

HEXPOL Compounding

MATERIAL SAFETY DATA SHEET

STAN-MAG MBZ

Version Number 1.3
Revision Date 07/28/2011

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1. PRODUCT AND COMPANY IDENTIFICATION

HEXPOL Compounding
14330 Kinsman Road, Burton, OH 44021

Telephone : Product Stewardship (440) 834-4644
Emergency telephone : CHEMTREC 1-800-424-9300 (24hrs for spill, leak, fire, exposure or accident).

Product name : STAN-MAG MBZ
Product code : AD0000056860
Chemical Name : Mixture
CAS-No. : Mixture
Product Use : Industrial Applications

2. COMPOSITION/INFORMATION ON REGULATED INGREDIENTS

| Components | CAS-No. | Weight percent |
|--|------------|----------------|
| Petroleum distillates, hydrotreated heavy naphthenic | 64742-52-5 | 10 - 30 |
| Zinc oxide | 1314-13-2 | 10 - 30 |
| Magnesium oxide | 1309-48-4 | 30 - 60 |

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Magnesium Oxide will react with water generating heat. If contact with water is unavoidable, use sufficient water to dissipate any excessive heat buildup. Exposed, unprotected magnesium oxide will absorb moisture and carbon dioxide from the air. This mixture has not been evaluated as a whole for health effects. Information provided on health effects of this product is based on the individual components. In addition, heating or processing this material may result in product degradation or byproduct formation creating additional hazards. See Sections 8 and 11 for additional details.

POTENTIAL HEALTH EFFECTS

Routes of Exposure: : Inhalation, Skin contact, Ingestion

Acute exposure

Inhalation : Irritating to respiratory system.
Ingestion : May be harmful if swallowed.
Eyes : Particulates, like other inert materials can be mechanically irritating.
Skin : Experience shows no unusual dermatitis hazard from routine handling.

Chronic exposure : Refer to Section 11 for Toxicological Information.

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Medical Conditions : None known.
Aggravated by Exposure:

4. FIRST AID MEASURES

Inhalation : Move to fresh air. When symptoms persist or in all cases of doubt seek medical advice.

Ingestion : Seek medical attention if necessary. Do not induce vomiting without medical advice.

Eyes : Rinse immediately with plenty of water for at least 15 minutes. If eye irritation persists, seek medical attention.

Skin : Wash off with soap and plenty of water.

5. FIRE-FIGHTING MEASURES

Flash point : not applicable

Flammable Limits

- Upper explosion limit : not applicable
- Lower explosion limit : not applicable

Autoignition temperature : No data available

Suitable extinguishing media : Carbon dioxide blanket, Dry chemical, Foam.

Special Fire Fighting Procedures : Fullface self-contained breathing apparatus (SCBA) used in positive pressure mode should be worn to prevent inhalation of airborne contaminants.

Unusual Fire/Explosion Hazards : Magnesium Oxide will react with water generating heat. If contact with water is unavoidable, use sufficient water to dissipate any excessive heat buildup. Carbon dioxide (CO₂), carbon monoxide (CO), oxides of nitrogen (NO_x), other hazardous materials, and smoke are all possible.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions : Avoid breathing dust. Avoid dust formation. Ensure adequate ventilation. Wear appropriate personal protection during cleanup, such as impervious gloves, boots and coveralls.

Environmental precautions : Should not be released into the environment. The product should not be allowed to enter drains, water courses or the soil.

Methods for cleaning up : Clean up promptly by sweeping or vacuum. Do not create a powder cloud by using a brush or compressed air. Shovel into suitable container for disposal. Refer to Section 13 of this MSDS for proper disposal methods.

7. HANDLING AND STORAGE

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- Handling : Provide for appropriate exhaust ventilation and dust collection at machinery. Avoid dust formation.
- Storage : Store in a cool dry place. Do not allow water to get inside containers; reaction with water will cause product to swell, generate heat and possibly burst containers. Exposed, unprotected magnesium oxide will absorb moisture and carbon dioxide from the air.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

- Respiratory protection : When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Employees using respirators must be properly trained. Employers must follow applicable regulations such as OSHA 29 CFR 1910.134.
- Eye/Face Protection : Safety glasses with side-shields
- Hand protection : Protective gloves. Refer to equipment supplier to ensure protection.
- Skin and body protection : Long sleeved clothing
- Additional Protective Measures : Safety shoes
- General Hygiene Considerations : Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and immediately after handling the product.
- Engineering measures : Adequate ventilation and/or appropriate respiratory protection may also be necessary to minimize employee exposure to processing vapors.

Exposure limit(s)

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| Components | Value | Exposure time | Exposure type | List: |
|--|-----------------------------------|---|----------------------|----------|
| Magnesium oxide | 10 mg/m3 | Time Weighted Average (TWA): | Inhalable fraction. | ACGIH |
| | 15 mg/m3 | PEL: | Total particulate. | OSHA Z1 |
| | 10 mg/m3 | Time Weighted Average (TWA): | Total particulate. | OSHA Z1A |
| | 10 mg/m3 | Time Weighted Average (TWA): | Fume. as Mg | MX OEL |
| | | PEL: | | OSHA Z1 |
| Petroleum distillates, hydrotreated heavy naphthenic | 500 ppm 2,000 mg/m3 | | | OSHA Z1 |
| Zinc oxide | 2 mg/m3 | Time Weighted Average (TWA): | Respirable fraction. | ACGIH |
| | 10 mg/m3 | Short Term Exposure Limit (STEL): | Respirable fraction. | ACGIH |
| | 5 mg/m3 | Recommended exposure limit (REL): | Fume. | NIOSH |
| | 5 mg/m3 | Recommended exposure limit (REL): | Dust. | NIOSH |
| | 15 mg/m3 | Ceiling Limit Value and Time Period (if specified): | Dust. | NIOSH |
| | 10 mg/m3 | Short Term Exposure Limit (STEL): | Fume. | NIOSH |
| | 5 mg/m3 | PEL: | Fume. | OSHA Z1 |
| | 5 mg/m3 | PEL: | Respirable fraction. | OSHA Z1 |
| | 15 mg/m3 | PEL: | Total dust. | OSHA Z1 |
| | 5 mg/m3 | Time Weighted Average (TWA): | Fume. | OSHA Z1A |
| | 5 mg/m3 | Time Weighted Average (TWA): | Respirable fraction. | OSHA Z1A |
| | 10 mg/m3 | Time Weighted Average (TWA): | Total dust. | OSHA Z1A |
| | 10 mg/m3 | Short Term Exposure Limit (STEL): | Fume. | OSHA Z1A |
| | 5 mg/m3 | Time Weighted Average (TWA): | Fume. | MX OEL |
| 10 mg/m3 | Time Weighted Average (TWA): | Dust. | MX OEL | |
| 10 mg/m3 | Short Term Exposure Limit (STEL): | Fume. | MX OEL | |

9. PHYSICAL AND CHEMICAL PROPERTIES

| | | | |
|---------------------|------------------|------------------|------------------|
| Form | : Solid | Evaporation rate | : Not applicable |
| Appearance | : Bar | Specific Gravity | : Not determined |
| Color | : NO PIGMENT | Bulk density | : Not determined |
| Odour | : Very faint | Vapour pressure | : Not applicable |
| Melting point/range | : not applicable | Vapour density | : not applicable |
| Boiling Point: | : Not applicable | pH | : not applicable |

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Water solubility : negligible

10. STABILITY AND REACTIVITY

- Stability : Stable.
- Hazardous Polymerization : Will not occur.
- Conditions to avoid : Magnesium Oxide will react with water generating heat. If contact with water is unavoidable, use sufficient water to dissipate any excessive heat buildup. Exposed, unprotected magnesium oxide will absorb moisture and carbon dioxide from the air.
- Incompatible Materials : Strong acids and oxidizing agents, Magnesium oxide reacts with water and aqueous acids generating heat and steam. Violent reaction or ignition with interhalogens (e.g., bromine pentafluoride; chlorine trifluoride). Incandescent reaction with phosphorus pentachloride.
- Hazardous decomposition products : Carbon dioxide (CO₂), carbon monoxide (CO), oxides of nitrogen (NO_x), other hazardous materials, and smoke are all possible.

11. TOXICOLOGICAL INFORMATION

This mixture has not been evaluated as a whole for health effects. Exposure effects listed are based on existing health data for the individual components which comprise the mixture.

Toxicity Overview

This product contains the following components which in their pure form have the following characteristics:

| CAS-No. | Chemical Name | Effect | Target Organ |
|------------|--|------------------|---------------------------------|
| 64742-52-5 | Petroleum distillates, hydrotreated heavy naphthenic | Irritant | Eyes, Skin. |
| 1314-13-2 | Zinc oxide | Systemic effects | Respiratory system. |
| 1309-48-4 | Magnesium oxide | Systemic effects | Eyes, Respiratory system. |
| | | Irritant | Eyes, Skin, Respiratory system. |

LC50 / LD50

This product contains the following components which, in their pure form, have the following toxicity data:

| CAS-No. | Chemical Name | Route | Value | Species |
|-----------|-----------------|-----------|------------------------|---------|
| 1314-13-2 | Zinc oxide | LC50 | 2500 mg/m ³ | mouse |
| | | LC50 | | mouse |
| | | Oral LD50 | 7,950 mg/kg | mouse |
| | | Oral LD50 | 7,950 mg/kg | mouse |
| 1309-48-4 | Magnesium oxide | Oral LD50 | 810 mg/kg | mouse |

12. ECOLOGICAL INFORMATION

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Persistence and degradability : No data available
Environmental Toxicity : No data available
Bioaccumulation Potential : No data available
Additional advice : No data available

13. DISPOSAL CONSIDERATIONS

Product : Where possible recycling is preferred to disposal or incineration. The generator of waste material has the responsibility for proper waste classification, transportation and disposal in accordance with applicable federal, state/provincial and local regulations.

Contaminated packaging : Recycling is preferred when possible. The generator of waste material has the responsibility for proper waste classification, transportation and disposal in accordance with applicable federal, state/provincial and local regulations.

14. TRANSPORT INFORMATION

U.S. DOT Classification : Not regulated for transportation.
ICAO/IATA (air) : Not regulated for transportation.
IMO / IMDG (maritime) : Not regulated for transportation.

15. REGULATORY INFORMATION

US Regulations:

OSHA Status : Classified as hazardous based on components.
TSCA Status : All components of this product are listed on or exempt from the TSCA Inventory.

US. EPA CERCLA Hazardous Substances (40 CFR 302)

not applicable

California Proposition : Not applicable

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SARA Title III Section 302 Extremely Hazardous Substance

Unless specific chemicals are identified under this section, this product is Not Applicable under this regulation

SARA Title III Section 313 Toxic Chemicals:

Unless specific chemicals are identified under this section, this product is Not Applicable under this regulation

| Chemical Name | CAS-No. | Weight percent |
|----------------|-----------|----------------|
| ZINC COMPOUNDS | 1314-13-2 | 10.00 - 30.00 |

Canadian Regulations:

National Pollutant Release Inventory (NPRI)

| Chemical Name | CAS-No. | Weight percent | NPRI ID# |
|---------------|-----------|----------------|----------|
| Zinc oxide | 1314-13-2 | 10.00 - 30.00 | |

WHMIS Classification : D2B

WHMIS Ingredient Disclosure List

| CAS-No. |
|-----------|
| 1309-48-4 |
| 1314-13-2 |

DSL : All components of this product are on the Canadian Domestic Substances List (DSL) or are exempt.

National Inventories:

Australia AICS : Listed
China IECS : Listed
Europe EINECS : Listed
Japan ENCS : Not determined
Korea KECI : Listed
Philippines PICCS : Listed

16. OTHER INFORMATION

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing,

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storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.