Section 1 - Product and Company Information

Product Name               LUMINOL SODIUM SAL
Product Number             A4685
Brand                      SIGMA
Company                    Sigma-Aldrich
Address                    3050 Spruce Street
                           SAINT LOUIS MO 63103 US
Technical Phone:           800-325-5832
Fax:                       800-325-5052
Emergency Phone:          314-776-6555

Section 2 - Composition/Information on Ingredient

Substance Name                          CAS #                 SARA 313
3-AMINOPHTHALHYDRAZIDE, SODIUM          20666-12-0            No
SALT HEMIHYDRATE

Formula                 C8H6N3NaO2
Synonyms                Luminol Sodium salt

Section 3 - Hazards Identification

EMERGENCY OVERVIEW
Irritant.
  Irritating to eyes, respiratory system and skin.

HMIS RATING
  HEALTH: 2
  FLAMMABILITY: 0
  REACTIVITY: 0

NFPA RATING
  HEALTH: 2
  FLAMMABILITY: 0
  REACTIVITY: 0

For additional information on toxicity, please refer to Section 11.

Section 4 - First Aid Measures

ORAL EXPOSURE
  If swallowed, wash out mouth with water provided person is conscious. Call a physician.

INHALATION EXPOSURE
  If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.

DERMAL EXPOSURE
  In case of contact, immediately wash skin with soap and copious amounts of water.
Section 5 - Fire Fighting Measures

FLASH POINT
N/A

AUTOIGNITION TEMP
N/A

FLAMMABILITY
N/A

EXTINGUISHING MEDIA
Suitable: Water spray. Carbon dioxide, dry chemical powder, or appropriate foam.

FIREFIGHTING
Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes. Specific Hazard(s): Emits toxic fumes under fire conditions.

EXPOSURE HAZARD(S)
Material: Irritant.

Section 6 - Accidental Release Measures

PROCEDURE(S) OF PERSONAL PRECAUTION(S)
Wear respirator, chemical safety goggles, rubber boots, and heavy rubber gloves.

METHODS FOR CLEANING UP
Sweep up, place in a bag and hold for waste disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete.

Section 7 - Handling and Storage

HANDLING
User Exposure: Do not breathe dust. Avoid contact with eyes, skin, and clothing.

STORAGE
Suitable: Keep tightly closed. Store in a cool dry place.

Section 8 - Exposure Controls / PPE

ENGINEERING CONTROLS
Safety shower and eye bath. Mechanical exhaust required.

PERSONAL PROTECTIVE EQUIPMENT
Respiratory: Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Where risk assessment shows air-purifying respirators are appropriate use a dust mask type N95 (US) or type P1 (EN 143) respirator. Hand: Rubber gloves. Eye: Chemical safety goggles.
GENERAL HYGIENE MEASURES
Wash contaminated clothing before reuse. Wash thoroughly after handling.

Section 9 - Physical/Chemical Properties

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<th>Property</th>
<th>Value</th>
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<tbody>
<tr>
<td>Molecular Weight</td>
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<tr>
<td>Solubility</td>
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</table>

N/A = not available

Section 10 - Stability and Reactivity

STABILITY
Materials to Avoid: Strong oxidizing agents, Strong acids, Strong bases, Strong reducing agents.

HAZARDOUS DECOMPOSITION PRODUCTS
Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide, Nitrogen oxides.

Section 11 - Toxicological Information

ROUTE OF EXPOSURE
Inhalation: Material is irritating to mucous membranes and upper respiratory tract.
Multiple Routes: Causes eye and skin irritation. May be harmful by inhalation, ingestion, or skin absorption.

SIGNS AND SYMPTOMS OF EXPOSURE
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Section 12 - Ecological Information

No data available.
Section 13 - Disposal Considerations

APPROPRIATE METHOD OF DISPOSAL OF SUBSTANCE OR PREPARATION
Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations.

Section 14 - Transport Information

DOT
Proper Shipping Name: None
Non-Hazardous for Transport: This substance is considered to be non-hazardous for transport.

IATA
Non-Hazardous for Air Transport: Non-hazardous for air transport.

Section 15 - Regulatory Information

EU ADDITIONAL CLASSIFICATION
Symbol of Danger: Xi
Indication of Danger: Irritant.
R: 36/37/38
Risk Statements: Irritating to eyes, respiratory system and skin.
S: 26-36
Safety Statements: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing.

US CLASSIFICATION AND LABEL TEXT
Indication of Danger: Irritant.
Risk Statements: Irritating to eyes, respiratory system and skin.
Safety Statements: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing.

UNITED STATES REGULATORY INFORMATION
SARA LISTED: No

CANADA REGULATORY INFORMATION
WHMIS Classification: This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.
DSL: No
NDSL: No

Section 16 - Other Information

DISCLAIMER
For R&D use only. Not for drug, household or other uses.

WARRANTY
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. Sigma-Aldrich Inc., shall not be held liable for any damage resulting from handling or