs/respiratory system) through prolonged or repeated exposure (inhalation)

Additional Information Repeated or prolonged exposure to respirable crystalline silica dust will cause lung damage in the form of silicosis. Symptoms will include progressively more difficult breathing, cough, fever, and weight loss. Acute silicosis can be fatal.

Aspiration hazard: Not classified

SECTION 12: Ecological information

12.1. Toxicity

No additional information available

12.2. Persistence and degradability

Silica Sand, All Grades (14808-60-7)

Persistence and degradability Not readily biodegradable

12.3. Bio accumulative potential

Silica Sand, All Grades (14808-60-7)

Bio accumulative potential Not expected to bio accumulate.

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Regional legislation (waste): Disposal must be done according to official regulations.

Waste disposal recommendations: Nonhazardous waste.

SECTION 14: Transport information

14.1. UN number

No dangerous good in sense of transport regulations

14.2. UN proper shipping name

Not applicable

14.3. Overland transport

No additional information available

14.4. Transport by sea

No additional information available

14.5. Air transport

No additional information available

14.6. Additional information

Other information: No supplementary information available

SECTION 15: Regulatory information

15.1. Poisons Schedule

Not Scheduled

15.2.1 National and or International Regulatory Information

Classified as Hazardous according to the New Zealand Hazardous Substances (Minimum Degree of Hazards) Regulations 2001. Group Standard: Additives, Process Chemicals and Raw Materials (Toxic (6.7) Group Standard 2006

15.2.2. HASNO Approval Number

HSR003125

SECTION 16: Other information

Date of Preparation: 07/05/2024

Date of Review: 06/04/2029