

## Material Safety Data Sheet

Version 3.2  
Revision Date 11/19/2007  
Print Date 03/31/2009

## 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : N-Ethylmaleimide  
 Product Number : E3876  
 Brand : Sigma-Aldrich  
 Company : Sigma-Aldrich  
 3050 Spruce Street  
 SAINT LOUIS MO 63103  
 USA  
 Telephone : +1 800-325-5832  
 Fax : +1 800-325-5052  
 Emergency Phone # : (314) 776-6555

## 2. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms : NEM  
 Formula : C<sub>6</sub>H<sub>7</sub>NO<sub>2</sub>  
 Molecular Weight : 125.13 g/mol

CAS-No.	EC-No.	Index-No.	Concentration
N-Ethylmaleimide 128-53-0	204-892-4	-	-

## 3. HAZARDS IDENTIFICATION

**Emergency Overview**  
**OSHA Hazards**  
 Highly toxic by ingestion  
 Toxic by skin absorption  
 Skin sensitizer  
 Corrosive

**HMIS Classification**  
 Health Hazard: 3  
 Flammability: 2  
 Physical hazards: 1

**NFPA Rating**  
 Health Hazard: 3  
 Fire : 2  
 Reactivity Hazard: 1

**Potential Health Effects**

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<b>Inhalation</b>	May be harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.
<b>Skin</b>	Toxic if absorbed through skin. Causes skin burns. May be fatal if absorbed through skin.
<b>Eyes</b>	Causes eye burns.
<b>Ingestion</b>	May be fatal if swallowed. Causes burns.

## 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**  
 Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician.

**In case of eye contact**  
 Continue rinsing eyes during transport to hospital. Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

**If swallowed**  
 Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

## 5. FIRE-FIGHTING MEASURES

**Flammable properties**  
 Flash point 73 °C (163 °F) - closed cup  
 Ignition temperature no data available  
**Suitable extinguishing media**  
 Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**Special protective equipment for fire-fighters**  
 Wear self contained breathing apparatus for fire fighting if necessary.

## 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions**  
 Use personal protective equipment. Avoid dust formation. Avoid breathing dust. Ensure adequate ventilation. Evacuate personnel to safe areas.

**Environmental precautions**  
 Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

**Methods for cleaning up**  
 Pick up and arrange disposal without creating dust. Keep in suitable, closed containers for disposal.

## 7. HANDLING AND STORAGE

**Handling**  
 Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.

**Storage**  
 Keep container tightly closed in a dry and well-ventilated place. Recommended storage temperature: 2 - 8 °C  
 Light sensitive.

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## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

### Personal protective equipment

#### Respiratory protection

Where risk assessment shows 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. Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N99 (US) or type P2 (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).

#### Hand protection

Handle with gloves.

#### Eye protection

Safety glasses

#### Skin and body protection

Choose body protection according to the amount and concentration of the dangerous substance at the work place.

#### Hygiene measures

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Appearance

Form crystalline  
Colour colourless

### Safety data

pH no data available  
Melting point 44 °C (111 °F)  
Boiling point 210 °C (410 °F) at 1,013 hPa (760 mmHg)  
Flash point 73 °C (163 °F) - closed cup  
Ignition temperature no data available  
Lower explosion limit no data available  
Upper explosion limit no data available  
Water solubility no data available

## 10. STABILITY AND REACTIVITY

### Storage stability

Stable under recommended storage conditions. May discolor on exposure to light.

### Materials to avoid

Strong oxidizing agents, Strong acids, Strong bases

### Hazardous decomposition products

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

## 11. TOXICOLOGICAL INFORMATION

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### Acute toxicity

LD50 Oral - rat - 25 mg/kg

Remarks: Behavioral:Somnolence (general depressed activity). Behavioral:Convulsions or effect on seizure threshold.

LD50 Dermal - guinea pig - 500 mg/kg

### Irritation and corrosion

no data available

### Sensitisation

May cause sensitization by skin contact.

### Chronic exposure

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

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.

### Potential Health Effects

<b>Inhalation</b>	May be harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.
<b>Skin</b>	Toxic if absorbed through skin. Causes skin burns. May be fatal if absorbed through skin.
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## 12. ECOLOGICAL INFORMATION

### Elimination information (persistence and degradability)

no data available

### Ecotoxicity effects

no data available

### Further information on ecology

no data available

## 13. DISPOSAL CONSIDERATIONS

### Product

Observe all federal, state, and local environmental regulations. 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)

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