Material Safety Data Sheet

Revision Date 03/10/2013
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1. PRODUCT AND COMPANY IDENTIFICATION

Product name: Magnesium nitrate hexahydrate
Product Number: D9005
Brand: Dando
Supplier: Dando Chemicals US LLC
Address: 551 E 11 Mile Rd Suite 3B, Madison Heights, MI 48071 USA.
Telephone: 248-629-9434
Emergency Phone #: (For both supplier and manufacturer): +1 (313) 520 1328
Email: info@dandochem.us
Preparation Information: Dando Chemicals US LLC

2. HAZARDS IDENTIFICATION

Emergency Overview

OSHA Hazards
Carcinogen, Target Organ Effect
Target Organs
Blood, Central nervous system

GHS Classification
Skin irritation (Category 3)
Eye irritation (Category 2B)

GHS Label elements, including precautionary statements
Pictogram none
Signal word Warning
Hazard statement(s)

H316 Causes mild skin irritation.

H320 Causes eye irritation.

Precautionary statement(s)

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

HMIS Classification

Health hazard : 0

Chronic Health Hazard : *

Flammability : 0

Physical hazards : 0

NFPA Rating

Health hazard : 0

Fire : 0

Reactivity Hazard : 0

Potential Health Effects

Inhalation  May be harmful if inhaled. May cause respiratory tract irritation.

Skin  May be harmful if absorbed through skin. May cause skin irritation.

Eyes  May cause eye irritation.

Ingestion  May be harmful if swallowed.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Formula: MgN₂O₆ · 6H₂O

Molecular Weight: 256.41 g/mol

Component Concentration

Magnesium nitrate hexahydrate

CAS-No.

13446-18-9
4. FIRST AID MEASURES

General advice
Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

If inhaled
If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact
Wash off with soap and plenty of water. Consult a physician.

In case of eye contact
Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed
Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

5. FIREFIGHTING MEASURES

Conditions of flammability
Not flammable or combustible.

Suitable extinguishing media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special protective equipment for firefighters
Wear self contained breathing apparatus for fire fighting if necessary.

Hazardous combustion products
Hazardous decomposition products formed under fire conditions. - nitrogen oxides (NOx), Magnesium oxide

6. ACCIDENTAL RELEASE MEASURES

Personal precautions
Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas.

Ensure adequate ventilation. Avoid breathing dust.

**Environmental precautions**

Do not let product enter drains.

**Methods and materials for containment and cleaning up**

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

**Precautions for safe handling**

Avoid contact with skin and eyes. Avoid formation of dust and aerosols.

Provide appropriate exhaust ventilation at places where dust is formed.

**Conditions for safe storage**

Keep container tightly closed in a dry and well-ventilated place.

Handle and store under inert gas.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

**Personal protective equipment**

**Respiratory protection**

For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Hand protection**

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

**Immersion protection**

**Material:** Nitrile rubber

**Minimum layer thickness:** 0.11 mm

**Break through time:** > 480 min
Splash protection

**Material:** Nitrile rubber

**Minimum layer thickness:** 0.11 mm

**Break through time:** > 30 min

**test method:** EN374

test method:

EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an Industrial Hygienist familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Eye protection

Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin and body protection

Impervious clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form solid

Colour white

Safety data

pH 5 - 7 at 50 g/l at 20 °C (68 °F)

Melting

point/freezing point

Melting point/range: 89 °C (192 °F) - dec.

Boiling point 330 °C (626 °F)
Flash point no data available
Ignition temperature no data available
Autoignition temperature
no data available
Lower explosion limit no data available
Upper explosion limit no data available
Vapour pressure no data available
Density 1.636 g/cm³
Water solubility 420 g/l at 20 °C (68 °F)
Partition coefficient:
n-octanol/water
no data available
Relative vapour density
no data available
Odour odourless
Odour Threshold no data available
Evaporation rate no data available

10. STABILITY AND REACTIVITY

Chemical stability
Stable under recommended storage conditions.

Possibility of hazardous reactions
no data available

Conditions to avoid
Hygroscopic.

Materials to avoid
Strong reducing agents, Strong acids, Organic materials, Powdered metals, Dimethylformamide,
Combustible material

**Hazardous decomposition products**

Hazardous decomposition products formed under fire conditions. - nitrogen oxides (NOx),

Magnesium oxide

Other decomposition products - no data available

**11. TOXICOLOGICAL INFORMATION**

**Acute toxicity**

**Oral LD50**

LD50 Oral - rat - 5,440 mg/kg

**Inhalation LC50**

no data available

**Dermal LD50**

no data available

**Other information on acute toxicity**

no data available

**Skin corrosion/irritation**

Skin - rabbit - Mild skin irritation - 24 h

**Serious eye damage/eye irritation**

Eyes - rabbit - Mild eye irritation - 24 h

**Respiratory or skin sensitization**

no data available

**Germ cell mutagenicity**

no data available

**Carcinogenicity**

IARC: 2A - Group 2A: Probably carcinogenic to humans (Magnesium nitrate hexahydrate)

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or
anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity
no data available

Teratogenicity
no data available

Specific target organ toxicity - single exposure (Globally Harmonized System)
no data available

Specific target organ toxicity - repeated exposure (Globally Harmonized System)
no data available

Aspiration hazard
no data available

Potential health effects

Inhalation  May be harmful if inhaled. May cause respiratory tract irritation.

Ingestion  May be harmful if swallowed.

Skin  May be harmful if absorbed through skin. May cause skin irritation.

Eyes  May cause eye irritation.

Signs and Symptoms of Exposure
Absorption into the body leads to the formation of methemoglobin which in sufficient concentration causes cyanosis.

Onset may be delayed 2 to 4 hours or longer. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. Prolonged or repeated inhalation may cause: May be harmful. Local irritation. Effects due to ingestion may include: Nausea, Vomiting. Exposure to large amounts can cause: tiredness, Methaemoglobinemia, Headache, cardiac dysrhythmias, drop in blood pressure, Spasmic reactions. May cause cyanosis.

Synergistic effects
no data available

Additional Information

RTECS: OM3756000
12. ECOLOGICAL INFORMATION

Toxicity
no data available

Persistence and degradability
no data available

Bioaccumulative potential
no data available

Mobility in soil
no data available

PBT and vPvB assessment
no data available

Other adverse effects
no data available

13. DISPOSAL CONSIDERATIONS

Product
Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Contaminated packaging
Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (US)
Not dangerous goods

IMDG
Not dangerous goods

IATA
Not dangerous goods

15. REGULATORY INFORMATION

OSHA Hazards
Carcinogen, Target Organ Effect

**SARA 302 Components**

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 313 Components**

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

**SARA 311/312 Hazards**

Chronic Health Hazard

**Massachusetts Right To Know Components**

Magnesium nitrate hexahydrate

CAS-No.

13446-18-9

Revision Date

2007-03-01

**Pennsylvania Right To Know Components**

Magnesium nitrate hexahydrate

CAS-No.

13446-18-9

Revision Date

2007-03-01

**New Jersey Right To Know Components**

Magnesium nitrate hexahydrate

CAS-No.

13446-18-9

Revision Date

2007-03-01
California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

16. OTHER INFORMATION

Further information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Dando Chemicals and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product.