



Date of Issue: March 9, 2009

1 IDENTIFICATION OF SUBSTANCE

1.1 PRODUCT NAME: MAGNESIUM SILICATE, synthetic, amorphous, hydrous

TRADE NAME: MAGNESOL®

GRADES: MAGNESOL XL

1.2 Use of the substance: Adsorbent, filter aid, flow agent

1.3 Supplier: The Dallas Group of America, Inc.
374 Route 22
P.O. Box 489
Whitehouse, NJ 08888 Tel: 908-534-7800 FAX: 908-534-0084
Information department: Product Safety Department

1.4 Emergency Telephone: Not required for non-hazardous substances.

2 HAZARDS IDENTIFICATION

Magnesium silicate is not explosive, flammable, or combustible. It is a mild irritant to eyes, skin, and respiratory passages (see Section 11)

Not classified as dangerous under EU Directive 67/548/EEC

HMIS ratings (scale 0-4)

Health = 0
Fire = 0
Reactivity = 0

0	Health
0	Fire
0	Reactivity

3 COMPOSITION/DATA ON INGREDIENTS

CAS No.	EINECS No.	Description	%
1343-88-0	215-681-1	Magnesium Silicate	97 - 100

4 FIRST AID MEASURES

Inhalation: Drink water to clear the throat, blow nose to clear respiratory passages.
Ingestion: Incidental ingestion of this product does not require first aid.
Skin Contact: Wash exposed area thoroughly with soap and water.
Eye Contact: Flush eyes with plenty of water. Call a physician if irritation persists.

5 FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA: Select the proper media to extinguish a surrounding fire.
No special protective equipment for firefighters is required.

6 ACCIDENTAL RELEASE MEASURES

SPILL CLEANUP METHODS: Sweep or vacuum spilled material. The use of a sweeping compound/dust suppressant is suggested.
Make sure that all personnel involved in housekeeping and spill clean up follow good industrial hygiene practices and wear proper personal protective equipment.

7 HANDLING AND STORAGE

USAGE PRECAUTIONS: None in designated use.
STORAGE PRECAUTIONS: None in designated use.
STORAGE CRITERIA: No special requirements.

8 EXPOSURE CONTROLS AND PERSONAL PROTECTION

8.1 Exposure Limit Values: The American Conference of Government Industrial Hygienists (ACGIH) does not list synthetic magnesium silicate in the substance index. A threshold limit value - time weighted average (TLV-TWA) of 10 mg/m³ of total dust is recommended for substances for which no specific TLVs have been assigned.

In the European Union, comply with all EU, Member State, and local guidelines.

8.2 Exposure Controls: No special requirements

8.3 Occupational Exposure Controls:

PROTECTIVE EQUIPMENT

VENTILATION: No special requirements.
RESPIRATORS: If the airborne concentration exceeds the ACGIH recommended TLV, an approved dust mask should be worn.
PROTECTIVE GLOVES: Not required.
EYE PROTECTION: Not required.
OTHER PROTECTION: Not required.
HYGIENIC WORK ROUTINES: No special requirements.

9 PHYSICAL AND CHEMICAL PROPERTIES

Normal Physical State @ 20°C (68°F): White, odorless powder
pH (1 in 10 slurry) 7.0 to 10.8
Melting Point: 1910°C (3470°F)
Absolute Density (H₂O = 1) 2.10 - 2.20
Solubility in Water: Magnesium Silicate is insoluble
Vapor Pressure: N/A*
Viscosity: N/A*
Boiling Point: N/A*
Vapor Density: N/A*
% Volatile: N/A*
Evaporation Rate: N/A*
Ignition Temperature: N/A*
*N/A - Not applicable

10 STABILITY AND REACTIVITY

10.1 Conditions to avoid	None in designated use
10.2 Materials to avoid	None in designated use
10.3 Hazardous Decomposition Products	None, the substance is stable

Note: In sufficient quantity, a filter cake composed of a flammable organic liquid absorbed on synthetic magnesium silicate or other filter materials such as diatomaceous earth, Perlite, or natural clays may be self-heating or possibly pyrophoric.

- A self-heating material is a material that, when in contact with air and without an energy supply, is liable to self-heat. A material of this type which exhibits spontaneous ignition or if the temperature of the sample exceeds 200 °C (392 °F) during the 24-hour test period when tested in accordance with UN Manual of Tests and Criteria, is classed as a Division 4.2 material.
- A pyrophoric material is a liquid or solid that, even in small quantities and without an external ignition source, can ignite within five (5) minutes after coming in contact with air when tested according to the UN Manual of Tests and Criteria.

11 TOXICOLOGICAL INFORMATION

This product does not contain any ingredient designated by IARC, NTP, ACGIH, or OSHA as probable or suspected human carcinogens.

Studies conducted in 1989 at Hill Top Biolabs, Inc., Cincinnati OH evaluated MAGNESOL® products with the formula MgO:2.6SiO₂ for acute oral toxicity (albino male rat), acute dermal toxicity (albino rabbit), skin irritation (albino rabbit) and eye irritation (albino rabbit) according to the techniques specified in the U.S. Federal Hazardous Substances Act. The conclusions of those studies were:

- MAGNESOL® is classified as non-toxic by oral administration.
- It is not a primary skin irritant or a corrosive by dermal application.
- It is not classified as toxic by dermal administration.
- It is classified in Toxicity Category III (corneal involvement or irritation clearing in 7 days or less) by ocular administration.

12 ECOLOGICAL INFORMATION

WATER HAZARD CLASSIFICATION: Not a known pollutant.

This Substance does not meet PBT or vPvB criteria under Annex XIII of REACH

13 DISPOSAL CONSIDERATIONS

DISPOSAL METHODS: In the form supplied, magnesium silicate is not classified as a hazardous waste in the U.S. or the EU. Magnesium silicate may undergo normal non-hazardous waste disposal.

However, under RCRA, it is the responsibility of the user of products to determine, at the time of disposal, whether the product falls under RCRA as a regulatory waste. The product uses, transformations, synthesis, mixtures, etc., may render the resulting end product subject to regulation. See Section 10 for additional information on filter cakes.

14 TRANSPORT INFORMATION

DOT CLASS:	Not Regulated
UN/NA NO.:	Not Classified
FREIGHT CLASSIFICATION:	NMFC - 48210 Column 55
IMO CLASS:	Not Classified
ADR/RID:	Not Classified

Comply with all EU, national, and local regulations.

15 REGULATORY INFORMATION

This substance is not classified as dangerous according to EU Directive 67/548/EEC.
This material is not listed in Sections 302, 312, or 313 of US SARA III.
It is reported in the US TSCA Inventory, 1986.
This substance has been pre-registered under REACH.
A Chemical Safety Assessment has not yet been carried out for this substance.

16 OTHER INFORMATION

Approximate chemical formula:	MgO:2.6SiO ₂
International Numbering System (INS) number:	553i
European Union E number:	E553a(i)
EINECS number:	215-681-1

References A through D are specific to synthetic magnesium silicate with the approximate chemical formula MgO:2.6SiO₂:

- A. 21 CFR Part 182, Subpart C - Generally recognized as safe.
- B. Chemical Toxicology of Commercial Products, Edition 4, 1976 - No acute toxicology recognized.
- C. Chemical Abstracts, 1958, 6721 Referring to USSR Medical Prom.10, No.4, Moscow, USSR - The powder is well tolerated by white rats, dogs, and cats.
- D. NIOSH Registry of Toxic Effects of Chemical Substances, Vol. 2, 1986 - Irritation data: Human skin - 300 micro gram/3 days. Very mild.
- E. Magnesium silicate with an approximate chemical formula of MgO:2.6SiO₂ is not listed in:
 1. IARC Monographs on the Evaluation of the Carcinogenic Risk of Chemicals to Man, 1988
 2. Industrial Hygiene and Toxicology, F. A. Patty
 3. Industrial Toxicology, Alice Hamilton and Harriet Hardy
 4. Toxicology of the Eye, W. Morton Grant
 5. Dangerous Properties of Industrial Materials, Sax and Lewis
 6. Government Publications:
 - a. NIOSH/OSHA Pocket Guide to Chemical Hazards
 - b. Registry of Toxic Effects of Chemical Substances
 - c. The Industrial Environment - It's Evaluation and Control
 7. Annex I to Directive 67/548/EEC

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FOR MORE INFORMATION CALL 812-283-6675

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