




SAFETY DATA SHEET

Section 1 CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Identifier:	Recycled Fibre Cement Product
Other Means of Identification:	Flinders Calcium Silicate Coarse, Flinders Calcium Silicate Medium, Flinders Calcium silicate Fine Flinders Agriculture Coarse, Flinders Agriculture Medium, Flinders Agriculture Fine Mineral Mulch, Mineral Mulch Premium, EasySpread
Recommended Use:	Soil conditioner, compost amendment, acid sulphate soil neutraliser.
Supplier:	Jackal Renewables Pty Ltd (trading as Flinders Agriculture) c/- McDuff Accountants 8/35 Ethel Street Yeerongpilly QLD 4105 AUSTRALIA
Telephone:	1300 895 988
Emergency Phone Number:	13 11 26 (Poisons Information Centre)

Section 2 HAZARDS IDENTIFICATION

GHS Classification:	Serious eye damage/eye irritation (Category 2A) Specific target organ toxicity - repeated exposure, Inhalation (Category 1)
GHS Label Elements	Pictogram: 
	GHS08: Health hazard
Signal Word:	Danger
Hazard Statements:	H319: Causes serious eye irritation. H372: Causes damage to organs (lungs) through prolonged or repeated exposure (inhalation).
Precautionary Statements:	P260: Do not breathe dust/fume/gas/mist/vapours/spray. P280: Wear protective gloves/protective clothing/eye protection/face protection. P314: Get medical advice/attention if you feel unwell. 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. P501: Dispose of contents/container to an approved waste disposal plant in accordance with local Regulations.
Other Hazards:	NONE

Section 3 COMPOSITION / INFORMATION ON INGREDIENTS

Name	CAS	Australia NOHSC	Proportion
Quartz	14808-60-7	TWA: 0.05 mg/m ³	30 to 60 %
Gibbsite	21645-51-2	TWA: 10 mg/m ³	0 to 5 %
Calcite	471-34-1	TWA: 10 mg/m ³	0 to 10 %
Cellulose	9004-34-6	TWA: 10 mg/m ³	1 to 10 %
Calcium aluminosilicates	1344-01-0	TWA: 10 mg/m ³	40 to 50 %

Classification STOT RE 1; H372

Section 4 FIRST AID MEASURES

Description of First Aid Measures

General: Consult a physician. Show this safety data sheet to the doctor in attendance.

If Inhaled: Remove from source of mist, fumes, or dust.
Lay patient down quietly and keep warm and rested.
Remove any prostheses and loosen any clothing which may affect breathing.
If breathing has stopped or is laboured, give assisted respiration.
Seek medical advice.

In Case of

Skin Contact: Wash off with soap and plenty of water.

In Case of

Eye Contact: Hold eyes open and rinse thoroughly with plenty of water for at least 15 minutes.
Consult a doctor immediately.
Removal of contact lenses should only be undertaken by skilled personnel if safe to do so.

If Swallowed:

Never give anything by mouth to an unconscious person.
If swallowed, immediately rinse mouth with water (provided person is conscious).
DO NOT INDUCE VOMITING.
If vomiting occurs, place victim's face downwards with head lower than hips.

Most Important Symptoms and Effects, Both Acute and Delayed

Eye irritation.

Coughing, breathing difficulty.

The most important known symptoms and effects of the ingredients are described in Section 11.

Indication of Any Immediate Medical Attention and Special Treatment Needed

No data available.

Advice to Doctor: Treat symptomatically.

Section 5 FIRE FIGHTING MEASURES

Suitable Extinguishing Media

Use extinguishing media suitable for surrounding areas. There is no restriction on the type of extinguishing media which may be used.

Special Hazards Arising from the Mixture

May evolve toxic gasses such as CO and CO₂ when strongly heated.

Advice for Fire Fighters

Use extinguishing media to control the fire as appropriate to surrounding environment and materials, and cool the adjacent area. Avoid spraying water onto liquid pools: may be slippery when spilt.

Hazchem Code

None.

Further Information

The product itself does not burn.

Section 6 ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

Wet area to prevent dust generation. Avoid dust formation. Avoid breathing dusts. Ensure adequate ventilation. For personal protection, see Section 8.

Environmental Precautions

Dam spills and cover drains. Do not allow product to enter drains, sewers, or local waterways.

Methods and Materials for Containment and Cleaning Up

Wet area to prevent dust generation. Avoid dry sweeping. If vacuuming, it is recommended that a high efficiency particulate filter is used. Sweep, shovel, or vacuum up without creating dust and dispose of to waste disposal site approved of by Local Authority laws. For disposal, see Section 13.

Section 7 HANDLING AND STORAGE

Precautions for Safe Handling

Product is considered stable. Avoid formation of dusts and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. Avoid contact with eyes.

Conditions for Safe Storage, Including any Incompatibilities

Store in a cool, dry, and well-ventilated place. Do not store near dust-generating or high temperature environments. Store away from foodstuffs.

Specific End Uses

Apart from the uses mentioned in Section 1, no other specific uses are noted.

Section 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Control Parameters – Occupational Exposure Limits

	Value	Control Parameters	Basis	Note
Quartz	NES TWA	0.05 mg/m ³	Australia Workplace Exposure Standard for Airborne Contaminants 2019	-
Gibbsite	NES TWA	10 mg/m ³	(as aluminium oxide) Australia Workplace Exposure Standard for Airborne Contaminants 2019	Respiratory sensitiser
Calcite	NES TWA	10 mg/m ³	Australia Workplace Exposure Standard for Airborne Contaminants 2019	Respiratory sensitiser
Cellulose	NES TWA	10 mg/m ³	Australia Workplace Exposure Standard for Airborne Contaminants 2019	Respiratory sensitiser
Calcium aluminosilicates	NES TWA	10 mg/m ³	(as aluminium oxide) Australia Workplace Exposure Standard for Airborne Contaminants 2019	Respiratory sensitiser
	Note	This value is for inhalable dust containing no asbestos and <1% crystalline silica.		

Exposure Controls - Appropriate Engineering Controls

Avoid inhalation and use in well ventilated areas.

Where inhalation risk exists, use appropriate respiratory protection or provide adequate ventilation.

Observe occupational exposure limits and minimize the risk of dust inhalation.

Maintain general good industrial hygiene and safe work practice.

Exposure Controls - Personal Protective Equipment

Eye/Face Protection:

Dust resistant goggles where there is risk of eye contact.

Safety glasses approved under appropriate Standards such as AS/NZS 1337 - Eye Protectors for Industrial Applications.

Eye wash unit.

Contact lenses may pose a special hazard, as they may entrap and concentrate irritants.

Skin Protection:

No specific hand protection noted, but gloves are advisable for prolonged exposure.

Body Protection:

Suitable protective work wear, e.g. long-sleeved safety clothes or coveralls and safety boots.

Respiratory Protection:

No specific recommendation made, but respiratory protection must be used if levels exceed the occupational exposure limits. Where protection from nuisance levels of dusts or aerosols is required, use type P2 dust/mist/fume masks approved under appropriate Standards such as AS/NZS 1716 - Respiratory Protective Devices.



Biological Limits

No biological limit values have been entered for this product.

Section 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Pale grey granular to fine powder or friable, coarse fibrous flakes.
Odour	Odourless
Odour Threshold	No data
pH	9 to 11 (1:5 solids in aqueous suspension)
Melting / Freezing Point	Greater than 600°C
Initial Boiling Point	No data
Boiling Range	No data
Flash Point	Not applicable
Evaporation Rate	Not applicable
Flammability	Not applicable
Upper / Lower Flammability Limits	Not applicable
Explosive Limits	No data
Vapour Pressure	No data
Vapour Density	No data
Relative Density	1.6 to 2.6 (water = 1)
Bulk Density	0.6 to 1.5 g/cm ³
Water Solubility	Less than 100 mg/l at 20°C
Partition Coefficient: <i>n</i> -Octanol:Water	Not applicable
Autoignition Temperature	Not applicable
Decomposition Temperature	Not applicable
Viscosity	Not applicable

Section 10 CHEMICAL STABILITY / REACTIVITY

Reactivity	Product will not burn, but has potential to produce toxic gasses CO and CO ₂ when strongly heated in air.
Chemical Stability	Product is considered stable under normal conditions.
Possibility of Hazardous Reactions	No data.
Conditions to Avoid	Excessive dust generation during storage and handling. Prolonged high temperature, open flames.
Incompatible Materials	Strong acids and alkalis.
Hazardous Decomposition Products	In the event of intense fire, may produce toxic gasses CO and CO ₂ when strongly heated.

Section 11 TOXICOLOGICAL INFORMATION

Toxicological information of ingredients (listed in Section 3):

Acute Toxicity

Quartz	Gibbsite	Calcite	Cellulose	Calcium aluminosilicates
Rat inhalation changes in thymus weight and WBC 58mg/m ³ /13wk (intermittent; FCT)	Rat LD50(Oral) >2,000mg/kg OECD 423	Rat LD50(Oral) 6,450mg/kg OECD 403	Rat LD50(Oral) >5,000mg/kg OECD 403	Mouse LD50(oral, 14d) >2,000mg/kg

Skin Corrosion / Irritation

Quartz	Gibbsite	Calcite	Cellulose	Calcium aluminosilicates
May cause irritation on prolonged exposure	Rabbit no irritation OECD 404	Rabbit moderate irritation 500mg/24hr	No data	Rabbit no irritation OECD 404

Serious Eye Damage / Eye Irritation

Quartz	Gibbsite	Calcite	Cellulose	Calcium aluminosilicates
May cause irritation	Rabbit no irritation OECD 405	Rabbit severe irritation 750ug/24hr (SVT)	No data	Rabbit no irritation

Respiratory or Skin Sensitization

Quartz	Gibbsite	Calcite	Cellulose	Calcium aluminosilicates
No data	Guinea pig no sensitization OECD 406	No data	No data	Not sensitizing (mouse) OECD 429

Germ Cell Mutagenicity

Quartz	Gibbsite	Calcite	Cellulose	Calcium aluminosilicates
Human lung micronucleus test 40ug/cm ² (MR)	Negative micronucleus test; the weight of evidence does not indicate mutagenic hazard.	No data	No data	Negative (S. typhimurium) OECD 471

Carcinogenicity

Quartz	Gibbsite	Calcite	Cellulose	Calcium aluminosilicates
Limited evidence of human carcinogenicity IARC Group 1 – Carcinogenic to humans	This product is not identified as a probable, possible or confirmed human carcinogen by IARC.	No data	This product is not identified as a probable, possible or confirmed human carcinogen by IARC.	This product is not identified as a probable, possible or confirmed human carcinogen by IARC.

Reproductive Toxicity

Quartz	Gibbsite	Calcite	Cellulose	Calcium aluminosilicates
No data	Human (female) oral (neurological impairment of infant) 84g/kg during pregnancy (APAM)	No data	No data	Rat NOAEL (oral) 1,600mg/kg/day OECD 414

Specific Target Organ Toxicity – Single Exposure

Quartz	Gibbsite	Calcite	Cellulose	Calcium aluminosilicates
No data	No data	No data	No data	No data

Specific Target Organ Toxicity – Repeated Exposure

Quartz	Gibbsite	Calcite	Cellulose	Calcium aluminosilicates
Inhalation – Causes damage to organs through prolonged or repeated exposure	Rat NOAEC (inhalation) 70mg/m ³ ; Rat NOAEL (oral) 30mg/kg/day	No data	No data	Rat NOAEC (inhalation) >30mg/m ³ ; Rat NOAEL (oral) >4,750mg/kg/day

Aspiration Hazard

Quartz	Gibbsite	Calcite	Cellulose	Calcium aluminosilicates
No data	No data	No data	No data	No data

Additional Information

Quartz	Gibbsite	Calcite	Cellulose	Calcium aluminosilicates
RTECS: VV7330000 Delayed Health Effects Prolonged inhalation of crystalline silica may result in silicosis. Advanced silicosis may result in death due to destruction of lung tissue or cardiac failure. Epidemiologic data emerging that silica causes renal disease.	RTECS: BD0940000 Nausea, vomiting, constipation.	RTECS: FF9335000 Delayed Health Effects Physical, chemical and toxicological properties have not been thoroughly investigated to date.	RTECS: FJ5691460 Delayed Health Effects Physical, chemical and toxicological properties have not been thoroughly investigated to date.	NICNAS Tier 1 Final Human Health Assessment Chemical identified as low concern to human health by application of expert validated rules

Information on likely routes of exposure

May be harmful if inhaled.
May cause skin irritation.
May cause eye irritation.

Early onset symptoms related to exposure

Refer to Section 4

Exposure levels and health effects

Refer to Section 4

Section 12 ECOLOGICAL INFORMATION**Ecological information of ingredients (listed in Section 3):****Toxicity**

Quartz	Gibbsite	Calcite	Cellulose	Calcium aluminosilicates
No data	NOEC (Brown trout, 96hrs) >0.07mg/l OECD 203; NOEC (Water flea, 48hrs) >0.0005mg/l OECD 202	LC50 (Western mosquitofish) 56g/l Not acutely toxic	No data	LL0 (Zebra fish, 96hrs) 10,000mg/l OECD 203

Persistence and Degradability

Quartz	Gibbsite	Calcite	Cellulose	Calcium aluminosilicates
Not relevant, as this material is a naturally occurring, abundant innocuous mineral.	Aluminium is naturally occurring and ubiquitous in soils.	No data	No data	No data

Bioaccumulative Potential

Quartz	Gibbsite	Calcite	Cellulose	Calcium aluminosilicates
No data	Bioaccumulation by plants is associated with soluble forms of aluminium. Total aluminium is not considered a reliable measure of bioaccumulation potential.	No data	No data	Not expected to bioaccumulate

Mobility in Soil

Quartz	Gibbsite	Calcite	Cellulose	Calcium aluminosilicates
Not relevant, as this material is a naturally occurring, abundant innocuous mineral	No data	No data	No data	No data

Results of PBT and vPvB Assessment

Quartz	Gibbsite	Calcite	Cellulose	Calcium aluminosilicates
No data	No data	No data	No data	No data

Other Adverse Effects

Quartz	Gibbsite	Calcite	Cellulose	Calcium aluminosilicates
Generally not hazardous for water. Avoid transfer to the environment. May affect turbidity of water if discharged into lakes or streams.	Total aluminium is not considered a reliable measure of toxicity potential.	No data	No data	Generally not hazardous for water. Avoid transfer to the environment. May affect turbidity of water if discharged into lakes or streams.

Section 13 DISPOSAL CONSIDERATIONS

Recycle where possible.

When unused, no special precautions are required for the disposal of this material.

Offer surplus or unusable or waste material to a licenced Landfill, Composter, or Waste Management Company for disposal.

For the safety of persons conducting disposal or recycling activities, follow personal protection requirements as specified in Section 8. Ensure that product and containers are covered or kept wet to prevent dust generation.

Section 14 TRANSPORT INFORMATION

	Land (ADG7.5)	Sea (IMDG/IMO)	Air (IATA/ICAO)
UN Number:	NONE	NONE	NONE
UN Proper Shipping Name:	NONE	NONE	NONE
Transport Hazard Classes:	NONE	NONE	NONE
Packaging Group:	NONE	NONE	NONE

Special Precautions for User: Avoid generating and breathing dust.

Hazchem Code: NONE

Basel Code: B2040

Section 15 REGULATORY INFORMATION

Classified as Hazardous according to Safe Work Australia (formerly National Occupational Health and Safety Commission (NOHSC)).

Not classified as a Scheduled Poison according to the Standard for the Uniform Scheduling of Drugs and Poisons (SUSMP).

Not classified as Dangerous Goods under the ADG7.5.

AICS listing:

Quartz	Gibbsite	Calcite	Cellulose	Calcium aluminosilicates
Yes (as crystalline silica)	Yes (as aluminium hydroxide)	Yes (as calcium carbonate)	Yes	Yes (as silicic acid, aluminium calcium salt)

Section 16 OTHER INFORMATION

Inhalation exposure to high levels of dust may be regulated under the Hazardous Substances Regulations (State and Territory), requiring exposure assessment, and control. Persons who have potential for exposure above the NES TWA may be required to have periodic health surveillance including chest X-ray (see relevant Regulations and Safe Work Australia health monitoring Guide).

Abbreviations:

AICS	Australian Inventory of Chemical Substances
ADG7.5	Australian Dangerous Goods Code, Edition 7.5
APAM	E Gilbert-Barness et al (1998), Archives of Pediatrics and Adolescent Medicine, 152, 511-512.
FCT	PGJ Reuzel et al (1991), Food and Chemical Toxicology, 29, 341-354
GHS	Globally Harmonized System of Classification and Labelling of Chemicals
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association Code
IMDG	International Maritime Dangerous Goods Code
IMO	International Maritime Organization
MR	R Nagalakshmi et al (1995), Mutation Research, 335, 27-33.
NES	National Exposure Standard (Safe Work Australia - Workplace Exposure Standards for Airborne Contaminants) 16 December 019
NICNAS	National Industrial Chemicals Notification and Assessment Scheme
NOAEC	No Observable Adverse Effect Concentration
NOAEL	No Observable Adverse Effect Level
NOEC	No Observable Effect Concentration

NOHSC	National Occupational Health and Safety Commission
OECD	Organisation for Economic Co-operation and Development (OECD Guidelines for the Testing of Chemicals)
RTECS	Registry of Toxic Effects of Chemical Substances
STOT RE	Specific Target Organ Toxicity Repeated Exposure
SVT	JV Marhold (1972), "Sbornik Vysledku Toxixologickeho Vysetreni Latek A Pripravku", Prague, Czechoslovakia, 267.
TWA	Time weighted average
WBC	White blood cell count

Australian and New Zealand Standards:

AS/NZS 1337 - Eye Protectors for Industrial Applications

AS/NZS 1716 - Respiratory Protective Devices

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This document supersedes and replaces all previous Versions and revisions of the SDS.

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Poisons Information Centre: 13 11 26

In case of Emergency, phone: 000

END OF SAFETY DATA SHEET
