Zeolite - granular
Safety Data Sheet

1. Identification of Substance & Company

Product

Product name	Zeolite - granular
Product code	NA
UN number	NA
Proper Shipping Name	NA
Packaging group	NA
Hazchem code	NA
Uses	Raw material

Company Details

Company name
Australian Address

Telephone

Email

Emergency number

2. Hazard Identification

Hazard classification for Australia (GHS)

This product has been assessed according to GHS and is classified as follows:

GHS Classes	Hazard Statements
Skin irritation Cat 2	H315 - Causes skin irritation.
Eye irritation Cat 2B	H320 - Causes eye irritation.

SYMBOLS

WARNING

Other Classifications

Zeolite contains crystalline silica. The following classification ONLY applies to this substance if it is in the form of a fine respirable dust in an occupational (chronic exposure) setting.:

Carcinogenicity, Cat 1A	H350	May cause cancer through inhalation of dust.
Specific Target Organ Toxicity, Cat 1	H372	Causes damage to lungs and respiratory system through prolonged or repeated exposure by inhalation of dusts.

Precautionary Statements

Prevention
P103 - Read label before use.
P264 - Wash hands thoroughly after handling.
P280 - Wear protective gloves/protective clothing.
P280 - Wear eye/face protection.
Response
P302+P352 - IF ON SKIN: Wash with plenty of soap and water.
P332+P313 - If skin irritation occurs: Get medical advice/ attention.
P362 - Take off contaminated clothing and wash before re-use.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313 - If eye irritation persists: Get medical advice/attention.
Disposal
Dispose of contents/container in accordance with local/regional/national/international regulations.

3. Composition / Information on Ingredients

Component	CAS/ Identification	Conc (w/w %)
Zeolite – crystalline aluminosilicates may contains oxides including silica and aluminium oxide:	1318-02-1	100
Silica component may include		
Cristobalite	14464-46-1	<10
Quartz (crystalline silica)	14808-60-7	<10

This is a commercial product whose exact ratio of components may vary. Trace quantities of impurities are also likely.

4. First Aid

General Information

If medical advice is needed, have product container or label at hand. You should call the Poisons Information Centre if you feel that you may have been poisoned, burned or irritated by this product. The number is 13 11 26 (24 hr, 7 days a week emergency service).

Recommended first aid facilities Ready access to running water is recommended.

Exposure

Swallowed Do NOT induce vomiting. Give a glass of water to drink. Contact a doctor.

Eye contact IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Apply continuous irrigation with water for at least 15 minutes holding eyelids apart. If eye irritation persists: Get medical advice.

Skin contact IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: get medical advice/attention. Take off contaminated clothing and wash before re-use.

Inhaled If coughing, dizziness or shortness of breath is experienced, remove the patient to fresh air immediately. If patient is unconscious, place in the recovery position (on the side) for transport and contact a doctor.

Advice to Doctor

Treat symptomatically

5. Firefighting Measures

Fire and explosion hazards: There are no specific risks for fire/explosion for this chemical. It is non-flammable.

Suitable extinguishing substances: Carbon dioxide, extinguishing powder or water jet. Fight larger fires with water jet or alcohol resistant foam.

Unsuitable extinguishing substances: Unknown.

Products of combustion: Product does not burn. Dust may form irritating atmosphere.

Protective equipment: No special measures are required.

Hazchem code: NA

6. Accidental Release Measures

Emergency procedures In the event of large spillage (e.g. >100kg) alert the fire brigade to location and give brief description of hazard. Wear protective equipment to prevent skin, eye and respiratory exposure. Clear area of any unprotected personnel. Sweep up the solid. Avoid creating dust. If appropriate, use a gentle water spray to wet material to minimise dust generation.

Disposal Sweep up and collect recoverable material into labelled containers for recycling or salvage. This material may be suitable for approved landfill. Dispose of only in accord with all regulations.

Precautions Wear protective equipment to prevent skin and eye contamination and the inhalation of dusts. Work up wind or increase ventilation.

7. Storage & Handling

Storage	Stable under normal use and storage conditions.
Handling	Keep exposure to a minimum, and minimise the quantities kept in work areas. See section 8 with regard to personal protective equipment requirements. Do not breathe dust.

8. Exposure Controls / Personal Protective Equipment

Exposure Standards

A work exposure standard (ES) has not been established by SafeWork Australia for this product.

	Ingredient	WES-TWA*	WES-STEL
Australian Exposure Stds	Aluminium oxide	10mg/m^3	data unavailable
	Iron (II) Oxide	5mg/m^3 (as Fe)	data unavailable
	Magnesium oxide	10mg/m^3 (fume)	data unavailable
	Calcium oxide	2mg/m^3	data unavailable
	Titanium dioxide	10mg/m^3	data unavailable
	quartz (respirable dust)	0.05mg/m^3	data unavailable
	cristobalite (respirable dust)	0.05mg/m^3	data unavailable

Engineering Controls

In industrial situations, concentration values below the ES value must be maintained. Exposure can be reduced by process modification, use of local exhaust ventilation, capturing substances at the source, or other methods. If you believe airborne concentrations of mists, dusts or vapours are high, you are advised to modify processes or increase ventilation.

Personal Protective Equipment

Eyes	Protective eyewear is not normally necessary when using this product. However, it always prudent to use protective eyewear if dust is likely.
Skin	Avoid repeated or prolonged skin contact. Wear overalls, rubber boots and impervious gloves. Replace frequently. Gloves should be checked for tears or holes before use. Remove protective clothing and wash exposed areas with soap and water prior to eating, drinking or smoking. Wash contaminated clothing before re-use.
Respiratory	To prevent irritation a well fitted dust mask should be used (this is not recommended when exposure is close to the ES). Use of a P2 dust mask or fine particulate half or full face respirator with an effective seal is recommended when airborne concentrations approach the ES (section 8). Fit testing and clear guidelines and training for use and maintenance of PPE are necessary.

WES Additional Information

Not applicable

9. Physical & Chemical Properties

Appearance	solid, granular, off white/tan colour
Odour	no odour
pH	8.65 (10% aqueous suspension)
Vapour pressure	NA
Viscosity	NA
Boiling point	NA
Volatile materials	no data
Freezing / melting point	NA
Solubility	not soluble in water
Specific gravity / density	~0.65g/cm^3
Flash point	no data
Danger of explosion	NA
Auto-ignition temperature	NA
Upper & lower flammable limits	NA
Corrosiveness	non corrosive

10. Stability & Reactivity

Stability	Stable
Conditions to be avoided	Containers should be kept closed in order to avoid contamination. Avoid the creation of dust.
Incompatible groups	Avoid contact with strong oxidsing agents and hydrogen fluoride.
Hazardous decomposition products	None known
Hazardous reactions	Zeolites will react with hydrogen fluoride (HF) acid. Avoid contact with strong oxidsing agents.

11. Toxicological Information

Summary

IF IN EYES: Fine dust may cause irritation when in direct contact.

IF ON SKIN: Material may cause drying out of skin.

IF INHALED: May cause respiratory irritation. Also see chronic effects.

IF SWALLOWED: No adverse effects anticipated under normal use conditions.

CHRONIC EFFECTS: The adverse health effects from respirable crystalline silica exposure-silicosis, cancer, scleroderma, tuberculosis, and nephrotoxicity- are chronic effects. This product is granular, but may become a respirable dust through sanding/grinding.

Supporting Data

Acute	**Oral**	Not considered acutely toxic if swallowed.
	Dermal	Not considered acutely toxic by dermal contact.
	Inhaled	The substance is not considered acutely toxic if inhaled, however there may be irritation of the respiratory tract if dust is inhaled. Short term (acute) silicosis (see “systemic” below) can also occur with one-off exposures to extremely high levels of fine crystalline silica dust. Other short term effects include irritation, choking and difficulty breathing.
	Eye	The mixture is not considered to be an eye irritant. Dust may be an eye irritant (mechanical irritation).
	Skin	The mixture is considered to be a mild skin irritant.
Chronic	**Sensitisation**	No ingredient present at concentrations > 0.1% is considered a sensitizer.
	Mutagenicity	No ingredient present at concentrations > 0.1% is considered a mutagen.
	Carcinogenicity	Zeolites have been classed by IARC as group 3 – cannot be evaluated as to their carcinogenicity to humans. However, there is evidence that this material does contain quartz and cristobalite. Crystalline silica inhaled in the form of quartz or cristobalite from occupational sources is carcinogenic to humans (IARC Group 1). Crystalline Silica triggers 6.7A classification (confirmed carcinogen). The carcinogenicity of silica is related to long term (e.g., 10 years) inhalation of very fine particulate (e.g., from sand blasting or dry cutting of quartz containing substrates). Carcinogenicity of silica appears linked to development of silicosis (see systematic below) followed by complications and, eventually lung cancer
	Reproductive / Developmental	No ingredient present at concentrations > 0.1% is considered a reproductive or developmental toxicant or have any effects on or via lactation.
	Systemic	The respirable fraction of the dust of this product is considered to be a target organ toxicant, because of the presence of crystalline silica at greater than 1%. Crystalline silica triggers 6.9A classification if it is in the form of a fine respirable dust in an occupational (chronic exposure) setting. This is due to the development of silicosis which can occur following exposure to extremely high levels of fine silica dust. Silicosis is a type of pneumoconiosis – a disease of the lung that causes inflammation, scar tissue, lesions and fibrosis in the lung (alveolar). Symptoms include shortness of breath, cough, fever, loss of appetite and cyanosis (bluish skin). Silicosis can occur following prolonged exposure (e.g., 10 years) to relatively high levels of fine crystalline silica dust. Based on limited animal research, it is possible that repeated inhalation of cellulose fibre dust may lead to inflammation and scarring of the lung.
	Aggravation of existing conditions	None known

12. Ecological Data

Summary
This product is not considered ecotoxic.

Supporting Data

Aquatic	Not ecotoxic in the aquatic environment.
Bioaccumulation	No data
Degradability	No data
Soil	No consided ecotoxic in the soil environment.
Terrestrial vertebrate	Not toxic towards terrestrial vertebrates
Terrestrial invertebrate	Not toxic towards terrestrial invertebrates
Biocidal	Not biocidal
Environmental effect levels	No EELs are available for this mixture or ingredients

13. Disposal Considerations

Restrictions	There are no product-specific restrictions. However, state and local disposal regulations may apply. Note that state and local disposal regulations may differ from federal disposal regulations.
Disposal method	Disposal of this product must comply with the requirements of state and local disposal regulations. The substance must be handled as hazardous waste and disposed of in an approved facility.
Contaminated packaging	Dispose of empty containers safely. Do not re-use containers for any other purpose.

14. Transport Information

There are no specific restrictions for this product (not a dangerous good).

UN number:	NA	**Proper shipping name:**	NA
Class(es)	NA	**Packing group:**	NA
Precautions:	Not applicable.	**Hazchem code:**	NA

15. Regulatory Information

Standard for the Uniform Scheduling of Drugs and Poisons (SUSDP)	Not scheduled	
Applicable prohibitions and notifications/licensing requirements	Not listed	
Agricultural and Veterinary Chemicals Act	Not listed	
Listing in the Australian Inventory of Chemical Substances (AICS)	Quartz	IMAP - Tier II - Human Health
	Cristobalite	IMAP - Tier II - Human Health
	Zeolite	IMAP - Tier I - Human Health
Additional information	Not applicable	
GHS Hazardous Chemical Information List	Not listed	

16. Other Information

Abbreviations

AICS	Australian Inventory of Chemical Substances
CAS Number	Unique Chemical Abstracts Service Registry Number
EC_{50}	Ecotoxic Concentration 50% – concentration in water which is fatal to 50% of a test population (e.g. daphnia, fish species)
ES	Exposure Standard - The airborne concentration of a biological or chemical agent to which a worker may be exposed in a work day.
GESTIS	Database on Hazardous substances, Information system on hazardous substances of the German Social Accident Insurance.
GHS	Globally Harmonised System of Classification and Labelling of Chemicals
HAZCHEM Code	Emergency action code of numbers and letters that provide information to emergency services, especially fire fighters
HSIS	Hazardous substance Information System, http://hsis.safeworkaustralia.gov.au/
IARC	International Agency for Research on Cancer
LEL	Lower Explosive Limit
LD_{50}	Lethal Dose 50% – dose which is fatal to 50% of a test population (usually rats).
LC_{50}	Lethal Concentration 50% – concentration in air which is fatal to 50% of a test population (usually rats)
NICNAS	National Industrial Chemicals Notification and Assessment Scheme
NZ EPA CCID	New Zealand Environmental Protection Agency. Chemical Classification Information Database.
Peak Limitation	Peak Exposure Value: The maximum airborne concentration of a biological or chemical agent to which a worker may be exposed at any time.
SDS	Safety Data Sheet
STEL	Short Term Exposure Limit - The maximum airborne concentration of a chemical or biological agent to which a worker may be exposed in any 15 minute period, provided the TWA is not exceeded
STOT	Specific Target Organ Toxicity
TWA	Time Weighted Average – generally referred to ES averaged over typical work day (usually 8 hours)
UEL	Upper Explosive Limit
UN Number	United Nations Number

References

Data	Unless otherwise stated comes from the EPA HSNO chemical classification information database (CCID) or Hazardous Substances Information System (HSIS) for the specific chemical.
Other References:	Ingredients SDS's

Review

Date	**Reason for review**
July 2019	New SDS for Australia
September 2020	Update of WES, update of logo.

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