



SAFETY DATA SHEET MAGNESIUM HYDROXIDE SLURRY REVISION 3, DATE 29 JAN 19

1. IDENTIFICATION

Product Name	Magnesium Hydroxide Slurry
Other Names	Magnesium Hydroxide Liquid
Uses	Neutralising agent for sewer and waste water odour and corrosion control; Dosing applications.
Chemical Family	No Data Available
Chemical Formula	Unspecified
Chemical Name	Contains: Magnesium hydroxide; Rheology modifiers; Minerals; Water
Product Description	No Data Available

Contact Details of the Supplier of this Safety Data Sheet

Organisation	Location	Telephone
Redox Ltd	2 Swettenham Road Minto NSW 2566 Australia	+61-2-97333000
Redox Ltd	11 Mayo Road Wiri Auckland 2104 New Zealand	+64-9-2506222
Redox Inc.	3960 Paramount Boulevard Suite 107 Lakewood CA 90712 USA	+1-424-675-3200
Redox Chemicals Sdn Bhd	Level 2, No. 8, Jalan Sapir 33/7 Seksyen 33, Shah Alam Premier Industrial Park 40400 Shah Alam Sengalor, Malaysia	+60-3-5614-2111

Emergency Contact Details

For emergencies only; DO NOT contact these companies for general product advice.

Organisation	Location	Telephone
Poisons Information Centre	Westmead NSW	1800-251525 131126
Chemcall	Australia	1800-127406 +64-4-9179888
Chemcall	Malaysia	+64-4-9179888
Chemcall	New Zealand	0800-243622 +64-4-9179888
National Poisons Centre	New Zealand	0800-764766
CHEMTREC	USA & Canada	1-800-424-9300 CN723420 +1-703-527-3887

2. HAZARD IDENTIFICATION

Poisons Schedule (Aust)

Not Scheduled



Globally Harmonised System

Hazard Classification	NOT hazardous according to the criteria of the Globally Harmonised System of Classification and Labelling of Chemicals (GHS)
Signal Word	None

National Transport Commission (Australia)
Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

Dangerous Goods Classification	NOT Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)
--------------------------------	---

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients

Chemical Entity	Formula	CAS Number	Proportion
Magnesium hydroxide	Mg(OH)2	1309-42-8	55 - 60 %
Rheology modifiers	Unspecified	Unspecified	<5 %
Minerals	Unspecified	Unspecified	<2 %
Silica - Crystalline (Quartz)	SiO2	14808-60-7	<1 %
Water	H2O	7732-18-5	Balance %

4. FIRST AID MEASURES

Description of necessary measures according to routes of exposure

Swallowed	IF SWALLOWED: Rinse mouth. Do not induce vomiting. Get immediate medical advice/attention.
Eye	IF IN EYES: Immediately flush eyes with running water for several minutes, holding eyelids open and occasionally lifting the upper and lower lids. Remove contact lenses if present and easy to do. Continue rinsing for at least 15 minutes. Get immediate medical advice/attention.
Skin	IF ON SKIN: Remove contaminated clothing and shoes immediately. Flush skin with running water for at least 15 minutes. If skin irritation occurs, get medical advice/attention. Wash contaminated clothing and shoes before reuse.
Inhaled	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get immediate medical advice/attention. Apply resuscitation if victim is not breathing - Administer oxygen if breathing is difficult.
Advice to Doctor	Treat symptomatically.
Medical Conditions Aggravated by Exposure	Persons with pre-existing skin or respiratory conditions may be sensitive to this product.

5. FIRE FIGHTING MEASURES

General Measures	If safe to do so, move undamaged containers from fire area. Cool containers with water spray until well after fire is out.
Flammability Conditions	Non-combustible material; This product will not burn and will not fuel a fire in progress. *Magnesium hydroxide is a commonly used flame retardant and would normally be expected to suppress the heat of a surrounding fire.

Extinguishing Media	If material is involved in a fire, use extinguishing measures that are appropriate to local circumstances and surrounding environment.
Fire and Explosion Hazard	Containers may explode when heated.
Hazardous Products of Combustion	Fire or heat may produce irritating, toxic and/or corrosive fumes, including oxides of Calcium, Magnesium and Silicon.
Special Fire Fighting Instructions	Contain runoff from fire control or dilution water - Runoff may pollute waterways.
Personal Protective Equipment	Wear self-contained breathing apparatus (SCBA) and chemical splash suit. SCBA and structural firefighter's uniform may provide limited protection.
Flash Point	No Data Available
Lower Explosion Limit	No Data Available
Upper Explosion Limit	No Data Available
Auto Ignition Temperature	No Data Available
Hazchem Code	No Data Available

6. ACCIDENTAL RELEASE MEASURES

General Response Procedure	Ensure adequate ventilation. Do not touch or walk through spilled material - Product is slippery when spilt. Avoid accidents, clean up any spills immediately. Avoid breathing vapours and contact with eyes, skin and clothing.
Clean Up Procedures	Recover by pumping or absorb with earth, sand or other non-combustible material and transfer to suitable, closed containers for disposal (see SECTION 13).
Containment	Stop leak if safe to do so – Prevent entry into waterways, drains or confined areas.
Decontamination	No information available.
Environmental Precautionary Measures	Prevent product from entering drains and waterways. In case of accidental release or spill, immediately notify the appropriate authorities.
Evacuation Criteria	Spill or leak area should be isolated immediately. Keep unauthorised personnel away. Evacuate personnel to safe areas.
Personal Precautionary Measures	Use personal protective equipment as required (see SECTION 8).

7. HANDLING AND STORAGE

Handling	Safety showers and eyewash facilities should be provided within the immediate work area for emergency use. Ensure adequate ventilation. Handle in accordance with good industrial hygiene and safety practice. Avoid breathing mists/vapours and contact with eyes, skin and clothing. Do not ingest. Use personal protective equipment as required (see SECTION 8).
Storage	Store in a cool, dry and well-ventilated place, out of direct sunlight. Keep containers closed when not in use and check regularly for leaks. Avoid extremes of temperature. Keep away from incompatible materials (see SECTION 10). Keep in a banded area.
Container	Keep in the original container. Keep in properly labelled containers.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

General	No exposure value assigned for this specific material. COMPONENT: Silica - Crystalline (Quartz) (CAS No. 14808-60-7): - Safe Work Australia Exposure Standard for Quartz (respirable dust): TWA = 0.05 mg/m ³ ; Known to have carcinogenic potential for humans (Carc. 1A).
Exposure Limits	No Data Available
Biological Limits	No information available.

Engineering Measures	A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area.
Personal Protection Equipment	<ul style="list-style-type: none"> - Respiratory protection: Wear respiratory protection if engineering controls are not effective in controlling airborne exposure. Recommended: Approved respirator with a replaceable dust/particulate filter (refer to AS/NZS 1715 & 1716). - Eye/face protection: Wear appropriate eye protection to avoid eye contact. Recommended: Safety glasses with side shields, goggles or full-face shield, as appropriate, should be used. - Hand protection: Handle with gloves. Recommended: Chemical-resistant gloves, e.g. Butyl rubber or PVC. Final choice of appropriate gloves will vary according to individual circumstances, i.e. methods of handling or according to risk assessments undertaken. - Skin/body protection: Wear appropriate personal protective clothing to avoid skin contact. Recommended: Always wear long sleeves, long trousers or coveralls and enclosed footwear or safety boots when handling this product.
Special Hazards Precautions	No information available.
Work Hygienic Practices	Do not eat, drink or smoke when using this product. Wash hands before breaks and at the end of workday. Take off contaminated clothing and shoes immediately. Wash contaminated clothing before re-use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid
Appearance	Viscous liquid (slurry)
Odour	Slight alkaline or chalky
Colour	White/grey, milky
pH	9.5 - 11 (1% aq. solution)
Vapour Pressure	No Data Available
Relative Vapour Density	No Data Available
Boiling Point	ca. 101 °C
Melting Point	No Data Available
Freezing Point	0 °C
Solubility	Dispersible in water
Specific Gravity	1.5 - 1.6
Flash Point	No Data Available
Auto Ignition Temp	No Data Available
Evaporation Rate	No Data Available
Bulk Density	No Data Available
Corrosion Rate	No Data Available
Decomposition Temperature	No Data Available
Density	No Data Available
Specific Heat	No Data Available
Molecular Weight	No Data Available
Net Propellant Weight	No Data Available
Octanol Water Coefficient	No Data Available
Particle Size	No Data Available
Partition Coefficient	No Data Available
Saturated Vapour Concentration	No Data Available
Vapour Temperature	No Data Available
Viscosity	300 - 1,000 cP (@ 23 °C)
Volatile Percent	<40% (water)
VOC Volume	No Data Available
Additional Characteristics	No information available.

Potential for Dust Explosion	Not applicable.
Fast or Intensely Burning Characteristics	No information available.
Flame Propagation or Burning Rate of Solid Materials	No information available.
Non-Flammables That Could Contribute Unusual Hazards to a Fire	No information available.
Properties That May Initiate or Contribute to Fire Intensity	Non-combustible material; This product will not burn and will not fuel a fire in progress. *Magnesium hydroxide is a commonly used flame retardant and would normally be expected to suppress the heat of a surrounding fire.
Reactions That Release Gases or Vapours	Fire or heat may produce irritating, toxic and/or corrosive fumes, including oxides of Calcium, Magnesium and Silicon.
Release of Invisible Flammable Vapours and Gases	No information available.

10. STABILITY AND REACTIVITY

General Information	Reacts with acids.
Chemical Stability	Stable under recommended storage conditions.
Conditions to Avoid	Avoid extremes of temperature and direct sunlight.
Materials to Avoid	Incompatible/reactive with Brass, acids, strong oxidisers, Maleic anhydride.
Hazardous Decomposition Products	Fire or heat may produce irritating, toxic and/or corrosive fumes, including oxides of Calcium, Magnesium and Silicon.
Hazardous Polymerisation	Polymerization will not occur.

11. TOXICOLOGICAL INFORMATION

General Information	Information on possible routes of exposure: - Ingestion: This material may cause discomfort on swallowing and may result in gastrointestinal irritation nausea, vomiting, abdominal pain and diarrhoea. Ingestion of large amounts may result in gastric disturbances, irritation to the oesophagus, throat and stomach. - Eye contact: Eye contact with this product will cause redness; may induce some swelling and blurred vision. - Skin contact: Contact with skin will result in mild irritations. Some defatting, itching and redness is likely in these situations. - Inhalation: This material has low vapour concentrations at ambient temperatures. Inhalation of mists will result in nausea and headaches and can result in lung damage. Chronic effects: No information available.
Acute	
Ingestion	Acute toxicity (Oral): - LD50, Rat: >2,000 mg/kg
Carcinogen Category	None

12. ECOLOGICAL INFORMATION

Ecotoxicity	No information available.
Persistence/Degradability	Elements of this product are expected to persist. This product is mobile on dilution with water and, if released to the environment, likely to contaminate.

Mobility	
Environmental Fate	Avoid contaminating waterways.
Bioaccumulation Potential	No information available.
Environmental Impact	No Data Available

13. DISPOSAL CONSIDERATIONS

General Information	Dispose of contents/container through a licensed waste contractor and in accordance with local/regional/national regulations. Where possible, recycling is preferred to disposal or incineration.
Special Precautions for Land Fill	Clean empty containers with water. Dispose of rinse water in accordance with local and national regulations.

14. TRANSPORT INFORMATION

Land Transport (Australia)

ADG Code	
Proper Shipping Name	Magnesium Hydroxide Slurry
Class	No Data Available
Subsidiary Risk(s)	No Data Available
	No Data Available
UN Number	No Data Available
Hazchem	No Data Available
Pack Group	No Data Available
Special Provision	No Data Available
Comments	NON-DANGEROUS GOODS: Not regulated for LAND transport.

Land Transport (Malaysia)

ADR Code	
Proper Shipping Name	Magnesium Hydroxide Slurry
Class	No Data Available
Subsidiary Risk(s)	No Data Available
	No Data Available
UN Number	No Data Available
Hazchem	No Data Available
Pack Group	No Data Available
Special Provision	No Data Available
Comments	NON-DANGEROUS GOODS: Not regulated for LAND transport.

Land Transport (New Zealand)

NZS5433	
Proper Shipping Name	Magnesium Hydroxide Slurry
Class	No Data Available
Subsidiary Risk(s)	No Data Available
	No Data Available

SAFETY DATA SHEET MAGNESIUM HYDROXIDE SLURRY REVISION 3, DATE 29 JAN 19

UN Number	No Data Available
Hazchem	No Data Available
Pack Group	No Data Available
Special Provision	No Data Available
Comments	NON-DANGEROUS GOODS: Not regulated for LAND transport.

Land Transport (United States of America)

US DOT

Proper Shipping Name	Magnesium Hydroxide Slurry
Class	No Data Available
Subsidiary Risk(s)	No Data Available
UN Number	No Data Available
Hazchem	No Data Available
Pack Group	No Data Available
Special Provision	No Data Available
Comments	NON-DANGEROUS GOODS: Not regulated for LAND transport.

Sea Transport

IMDG Code

Proper Shipping Name	Magnesium Hydroxide Slurry
Class	No Data Available
Subsidiary Risk(s)	No Data Available
UN Number	No Data Available
Hazchem	No Data Available
Pack Group	No Data Available
Special Provision	No Data Available
EMS	No Data Available
Marine Pollutant	No
Comments	NON-DANGEROUS GOODS: Not regulated for SEA transport.

Air Transport

IATA DGR

Proper Shipping Name	Magnesium Hydroxide Slurry
Class	No Data Available
Subsidiary Risk(s)	No Data Available
UN Number	No Data Available
Hazchem	No Data Available
Pack Group	No Data Available
Special Provision	No Data Available
Comments	NON-DANGEROUS GOODS: Not regulated for AIR transport.

National Transport Commission (Australia)

Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

Dangerous Goods Classification	NOT Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)
---------------------------------------	---

15. REGULATORY INFORMATION

General Information No Data Available

Poisons Schedule (Aust) Not Scheduled

Environmental Protection Authority (New Zealand)

Hazardous Substances and New Organisms Amendment Act 2015

Approval Code Not Assessed

National/Regional Inventories

Australia (AIC)	Listed
Canada (DSL)	Not Determined
Canada (NDSL)	Not Determined
China (IECSC)	Not Determined
Europe (EINECS)	Not Determined
Europe (REACH)	Not Determined
Japan (ENCS/METI)	Not Determined
Korea (KECI)	Not Determined
Malaysia (EHS Register)	Not Determined
New Zealand (NZIoC)	Not Determined
Philippines (PICCS)	Not Determined
Switzerland (Giftliste 1)	Not Determined
Switzerland (Inventory of Notified Substances)	Not Determined
Taiwan (NCSR)	Not Determined
USA (TSCA)	Not Determined

16. OTHER INFORMATION

Related Product Codes	MAGHYD1500, MAGHYD1600, MAGHYD1601, MAGHYD1602, MAGHYD1800, MAGHYD1801, MAGHYD4000, MAGHYD4200, MAGHYD7000
Revision	3
Revision Date	29 Jan 2019
Reason for Issue	SDS updated
Key/Legend	< Less Than > Greater Than AICS Australian Inventory of Chemical Substances

atm Atmosphere
CAS Chemical Abstracts Service (Registry Number)
cm² Square Centimetres
CO₂ Carbon Dioxide
COD Chemical Oxygen Demand
deg C (°C) Degrees Celcius
EPA (New Zealand) Environmental Protection Authority of New Zealand
deg F (°F) Degrees Farenheit
g Grams
g/cm³ Grams per Cubic Centimetre
g/l Grams per Litre
HSNO Hazardous Substance and New Organism
IDLH Immediately Dangerous to Life and Health
immiscible Liquids are insoluable in each other.
inHg Inch of Mercury
inH₂O Inch of Water
K Kelvin
kg Kilogram
kg/m³ Kilograms per Cubic Metre
lb Pound
LC₅₀ LC stands for lethal concentration. LC₅₀ is the concentration of a material in air which causes the death of 50% (one half) of a group of test animals. The material is inhaled over a set period of time, usually 1 or 4 hours.
LD₅₀ LD stands for Lethal Dose. LD₅₀ is the amount of a material, given all at once, which causes the death of 50% (one half) of a group of test animals.
ltr or L Litre
m³ Cubic Metre
mbar Millibar
mg Milligram
mg/24H Milligrams per 24 Hours
mg/kg Milligrams per Kilogram
mg/m³ Milligrams per Cubic Metre
Misc or Miscible Liquids form one homogeneous liquid phase regardless of the amount of either component present.
mm Millimetre
mmH₂O Millimetres of Water
mPa.s Millipascals per Second
N/A Not Applicable
NIOSH National Institute for Occupational Safety and Health
NOHSC National Occupational Heath and Safety Commission
OECD Organisation for Economic Co-operation and Development
Oz Ounce
PEL Permissible Exposure Limit
Pa Pascal
ppb Parts per Billion
ppm Parts per Million
ppm/2h Parts per Million per 2 Hours
ppm/6h Parts per Million per 6 Hours
psi Pounds per Square Inch
R Rankine
RCP Reciprocal Calculation Procedure
STEL Short Term Exposure Limit
TLV Threshold Limit Value
tne Tonne
TWA Time Weighted Average
ug/24H Micrograms per 24 Hours
UN United Nations
wt Weight