MATERIALS SAFETY DATA SHEET

MAXSIL GRANULE+

IDENTIFICATION OF THE MATERIAL AND SUPPLIER

MAXSIL GRANULE+ is a granular product which combines compost (humates), Lignite and MaxSil Powder product (soluble silicon)

The material is supplied by MaxSil Pty Ltd, 1/21 Belconnen Crescent, Brendale, Qld, 4500

Telephone contact numbers of 0411 862 647

HAZARDS IDENTIFICATION

Does not meet the criteria of the UN Globally Harmonised System (GHS) for hazard classification

Not classified as a dangerous good by the criteria of the ADG code

Safety Phases

S22	Do not breathe dust
S36	Wear suitable protective clothing
S51	Use only in well ventilated areas

COMPOSITION/INFORMATION ON INGREDIENTS

Substance:	Amorphous Silica
Synonyms:	Amorphous Silica, Silicon Dioxide
CAS No:	112945-52-5

Substance:	Calcium
Synonyms:	Calcium Carbonate, Oxides of Calcium
CAS No:	1305-62-0

Substance:	Sodium Carbonate
Synonyms	Washing Soda, Soda Ash
CAS No:	497-19-8

Substance:	Lignite
Synonyms	Coal
CAS No:	129521-66-0

Substance:	Bentonite
Synonyms	Clay
CAS No:	1302-78-9

FIRST AID MEASURES

Inhalation: If inhaled to excess remove exposed person to fresh air. If necessary, seek medical attention.

Skin Contact: Wash skin with mild soap and water

Eye Contact: Flush eyes with water and carefully rinse under the eyelids. If necessary seek medical attention.

Ingestion: Give water to drink. Obtain first aid or medical assistance immediately if there are any abdominal symptoms such as pain or cramps.

Most important Symptoms/Effects, Acute and Delayed:

Dust may result in irritation

FIRE FIGHTING MEASURES

Fire and explosion hazards: Water spray or fog for large quantities. Prevent contamination of drains and waterways.

Special hazards arising from the substance or mixture:

Combustible. May evolve toxic gases (carbon oxides, hydrocarbons) when heated to decomposition

Extinguishing Media: Water or foam

Protective equipment for Fire fighting: Wear NIOSH approved self contained breathing apparatus

ACCIDENTAL RELEASE MEASURES

Personal Precautions: Use 42 CFR 84 NIOSH/MSHA approved respirators when airborne concentrations equal or exceed the Permissible Exposure Limit.

Containment and cleanup: Collect using methods that minimise creation of airborne dust such as vacuum cleaning. Place in a suitable container for recycling or disposal.

HANDLING AND STORAGE

Safe Handling: Avoid generating dust, handle with adequate ventilation

Storage: Keep dry, store in closed containers

PERSONAL PROTECTION AND EXPOSURE CONTROLS

Exposure Standards:

Ingredient	Reference	TWA ppm	TWA mg/m^3	STEL ppm	STEL mg/m^3
Calcium Carbonate	SWA (AUS)	-	Not Set	-	-
Amorphous silica (respirable dust)	SWA (AUS)	-	2	-	-
Sodium and Calcium Carbonate	SWA (AUS)	-	10	-	-
Lignite	SWA (AUS)	-	Not set	-	-
Bentonite	SWA (AUS)	-	Not set	-	-

Biological Limits: No biological limit allocated

Engineering Controls: Avoid inhalation. Use in well ventilated areas. Where an Inhalation risk exists, mechanical extraction ventilation is recommended. Maintain dust levels below the recommended exposure standard.

PPE

Eye/Face: Wear dust proof goggles
Hands: If heavy contamination is likely wear leather or cotton gloves
Body: Not required under normal conditions of use
Respiratory: Wear a Class P2 (particulate) respirator

PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Dark Brown 2-6mm granules
Odour:	Odourless
Flammability:	Combustible
Flash Point:	Not Relevant
Melting Point:	1550^{o} to 1700^{o} Celsius
pH:	7.5-8.5 (1% slurry)
Specific Gravity:	1.5
Solubility (water):	Dispersible
Density	800-1,000 kg/m^3

STABILITY AND REACTIVITY

Chemical stability:	Stable under recommended conditions of storage
Material to avoid:	Incompatible with hydrofluoric acid (may evolve toxic silicon tetrafluoride gas) heating this product over 500^{o} C may result In the formation of crystalline silica (Cristobalite or tridymite) which can cause silicosis and is a known human carcinogen
Hazardous Decomposition Products:	Not expected to evolve hazardous decomposition products
Hazardous reactions:	Polymerization will not occur

TOXICOLOGICAL INFORMATION

Health Hazard summary:	Irritant. Use safe work practices to avoid eye or skin contact or inhalation. Over exposure to amorphous silica does not cause silicosis.
Eye:	Irritant. Contact may result in irritation, lacrimation, pain and redness.
Inhalation:	Irritant. Over exposure to dust may result in mucous membrane irritation of the respiratory tract. Symptoms may be delayed until several hours after exposure.
Skin:	Irritant. Contact may result in irritation, redness, pain and rash
Ingestion:	Low toxicity. Ingestion of large quantities may result in nausea, vomiting and gastrointestinal irritation.
Toxicity data:	No LD50 data is available for this product.

TRANSPORT INFORMATION

Not Classified as a Dangerous Good by the Criteria of the ADG Code, IMDG or IATA

	Land Transport (ADG)	Sea Transport (IMDG/IMO)	Air Transport (IATA/ICAO)
UN Number	*None allocated*	*None allocated*	*None allocated*
Proper Shipping Name	*None allocated*	*None allocated*	*None allocated*
Transport Hazard Class	*None allocated*	*None allocated*	*None allocated*
Packing Group	*None allocated*	*None allocated*	*None allocated*

Environmental hazards: The material is alkaline and should not be disposed of to sewer, open drains or waterways

Hazchem Code: None Allocated

REGULATORY INFORMATION

Poison Schedule: A poison schedule number has not been allocated to this product using the criteria in the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP)

Inventory Listing(s) **AUSTRALIA: AICS (Australian Inventory of Chemical Substances)**. All components are listed on AICS or are exempt.

OTHER INFORMATION

Additional Information

This product has a particle size that ranges from 0.01 micron to 200 micron. The granule size is 1-6mm.

Respirators

In general the use of respirators should be limited and engineering controls employed to avoid exposure. If respiratory equipment must be worn ensure correct respirator selection and training is undertaken. Remember that some respirators may be extremely uncomfortable when used for long periods. The use of air powered or air supplied respirators should be considered where prolonged or repeated use is necessary.

Personal Protective Equipment Guidelines

The recommendation for protective equipment contained within this document 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.

Abbreviations:

ACGIH	American Conference of Governmental Industrial Hygienists
CAS #	Chemical Abstract Service Number – used to uniquely identify chemical compounds
CNS	Central Nervous System
EC No.	European Community Number
EMS	Emergency Procedures for Ships Carrying Dangerous Goods
GHS	Globally Harmonised System
GTEPG	Group Text Emergency Procedure Guide
IARC	International Agency for Research on Cancer
LC50	Lethal Concentration, 50% / Median Lethal Concentration
LD50	Lethal Dose, 50% / Median Lethal Dose
mg/m^3	Milligrams per Cubic Metre
OEL	Occupational Exposure Limit
pH	Hydrogen ion concentration using a scale of 0 (high acidic) to 14 (highly alkaline)
ppm	Parts per million
STEL	Short Term Exposure Limit
STOT-RE	Specific target organ toxicity (repeated exposure)
STOT-SE	Specific target organ toxicity (single exposure)
SUSMP	Standard for the Uniform Scheduling of Medicines and Poisons
SWA	Safe Work Australia
TLV	Threshold Limit Value
TWA	Time Weighted Average

Report Status

This document has been compiled by MaxSil Pty Ltd ("MaxSil") and serves as the Safety Data Sheet ("SDS") for the MaxSil™ range of products.

The SDS is based on information concerning the product from in house, industry and third party sources and is believed to represent the current state of knowledge as to the appropriate safety and handling precautions for the product at the time of issue. Further clarification regarding any aspect of the product should be obtained from SF.

While MaxSil Pty Ltd has taken all due care to include accurate and up to date information in this SDS it does not provide any warranty as to accuracy or completeness. As far as lawfully possible the company accepts no liability for any loss, injury or damage (including consequential loss) which may be suffered or incurred by any person as a consequence of their reliance on the information contained in this SDS.

Prepared by:

Managing Director
MaxSil Pty Ltd
1/21 Belconnen Crescent
Brendale Queensland 4500

Product Name - MaxSil™

Product Label.

MAXSIL
Boosts Yield

MAXSIL+ GRANULE | Soil Amendment / Biostimulant

MaxSil+ Granule is a soil-applied silicon bio stimulant combining soluble silicon with humates and a carbon-rich mineral base to support plant strength, soil function, and nutrient efficiency.

Contains

Silicon (Si): 25%
Plant Available Silicon (PAS): 10,000 ppm

Major Nutrients	Content
Nitrogen (N)	0.55%
Phosphorus (P)	0.11%
Potassium (K)	0.31%
Sulphur (S)	0.29%
Calcium (Ca)	8.47%
Magnesium (Mg)	0.41%
Trace Elements	
Zinc (Zn)	45 mg/kg
Manganese (Mn)	197 mg/kg
Copper (Cu)	16 mg/kg
Boron (B)	21 mg/kg
Carbon & Soil Properties	
Total Carbon	16.35%
Humic Acid	3.53%
Estimated Organic Matter	27.80%
pH	7.7

Directions for Use

Apply: spinner spreaders, aerial broadcast, granular placement (in-furrow & banding), soil incorporation & compost blending. Size 2-5mm Blends well with urea, DAP, MAP and other prills

Typical Application

Broadacre Cropping: 10–20 kg/ha
Blend with standard NPK program or apply at sowing

Row Crops & Irrigated Systems: 5–15 kg/ha
Broadcast pre-plant or banded in-furrow

Pasture Systems: 100 kg/ha
At seeding or over established pasture
Maintenance: **2–3 applications per season**

Horticulture & Tree Crops: 1kg/tree or 100kg/ha
Apply at establishment and early growth stages

Safety & Handling

Avoid inhalation of dust. Use in well-ventilated area. Wear appropriate protective equipment (PPE) when handling.

Store in a Cool, Dry, Place

This product is intended for use as a soil amendment/biostimulant.
Results may vary depending on soil type, environmental conditions, and management practices.

Manufactured by: MaxSil Pty Ltd. 1/21 Belconnen Cres, Brendale QLD 4500
www.maxsil.com.au **100% Australian made using 25% recycled materials**