Magnesium Oxide Feed Grade

ORIGINATION, LLC
O_2D

Safety Data Sheet

Section 1: Identification

Product Name: Magnesium Oxide Feed Grade

Other Name/Synonyms: Magnesia, Calcined Magnesia, Calcined Magnesium

Product Form: Mixture

Product Use: Animal Feed Supplement

Company Identification:
Origination, LLC
1802 Wooddale Drive, Suite 200
Woodbury, MN 55125

For information, call: 1-800-625-6079

Emergency Number: 1-800-625-6079

For CHEMTREC assistance, call: 1-800-424-9300

For International CHEMTREC assistance, call: 703-527-3887

Section 2: Hazard(s) Identification

GHS-US classification

Classification of the substance or mixture HCS 2012 (29 CFR 1910.1200): Not a hazardous product according to the OSHA Globally Harmonized System (GHS).

Label elements HCS 2012 (29 CFR 1910.1200): Not a hazardous product according to the OSHA Globally Harmonized System (GHS).

GHS-US labeling

GHS hazard pictogram: No pictogram.

Signal word: No signal word.

Hazard statement: None.

Precautionary statements: None.

Section 3: Composition / Information on Ingredients

Chemical Name and Synonyms	C.A.S. No.	%	GHS-US classification
Magnesium Oxide	1309-48-4	93.0	None

Section 4: First Aid Measures

First aid measures general: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

First-aid measures after inhalation: Remove to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER/doctor/physician if you feel unwell.

First-aid measures after skin contact: Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.

First-aid measures after eye contact: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

First-aid measures after ingestion: Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

Most important symptoms and effects, both acute and delayed

Symptoms/injuries after inhalation: May cause respiratory irritation.

Symptoms/injuries after eye contact: Causes eye irritation.

Immediate medical attention and special treatment needed: No additional information available.

Note to physician: None.

Section 5: Fire Fighting Measures

Extinguishing Media

Suitable extinguishing media: Foam. Dry powder. Carbon dioxide. Water spray. Sand.

Unsuitable extinguishing media: Do not use a heavy water stream.

Special hazards arising from the substance or mixture: No additional information available.

Firefighting instructions: Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.

Protection during firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

Section 6: Accidental Release Measures

Emergency procedures: Evacuate unnecessary personnel. Ventilate area.

Protective equipment: Equip cleanup crew with proper protection.

Environmental precautions: Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

Spill containment and clean-up: On land, sweep or shovel into suitable containers. Minimize generation of dust. Store away from other materials.

Section 7: Handling and Storage

Precautions for safe handling: Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor. Avoid breathing dust/fume/gas/mist/vapors/spray. Use only outdoors or in a well ventilated area.

Storage conditions: Keep only in the original container in a cool, well ventilated place away from other materials. Keep container tightly closed.

Incompatible products: See section 10.

Incompatible materials: Avoid moisture.

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Section 8: Exposure Controls, Personal Protection

Exposure Controls

Personal protective equipment: Avoid all unnecessary exposure.

Hand protection: Wear protective gloves.

Eye protection: Chemical goggles or safety glasses.

Skin and body protection: Wear suitable protective clothing.

Respiratory protection: Wear appropriate mask.

Other information: Do not eat, drink or smoke during use.

Section 9: Physical and Chemical Properties

Information on basic physical and chemical properties

Appearance Form: Granules.

Physical State: Solid.

Color: Brownish.

Odor: Odorless.

pH: No data available.

Melting Point: No data available.

Freezing Point: No data available.

Flash Point: No data available.

Auto ignition temperature: No data available.

Vapor Pressure: No data available.

Density: 3.58-3.65 g/cm3

Solubility: 0.006 g/l at 20°C, soluble in dilute acids, insoluble in alcohols, incompatible with strong acids, interhalogens insoluble (<0.1%).

Other: No additional information available.

Viscosity: No data available.

Oxidizing: No data available.

Explosive: No data available.

Section 10: Stability and Reactivity

Reactivity: Magnesium oxide reacts vigorously with halogens and strong acids.

Chemical stability: Magnesium oxide is unstable under the following conditions: when in contact with atmosphere, humidity and carbon dioxide are adsorbed easily.

Possibility of hazardous reactions: Magnesium oxide reacts violently with interhalogens, such as Chlorine Trifluoride (ClF3), Bromine Pentafluoride (BrF5) or Phosphorus Pentachloride (PCl5) and produces flame, explosion or incandescence (in the case of PCl5). It may also ignite and explode when heated with sublimed sulfur, magnesium powder or aluminum powder.

Conditions to avoid: Avoid incompatible materials mentioned below. Avoid moisture, because it reacts with the substance producing heat. Contact with air should also be avoided as much as possible, because the substance absorbs water and carbon dioxide forming magnesium hydroxide and magnesium carbonate respectively.

Incompatible materials: Interhalogens, sublimed sulfur and magnesium or aluminum powder; reactive with oxidizing agents and acids.

Hazardous decomposition products: No known hazardous decomposition products exist.

Section 11: Toxicological Information

Information on toxicological effects: LD50, L(E)C50: Not available

Classification: Magnesium oxide was not classified according to Council Directive 67/548/EEC or Council Regulation 1272/2008/EC

Acute toxicity:

By Oral route: None

By Inhalation: Short-term inhalation of magnesium oxide dust or fume may cause temporary irritation of upper respiratory tract, skin, nose and eyes. No known allergic responses.

By Dermal Route: Not absorbed by intact skin. Intimate contact of naked skin to magnesium oxide dust may cause irritation, drying and chapping.

Chronic toxicity:

- Oral Route, after repeated exposure, man, 800 mg/m3, no observed effect (magnesium oxide).
- Oral Route, after repeated exposure, cattle, target organ: gastro-intestinal system, 1%, irritating effect.
- Inhalation, after repeated exposure, rat, 3 mg/m3, no observed effect.

Eye Irritation: May cause eye irritation.

Germ cell mutagenicity: No known studies. Not considered to be mutagenic in general.

Carcinogenicity: Substance is not classified as carcinogenic under ACGIH, NIOSH, IARC, NTP or OSHA

Other information: Alkalinity. Being a mild alkali is mainly the cause for irritation of body tissues.

Section 12: Ecological Information

Toxicity: The following points are theoretical conclusions: As natural occurring mineral, Magnesium oxide poses little threat to the environment. Spillage however may be dangerous if it comes in contact with incompatible materials see section 10.

Persistence and degradability: Magnesium oxide reacts with water to produce Mg(OH)2. The reaction is self-limiting because of the formation of insoluble magnesium hydroxide. No other data concerning degradation are available.

Bioaccumulation potential: Due to its ionic nature, Magnesium oxide is not a candidate for bioaccumulation in aquatic species.

Mobility in soil: Not expected based on structure and physicochemical characteristics.

Results of PBT and vPvB assessment: Magnesium oxide is not classified as PBT or vPvB substance

Section 13: Disposal Considerations (non-mandatory)

Disposal Methods: Dispose in a safe manner in accordance with local/national regulations.

Waste materials/numbers/code/treatment: Avoid release to the environment.

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Section 14: Transport Information

In accordance with DOT: Not regulated by DOT.

Other information: No supplementary information available.

ADR: Transport document description.

Transport by sea: No additional information available.

Air transport: No additional information available.

Section 15: Regulatory Information

Not classified as dangerous according to Council Directive 67/548/EEC.

Not classified as dangerous according to Council Directive 1272/2008/EC.

Substance exempted form Regulation 1907/2006 (REACH): Annex V, paragraph 10.

Other relevant legislation: 1999/45/EC, 2001/58/EC, 2006/58/EC (30 ATP), 2006/8/EC.

Section 16: Additional Information

Prepared by: Origination, LLC **Prepared: November 9, 2020**

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