Safety Data Sheet

Lynn Peavey Company
10749 W. 84th Terrace
Lenexa, KS 66214

1. Identification

Product Name: 1 Gallon Ninhydrin Solution (15078)
8 Ounce Ninhydrin Solution (05060)
MSDS Number: LP NS 15078 05060
Product use: Fingerprint detection
Chemical Family or Formula: Mixture
Supplier: Lynn Peavey Company
10749 W. 84th Terrace
Lenexa, KS 66214
Phone: 913-888-0600
Fax: 913-495-6757
Email: lpv@peaveycorp.com

2. Hazard(s) identification

GHS Classification in accordance with 29 CFR 1910
None: Hazards do not reach threshold required for least severe of any category.
GHS Label elements, including precautionary statements
   Signal word: None (Hazards do not reach threshold required for least severe category.)
   Pictogram: None (Hazards do not reach threshold required for least severe category.)
Hazard statements:
H319 May cause eye irritation.
H335 May cause respiratory irritation.
Precautionary statements:
P281 Use personal protective equipment as required.
P260 Do not breathe dust or mist.
P264 Wash skin thoroughly after handling.
P273 Avoid release to the environment.
P301 + P330 + P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P363 Wash contaminated clothing before reuse.
P391 Collect spillage.
P501 Dispose of contents/container to an approved waste disposal plant.

3. Composition / Information on ingredients

Chemical identity: Methyl nonafluorobutyl ether 20-80% per supplier
Common name: Same
Numbers of identity: CAS 163702-07-6
Chemical identity: Methyl nonafluoroisobutyl ether 20-80% per supplier
Common name: Same
Numbers of identity: CAS 163702-08-7
Chemical identity: Indan-1,2,3-trione (Ninhydrin) 0.16%
Common name: Ninhydrin crystals
Numbers of identity: CAS 485-47-2 EC 207-618-1
Impurities: None known which affect classification.
4. First-aid measures

General advice:
Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of danger.
If inhaled:
If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
In case of skin contact:
Wash off with soap and plenty of water. Consult a physician.
In case of eye contact:
Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
If swallowed:
Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Most important symptoms and effects, both acute and delayed: Eye irritation.

Indication of any immediate medical attention and special treatment needed when necessary:

5. Firefighting measures

Suitable extinguishing media: Product is not flammable. Use media appropriate to main cause of fire.
Examples: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Special hazards arising from the substance or mixture: None known.
Advice for firefighters: Wear self contained breathing apparatus for fire fighting if necessary.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures:
Wear respiratory protection. Avoid breathing vapors if developed.
Ensure adequate ventilation. Evacuate personnel to safe areas.
For personal protection see section 8.
Environmental precautions:
Prevent more spillage if safe to do. Avoid discharge into drains and the environment.
Store in a suitable, closed container for disposal or reclaim.
For disposal see section 13.

7. Handling and storage

Handling:
Avoid contact with skin and eyes. Avoid spillage.
Provide appropriate exhaust ventilation at places where vapors formed. For precautions see section 2.
Storage: Keep container tightly closed in a dry place.
8. Exposure controls / personal protection

Information on the system design:

Product is intended for external use only. Stay up wind, out of any mist or vapors developed.

<table>
<thead>
<tr>
<th>CAS #</th>
<th>Material or Component</th>
<th>Prop.</th>
<th>Exposure Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>485-47-2</td>
<td>Indan-1,2,3-trione (Ninhydrin)</td>
<td>None</td>
<td>TWA* NE</td>
</tr>
<tr>
<td>163702-07-6</td>
<td>Methyl nonafluorobutyl ether</td>
<td>None</td>
<td>NE</td>
</tr>
<tr>
<td>163702-08-7</td>
<td>Methyl nonafluoroisobutyl ether</td>
<td>None</td>
<td>NE</td>
</tr>
</tbody>
</table>

* TWA= Time Weighted Average; STEL= Short Term Exposure Limit; *WEEL= Workplace Employee Exposure Level  NE= Not Established

Personal protective equipment:
Respiratory protection: No requirement anticipated.
Hand protection: Rubber gloves to keep liquid off skin.
Eye protection: Safety glasses with side-shields as required.
Skin and body protection: Chemical resistant apron or protective suit if contact is likely.
Hygiene measures: Handle in accordance with good industrial hygiene and safety practice. Wash hands and face before breaks and immediately after handling the product.

9. Physical and chemical properties (based on major ingredients)

Appearance: Clear, colorless, liquid.
Odor: Slight ethereal odor. (Plus slight vinegar note)
Odor threshold: Not available
pH-value: Not applicable
Melting point: -135 °C <
Freezing Point: -135 °C <
Initial boiling point: 61 °C @ 760 mmHg
Flash point: Does not flash.
Evaporation rate: Not applicable
Flammability (solid, gas): Not applicable
Explosion limits: Not explosive
Vapor pressure: 202 mmHg @ 25 °C
Vapor density: Air = 1
Relative density (water=1.00): 1.5
Solubility in water: 12 ppm for fluorinated component
Partition coefficient: Log Kow = Not applicable to mixture.
Auto-ignition temperature: Not available
Decomposition temperature: Not available
Viscosity: 0.6 centipoise @ 23 °C

10. Stability and reactivity

Chemical stability: No decomposition, if used according to specifications.
Possibility of hazardous reactions: Contact with acids will generate hydrogen gas.
Conditions to avoid: No dangerous conditions known. Humidity will rust the product.
Materials to avoid: Reacts with all acids, organic and mineral.
Hazardous decomposition products: None are known. Also see Section 5.
11. Toxicological information

Acute Toxicity: No information available for finished product.

<table>
<thead>
<tr>
<th>Test</th>
<th>Combined fluorocarbons</th>
<th>Indan-1,2,3-trione (Ninhydrin)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral Toxicity LD 50 (Rats)</td>
<td>&gt;5 g/kg</td>
<td>600 mg/kg</td>
</tr>
<tr>
<td>Dermal Toxicity LD 50 (Rabbit)</td>
<td>Not a significant route of exposure.</td>
<td>No data</td>
</tr>
<tr>
<td>Inhalation Toxicity, Vapor, LC50</td>
<td>&gt;100,000 ppm, rat, 4 hr</td>
<td>No data</td>
</tr>
<tr>
<td>Eye Irritation (Rabbit)</td>
<td>Minimal</td>
<td>No data</td>
</tr>
<tr>
<td>Dermal Irritation (Rabbit)</td>
<td>Minimal</td>
<td>No data</td>
</tr>
<tr>
<td>Germ cell mutagenicity:</td>
<td>Negative</td>
<td>No data</td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>No data</td>
<td>No data</td>
</tr>
</tbody>
</table>

No component listed by NTP, IARC, OSHA or ACGIH as a suspect or potential carcinogen is present in this product above 0.1%. California Prop. 65: None

Signs and Symptoms of Exposure:
Material may be irritating to tissue of the mucous membranes and upper respiratory tract, eyes, and skin. Symptoms include: mild skin or eye irritation.

12. Ecological information

There is no ecological information available for the product.

**Combined fluorocarbons**

| Fathead Minnow, Pimephales promelas | 96 hours Lethal Concentration 50% | >7.9 mg/l |
| Green algae, Selenastrum capricornutu | 96 hours Inhibitory Concentration 50% | >8.9 mg/l |
| Water flea, Daphnia magna | 48 hours Effect Concentration 50% | >10 mg/l |

**Indan-1,2,3-trione (Ninhydrin)**

No information

**Product:** No data available.

Persistence and degradability:

Bioaccumulative potential: No data available
Mobility in soil: No data available

Results of PBT and vPvB assessment:

PBT/ vPvB assessment not available because chemical safety assessment not required/not conducted.

Other adverse effects: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Harmful to aquatic life.

13. Disposal considerations

Dispose in accordance with local, state and federal regulations.
Dispose of contaminated packaging as unused product.

14. Transport information

<table>
<thead>
<tr>
<th>DOT (US)</th>
<th>IMDG</th>
<th>IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not dangerous goods</td>
<td>Not dangerous goods</td>
<td>Not dangerous goods</td>
</tr>
</tbody>
</table>
15. Regulatory information

Inventory Status:
All components are on TSCA, EINECS/ELINCS, AICS, and DSL.

U.S. Regulations:
U.S. Superfund Amendments and Reauthorization Act (SARA) Title III:
SARA (311/312) HAZARD CATEGORIES:
None
SARA 313: This product contains the following SARA 313 Toxic Release Chemicals.
Chemical Name CAS Number Concentration
None

The following product components are cited on the lists below:
Chemical Name CAS Number Right to Know (RTK) List Citations
Indan-1,2,3-trione (Ninhydrin) CAS 485-47-2 PA, NJ

California Prop. 65 chemicals: This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

16. Other information

SDS Preparation date: March 19, 2015

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td></td>
</tr>
</tbody>
</table>

| Delayed | No | No | XXX | XXX |

HMIS Hazard ratings: Health: 1 Fire: 0 Instability: 0 Other: B (Goggles, gloves)

Hazard Ratings: Least: 0 Slight: 1 Moderate: 2 High: 3 Extreme: 4

HMIS® is a registered trade and service mark of the NPCA.

Note: The information in this SDS was obtained from current reputable and competent sources. However, the data is provided without warranty, expressed or implied, regarding its correctness or accuracy. It is the user's responsibility to determine safe conditions for the use of this product and to assume liability for loss, injury, damage or expense resulting from improper use of this product. This SDS contains all the information required for classification by the Canadian CPR. This SDS is designed for workplace employees, emergency personnel and for other conditions and situations where there is a greater potential for large-scale or prolonged exposure, in accordance with requirements of the U.S. Government's Occupational Safety and Health Administration (OSHA).