FLINN SCIENTIFIC INC.

"Your Safer Source for Science Supplies"

Material Safety Data Sheet (MSDS)

MSDS #: 551.00

Revision Date: November 25, 2002

Section 1 — Chemical Product and Company Identification

Ninhydrin Solution

Flinn Scientific, Inc. P.O. Box 219 Batavia, IL 60510 (800) 452-1261

CHEMTREC Emergency Phone Number: (800) 424-9300

Section 2 — Composition, Information on Ingredients

Ninhydrin (485-47-2) .5%, Butanol (71-36-3) 99%

Synonym: 0.5% solution in butanol

CAS#: None Established

Section 3 — Hazards Identification

Amber colored liquid. Odor of butyl alcohol.

Moderately toxic by ingestion and inhalation. Severe body tissue irritant. Avoid body tissue contact.

Contains butanol, a flammable liquid.

FLINN AT-A-GLANCE

Health-2 Flammability-3 Reactivity-1 Exposure-2 Storage-3

0 is low hazard, 3 is high hazard

Section 4 — First Aid Measures

Call a physician, seek medical attention for further treatment, observation and support after first aid. Inhalation: Remove to fresh air at once. If breathing has stopped give artificial respiration immediately.

Eye: Immediately flush with fresh water for 15 minutes.

External: Wash continuously with fresh water for 15 minutes.

Internal: Induce vomiting. Call a physician or poison control at once.

Section 5 — Fire Fighting Measures

Class IC flammable liquid.

Flash Point: 95 F Upper: 11.2% Lower: 1.4% Autoignition Temperature: 649 F

Fire Fighting Instructions: Use triclass, dry chemical fire extinguisher. Firefighters should wear PPE and

SCBA with full facepiece operated in positive pressure mode.

NFPA CODE

None Established

Section 6 — Accidental Release Measures

Restrict unprotected personnel from area. Remove all ignition sources and ventilate area. Contain spill with sand and absorbent material; deposit in sealed bag or container. See Sections 8 and 13 for further information.

Section 7 — Handling and Storage

Flinn Suggested Chemical Storage Pattern: Organic #2. Store with alcohols, glycols, amines and amides. Store in a dedicated flammables cabinet. If a flammables cabinet is not available, store in Flinn Saf-Stor can. Use and dispense in a hood.

Section 8 — Exposure Controls, Personal Protection

Avoid contact with eyes, skin and clothing. Wear chemical splash goggles, chemical-resistant gloves and chemical-resistant apron. Use ventilation to keep airborne concentrations below exposure limits. Always wear a NIOSH-approved respirator with proper cartridges or a positive pressure, air-supplied respirator when handling this material in emergency situations (spill or fire). Exposure guidelines: TWA 100 ppm, as butanol (OSHA)

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Section 9 — Physical and Chemical Properties

Amber colored liquid. Odor of butyl alcohol.

Section 10 — Stability and Reactivity

Avoid contact with acid chlorides, acid anhydrides, oxidizing agents copper; sources of ignition; avoid body contact; avoid inhaling.

Shelf life: Indefinite.

Section 11 — Toxicological Information

Acute effects: Severe irritant, GI disturbances

Chronic effects: N.A.

Target organs: Central nervous system, ears, liver, kidneys, blood

ORL-RAT LD50:790 mg/kg as butanol IHL-RAT LC50: 8000 ppm/4H as butanol SKN-RBT LD50: 340 mg/kg as butanol

N.A. = Not available, not all health aspects of this substance have been fully investigated.

Section 12 — Ecological Information

Data not yet available.

Section 13 — Disposal Considerations

Please consult with state and local regulations. Flinn Suggested Disposal Method 18b is one option.

Section 14 — Transport Information

Shipping Name: Butanols

Hazard Class: 3, Flammable liquid

UN Number: UN1120 N/A = Not applicable

Section 15 — Regulatory Information

Not listed.

Section 16 — Other Information

Consult your copy of the Flinn Scientific Catalog/Reference Manual for additional information about laboratory chemicals. This Material Safety Data Sheet (MSDS) is for guidance and is based upon information and tests believed to be reliable. Flinn Scientific Inc. makes no guarantee of the accuracy or completeness of the data and shall not be liable for any damages relating thereto. The data is offered solely for your consideration, investigation, and verification. Flinn Scientific Inc. assumes no legal responsibility for use or reliance upon this data.

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Questions on Chemical Disposal or Storage?--Call Flinn

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