An ISO9001 Certified Company

# Material Safety Data Sheet
# Sulfanilamide/N-Naphthyl-ethylenediamine Dihydrochloride, Color Reagent for Nitrogen (Nitrate)

## Section 1 - Chemical Product and Company Identification

**MSDS Name:**
Sulfanilamide/N-Naphthyl-ethylenediamine Dihydrochloride, Color Reagent for Nitrogen (Nitrate)
**Catalog Numbers:**
LC13280, LC25460
**Synonyms:**
None

## Section 2 – Composition, Information on Ingredients

| CAS# | Chemical Name: | Percent |
|---|---|---|
| 7732-18-5 | Water | balance |
| 7664-38-2 | Phosphoric acid | 10 |
| 63-74-1 | Sulfanilamide | 1-4 |
| 1465-25-4 | N-(1-naphthyl)ethylenediamine dihydrochloride | 0.1-0.2 |

## Section 3 - Hazards Identification

### Emergency Overview

***Appearance:*** *Clear, colorless to light tan solution*
**Warning!** *May be harmful if swallowed. May cause irritation to eyes, skin, and gastrointestinal tract. May be absorbed through the skin.*
***Target Organs:*** *Eyes, skin, respiratory tract, kidneys.*

### Potential Health Effects

**Eye:**
May cause irritation with redness, watering, and itching. May cause chemical conjunctivitis.
**Skin:**
May cause irritation. Can cause excitement or somnolence if absorbed through the skin.

**Ingestion:**

May cause irritation of the gastrointestinal tract with nausea, vomiting, and diarrhea. May affect behavior and urinary system. May cause liver cell damage, increased liver enzymes, and blood dyscrasia.

**Inhalation:**

Inhalation of mists may cause irritation of the respiratory tract and mucous membranes with sore throat, coughing, shortness of breath and delayed lung edema.

**Chronic:**

Dermatitis, conjunctivitis, dental erosion, jaw necrosis, chronic cough, bronchitis, chemical pneumonitis, gastrointestinal disturbances, liver damage.

## Section 4 - First Aid Measures

**Eyes:**

Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower lids until no evidence of chemical remains. Get medical aid at once.

**Skin:**

Immediately flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid.

**Ingestion:**

Do not induce vomiting. If victim is conscious, give 2-4 glasses of water to dilute. Get medical aid at once. Give oxygen if respiration is depressed.

**Inhalation:**

Move victim to fresh air. Give artificial respiration if necessary. If breathing is difficult, give oxygen. Get medical aid.

**Notes to Physician:**

Treat symptomatically and supportively.

## Section 5 - Fire Fighting Measures

**General Information:**

As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Irritating or poisonous vapors can be formed during thermal decomposition; avoid breathing vapors or mists.

**Extinguishing Media:**

For small fires, use dry chemical, carbon dioxide, water spray or alcohol-resistant foam.

**Autoignition Temperature:**

No information found.

**Flash Point:**

No information found.

**NFPA Rating:**

CAS# 7732-18-5: Health- 0, Flammability- 0, Instability- 0.
CAS# 7664-38-2: Health- 3, Flammability- 0, Instability- 0.
CAS# 63-74-1: Health- 2, Flammability- 1, Instability- 0.
CAS# 1465-25-4: Health- 2, Flammability- 1, Instability- 0.

**Explosion Limits:**

Lower: n/a Upper: n/a

## Section 6 - Accidental Release Measures

**General Information:**

Use proper personal protective equipment as indicated in Section 8.

**Spills/Leaks:**

May be carefully neutralized with slaked lime, limestone, or sodium bicarbonate to a pH 7. Absorb with inert material (sand, diatomaceous earth), scoop into non-metallic container, and label "Corrosive" for later disposal.

## Section 7 - Handling and Storage

**Handling:**

Wash thoroughly after handling. Avoid breathing dust, vapor, mist, or gas. Do not ingest or inhale. Avoid contact with eyes, skin, and clothing.

**Storage:**

Keep away from metals. Keep away from strong bases. Store capped at room temperature. Protect from light, heat and incompatibles.

## Section 8 - Exposure Controls, Personal Protection

**Engineering Controls:**

Facilities using or storing this material should be equipped with an eyewash and safety shower. Use adequate general or local exhaust ventilation to keep airborne levels below the permissible exposure limits.

**Exposure Limits:**

| Chemical Name: | ACGIH | NIOSH | OSHA |
|---|---|---|---|
| **Water** | None of the components are on this list | None of the components are on this list | None of the components are on this list |
| **Phosphoric acid** | 1 mg/m3 TWA | 1 mg/m3 TWA | 1 mg/m3 TWA; 3 mg/m3 STEL |
| **Sulfanilamide** | None of the components are on this list | None of the components are on this list | None of the components are on this list |
| **N-(1-naphthyl) ethylenediamine dihydrochloride** | None of the components are on this list | None of the components are on this list | None of the components are on this list |

**OSHA Vacated PELs:**

Phosphoric acid: 1 mg/m3 TWA

### Personal Protective Equipment

**Eyes:**

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133. Do not wear contact lenses when working with chemicals.

**Skin:**

Wear appropriate protective gloves to prevent skin exposure.

**Clothing:**

Wear appropriate protective clothing to prevent skin exposure.

**Respirators:**

Follow the OSHA respiratory protection regulations found in 29 CFR 1910.134 whenever exposure limits are exceeded or irritation or other symptoms are experienced.

## Section 9 - Physical and Chemical Properties

| | |
|---|---|
| **Physical State:** | Clear liquid |
| **Color:** | Colorless to light tan |
| **Odor:** | Odorless |
| **pH:** | Acidic |
| **Vapor Pressure:** | No information found. |
| **Vapor Density:** | No information found. |
| **Evaporation Rate:** | No information found. |
| **Viscosity:** | No information found. |
| **Boiling Point:** | No information found. |
| **Freezing/Melting Point:** | No information found. |
| **Decomposition Temperature:** | No information found. |
| **Solubility in water:** | Soluble |
| **Specific Gravity/Density:** | No information found. |
| **Molecular Formula:** | No information found. |
| **Molecular Weight:** | No information found. |

## Section 10 - Stability and Reactivity

**Chemical Stability:**

Stable under normal temperatures and pressures.

**Conditions to Avoid:**

Incompatible materials, light.

**Incompatibilities with Other Materials:**

Metals, oxidizers, acid chlorides, acid anhydrides.

**Hazardous Decomposition Products:**

Oxides of nitrogen, oxides of sulfur, oxides of phosphorus, oxides of carbon.

**Hazardous Polymerization:**

Has not been reported.

## Section 11 - Toxicological Information

**RTECS:**

CAS# 7732-18-5: ZC0110000.
CAS# 7664-38-2: TB6300000.
CAS# 63-74-1: WO8400000.
CAS# 1465-25-4: KV5330000.

**LD50/LC50:**

CAS# 7732-18-5:

Oral, rat: LD50 = >90 mL/kg.

CAS# 7664-38-2:
Oral, rat: LD50 = 1530 mg/kg
Skin, rabbit: LD50 = 2740 mg/kg
Inhalation, rat: LC50 = >850 mg/m3/1H.
CAS# 63-74-1:
Oral, mouse: LD50 = 3000 mg/kg
Oral, rabbit: LD50 = 1300 mg/kg
Oral, rat: LD50 = 3900 mg/kg.
CAS# 1465-25-4:
No information found.

**Carcinogenicity:**

CAS# 7732-18-5: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65.
CAS# 7664-38-2: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65.
CAS# 63-74-1: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65.
CAS# 1465-25-4: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65.

**Epidemiology:**

No information found

**Teratogenicity:**

No information found

**Reproductive:**

No information found

**Mutagenicity:**

Sulfanilamide and N- (1-naphthyl) ethylenediamine dihydrochloride are mutagenic for bacteria and yeast.

**Neurotoxicity:**

No information found

## Section 12 - Ecological Information

No information found

## Section 13 - Disposal Considerations

**Dispose of in accordance with Federal, State, and local regulations.**

## Section 14 - Transport Information

**US DOT**

**Shipping Name:** Phosphoric acid solution
**Hazard Class:** 8
**UN Number:** UN1805
**Packing Group:** PG III

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## Section 15 - Regulatory Information

### US Federal

**TSCA:**

CAS# 7732-18-5 is listed on the TSCA Inventory.
CAS# 7664-38-2 is listed on the TSCA Inventory.
CAS# 63-74-1 is listed on the TSCA Inventory.
CAS# 1465-25-4 is listed on the TSCA Inventory.

**SARA Reportable Quantities (RQ):**

CAS# 7664-38-2: final RQ = 5000 pounds (2270 kg)

**CERCLA/SARA Section 313:**

None of the components are on this list.

**OSHA - Highly Hazardous:**

None of the components are on this list.

### US State

**State Right to Know:**

Phosphoric acid can be found on the following state Right-to-Know lists: California, New Jersey, Florida, Pennsylvania, Minnesota, Massachusetts.

**California Regulations:**

None.

### European/International Regulations

**Canadian DSL/NDSL:**

CAS# 7732-18-5 is listed on Canada's DSL List.
CAS# 7664-38-2 is listed on Canada's DSL List.
CAS# 63-74-1 is listed on Canada's DSL List.
CAS# 1465-25-4 is listed on Canada's DSL List.

**Canada Ingredient Disclosure List:**

CAS# 7732-18-5 is not listed on Canada's Ingredient Disclosure List.
CAS# 7664-38-2 is listed on Canada's Ingredient Disclosure List.
CAS# 63-74-1 is not listed on Canada's Ingredient Disclosure List.
CAS# 1465-25-4 is not listed on Canada's Ingredient Disclosure List.

## Section 16 - Other Information

MSDS Creation Date: February 19, 1998
Revision Date: December 30, 2009

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