

MSDS - Material Safety Data Sheet**Product Name: Special Formula Ninhydrin Spray**

MSDS No.: 1422

I. Basic Information:

Manufacturer: ACE Fingerprint Equipment Labs

Address: PO Box 288

City, ST Zip: Wake Forest, NC 27588

Emergency Contact: Chemtec

Emergency Telephone Number: 800--42-4930 0

Contact: TECH SUPPORT

Information Telephone Number: 800--42-6-70 72

Last Update: 06/17/2010

Expiration Date:

Chemical State: Liquid Gas SolidChemical Type: Pure Mixture

| | |
|---|------------------|
| 2 | Health |
| 1 | Flammability |
| 0 | Reactivity |
| H | Pers. Protection |

II. Ingredients: Trade Secret

| CAS No. | Chemical Name | % Range | EHS | | IARC | | SARA | | OSHA PEL | ACGIH TLV | Other Limits |
|-----------|---------------------------------|---------|-----|--|------|---|------|--|----------|-----------|--------------|
| | | | NTP | | SUB | Z | 313 | | | | |
| 64197 | Acetic acid | <1.0 | | | | | | | 10 ppm | 10 ppm | 103 F |
| 141786 | Ethyl acetate | <1.0 | | | | | | | 400 ppm | 400 ppm | 24 F |
| 64175 | Ethyl alcohol | <1.0 | | | | | | | 1000 ppm | 1000 ppm | |
| 163702076 | Methyl nonafluorobutyl ether | 30-50 | | | | | | | | | |
| 163702087 | Methyl nonafluoroisobutyl Ether | 50-70 | | | | | | | | | |
| 521313 | Ninhydrin | Trace | | | | | | | NE | NE | 255 C |

III. Hazardous Identification:

Hazard Category:

 Acute Chronic Fire Pressure Reactive

Hazardous Identification Information:

May be harmful if inhaled. Respiratory and digestive tract irritant. Skin and eye irritant.

IV. First Aid Measures:

Route(s) of Entry:

Inhalation, ingestion, skin, eyes

Health Hazards (Acute and Chronic):

Gross overexposure: Irregular heartbeat with a strange sensation in the chest, "heart thumping," apprehension, lightheadedness, feeling of fainting, dizziness, weakness, unconsciousness, possible death

Prolonged overexposure to high concentrations (>25% in air): temporary alteration of the heart's electrical activity with irregular pulse, palpitations, inadequate circulation; narcotic effects

Chronic: Dermatitis, defatting of the skin

Signs and Symptoms:

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Inhalation: Increased activity or sleeplessness, dizziness, headache, confusion, incoordination, fatigue, drowsiness, coughing, wheezing, abnormal lungs sounds, shortness of breath, bluish skin discoloration, nausea, vomiting, weakness, tremors, convulsions, unconsciousness

Ingestion: Coughing, gasping, choking, shortness of breath, bluish skin discoloration, nausea, vomiting, diarrhea, rapid breathing and heart rate, fever, drowsiness, confusion, seizures, coma (Symptoms may develop 24 hours after exposure, depending on the amount entered into the lungs.)

Skin: Itching, redness, swelling, rash, burning, pain, drying, cracking

Eyes: Tearing, pain, blurred vision, redness, stinging

Medical Conditions Generally Aggravated by Exposure:

Skin, eye, liver, kidney, heart, respiratory, central nervous system, cardiovascular system diseases

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 water. (Never give anything by mouth to an unconscious person!) Aspiration hazard. If vomiting does occur, have victim lean forward to reduce the risk of aspiration. 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.

Notes to physician: This material may make the heart more susceptible to arrhythmias. Catecholamines such as adrenaline, and other compounds having similar effects, should be reserved for emergencies and then used only with special caution.

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 or fog, dry chemical, carbon dioxide, alcohol-resistant foam

Special Fire Fighting Procedures:

Wear self-contained breathing apparatus and protective clothing. Water may be used to cool fire-exposed containers. DO NOT use straight streams of water. Cool containers with flooding amounts of water until well after fire is out.

Unusual Fire and Explosion:

Containers may rupture under fire conditions. Vapors from this product may travel some distance from original point to an ignition source and flash back.

Hydrocarbon solvents are basically non-conductors of electricity and can become electrostatically charged during mixing, filtering, or pumping at high flow rates. If this charge reaches a sufficiently high level, sparks can form that may ignite the vapors of flammable liquids.

"Empty" containers may contain product residue and may be dangerous. Empty containers should be completely drained and bunged and then disposed of according to local, state, and federal regulations.

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VI. Accidental Release Measures:

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

Wear vapor respirator, safety goggles, and rubber gloves. Remove sources of ignition (i.e. open flames, sparks). Stop leak at source. Dike area. Soak up with inert absorbent material (sand, oil dry, earth, vermiculite, or floor absorbent recommended; do not use flammable substances such as sawdust). Scoop up with non-sparking tool. Ventilate spill site after collection. Dispose according to local, state, and federal regulations.

VII. Handling and Storage:

Precautions to be Taken:

Keep in tightly closed container. Do not store above 125 F. Keep cool and dry. Avoid all ignition sources (heat, open flame, spark). Avoid incompatible materials. Electrically bond and ground all containers and equipment before transfer or use of material. Use only in well-ventilated areas. Avoid contact with skin, eyes, and clothing. Avoid ingestion and inhalation. Wash thoroughly after handling.

Other Precautions:

"Empty" containers may contain product residue and may be dangerous. Empty containers should be completely drained and bunged and then disposed of according to local, state, and federal regulations.

VIII. Exposure Controls/Personal Protection:

Ventilation Requirements:

Use only in well-ventilated areas.

Personal Protective Equipment:

Safety goggles, gloves, vapor respirator, protective clothing

IX. Physical and Chemical Properties:

Boiling Point: 61 C

Melting Point: NE

Evaporation Rate (Butyl Acetate = 1): NE

Vapor Pressure (mm Hg.): 202mmHg

Specific Gravity (H2O = 1):

Vapor Density (AIR = 1): 8.6

Solubility In Water: To be determined

Appearance and Odor: Clear liquid; irritable odor

Other Information:

X. Stability and Reactivity:

Stability:

Stable under normal temperatures and storage conditions.

Incompatibility (Materials to Avoid):

Strong acids, strong bases, strong oxidizing agents.

Decomposition/By Products:

Hydrogen fluoride, Perfluorinated Acid Fluorides

Hazardous Polymerization:

Has not been reported.

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XI. Toxicological Information:

May be harmful if inhaled. May cause central nervous system depression. May suffocate if air is displaced by vapors.

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.

Ethyl acetate

RCRA U-Series: Waste no. U112 (Ignitable waste)

This material is banned from land disposal according to RCRA.

XIV. Transport Information:

Keep in tightly closed container. Do not transport above 125 F. Keep cool and dry. Avoid all ignition sources (heat, open flame, spark). Avoid incompatible materials. Electrically bond and ground all containers and equipment before transfer or use of material. Avoid contact with skin, eyes, and clothing. Avoid ingestion and inhalation. Wash thoroughly after handling.

IATA

Shipping name: Flammable liquid, n.o.s. (Ethyl acetate/ethanol solution)

Hazard class: 3

UN no.: 1993

Packing group: II

XV. Regulatory Information:

Ethyl acetate is listed on the TSCA inventory.

XVI. Other Information:

This product contains HFE-7100 3M Novec Engineered Fluid (methyl nonafluorobutyl ether and methyl nonafluorobutyl ether). The components of this material are in compliance with the chemical notification requirements of TSCA.

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

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, expressed or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigation to determine the suitability of the information for their particular purposes.