



1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

1.1 Product identifier

Product name MMS GYP FLOUR (Ground gypsum in fine grain size)
MMS HYDRO GYP (Micronised Gypsum liquid suspension)

Synonyms • Gypsum • Calcium Sulphate • Calcium Sulphate Dihydrate

1.2 Uses and uses advised against

Uses • SOIL CONDITIONER • STOCKFEED • FLOCCULANT • CEMENT ADDITIVE

1.3 Details of the supplier of the product

Supplier name MICRONISED MINERAL SOLUTIONS PTY LTD
Address 10 Campion Rd, East Arm, NT, 0828, AUSTRALIA
Telephone 08 8947 1872; 1800 127 406
Email admin@micronisedminerals.com
Website <http://micronisedminerals.com.au/>

1.4 Emergency telephone numbers

Emergency 08 8947 1872

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

NOT CLASSIFIED AS HAZARDOUS ACCORDING TO THE CRITERIA OF ASCC / NOHSC / EU CRITERIA
NON-HAZARDOUS SUBSTANCE, NON-DANGEROUS GOODS

Hazard Category: None allocated

2.2 GHS Label elements

Signal word: Gypsum is not classified as hazardous according to the criteria of Worksafe Australia

Pictograms:

Risk statements

R36/38 Irritating to eyes and skin

Safety statements

S22 Do not breathe dust
S24/25 Avoid contact with eyes and skin
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S37/39 Wear suitable gloves and eye/face protection

Road Transport (ADR / RID)

UN Number: None assigned
Proper Shipping Name: None assigned
Dangerous Goods Class: None assigned
Packing Group: None assigned
Poison Schedule: None assigned (Aust)
Hazchem Code: None assigned

2.3 Emergency Overview

Physical Description & Colour: A light brown or grey powder with minor crystals. May contain small amounts of brown organic matter

Odour: Odourless or mild "earthy" odour

Solubility: Partly soluble in water

Flashpoint: Not flammable

Other hazards

- 6.3A Substances that are irritating to the skin
- 6.4A Substances that are irritating to the eye

3. COMPOSITION/ INFORMATION ON INGREDIENTS

3.1 Substances / Mixtures

Ingredient	CAS Number	EC Number	Content
Calcium Sulphate Dihydrate	10101-41-4		> 95%
Calcium Carbonate	1317-65-3		< 1%
Silica	7631-86-9		< 2%
Water and impurities			Remainder

All other ingredients not hazardous according to ASCC / NOHSC / EU Criteria.

4. FIRST AID MEASURES

Gypsum is not considered toxic unless large amounts are ingested. Its principle effect is due to its irritant properties. Be conversant with the information on this SDS before any gypsum handling or use commences.

General Information

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 131126 from anywhere in Australia (0800 764 766 in New Zealand) and is always available. Have this SDS when you call.

4.1 Description of first aid measures

Eye If dust enters the eyes, flush with plenty of water for at least 15 minutes, ensuring eyelids are held open. If irritation persists. Immediately transport to hospital or doctor.

Inhalation Move victim to fresh air. Keep warm and at rest. Apply resuscitation if victim is not breathing. If trained personnel are available, administer oxygen if breathing is difficult.

Skin If case of contact, remove any contaminated clothing and wash skin thoroughly with soap and water. If irritation persists transport to hospital or doctor.

Ingestion If swallowed, do NOT induce vomiting. If conscious, wash mouth with water and give 1 to 2 glasses of water or milk to drink. Contact a Poisons Information Centre or call a doctor.

First Aid Facilities Eye wash fountain, safety shower and normal washroom facilities.

Personal Protection by

First Aid Personnel First Aid personnel providing first aid treatment to a person coming into contact with gypsum should observe the following precautions for their own personal protection.

- Avoid contact with gypsum by wearing protective gloves
- Wear chemical goggles to prevent gypsum particles entering eyes

PRODUCT NAME**GYPSUM**

- Wear P2 type canister respirator if rescue area is contaminated by airborne gypsum dust.

Advice to Doctor

Treat symptomatically

Use Syrup of Ipecac and gastric lavage on individuals who have swallowed large amounts of Gypsum. Gypsum contact with the eyes may result in serious injury due to mechanical abrasion. Treat symptomatically as for abrasive exposure. For skin abrasion, do not use sodium bicarbonate to rinse skin as this aggravates the local irritation. Individuals with pre-existing lung condition (asthma and other pulmonary diseases) may have increased susceptibility to gypsum dust exposure. Use a bronchodilator inhaler if required on asthma patients.

Watch for allergic reactions. Symptoms may be delayed for several hours. General supportive measures with continual monitoring of gas exchanges and fluid intake are also required. Effects of exposure may be delayed.

5. FIRE FIGHTING MEASURES

5.1 General Measures

Non-combustible material. There is no risk of an explosion from this product under normal circumstances if it is involved in a fire. Avoid extreme heat. On heating some materials may emit toxic fumes.

5.2 Flammability Conditions

This material is not a combustible or flammable solid.

Flash Point:

Upper Flammability Limit:

Lower Flammability Limit:

Autoignition temperature:

Flammability class:

5.3 Extinguishing media

Not combustible. In case of fire, use appropriate extinguishing media most suitable for surrounding fire conditions.

5.4 Fire and Explosion Hazard

If safe to do so, move undamaged containers from fire area.

5.5 Advice for firefighters

Fire fighters to wear self-contained breathing apparatus (SCBA) in confined spaces, in oxygen deficient atmospheres or if exposed to products of decomposition.

Personal Protective Equipment: Full protective clothing is recommended.

5.4 Hazchem code

Noe allocated (Aus)

6. ACCIDENTAL RELEASE MEASURES

6.1 General Response Procedure

If spilled, sweep up but avoid generating dusts. Collect and seal in properly labelled containers for reuse.

Low hazard product use common sense in handling situation.

6.2 Personal precautions, protective equipment and emergency procedures

This product is a heavy powder. If safe to do so, wet area to prevent high levels of dust. Wear suitable protective equipment. Assess situation, if product is not significantly contaminated, shovel or scoop up and reuse. If highly contaminated shovel up any spill or if available use dustless methods such as HEPA vacuum and filter. Place waste into suitably labelled container for disposal. **DO NOT DRY SWEEP.**

6.3 Environmental precautions

Do NOT let product reach drains, streams, rivers or waterways. If product does enter a waterway, advise the Environmental Protection Authority or your local Waste Management. If a significant quantity of material enters drains, advise emergency services.

6.4 Methods of cleaning up

Contain and sweep/shovel-up spills with dust binding material or use an industrial vacuum cleaner, if appropriate. Transfer to a suitable, labelled container for recycling or salvage and dispose-off promptly. Recycle containers wherever possible after careful cleaning. After spills wash area preventing run-off from entering drains. Large spills should be handled according to a predetermined plan.

This material may be suitable for approved landfill. Ensure legality of disposal by consulting regulations prior to disposal.

6.5 Containment**6.6 Decontamination****6.7 Reference to other sections**

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Avoid generating and inhaling dusts. Provide adequate ventilation. For further information please refer to the Engineering Controls of this SDS.

7.2 Conditions for safe storage, including any incompatibilities

Keep containers tightly closed when not using the product. Store in a cool, dry and well-ventilated area out of direct sunlight. Keep away from extreme heat and open flames. Keep out of reach of children and animals.

Store in original packages as approved by the manufacturer. Store away mineral acids and strongly alkaline solutions.

7.3 Specific end uses

No information provided.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

General Exposure limits are unlikely to be reached under normal use.

Exposure standards

Ingredient	Reference	TWA		STEL	
		ppm	mg/m ³	ppm	mg/m ³
Calcium Sulphate		--	10	--	--
Silica (fumed – respirable)		--	2	--	--

Biological limits

No information available on biological limit values for this product.

8.2 Exposure controls

Engineering controls Avoid generating and inhaling dusts. Avoid high dust concentrations. Maintain adequate ventilation at all the times. In most circumstances natural ventilation systems are adequate but ensure to use in well ventilated area. Ensure air concentrations are below quoted Exposure Standards. Keep containers closed when not in use.

PERSONAL PROTECTION EQUIPMENTS

No special equipment is usually needed when occasionally handling small quantities. The following instructions are for bulk handling or where regular exposure in an occupational setting occurs without proper containment systems.

Eye / Face	Avoid eye contact and repeated or prolonged skin contact. Use Chemical goggles or spectacles with side shields to protect eyes.
Hands	Prevent skin contact by wearing Leather or Neoprene Rubber gloves and wash hands and contaminated skin after handling.
Body	Prevent skin contact by wearing Long-sleeved protective clothing preferably apron and safety footwear. Make sure that all skin areas are covered.
Respiratory	Avoid breathing of dusts. The use of a respirator is not normally required, however if high dust levels are present or in areas of limited ventilation, then the use of a suitable dust mask or half-faced respirator fitted with a P2 filter is recommended. All respirators must comply with AS/NZS 1715/6.

Work hygienic practices Change and wash clothing and PPE, if contaminated or before storing and/or re-using. Wash hands and face thoroughly after handling and before work breaks, eating, drinking, smoking and using toilet facilities.



9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	WHITE TO CREAM COLOURED DUST WITH NO DISCERNABLE ODOUR
Odour	ODOURLESS TO MILD EARTH ODOUR
Flash point	NOT APPLICABLE, PRODUCT IS NOT FLAMMABLE
Boiling point	DECOMPOSES. LOSES H ₂ O AT 1630 DEGREE CELCIUS
Melting point	NOT AVAILABLE
Volatiles	
Evaporation rate	
pH	Saturated solution 5.5
Vapour density	Not available
Specific gravity	1.1 kg/l
Solubility (water)	Soluble in Water (g/L): 0.21G/100G (20 degree Celsius). Slightly soluble in Glycerol.
Vapour pressure (20 deg.C)	Not available
Partition coefficient	
Autoignition temperature	NOT APPLICABLE

9.1 Information on basic physical and chemical properties

Decomposition temperature	NOT AVAILABLE
Decomposition product	
Viscosity	
Explosive properties	
Oxidising properties	
Odour threshold	

10. STABILITY AND REACTIVITY

10.1 Reactivity

Contact with strong acids may lead to evolution of toxic sulphur oxide vapours. Contact with some metals and alkalis may lead to evolution of toxic fluoro silane vapours.

10.2 Chemical stability

This product is stable under normal temperatures and pressures, when stored and handled in accordance with this material safety data sheet.

10.3 Possibility of hazardous reactions

10.4 Conditions to avoid

Store away from sources of heat or fire, especially in a confined space. Keep away from strong acids and alkalis as well as foodstuffs.

10.5 Incompatible materials

Gypsum is incompatible with strong oxidising agents, strong acids, alkalis, herbicides and fungicides. Slightly corrosive to copper, carbon steel, aluminium, zinc and ferrous metals on prolonged contact.

10.6 Hazardous decomposition products

Oxides of sulphur, fluoro silanes.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

No adverse health effects are expected, if the product is handled in accordance with this Safety Data Sheet and the product label. Symptoms and effects that may arise if the product is mishandled and overexposure occurs are:

Acute: Gypsum has low toxicity if swallowed. It is not classified as hazardous according to criteria of Worksafe Australia.

Inhalation: Inhalation of low concentrations of gypsum dust should not cause significant health effects. Inhalation of large amounts of dust may cause inflammation of the nose and throat leading to nasal secretions. Symptoms of irritation due to inhaling are sore throat, tightness of chest, chest pain, light-headedness and persistent cough with secretion of sputum.

Skin: Prolonged skin contact with gypsum in a localised area may result in irritation (primarily from abrasion) which manifests itself in reddening, scaling, itching and skin inflammation. Skin irritation may be aggravated in persons with existing skin lesions.

Eye: Contact may cause mechanical irritation due to abrasion. This may progress to burning and tearing blurring vision upon repeated exposure.

Swallowed: Ingestion of small amounts of Gypsum should not cause significant health effects. LD50 (Oral, rat) = More than 5.050 mg/kg

Chronic: Chronic exposure to Gypsum may cause irritation of the mucous membranes and skin irritations that may lead to dermatitis. This product contains crystalline silica and prolonged or repeated overexposure by inhalation may cause progressive opacities in the lungs and modulation and permanent lung damage. Crystalline silica is considered a human carcinogen by the International Agency for Research on Cancer (IARC) and a suspected human carcinogen by the American Conference of Governmental Industrial Hygienists (ACGIH).

12. ECOLOGICAL INFORMATION

12.1 Toxicity

Practically non-toxic to aquatic organisms or land animals based on United States Federal Insecticides Fungicides and Rodenticide Act (FIFRA) acute toxicity ratings. Product is not significantly hazardous for the environment.

PRODUCT NAME GYPSUM

12.2 Persistence and degradability

ABIOTIC

- Water / Soil: insert product in normal environmental conditions
- Water / Soil: Slow ionisation and cation precipitation in presence of sulphates or carbonates (alkaline pH)

BIOTIC

- Degradation products are hydrogen sulphide and sulphates
- Gypsum is persistent in the environment due to inert form

12.3 Bio accumulative potential

Not applicable

12.4 Mobility in soil

Air – Mobility as solid aerosols

Water / Soil – Low solubility and mobility

Soil/Sediments – Absorption on mineral and organic soil constituent (calcium)

12.5 Other adverse effects

Low toxicity to aquatic life.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Disposal Gypsum is a soil conditioner, flocculant and fertiliser and may hence be distributed on agricultural land. If no agricultural land is available, collect in sealed containers and dispose in accordance with the requirements of the Department of Environment.

Waste disposal If no agricultural land is available, collect in sealed containers and dispose in accordance with the requirements of the Department of Environment.

Legislation Dispose-off in accordance with all local, state and federal legislations.

14. TRANSPORT INFORMATION

NOT DANGEROUS GOODS ACCORDING TO THE CRITERIA OF THE AUSTRALIAN CODE FOR THE TRANSPORT OF DANGEROUS GOODS BY ROAD & RAIL (ADG Code), IATA or IMDG/IMSBC criteria. No special transport conditions are necessary unless required by other regulations.

	LAND TRANSPORT (ADG)	SEA TRANSPORT (IMDG)	AIR TRANSPORT (IATA / DGR)
14.1 UN Number	None assigned	None assigned	None assigned
14.2 Proper Shipping Name	None assigned	None assigned	None assigned
14.3 Transport hazard class	None assigned	None assigned	None assigned
14.4 Packing Group	None assigned	None assigned	None assigned

14.5 Special precautions for user

Hazchem code None assigned

15. REGULATORY INFORMATION

15.1 Australian Regulatory Information

Gypsum is not classified as hazardous and is not specified in the NOHSC List of Designated Hazardous Substances (NOHSC:10005 (1999)). Gypsum is not listed as a poison in the Standard for the Uniform Scheduling of Drugs and Poisons.

15.2 Additional National and/or International Regulatory Information

Not classed as hazardous material according to the EEC Directive 67/548/EEC

OSHA: Not hazardous by definition of Hazard Communication Standard (40 CFR Part 370)

16. OTHER INFORMATION

Key / Legend to abbreviations and acronyms used in the SDS

NOHSC	National Occupation Health and Safety Commission
SUSDP	Standard for the Uniform Scheduling of Drugs and Poisons
ES-TWA	Exposure Standard – Time Weighted Average
ES-STEL	Exposure Standard – Short Term Exposure Level
ES-Peak	Exposure Standard – Peak Level
FORS	Federal Office of Road and Safety
LC-50	Lethal concentration 50, median lethal concentration
LD50	Lethal dose 50. The single dose of a substance that causes the death of 50% of an animal population from exposure to the substance by any route other than inhalation.
%(wt/wt)	Percent amount on a weight per weight basis
%(wt/vol)	Percent amount on a weight per volume basis
PPM	Parts per million
TLm	Median Toxic Limit is similar to LC but specifically refers to the concentration which kills 50% of the organisms, in other words the LC50
Zone1 Class1	An area in which an explosive gas atmosphere can be expected to occur periodically or occasionally during normal operations. (More than 100 hours per year but less than 1000 hours per year).
ASCC	Australian Safety and Compensation Council (Aust)
AICS	Australian Inventory of Chemical Substances

[End of SDS]