

MATERIAL SAFETY DATA SHEET
(Conforms to US CFR 1910.1200)

Date of Issue: January 22, 2010

1 IDENTIFICATION OF SUBSTANCE

PRODUCT NAME: *DALSORB®*

GRADES: 3000M

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

2 HAZARDS IDENTIFICATION

DALSORB® M has not been evaluated as a single product. The information in this section pertains mainly to Component B as Magnesium Silicate is not explosive, flammable, or combustible and is only a mild irritant to eyes, skin, and respiratory passages.

Inhalation: Causes irritation to mucous membranes and respiratory passages.

Ingestion: Causes irritation to the mouth and digestive tract.

Skin Contact: Causes irritation.

Eye Contact: Corrosive, causes burns.

HMS ratings (scale 0-4)

Magnesium silicate

0	Health
0	Fire
0	Reactivity

Health = 0
 Fire = 0
 Reactivity = 0

Component B

1	Health
0	Fire
0	Reactivity

Health = 1
 Fire = 0
 Reactivity = 0

3 COMPOSITION/DATA ON INGREDIENTS

Component	CAS No.	Approximate %
Magnesium Silicate	1343-88-0	70 to 80
Component B *		20 to 30

* The identity of Component B is being withheld as a trade secret per 29CFR 1201.12(i).

4 FIRST AID MEASURES

DALSORB® M has not been evaluated as a single product. The information in this section pertains mainly to Component B alone as Component A is only a mild irritant to eyes, skin, and respiratory passages.

Inhalation:	Remove to fresh air.
Ingestion:	If swallowed, DO NOT INDUCE VOMITING. Give large glasses of water. If vomiting occurs spontaneously, keep airway clear and give more water.
Skin Contact:	Flush thoroughly with cool water under shower. Wash contaminated clothing and thoroughly clean shoes before reuse.
Eye Contact:	Immediately flush eyes with a directed stream of water for at least 15 minutes. Remove contact lenses if worn. Washing eyes within several seconds essential to achieve maximum effectiveness.
For all of the above:	GET MEDICAL ATTENTION IMMEDIATELY.

5 FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA: DALSORB® is not explosive, flammable, or combustible. Select the proper media to extinguish a surrounding fire.

6 ACCIDENTAL RELEASE MEASURES

SPILL CLEANUP METHODS: Dry material can be swept or shoveled up. Flush residue with water. Observe environmental regulations.

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: Do not store in aluminum container or use aluminum fittings or transfer lines as flammable hydrogen gas can be generated.

8 EXPOSURE CONTROLS AND PERSONAL PROTECTION

VENTILATION: No special requirements.
RESPIRATORS: Wear a NIOSH/MSHA approved dust mask where airborne contaminants occur.
PROTECTIVE GLOVES: Wear chemical resistant gloves such as rubber, neoprene, or vinyl.
EYE PROTECTION: Chemical goggles.
OTHER PROTECTION: Full cover clothing.
HYGIENIC WORK ROUTINES: Emergency shower and eyewash facility should be in close proximity.

9 PHYSICAL AND CHEMICAL PROPERTIES

	<u>Magnesium silicate</u>	<u>Component B</u>
Physical State @ 68°F	White powder	White powder
pH (1 in 10 slurry)	7.0 to 10.8	
Melting Point:	3470° F	
Absolute Density (H ₂ O = 1):	2.10 - 2.20	
Solubility in Water:	insoluble	complete
Vapor Pressure:	N/A*	N/A*
Viscosity:	N/A*	N/A*
Boiling Point:	N/A*	N/A*
Vapor Density:	N/A*	N/A*
% Volatile:	N/A*	N/A*
Evaporation Rate:	N/A*	N/A*
Ignition Temperature:	N/A*	N/A*

*N/A - Not applicable

10 STABILITY AND REACTIVITY

Stability:	Stable
Polymerization:	Will not and cannot occur
Conditions and Materials to Avoid	None in designated use.

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

Magnesium silicate:

- | | |
|---------------------|--|
| A. Albino male rat: | Acute oral - LD50 > 5.0 g/kg |
| B. Albino rabbit: | Acute dermal - LD50 > 2.0 g/kg |
| | Primary Irritation Index 0.80 |
| | 0 = No erythema (skin redness) |
| | 1 = Very slight erythema |
| C. Albino rabbit: | Eyes – Toxicity category III; irritation clearing in 7 days or less. |

The above study was performed by Hill Top Biolabs, Inc. Cincinnati, OH, in 1989 and was specific to magnesium silicate with the formula MgO:2.6SiO₂•H₂O. The conclusions of this test were:

- Magnesium silicate 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 by ocular administration.

11 TOXICOLOGICAL INFORMATION, continued

Component B:

OSHA Permissible Exposure Limit (PEL) or ACGIH Threshold Limit Value (TLV) have not been established. The recommended ceiling limit is 2 mg/m³ respirable dust.

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

12 ECOLOGICAL INFORMATION

DALSORB® is inorganic and not subject to biodegradation. There is no data available on the environmental fate of this material.

Magnesium silicate is not a known pollutant.

Component B is not a listed toxic chemical under SARA III, §302, §304, or §313. The high pH (alkalinity) of the undiluted or unneutralized material is harmful to aquatic life.

13 DISPOSAL CONSIDERATIONS

DISPOSAL METHODS: The components of *DALSORB*® M are not regulated under RCRA landfill requirements. However, 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 applicable.
DOT Hazardous Substance:	Not applicable.
DOT Marine Pollutant:	Not applicable.
UN/NA NO.:	Not Classified
FREIGHT CLASSIFICATION:	NMFC - 48210 Column 55
IMO CLASS:	Not Classified

15 REGULATORY INFORMATION

The components of Dalsorb® M are reported in the TOSCA Inventory, 1986.
The components of Dalsorb® M are not listed in Sections 302, 312, or 313 of SARA III.

16 OTHER INFORMATION

APPROXIMATE CHEMICAL FORMULA:	Magnesium silicate Component B	MgO:2.6SiO ₂ •H ₂ O Trade secret
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References A through D are specific to magnesium silicate with the approximate chemical formula MgO:2.6SiO₂•H₂O:

- A. 21 CFR Part 182, Subpart C - Generally recognized as safe.
- B. Chemical Toxicology of Commercial Products, Edition 4, 1976 - No acute toxicology recognized.

16 OTHER INFORMATION, continued

- C. NIOSH Registry of Toxic Effects of Chemical Substances, Vol. 2, 1986 - Irritation data: Human skin - 300 micro gram/3 days. Very mild.
- D. Magnesium silicate with an approximate chemical formula of $MgO \cdot 2.6SiO_2$ 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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