



MATERIAL SAFETY DATA SHEET

Product: 8263 PLUS

Emergency Telephone Number
CHEMTREC - 1.800.424.9300 (24 hours)

SECTION 1 - PRODUCT IDENTIFICATION

Trade Name: 8263 PLUS

Application: An aqueous solution of magnesium hydroxide and surfactants

NFPA 704M/HMIS Rating: 1/2 Health 0/0 Flammability 0/0 Instability 0/0 Other

0=Insignificant 1=Slight 2=Moderate 3=High 4=Extreme

SECTION 2 - COMPOSITION/INGREDIENT INFORMATION

Our hazard evaluation has identified the following chemical ingredient(s) as hazardous under OSHA's Hazard Communication Rule, 29 CFR 1910.1200. Consult Section 15 for the nature of the hazard(s).

<u>Ingredient(s)</u>	<u>CAS #</u>	<u>Approx. %</u>	<u>EU Classification (67/548/EEC)</u>
Magnesium Hydroxide	1309-42-8/215-170-3	45.0 - 60.0	Xi R36/37/38
Diethanolamine	111-42-2/203-868-0	< 0.5	Xn R22, #38, R41, R48/22

SECTION 3 - HAZARD IDENTIFICATION

EMERGENCY OVERVIEW:

Warning! Irritating to eyes and skin. Do not get in eyes, on skin, on clothing. Do not take internally.

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. After contact with skin, wash immediately with plenty of water. Wear suitable protective clothing, gloves and eye/face protection. Not flammable or combustible.

Primary Route(s) of Exposure: Eye, Skin

Eye Contact: Can cause moderate irritation.

Skin Contact: May cause irritation with prolonged contact.

Ingestion: Not a likely route of exposure. Swallowing amounts may cause gastrointestinal irritation with nausea and diarrhea. Large amounts may cause obstruction of the bowel.

Inhalation: Not a likely route of exposure. Aerosols or product mist may irritate the upper respiratory tract. Heating above 1700°C (3092°F) will generate magnesium oxide fumes. Inhalation of freshly formed magnesium oxide fumes may result in metal fume fever with symptoms of metallic taste, fever, chills, fatigue and muscle pain. Symptoms generally resolve within 24-28 hours.

Chronic: Prolonged overexposure to any nuisance dust may result in lung changes.

Aggravation of Existing Conditions: May aggravate pre-existing skin and respiratory diseases.

SECTION 4 - FIRST AID INFORMATION

Eyes: Immediately flush for at least 15 minutes while holding eyelids open. If irritation persists, repeat flushing. Get immediate medical attention.

Skin: Immediately flush with plenty of water for at least 15 minutes. If symptoms persist, call a physician.

Ingestion: Do not induce vomiting. If conscious, washout mouth and give water to drink. Get medical attention.

Inhalation: Remove to fresh air, treat symptomatically. Get medical attention.

Note to Physician: Based on the individual reactions of the patient, the physician's judgment should be used to control symptoms and clinical condition.



SECTION 5 - FIRE FIGHTING

Flash Point: None

Extinguishing Media: This product would not be expected to burn unless all the water is boiled away. The remaining organics may be ignitable. Keep containers cool by spraying with water. Use extinguishing media appropriate for surrounding fire.

Fire and Explosion Hazard: Not flammable or combustible.

Special Protective Equipment for Fire Fighting: In case of fire, wear a full face positive-pressure self-contained breathing apparatus and protective suit.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS:

Restrict access to area as appropriate until clean-up operations are complete. Ensure clean-up is conducted by trained personnel only. Ventilate spill area if possible. Do not touch spilled material. Stop or reduce any leaks if it is safe to do so. Use personal protective equipment recommended in Section 8 (Exposure Controls/Personal Protection). Notify appropriate government, occupational health and safety and environmental authorities.

SPILL CONTROL AND RECOVERY:

Small Spills: Soak up spill with absorbent material. Place residues in a suitable, covered, properly labeled container. Wash affected area. **Large Spills:** Contain liquid using absorbent material, by digging trenches or by diking. Reclaim into recovery or salvage drums or tank truck for proper disposal. Wash site of spillage thoroughly with water. Contact an approved waste hauler for disposal of contaminated material. Dispose of material in compliance with regulations indicated in Section 13 (Disposal Considerations).

ENVIRONMENTAL PRECAUTIONS:

Do not contaminate surface water.

SECTION 7 - HANDLING AND STORAGE

Handling: Avoid eye and skin contact. Do not take internally. Do not get in eyes, on skin, on clothing. Have emergency equipment (for fires, spills, leaks, etc.) readily available. Ensure all containers are labeled. Keep the containers closed when not in use. Use with adequate ventilation.

Storage Conditions: Keep containers tightly closed. Store in suitable labeled containers.

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational Exposure Limits: Exposure guidelines have not been established for this product. Available exposure limits for the substance is shown below.

Magnesium Hydroxide	None Established
Diethanolamine	0.46 ppm ACGIH TLV-TWA skin

Engineering Measures: General ventilation is recommended.

Respiratory Protection: Respiratory protection is not normally needed. In operations where concentrations are elevated, a NIOSH approved respirator appropriate for the form and concentration of the contaminants should be used. Selection and use of respiratory equipment must be in accordance with OSHA 1910.134 and good industrial hygiene practice.



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Product: 8263 PLUS

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Hand Protection: Impervious gloves such as rubber recommended.

Skin Protection: Wear standard protective clothing.

Eye Protection: Wear chemical splash goggles.

Hygiene Recommendations: If clothing is contaminated, remove clothing and thoroughly wash the affected area. Launder contaminated clothing before reuse. A safety shower and eyewash should be available in the work area.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Liquid
Appearance:	Opaque White
Odor:	Slight
Specific Gravity:	1.34 - 1.48 @ 77°F / 25°C
Density:	11.4 - 12.3 lbs/gal.
Solubility In Water:	Dispersible
pH (100%):	10
Viscosity:	1,500 - 3,500 cps @ 77°F / 25°C
Freeze Point:	29°F / -1/7°C
Vapor Pressure:	Same as Water
VOC Content:	0.506%

Note: These physical properties are typical values for this product and are subject to change..

SECTION 10 - STABILITY AND REACTIVITY

Stability: Stable under normal conditions.

Hazardous Polymerization: Hazardous polymerization will not occur.

Conditions to Avoid: Freezing temperatures.

Materials to Avoid: Contact with strong acids (e.g., sulfuric, phosphoric, nitric, hydrochloric, chromic, sulfonic) may generate heat, splattering or boiling and toxic vapors.

Hazardous Decomposition Products: Under fire conditions - none known. Heating above 1700°C (3092°F) will generate magnesium oxide fumes.

SECTION 11 - TOXICOLOGICAL INFORMATION

Toxicity Studies: No toxicity studies have been conducted on this product.

Magnesium Hydroxide: Oral LD50 rat 8500 mg/kg.

Carcinogenicity: None of the substances in this product are listed as carcinogens by the International Agency for Research on Cancer (IARC), the National Toxicology Program (NTP), the Occupational Safety and Health Administration (OSHA) or the American Conference of Governmental Industrial Hygienists (ACGIH).

SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicological Effects: No toxicity studies have been conducted on this product.

If released into the environment, see CERCLE/SUPERFUND in Section 15.

**MATERIAL SAFETY DATA SHEET****Product: 8263 PLUS**

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SECTION 13 - DISPOSAL CONSIDERATIONS

If this product becomes a waste, it is not a hazardous waste as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261, since it does not have the characteristics of Subpart C, nor is it listed under Subpart D.

As a non-hazardous liquid waste, it is not subject to federal regulation. Consult state or local regulation for any additional handling, treatment, or disposal requirements. For disposal, contact a properly licensed waste treatment, storage, disposal, or recycling facility.

SECTION 14 - TRANSPORTATION INFORMATION

The information in this section is for reference only and should not take the place of a shipping paper (bill of lading) specific to an order. Please note that the proper shipping name/hazard class may vary by packaging, properties, and mode of transportation. Typical proper shipping names for this product are as follows.

The presence of an RQ component (Reportable Quantity for U.S. EPA and DOT) in this product causes it to be regulated with an additional description of RQ for road, or as a class 9 for road and air, ONLY when the net weight in the package exceeds the calculated RQ for the product.

LAND TRANSPORT:

Proper Shipping Name:	Environmentally Hazardous Substance, Liquid, N.O.S.
Technical Name(s):	Diethanolamine
UN/ID No:	UN 3082
Hazard Class - Primary:	9
Packing Group:	III
Flash Point:	None
DOT Reportable Quantity (per package):	20,830 lbs
DOT RQ Component:	Diethanolamine

AIR TRANSPORT (ICAO/IATA):

Proper Shipping Name:	Environmentally Hazardous Substance, Liquid, N.O.S.
Technical Name(s):	Diethanolamine
UN/ID No:	UN 3082
Hazard Class - Primary:	9
Packing Group:	III
IATA Cargo Packing Instructions:	914
IATA Cargo Aircraft Limit:	No Limit (Max net quantity per package)

MARINE TRANSPORT (IMDG/IMO):

Proper Shipping Name:	Environmentally Hazardous Substance, Liquid, N.O.S.
Technical Name(s):	Diethanolamine
UN/ID No:	UN 3082
Hazard Class - Primary:	9
Packing Group:	III
Flash Point:	None
DOT Reportable Quantity (per package):	20,830 lbs
DOT RQ Component:	Diethanolamine



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SECTION 15 - REGULATORY INFORMATION

NATIONAL REGULATIONS, USA:

OSHA HAZARD COMMUNICATION RULE, 29 CFR 1910.1200:

Based on our hazard evaluation, the following substance in this product is hazardous and the reason is shown below.

Magnesium Hydroxide - Eye irritant, irritant

CERCLA/SUPERFUND, 40 CFR 117, 302:

If a reportable quantity of product is released, it requires notification to the National Response Center, Washington, D.C. (1.800.424.8802). This product contains the following Reportable Quantity (RQ) Substance. Also listed is the RQ for the product.

RQ Substance: Diethanolamine

RQ: 20,830 lbs

SARA/SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 (Title III) - SECTIONS 302, 311, 312 and 313:

SECTION 302 - EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355):

This product does not contain ingredients listed in Appendix A and B as an Extremely Hazardous Substance.

SECTIONS 311 and 312 - MATERIAL SAFETY DATA SHEET REQUIREMENTS (40 CFR 370):

Our hazard evaluation has found this product to be hazardous. The product should be reported under the following EPA hazard categories:

- XX Immediate (acute) health hazard
- Delayed (chronic) health hazard
- Fire hazard
- Sudden release of pressure hazard
- Reactive hazard

Under SARA 311 and 312, the EPA has established threshold quantities for the reporting of hazardous chemicals. The current thresholds are: 500 pounds or the threshold planning quantity (TPQ), whichever is lower, for extremely hazardous substances and 10,000 pounds for all other hazardous chemicals.

SECTION 313 - LIST OF TOXIC CHEMICALS (40 CFR 372):

This product does not contain ingredients on the List of Toxic Chemicals.

TOXIC SUBSTANCES CONTROL ACT (TSCA):

The substances in this preparation are included on or exempted from the TSCA 8(b) Inventory List (40 CFR 710).

FEDERAL WATER POLLUTION CONTROL ACT, CLEAN WATER ACT, 40 CFR 401.15 (Formerly Sec. 307), 40 CFR 116 (Formerly Sec. 311):

None of the ingredients are specifically listed in this regulation.

CLEAN AIR ACT, SEC. 111 (40 CFR 60, Volatile Organic Compounds), SEC. 112 (40 CFR 61, Hazardous Air Pollutants), SEC. 602 (40 CFR 82, Class I And II Ozone Depleting Substances):

None of the substances are specifically listed in the regulation.



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CALIFORNIA PROPOSITION 65:

This product does not contain any chemicals which require warning under California Proposition 65.

MICHIGAN CRITICAL MATERIALS:

None of the substances are specifically listed in the regulation.

STATE RIGHT TO KNOW LAWS:

None of the substances are specifically listed in the regulation.

NATIONAL REGULATIONS, CANADA:

WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM (WHMIS):

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

WHMIS CLASSIFICATION:

D2B - Materials Causing Toxic Effects - Toxic Material

CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA):

The substances in this preparation are listed on the Domestic Substances List (DSL), are exempt, or have been reported in accordance with the New Substances Notification Regulations.

EUROPE:

EUROPEAN INVENTORY OF COMMERCIAL CHEMICAL SUBSTANCES:

All of the components of this product are listed on the EINECS inventory.

EU PREPARATION CLASSIFICATION (1999/45/EC): Irritant (Xi)

EU RISK AND SAFETY PHRASES: R36/37/37, S24/25, S26, S60

SECTION 16 - OTHER INFORMATION

Xi	Irritant
Xn	Harmful
R22	Harmful if Swallowed
R36/37/38	Irritating to Eyes, Respiratory System and Skin
R38	Irritating to Skin
R41	Risk of Serious Damage to Eyes
R48/22	Harmful: Danger of Serious Damage to Health by Prolonged Exposure if Swallowed/
S24/25	Avoid Contact with Skin and Eyes
S26	In case of Contact with Eyes, Rinse Immediately with Plenty of Water & Seek Medical Attention
S60	This Material and/or its Container Must be Disposed of as Hazardous Waste



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This product material safety data sheet provides health and safety information. The product is to be used in applications consistent with our product literature. Individuals handling this product should be informed of the recommended safety precautions and should have access to this information. For any other uses, exposures should be evaluated so that appropriate handling practices and training programs can be established to insure safe workplace operations. Please consult your local sales representative for any further information.

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SECTION 17 - REFERENCES

2004 Guide to Occupational Exposure Values, American Conference of Governmental Industrial Hygienists, Cincinnati, OH

Hazardous Substances Data Bank, National Library of Medicine, Bethesda, MD

IARC Monographs on the Evaluation of the Carcinogenic Risk of Chemicals to Man, Geneva: World Health Organization, International Agency for Research on Cancer.

Integrated Risk Information System, U.S. Environmental Protection Agency, Washington, D.C

Annual Report on Carcinogens, National Toxicology Program, U.S. Department of Health and Human Services, Public Health Service.

ChemIDPlus, National Library of Medicine, Bethesda, MD

Safety and Health, Hamilton, ON, Canada

Consolidated List of Chemicals Subject to the Emergency Planning and Community Right-to-Know Act (EPCRA) and Section 112(R) of the Clean Air Act, U.S. Environmental Protection Agency, Washington, D.C.

Quick Selection Guide to Chemical Protective Clothing, Second Edition, Mansdorf & Associates, Stow, OH

SafeMix© 2000, Safeware Quasar Ltd., Nottingham, England

Table 1 - Register of Critical Materials, Department of Environmental Quality, Official State of Michigan Website.

California Proposition 65 List, California Environmental Protection Agency, Office of Environmental Health Hazard Assessment (OEHHA), Chemicals Listed Effective June 11, 2004.

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