

Date 19.06.2012

**MSDS of Magnesium Ethoxide**  
**Material Safety Data Sheet**

**1. COMPOSITION/INFORMATION ON INGREDIENTS**

Product name: Magnesium Ethoxide

Formula:  $C_4H_{10}MgO_2$

Molecular weight: 114.426

Name of Chemical: Magnesium Ethoxide

Content: 96% — 99%

CAS No: 2414-98-4

Ethanol:  $\leq 0.5$  — 0.18%

**2. FIRST AID MEASURES**

**General advice**

Consult a physician. Show this safety data sheet to the doctor in attendance.

**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.

**3. FIRE-FIGHTING MEASURES**

**Suitable extinguishing media**

Carbon dioxide (CO<sub>2</sub>) Dry powder

**Special protective equipment for fire-fighters**

Wear self contained breathing apparatus for fire- fighting if necessary.

Sitz der Gesellschaft ist Essen

Registergericht

Amtsgericht Essen

Handelsregister B 19474

UST-ID Nr. DE 811160003

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#### **4. ACCIDENTAL RELEASE MEASURES**

##### **Personal precautions**

Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

##### **Environmental precautions**

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the Environment must be avoided.

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

Sweep up and shovel. Contain spillage, and then collect with an electrically protected vacuum cleaner or by  
Wet-brushing and place in container for disposal according to local regulations (see section 13). Do not flush with water. Keep in suitable, closed containers for disposal.

#### **5. 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. Keep away from sources of ignition - No smoking.

##### **Conditions for safe storage**

Keep container tightly closed in a dry and well-ventilated place.  
Store in cool place. Never allow product to get in contact with water during storage. Moisture sensitive.

#### **6. EXPOSURE CONTROLS/PERSONAL PROTECTION**

##### **Personal protective equipment**

##### **Respiratory protection**

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the Respirator is the sole means of protection; use a full-face supplied air respirator. Use respirators and Components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

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#### **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. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the Standard EN 374 derived from it.

#### **Eye protection**

Face shield and safety glasses 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, Flame retardant protective 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.

### **7. PHYSICAL AND CHEMICAL PROPERTIES**

#### **Appearance**

**Form:** granular

**Color:** light grey

### **8. STABILITY AND REACTIVITY**

#### **Chemical stability**

Stable under recommended storage conditions

#### **Possibility of hazardous reactions**

Reacts violently with water.

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**Conditions to avoid**

Do not allow water to enter container because of violent reaction.  
Exposure to moisture.

**Materials to avoid**

Strong acids

**Hazardous decomposition products**

Hazardous decomposition products formed under fire conditions.  
Carbon oxides, Magnesium oxide.

**9. TOXICOLOGICAL INFORMATION****Acute toxicity**

LD50 Oral - rat - > 3.160 mg/kg

**Carcinogenicity**

IARC: No component of this product presents at levels greater than or equal to 0.1% is identified as Probable, possible or confirmed human carcinogen by IARC.

**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:** Causes serious eye irritation.

**Signs and Symptoms of Exposure**

Cough, Shortness of breath, Headache, Nausea, Vomiting, To the best of our knowledge, the chemical, Physical, and toxicological properties have not been thoroughly investigated.

**10. ECOLOGICAL INFORMATION****Toxicity**

Toxicity to fish LC50 - Cyprinus carpio (Carp) - 422 mg/l - 96 h

Toxicity to daphnia EC50 - Daphnia magna (Water flea) - 33 mg/l - 48 h  
and other aquatic invertebrates.

Toxicity to algae EC50-Desmodesmus subspicatus (green algae) - 975 mg/l - 72 h

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## **11. DISPOSAL CONSIDERATIONS**

### **Product**

Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company.  
Contact a licensed professional waste disposal service to dispose of this material.

## **12. TRANSPORT INFORMATION**

**Domestic:** load (D.O.T)                      **International:** by sea (N. O.S)

**UN Code:** 3205                                  **Danger grade:** Grade 4.2

## **13. OTHER INFORMATION**

### **Text of H-code(s) and R-phrases mentioned in Section 3**

EUH014:	Reacts violently with water.
Eye Irrit:	Eye irritation.
H251:	Self-heating; may catch fire.
H319:	Causes serious eye irritation.
Self-heat:	Self-heating substances.
F:	Highly flammable.
Xi:	Irritant.
R11:	Highly flammable.
R14:	Reacts violently with water.
R36:	Irritating to eyes.