



MATERIAL SAFETY DATA SHEET

SECTION 1: CHEMICAL PRODUCT & COMPANY INFORMATION			
PRODUCT NAME:	Magnesium Hydroxide		
FORMULA:	Mg(OH) ₂		
Company:	Aurora Industry Co.,Ltd.		
Address:	Room 7033, No.9-1, Haifu Road, Dalian Free Trade Zone, China		
Tel. :	0411-82288674		
SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS			
Substance name	CAS No.	Initial hazard	%
Magnesium Hydroxide	1309-42-8	Xi	>98
EC No.: 215-170-3			
R No.: R36/37/38			
SECTION 3: HAZARDS IDENTIFICATION			
Classification according to Regulation (EC) No 1272/2008[CLP]/G.H.S.	Not a hazardous substance or mixture according to Regulation (EC) No 1272/2008[CLP]/G.H.S.		
Route of infection:	Inhalation, ingestion		
Health hazard:	Dust		
Environmental hazard:	Dust		
Risk of explosion:	This product is flame-retardant and has no danger of ignition and explosion		
Hazard rating			
Flammability	0		
toxicity	1		
Body contact	2		
Reactivity	0		
Chronic	2		
Scale: Minimum =0/1 Medium =2 /3 Extreme =4			

SECTION 4: FIRST AID MEASURES

INHALATION

Remove to fresh air immediately. Do not permit exposed person to remain in dusty environment without adequate respiratory protection. Treat metal fume fever with bed rest and treat for fever and pain.

EYE CONTACT

Do not rub eyes. Wash eyes under slowly running water for at least fifteen minutes, making sure eyes are held wide open and moved slowly in every direction. Ensure no solid particles remain in creases of eyelids. If so, continue to wash. If irritation persists, consult an ophthalmologist.

SKIN CONTACT

Remove from source of irritation. Remove contaminated clothing and wash affected area thoroughly with a mild soap and water. Wash contaminated clothing before reusing.

INGESTION

Treat symptomatically. If bowel obstruction occurs, immediately consult a physician.

SECTION 5: FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

1. Suitable extinguishing media

Use media appropriate to primary source of fire. Otherwise, use dry chemical, carbon dioxide, water spray or foam.

2. Unsuitable extinguishing media

For this substance no limitations of extinguishing agents are given.

ADVICE FOR FIRE-FIGHTERS

Wear self-contained breathing apparatus for firefighting if necessary.

SPECIAL FIREFIGHTING PROCEDURES

No special procedures; avoid breathing fumes or dust; keep upwind.

UNUSUAL FIRE & EXPLOSION HAZARDS

None known

HAZARDOUS COMBUSTION PRODUCTS

None known

SECTION 6: ACCIDENTAL RELEASE MEASURES

Ventilate enclosed spaces and use appropriate respiratory protection. Sweep or vacuum spilled material in a manner to avoid generation of dust. Reclaim product for re-use, if possible, or collect in containers for disposal in an appropriate manner.

SECTION 7: HANDLING & STORAGE

HANDLING PROCEDURES AND EQUIPMENT

Keep container closed when not in use. Avoid contact with eyes. Avoid breathing dust or fume and only use in a good ventilated area. Consumption of food and beverages should be avoided in work area where product is being used. After handling product, always wash hands and face thoroughly with soap and water before eating, drinking or smoking.

STORAGE REQUIREMENTS

Suitable for any general chemical storage area.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

CONTROL PHARAMETERS

1. Occupational exposure limit values

No data available.

2. DNEL(Derived No Effect Level) for workers

No DNEL values for workers available.

3. DNEL(Derived No Effect Level) for general population

No DNEL values for the general population workers available.

4. PNEC(Predicted No Effect Concentration) values

No PNEC values available.

EXPOSURE CONTROL

1. Appropriate engineering controls

No date available.

2. Personal protective equipment

2.1 Eye and face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH(US) or EN 166(EU).

2.2 Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (Without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

2.3 Body protection

Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place. The type of protective equipment must be selected according to the concentration and amount of the dangerous substances at the specific workplace.

2.4 Respiratory protection

Respiratory protection is not required. Where protection from nuisance level (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH(US) or EN 166(EU).

3. Environmental exposure controls

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

4. Industrial hygiene

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

SECTION 9: PHYSICAL & CHEMICAL PROPERTIES

APPEARANCE AND ODOR

White powder; no odor.

Molecular weight: 58.34	Essential component: Magnesium hydroxide, Moisture, Chloride
Melting point (°C): Decomposition to MgO at 380 °C	Specific gravity (Water=1) : 2.36
Water solubility (g/l): Slightly soluble in water	Boiling point (°C) : N.A.

PH: Alkalinity	Vapour pressure: N.A.
Volatile components: N.A.	Evaporation rate: N.A.
Vapour density: N.A.	Explosive properties: N.A.
Auto-ignition temperature: N.A.	Solubility: Insoluble in water, soluble in acid and ammonium salt solution.
Appearance: Powder solid	Viscosity: N.A.

Application

Magnesium hydroxide is a kind of perfect environment-friendly flame retardant, smoke suppress agent and filling, which is widely used in unsaturated polyester, epoxyresin, rubber and paint, such as PE, EVA, PVC, TPE, PA, PBT, as a superior flame retardant and filling. It can be used as a neutralizer for waster water instead of caustic soda and lime, also used in paint as antiseptic and desulphurization, as a refining anent in electric, medicine, food and saccharin.

SECTION 10: STABILITY & REACTIVITY

Stability:	Yes
Conditions of reactivity:	Will react with incompatibles (see below)
Conditions of chemical instability:	Stable under ambient temperatures and pressures.
Incompatibility(materials to avoid):	Acid (Strong) --- vigorous reaction, heat generated; Maleic anhydride --- Alkali and other alkaline earth compounds, including magnesium compounds, will cause explosive decomposition; Phosphorus --- when boiled with alkaline hydroxides yields mixed phosphines which may ignite spontaneously in air.
Hazardous decomposition products:	If magnesium hydroxide is heated to the point of volatilization (i.e.>1700°C), magnesium oxide fumes may be generated.
Is this product subject to polymerization?	No

SECTION 11: TOXICOLOGICAL INFORMATION

Acute toxicity:	N.A.
Subacute and chronic toxicity:	N.A.
Irritation:	Dust mild skin irritation
Anaphylaxis:	Guinea pig transdermal, no sensitization
Mutagenicity:	N.A.
Teratogenicity:	N.A.
Carcinogenicity:	N.A.

SECTION 12: ECOLOGICAL INFORMATION

Toxicity:	Acute toxicity to fish: N.A.
Persistence and degradability:	N.A.
Bioaccumulative potential:	N.A.

Mobility in soil:	N.A.
Results of PBT and vPvB assessment:	PBT /vPvB assessment not available as chemical safety assessment not required/not conducted.

SECTION 13: DISPOSAL CONSIDERATIONS

Dispose according to local, state/provincial and federal regulations.
 If discarded in its purchased form, this product would not be hazardous waste either by listing or by characteristic.
 However, under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste. (40 CFR261.20-24)

SECTION 14: TRANSPORT INFORMATION

Dangerous goods No.:	N.A.
UN No.:	N.A.
Packing mark:	N.A.
Packing category:	N.A.
Packaging method:	Plastic woven bag lined with film plastic bag or Kraft paper bag
Transportation precautions:	Transportation according to general non dangerous goods
Special shipping information:	No special precautions. For further information, refer to - Handling & Storage (Section VII) Stability & Reactivity (Section X)

SECTION 15: REGULATORY INFORMATION

All of the ingredient(s) contained in this product are included on the following inventory and/or regulatory lists: Australian Inventory of Chemical Substances (ACIS): Magnesium hydroxide (1309-42-8)
 Canada - Domestic Substance List (DSL): Magnesium hydroxide (1309-42-8)
 Canada - WHMIS: Ingredient Disclosure List - Magnesium hydroxide (Not listed)
 European Inventory of Existing Commercial Chemical Substances (EINECS): Magnesium hydroxide (215-170-3)
 Japan - Existing and New Chemical Substances (ENCS) - Magnesium hydroxide (1-386)
 Korea - Existing and Evaluated Chemical Substances (KECL) - Magnesium hydroxide (KE-22716)
 Philippines Inventory of Chemicals and Chemical Substances (PICCS) - Magnesium hydroxide (present)
 Swiss Giftliste 1 (List of Toxic Substances 1), 31 May 1999 - Magnesium hydroxide (G-8166) Toxic Category 4: Acute oral lethal dose of 500 - 2000 mg/kg.
 U.S. Toxic Substances Control Act (TSCA) 8(b) Inventory List: Magnesium hydroxide (1309-42-8)

SECTION 16: OTHER INFORMATION

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Reference:	ACGIH 2000; RTECS June 1998; Sax - 8th Ed.; Ind. Exposure & Control Technical for OSHA Regulated Substances - MgO (fume), March, 1989, pp. 1181-1184; NIOSH Occupational

	Health Guide for Chemical Substances - Vol. II, September, 1978.
Examine and verify:	N.A.
Modify information:	N.A.
Other information:	<p>NFPA Ratings: Health: 1 Flammability: 0 Reactivity: 0 Other: <blank></p> <p>HMIS Ratings: Health: 1 Flammability: 0 Reactivity: 0 PPE: J</p>