



21 Roberts St
Osborne Park WA 6017
Ph: (08 9242 2990
Email: kirkside@wt.com.au

Product Name **CENOSPHERES**

Ingredient	Conc.	CAS No.
SILICA, CRYSTALLINE - QUARTZ	<10%	14808-60-7
FLY ASH	<100%	68131-74-8

CLASSIFIED AS HAZARDOUS ACCORDING TO NOHSC CRITERIA

Synonyms	BLUE CIRCLE ASH CENOSPHERES, CENOSPHERES, MICROSPHERES, POZOSPHERES,		
Appearance	WHITE TO LIGHT GREY POWDER		
Odour	SLIGHT ODOUR		
Use(s)	CEMENT ADDITIVE, CONCRETE ADDITIVE, MORTAR ADDITIVE. BLUE CIRCLE ASH Ph: (02) 4359 1988 Emerg. Ph: 1800 033 111		
Supplier			
Stock No.			
Poison Schedule	None Allocated	Hazchem None Allocated	UN No. None Allocated
Pkg Group	None Allocated	EPG None Allocated	SubiTert Risk None Allocated
			13,G Class: None Allocated

HEALTH HAZARD

Irritant - slightly corrosive. Use safe work practices to avoid dust inhalation. Chronic over exposure to crystalline **Summary** quartz may cause lung disease (silicosis). Crystalline quartz is classified as carcinogenic to humans (IARC Group 1). Adverse health effects are not anticipated where dust generation is minimized.

Eye Slightly corrosive - irritant. Exposure may result in lacrimation, pain, redness and possible corneal burns with prolonged contact.

Inhalation Irritant - slightly corrosive. Over exposure at high levels may result in irritation of the nose and throat with coughing. Prolonged and repeated inhalation of respirable silica may result in pulmonary fibrosis (silicosis). Crystalline quartz is classified as carcinogenic to humans (IARC Group 1).

Skin Irritant. Prolonged skin contact or direct contact with abraded skin may result in irritation and possible skin rash_

Ingestion Slightly corrosive. Ingestion may result in burns to the mouth and throat, with vomiting and abdominal pain. **Due** to product form, ingestion is not considered a likely exposure route.

PRECAUTIONS

Flammability Non flammable. No fire or explosion hazard exists. Reactivity Incompatible with strong acids (eg hydrofluoric acid).

Ventilation Do not inhale dust. Use in well ventilated areas. In poorly ventilated areas, mechanical extraction ventilation is recommended.

PERSONAL PROTECTIVE EQUIPMENT

PPE Wear dust-proof goggles or safety glasses and PVC or rubber gloves. When using large quantities or where heavy contamination is likely, wear coveralls. Where an inhalation risk exists, wear a Class P1 (Particulate) Respirator. At high dust levels, wear a Powered Air Purifying Respirator (PAPR) with Class P3 (Particulate) filter or a Class P3 (Particulate) respirator.



Colour Rating
AMBER

Chem Alert Report

Manufacturer's Material Safety Data Sheet

Product Name **CENOSPHERES**

FIRST AID

- Eye** Hold eyelids apart and flush the eye continuously with running water. Continue flushing until advised to stop by the Poisons Information Centre, or for at least 15 minutes.
- Inhalation** If over exposure occurs leave exposure area immediately_ If other than minor symptoms are displayed seek immediate medical attention.
- Skin** Gently flush affected areas with water.
- Ingestion** If poisoning occurs, contact a Doctor or Poisons Information Centre on 13 11 26 (Australia Wide). Do not induce vomiting. Ingestion is considered a highly unlikely route due to product form_ Seek immediate medical advice.

SAFE HANDLING

- Storage:** Store in cool, dry, well ventilated area, removed from acids (eg hydrofluoric acid) and foodstuffs. Ensure containers are adequately labelled, protected from physical damage and sealed when not in use.
- Waste Reuse:** Recycle where possible. Keep product moist to reduce the potential for dust generation and dispose of to an Disposal approved landfill site. Contact Risk Management Technologies on +61 8 9322 1711 for additional information.
- Transport:** Not regulated for transport purposes.

EMERGENCY

- Spillage:** If spilt (bulk), wear PVC/rubber gloves, coveralls and a Full-face Class P3 (Particulate) respirator. At high dust levels, wear an Air-line respirator. Spray with water to prevent dust generation and place in sealable containers for disposal.
- Fire and Non flammable.** No fire or explosion hazard exists.
- Explosion** Extinguishing Non flammable.

P

PHYSICAL PROPERTIES

Flammability:	NON FLAMMABLE	Flash Point:	NOT RELEVANT
Boiling Point:	NOT AVAILABLE	Melting Point:	> 1400 C
Exposure Standard (TWA):	0.2 mg/m ³	Evaporation Rate:	NOT AVAILABLE
pH:	Silica, crystalline-quartz	% Volatiles:	NOT AVAILABLE
Specific Gravity:	ALKALINE	Solubility:	< 10 g/L
Vapour Pressure:	0.7 - 0.8	Upper Explosion Limit:	NOT RELEVANT
Lower Explosion Limit:	NOT AVAILABLE	Density	400 - 450 kg/m ³ (Bulk)

**Colour
Rating
AMBER**

Product Name **CENOSPHERES**

ADDITIONAL INFORMATION

This Chem Alert Report has been prepared as a material safety data sheet on behalf of the manufacturer, in accordance with the National Code of Practice for the Preparation of Material Safety Data Sheets [NOHSC: 2011(1994)]

HAG PHRASES

HAG stands for Hazmat Action Guide. HAG phrases describe in simple terms the hazard associated with chemical products and the appropriate action to take in the event of an emergency involving the product. HAG phrases are commonly used by emergency services.

- (8) Form: Solid. (39) Alkaline.
- (62) Avoid personal/skin contact.
- (51) Does not mix with water.
- (64) Avoid dust.
- (65) Prevent from entering drains.
- (80) Fire fighting: Does not burn.

ADDITIONAL INFORMATION FOR : SILICA, CRYSTALLINE - QUARTZ

Concentration in this product : <10%
Molecular Formula : Si-O2
Molecular Weight : 60.09

HEALTH HAZARDS - HEALTH HAZARD SUMMARY

Crystalline silica quartz is classified as a human carcinogen (IARC Group 1). Crystalline silicas are listed as a hazardous substance for which health surveillance is required (National Model Regulations for the Control of Workplace Hazardous Substances [NOHSC:1005 (1994)]).

The National Occupational Health and Safety Commission (NOHSC) recommends that where legislation exists that deals with the control of crystalline silica and specifies lower exposure standard values for quartz, cristobalite and tridymite than those listed by NOHSC, then compliance with those exposure standards must be maintained.

HEALTH HAZARDS - EYE

Direct contact may result in mechanical irritation. Avoid rubbing the eyes as the surface may be scratched.

HEALTH HAZARDS - INHALATION

Classified as carcinogenic to humans (IARC Group 1). Smokers are likely to be more susceptible. Chronic exposure to respirable silica dust may result in lung fibrosis (silicosis). Symptoms include cough, wheezing, and with progression, an increasing shortness of breath.

TWA : 0.2 mg/m³ (Silica Quartz)
TCLo (Inhalation) 16 000 000 particles/ft³/8 hours/17.9 years (human-fibrosis)
LCLo (Inhalation) : 300 ug/m³/110 years (human)

EMERGENCY-ENVIRONMENT

Silica occurs naturally as quartz, flint, diatomite, agate, chalcedony, chert and tridymite. It is not anticipated to have an adverse effect on the environment.

HEALTH HAZARDS - TOXICITY DATA

LDLo (Intravenous) : 20 mg/kg (dog) LDLo
(Intratracheal) : 200 mg/kg (rat)

ADDITIONAL INFORMATION FOR : FLY ASH

Concentration in this product <100%

**Colour
Rating
AMBER**

Product Name **CENOSPHERES**

A

ADDITIONAL INFORMATION cont.

HEALTH HAZARDS - HEALTH HAZARD SUMMARY

Also known as coal fly ash. Fly ash is the remaining solid residue after coal combustion and is a mixture of alumina, silica, unburned carbon and various metallic oxides. It is reported to have mutagenic properties (Sax and Lewis, 1987).

HEALTH HAZARDS - INHALATION

Prolonged and repeated exposure, heavy occupational exposure may result in adverse respiratory effects. This compound has been implicated in the development of interstitial fibrosis ie. tissue fibrosis (abnormal formation of fibrous tissue). Experimental mutagen.

ADDITIONAL SAFE HANDLING INFORMATION

SILICA - MEDICAL CONSIDERATIONS: Medical testing for those with frequent or potentially high exposure to silica (half the TWA or more) is recommended before beginning work and at regular intervals thereafter. This should include; Lung function tests - chest x-rays every 1-3 years. If abnormal chest x-ray develops, skin test for tuberculosis should be done. Any evaluation should include a careful history of past and present symptoms with an exam. Medical tests that look for damage already done are not a substitute for controlling exposure.

EXPOSURE STANDARDS - TIME WEIGHTED AVERAGES: Exposure standards are established on the premise of an 8 hour work period of normal intensity, under normal climatic conditions and where a 16 hour break between shifts exists to enable the body to eliminate absorbed contaminants. In the following circumstances, exposure standards must be reduced: strenuous work conditions; hot, humid climates; high altitude conditions; extended shifts (which increase the exposure period and shorten the period of recuperation).

ABBREVIATIONS: *** mg/m³ - Milligrams per cubic metre *** ppm - Parts Per Million *** TWA/ES - Time Weighted Average or Exposure Standard. *** pH - relates to hydrogen ion concentration - this value will relate to a scale of 0 -14, where 0 is highly acidic and 14 is highly alkaline. *** CAS# - Chemical Abstract Service number - used to uniquely identify chemical compounds. ***M - moles per litre, a unit of concentration. "IARC" IARC - International Agency for Research on Cancer.

COLOUR RATING SYSTEM: Chem Alert reports are assigned a colour rating of Green, Amber or Red for the purpose of providing users with a quick and easy means of determining the hazardous nature of a product. Safe handling recommendations are provided in all Chem Alert reports so as to clearly identify how users can control the hazards and thereby reduce the risk (or likelihood) of adverse effects. As a general guideline a Green colour rating indicates a low hazard, an Amber colour rating indicates a moderate hazard and a Red colour rating indicates a high hazard.

PERSONAL PROTECTIVE EQUIPMENT GUIDELINES:

The recommendation for protective equipment contained within this Chem Alert report is provided as a guide only. Factors such as method of application, working environment, quantity used, product concentration and the availability of engineering controls should be considered before final selection of personal protective equipment is made. Information provided by Risk Management Technologies is summarised for ease of use. Additional technical information is available by calling +61 8 9322 1711.

HEALTH EFFECTS FROM EXPOSURE:

It should be noted that the effects from exposure to this product will depend on several factors including: frequency and duration of use; quantity used; effectiveness of control measures; protective equipment used and method of application. Given that it is impractical to prepare a Chem Alert report which would encompass all possible scenarios, it is anticipated that users will assess the risks and apply control methods where appropriate.

TRANSPORT INFORMATION:

Where a United Nations Number (UN No) is present on the Chem Alert report, the product is classified as a Dangerous Good by the criteria of the Australian Dangerous Goods Code (ADG Code) for Transport by Road or Rail.

If no UN Number, Dangerous Goods Class or Hazchem Code has been allocated, then the Chem Alert report will state 'none allocated' in accordance with [NOHSC:2011(1994)].

Product Name **CENOSPHERES**

ADDITIONAL INFORMATION cont.

STATUS OF CHEM ALERT REPORTS

Chem Alert reports are compiled as an independent source of information by RMT's scientific department, based on the latest chemical and toxicological research and, where appropriate, in compliance with relevant standards, guidance notes and legislation. Unless otherwise stated, RMT takes full responsibility for the information in the Chem Alert reports. Where available the manufacturers original MSDS is also provided to Chem Alert subscribers as a scanned image for their convenience. In many instances Chem Alert reports are compiled on behalf of manufacturers in which case they serve as the "Manufacturer's MSDS" and are clearly identified as such on the relevant reports.

ADDITIONAL PRODUCT INFORMATION

PRECAUTIONS - VENTILATION

Maintain dust levels below the recommended exposure standard (TLV/TWA).

FIRST AID - FIRST AID FACILITIES

Eye wash facilities should be available.

FIRST AID - ADVICE TO DOCTOR

Treat the patient symptomatically.

Last Reviewed : 8th September 2003

Date Printed : 19th September 2003

END OF REPORT

