

MSDS - Material Safety Data Sheet**Product Name: Luminol Reagent (Also covers Luminol 4 & Luminol 8)****MSDS No.: LUMINOL16****I. Basic Information:****Manufacturer:** Sirchie Finger Print Laboratories**Address:** 100 Hunter Place**City, ST Zip:** Youngsville, NC 27596**Emergency Contact:** ChemTrec**Emergency Telephone Number:** 800-424-9300**Contact:** Tech Support**Information Telephone Number:** 919-554-2244**Last Update:** 01/27/2011**Expiration Date:****Chemical State:** Liquid Gas Solid**Chemical Type:** Pure Mixture

2	Health
1	Flammability
1	Reactivity
F	Pers. Protection

II. Ingredients: Trade Secret

CAS No.	Chemical Name	% Range	EHS		IARC		SARA		OSHA PEL	ACGIH TLV	Other Limits
			NTP		SUB Z	313					
521313	3-Aminophthalhydrazide	<2							NE	NE	300 C
497198	Sodium carbonate	>86							NE	NE	
10486007	Sodium perborate tetrahydrate	>12							NE	NE	60 C

III. Hazardous Identification:**Hazard Category:** Acute Chronic Fire Pressure Reactive**Hazardous Identification Information:**

Oxidizer. Harmful if inhaled, ingested, or absorbed through the skin. May cause severe respiratory and digestive tract irritation with possible burns. May cause severe skin and eye irritation with possible burns.

The chemical, physical, and toxicological properties of sodium perborate tetrahydrate and 3-aminophthalhydrazide have not been thoroughly investigated.

IV. First Aid Measures:**Route(s) of Entry:**

Inhalation, ingestion, skin, eyes

Health Hazards (Acute and Chronic):

Chronic: "Soda ulcers," perforation of the nasal septum

Signs and Symptoms:

Inhalation: Burning pain in the nose and throat, coughing, wheezing, shortness of breath

Medical Conditions Generally Aggravated by Exposure:

Skin, eye, respiratory diseases

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Emergency and First Aid Procedures:

Inhalation: Remove to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen (To be administered by qualified medical personnel only!) Get medical attention.

Ingestion: DO NOT induce vomiting. If victim is conscious and alert, give 2-4 cups of milk or water. (Never give anything by mouth to an unconscious person!) Get medical attention immediately.

Skin: Flush skin with plenty of soap and water for at least 15 minutes. Remove contaminated clothing. Seek medical attention.

Eyes: Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower lids. Do not allow victim to rub or keep eyes closed. Get medical aid immediately.

Other Health Warnings:

V. Fire Fighting Measures:

Flash Point: NE

Lower Explosive Limit: NE

Upper Explosive Limit: NE

F.P. Method:

Fire Extinguishing Media: Water spray, carbon dioxide, dry chemical powder, appropriate foam

Special Fire Fighting Procedures:

Wear self-contained breathing apparatus and protective clothing.

Unusual Fire and Explosion:

Oxidizer--contact with combustible materials may cause a fire.

VI. Accidental Release Measures:

Steps to be Taken in Case Material is Released or Spilled:

Wear dust respirator, safety goggles, and rubber gloves. Cover with dry lime or soda ash. Sweep up and place in bag or vacuum up with proper filter equipped instrument. Avoid creating dust. Ventilate and wash spill site after collecting solid. Dispose according to local, state, and federal regulations.

VII. Handling and Storage:

Precautions to be Taken:

Keep in tightly closed container. Moisture sensitive. Keep cool and dry. Avoid ignition sources (heat, open flame, spark). Avoid incompatible materials. Use only in well-ventilated areas. Avoid dust generation and accumulation. Avoid contact with skin, eyes, and clothing. Avoid inhalation and ingestion. Avoid prolonged or repeated handling. Wash thoroughly after handling.

Other Precautions:

VIII. Exposure Controls/Personal Protection:

Ventilation Requirements:

Use only in well-ventilated areas.

Personal Protective Equipment:

Safety goggles, gloves, dust respirator, protective clothing

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IX. Physical and Chemical Properties:

Boiling Point: NE

Melting Point: 60 C

Evaporation Rate (Butyl Acetate = 1): NE

Vapor Pressure (mm Hg.): NE

Specific Gravity (H2O = 1):

Vapor Density (AIR = 1): NE

Solubility In Water: 22 g/100 mL (20 C)

Appearance and Odor: Off-white odorless powder

Other Information:

X. Stability and Reactivity:

Stability:

Stable

Incompatibility (Materials to Avoid):

Red-hot aluminum metal, ammonia + silver nitrate, 2,4-dinitrotoluene, 2,4,6-trinitrotoluene, acids, sodium sulfide + water, lithium, phosphorus pentoxide, fluorine, hydrogen peroxide, steel, strong reducing agents, heavy metal salts, moist air, water, strong oxidizing agents, strong bases, ignition sources (heat, open flame, spark), combustible materials

Decomposition/By Products:

Carbon monoxide & dioxide, sodium oxide, boron oxides, oxygen, nitrogen oxides

Hazardous Polymerization:

Has not been reported.

XI. Toxicological Information:

The toxicological properties of sodium perborate tetrahydrate and 3-aminophthalhydrazide have not been thoroughly investigated. See below.

IARC Database: Not listed

NIOSH Pocket Guide to Hazardous Chemicals: Not listed.

XII. Ecological Information:

Prevent from entering sewers or waterways. May be toxic to some aquatic life.

XIII. Disposal Considerations:

Dispose according to local, state, and federal regulations.

XIV. Transport Information:

Keep in tightly closed container. Moisture sensitive. Keep cool and dry. Avoid ignition sources (heat, open flame, spark). Avoid incompatible materials. Avoid dust generation and accumulation. Avoid contact with skin, eyes, and clothing. Avoid inhalation and ingestion. Avoid prolonged or repeated handling. Wash thoroughly after handling.

XV. Regulatory Information:

Sodium carbonate and 3-aminophthalhydrazide are listed on the TSCA inventory.

XVI. Other Information:

Using this product under normal, properly instructed procedures should not be hazardous.

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