



Safety Data Sheet

Chemurgic's Magnesium 4 Ligno +

SDS Revision Date: 02/24/2015

1. Identification

1.1. Product identifier

Product Identity Chemurgic's Magnesium 4 Ligno +
Alternate Names Common Name: Fertilizing compound, liquid.
Chemical Description: Magnesium lignosulfonate complex, aqueous solution.

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use See Technical Data Sheet.
Application Method See Technical Data Sheet.

1.3. Details of the supplier of the safety data sheet

Company Name Chemurgic Agricultural Chemicals, Inc.
P.O. Box 2106
Turlock, CA 95381

Customer Service:
Chemurgic Agricultural Chemicals, Inc. DAYS: (209) 634-2951
EVES: (209) 652-7260

24-Hour Emergency Telephone Number INFOTRAC: 1-800-535-5053
EPA National Response Center: (800) 424-8802

2. Hazard(s) identification

2.1. Classification of the substance or mixture

No applicable GHS categories.

2.2. Label elements

Using the Toxicity Data listed in section 11 and 12 the product is labeled as follows.

No applicable GHS categories.

[Prevention]:

No GHS prevention statements

[Response]:

No GHS response statements

[Storage]:

No GHS storage statements

[Disposal]:

No GHS disposal statements

Safety Data Sheet

Chemurgic's Magnesium 4 Ligno +

SDS Revision Date: 02/24/2015

3. Composition/information on ingredients

This product contains the following substances that present a hazard within the meaning of the relevant State and Federal Hazardous Substances regulations.

| Ingredient/Chemical Designations | Weight % | GHS Classification | Notes |
|---|----------|--------------------|-------|
| Magnesium sulfate heptahydrate CAS Number: 0010034-99-8 | 1.0 - 10 | Not Classified | [1] |
| Lignosulfonic acid, sodium salt CAS Number: 0008061-51-6 | 1.0 - 10 | Not Classified | [1] |

[1] Substance classified with a health or environmental hazard.

[2] Substance with a workplace exposure limit.

[3] PBT-substance or vPvB-substance.

*The full texts of the phrases are shown in Section 16.

4. First aid measures

4.1. Description of first aid measures

| | |
|-------------------|---|
| General | In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person. |
| Inhalation | Remove to fresh air, keep patient warm and at rest. If breathing is irregular or stopped, give artificial respiration. If unconscious place in the recovery position and obtain immediate medical attention. Give nothing by mouth. |
| Eyes | Irrigate copiously with clean water for at least 15 minutes, holding the eyelids apart and seek medical attention. |
| Skin | Remove contaminated clothing. Wash skin thoroughly with soap and water or use a recognized skin cleanser. |
| Ingestion | If conscious and alert, drink water or milk to dilute, then induce vomiting. Call a physician or Poison Control Center immediately. |

4.2. Most important symptoms and effects, both acute and delayed

| | |
|-----------------|---|
| Overview | Eyes: Mild irritant. May cause redness. Skin: Mild irritant, especially from prolonged exposure. May cause redness. Ingestion: May cause stomach cramps and/or nausea. Inhalation: None expected but inhalation of aerosol mist may cause mild irritation of nasal mucous membranes. |
|-----------------|---|

5. Fire-fighting measures

5.1. Extinguishing media

As appropriate for surrounding fire.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition: Thermal degradation at high temperatures above 575 C (1067 F) may produce sulfur trioxide.

5.3. Advice for fire-fighters

Safety Data Sheet

Chemurgic's Magnesium 4 Ligno +

SDS Revision Date: 02/24/2015

Wear positive pressure, self-contained breathing apparatus and goggles. Contain any liquid runoff.

ERG Guide No. ----

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Put on appropriate personal protective equipment (see section 8).

6.2. Environmental precautions

Do not allow spills to enter drains or waterways.

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

6.3. Methods and material for containment and cleaning up

Prevent product spillage from entering drinking water supplies or streams. Collect liquid or absorb onto absorbent material and package for disposal.

7. Handling and storage

7.1. Precautions for safe handling

Transfer products using chemical-resistant plastic or stainless steel tanks, pumps, valves, etc. Avoid contact with eyes, skin and clothing. Avoid inhalation of spray mists. Wash thoroughly with water after handling.

7.2. Conditions for safe storage, including any incompatibilities

Handle containers carefully to prevent damage and spillage.

Incompatible materials: Contact with brass or strong oxidizing agents.

Store in plastic or stainless steel container in a cool, well-ventilated, dry place at temperatures above 40 F. Do not store in contact with brass. Do not store near food or feeds. Do not stack pallets more than two high. Keep out of reach of children.

7.3. Specific end use(s)

No data available.

8. Exposure controls and personal protection

8.1. Control parameters

Exposure

| CAS No. | Ingredient | Source | Value |
|--------------|---------------------------------|----------|----------------------|
| 0008061-51-6 | Lignosulfonic acid, sodium salt | OSHA | No Established Limit |
| | | ACGIH | No Established Limit |
| | | NIOSH | No Established Limit |
| | | Supplier | No Established Limit |
| 0010034-99-8 | Magnesium sulfate heptahydrate | OSHA | No Established Limit |
| | | ACGIH | No Established Limit |

Safety Data Sheet

Chemurgic's Magnesium 4 Ligno +

SDS Revision Date: 02/24/2015

| | | | |
|--|--|----------|----------------------|
| | | NIOSH | No Established Limit |
| | | Supplier | No Established Limit |

Carcinogen Data

| CAS No. | Ingredient | Source | Value |
|--------------|---------------------------------|--------|--|
| 0008061-51-6 | Lignosulfonic acid, sodium salt | OSHA | Select Carcinogen: No |
| | | NTP | Known: No; Suspected: No |
| | | IARC | Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No; |
| 0010034-99-8 | Magnesium sulfate heptahydrate | OSHA | Select Carcinogen: No |
| | | NTP | Known: No; Suspected: No |
| | | IARC | Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No; |

8.2. Exposure controls

Respiratory

If workers are exposed to concentrations above the exposure limit they must use the appropriate, certified respirators.

Eyes

Chemical dust/splash goggles or full-face shield to prevent eye contact. As a general rule, do not wear contact lenses when handling.

Skin

Impervious gloves and clothes.

Engineering Controls

Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and any vapor below occupational exposure limits suitable respiratory protection must be worn.

Other Work Practices

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

9. Physical and chemical properties

Appearance

Dark Brown Liquid

Odor

Slight lignin odor

Odor threshold

Not Measured

pH

Not Measured

Melting point / freezing point

Not Measured

Initial boiling point and boiling range

Not Measured

Flash Point

> 200 F (ASTM D-56)

Evaporation rate (Ether = 1)

Same as water

Flammability (solid, gas)

Not Applicable

Upper/lower flammability or explosive limits

Lower Explosive Limit: Not Measured

Upper Explosive Limit: Not Measured

Vapor pressure (Pa)

760 mmHg

Vapor Density

< 1.0

Specific Gravity

Not Measured

Safety Data Sheet

Chemurgic's Magnesium 4 Ligno +

SDS Revision Date: 02/24/2015

| | |
|--|--------------|
| Solubility in Water | Complete |
| Partition coefficient n-octanol/water (Log Kow) | Not Measured |
| Auto-ignition temperature | Not Measured |
| Decomposition temperature | Not Measured |
| Viscosity (cSt) | Not Measured |
| Density | 9.9 lbs/gal |

9.2. Other information

No other relevant information.

10. Stability and reactivity

10.1. Reactivity

Hazardous Polymerization will not occur.

10.2. Chemical stability

Stable under normal circumstances.

10.3. Possibility of hazardous reactions

No data available.

10.4. Conditions to avoid

No data available.

10.5. Incompatible materials

Contact with brass or strong oxidizing agents.

10.6. Hazardous decomposition products

Thermal degradation at high temperatures above 575 C (1067 F) may produce sulfur trioxide.

11. Toxicological information

Acute toxicity

| Ingredient | Oral LD50, mg/kg | Skin LD50, mg/kg | Inhalation Vapor LD50, mg/L/4hr | Inhalation Dust/Mist LD50, mg/L/4hr | Inhalation Gas LD50, ppm |
|---|----------------------|----------------------|---------------------------------------|---|--------------------------------|
| Magnesium sulfate heptahydrate - (10034-99-8) | No data available | No data available | No data available | No data available | No data available |
| Lignosulfonic acid, sodium salt - (8061-51-6) | No data available | No data available | No data available | No data available | No data available |

Note: When no route specific LD50 data is available for an acute toxin, the converted acute toxicity point estimate was used in the calculation of the product's ATE (Acute Toxicity Estimate).

Safety Data Sheet

Chemurgic's Magnesium 4 Ligno +

SDS Revision Date: 02/24/2015

| Classification | Category | Hazard Description |
|-------------------------------|----------|--------------------|
| Acute toxicity (oral) | --- | Not Applicable |
| Acute toxicity (dermal) | --- | Not Applicable |
| Acute toxicity (inhalation) | --- | Not Applicable |
| Skin corrosion/irritation | --- | Not Applicable |
| Serious eye damage/irritation | --- | Not Applicable |
| Respiratory sensitization | --- | Not Applicable |
| Skin sensitization | --- | Not Applicable |
| Germ cell mutagenicity | --- | Not Applicable |
| Carcinogenicity | --- | Not Applicable |
| Reproductive toxicity | --- | Not Applicable |
| STOT-single exposure | --- | Not Applicable |
| STOT-repeated exposure | --- | Not Applicable |
| Aspiration hazard | --- | Not Applicable |

12. Ecological information

12.1. Toxicity

No additional information provided for this product. See Section 3 for chemical specific data.

Aquatic Ecotoxicity

| Ingredient | 96 hr LC50 fish, mg/l | 48 hr EC50 crustacea, mg/l | ErC50 algae, mg/l |
|---|-----------------------|----------------------------|-------------------|
| Magnesium sulfate heptahydrate - (10034-99-8) | Not Available | Not Available | Not Available |
| Lignosulfonic acid, sodium salt - (8061-51-6) | Not Available | Not Available | Not Available |

12.2. Persistence and degradability

There is no data available on the preparation itself.

12.3. Bioaccumulative potential

Not Measured

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

This product contains no PBT/vPvB chemicals.

12.6. Other adverse effects

No data available.

Safety Data Sheet

Chemurgic's Magnesium 4 Ligno +

SDS Revision Date: 02/24/2015

13. Disposal considerations

13.1. Waste treatment methods

Observe all federal, state and local regulations when disposing of this substance.

14. Transport information

| | DOT (Domestic Surface Transportation) | IMO / IMDG (Ocean Transportation) | ICAO/IATA |
|------------------------------------|---------------------------------------|---|---------------------------|
| 14.1. UN number | Not Applicable | Not Regulated | Not Regulated |
| 14.2. UN proper shipping name | Not Regulated | Not Regulated | Not Regulated |
| 14.3. Transport hazard class(es) | DOT Hazard Class: Not Applicable | IMDG: Not Applicable Sub Class: Not Applicable | Air Class: Not Applicable |
| 14.4. Packing group | Not Applicable | Not Applicable | Not Applicable |
| 14.5. Environmental hazards | | | |
| IMDG | Marine Pollutant: No | | |
| 14.6. Special precautions for user | No further information | | |

15. Regulatory information

| | |
|-------------------------------------|---|
| Regulatory Overview | The regulatory data in Section 15 is not intended to be all-inclusive, only selected regulations are represented. |
| Toxic Substance Control Act (TSCA) | All components of this material are either listed or exempt from listing on the TSCA Inventory. |
| WHMIS Classification | Not Regulated |
| US EPA Tier II Hazards | Fire: No Sudden Release of Pressure: No Reactive: No Immediate (Acute): No Delayed (Chronic): No |

EPCRA 311/312 Chemicals and RQs:

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

EPCRA 302 Extremely Hazardous:

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

EPCRA 313 Toxic Chemicals:

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Carcinogens (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Safety Data Sheet

Chemurgic's Magnesium 4 Ligno +

SDS Revision Date: 02/24/2015

Proposition 65 - Developmental Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Female Repro Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Male Repro Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

New Jersey RTK Substances (>1%) :

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Pennsylvania RTK Substances (>1%) :

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

16. Other information

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to our products. Customers/users of this product must comply with all applicable health and safety laws, regulations, and orders.

The full text of the phrases appearing in section 3 is: Not applicable

This is the first version in the GHS SDS format. Listings of changes from previous versions in other formats are not applicable.

While the information contained herein is based on data considered accurate and was compiled to comply with the Federal Hazard Communication Standard and the California Hazardous Substances Information and Training Act, it is provided for guidance only. Chemurgic Agricultural Chemicals, Inc. does not guarantee its accuracy or completeness. Health and safety precautions in this data sheet may not be adequate for all individuals and/or situations. It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulations; in so doing, user assumes all risk in use of the material. The information contained herein is not to be taken as a warranty or representation for which Chemurgic Agricultural Chemicals, Inc. assumes legal responsibility.

End of Document