IDENTITY (As Used on Label & List): LNS-100

Section II – Hazardous Ingredients/Identity Information

<table>
<thead>
<tr>
<th>Hazardous Components</th>
<th>OSHA PEL</th>
<th>ACGIH/TLV</th>
<th>Other Limits Recommend</th>
<th>% (Opt)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Nitrite CAS# 7632-00-0</td>
<td>none</td>
<td>none</td>
<td>none</td>
<td>none</td>
</tr>
<tr>
<td>Benzoitrizole CAS# 95-14-7</td>
<td>15mg/m3</td>
<td>10mg/m3</td>
<td>none</td>
<td></td>
</tr>
<tr>
<td>Sodium Tetraborate Decahydrate CAS# 1303-96-4</td>
<td>10mg/m3</td>
<td>5mg/m3</td>
<td>none</td>
<td></td>
</tr>
</tbody>
</table>

Section III – Physical/Chemical Characteristics

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boiling Point</td>
<td>- not applicable</td>
</tr>
<tr>
<td>Vapor Pressure (mm Hg)</td>
<td>- unknown</td>
</tr>
<tr>
<td>Vapor Density (Air = 1)</td>
<td>- unknown</td>
</tr>
<tr>
<td>Solubility in Water</td>
<td>46% at 20 degrees Centigrade</td>
</tr>
<tr>
<td>Appearance and Odor</td>
<td>White to slightly yellow crystals, Odorless</td>
</tr>
<tr>
<td>Specific Gravity (H2O = 1)</td>
<td>2 – 2.17</td>
</tr>
<tr>
<td>Melting Point</td>
<td>- 271 C</td>
</tr>
<tr>
<td>Evaporation Rate (Butyl Acetate = 1)</td>
<td>- unknown</td>
</tr>
</tbody>
</table>

Section IV – Fire and Explosion Hazard Data

Flash Point (Method Used) – not flammable
Flammable Limits – not flammable

Extinguishing Media –
Flood with large amounts of water in early stages of fire. A heavy water jet is advantageous.
When involved in a fire, large quantities of this material may melt. If so, avoid contact with
combustibles. DO NOT USE dry chemicals, CO2, Halon, or foams.

Special Fire Fighting Procedures –
Fire fighters should wear self-contained, NIOSH approves, breathing apparatus with a full
faceplate. Full protective clothing should also be provided. Use water spray to cool exposed containers or drench spill.

Unusual Fire and Explosion Hazards –
Material is an oxidizing agent and can supply oxygen to stimulate or accelerate the combustion of organic or other combustibles. Decomposes above 610 F, releasing toxic nitrogen oxide gases. May explode at >1000 F.

Section V – Reactivity Data

Stability – Stable: X
Unstable: X

Incompatibility (Materials to Avoid) –
Hazardous reaction can occur with acids, ammonium compounds, reducing reagents (particularly cyanides, thiocyanates, and thiosulfates), metals as powders, hypophosphites, sulfites, tannic acid, antipyrine, organic matter, amines, acetalanilide, iodides, mercury salts, moisture, air, activated carbon, permanganates, chlorates, amines, and vegetable astringents.

This material is a strong oxidizer.

Hazardous Decomposition of Byproducts –
Oxides of nitrogen, irritating and toxic fumes and gases. Leaves a caustic residue.

Hazardous Polymerization –
May Occur: X
Will Not Occur: X

Section VI – Health Hazard Data

Routes of Entry – (Inhalation?) (Skin?) (Ingestion?)
Skin, Eye, Inhalation, and Ingestion

Health Hazards (Acute and Chronic –
Ingestion of large amounts can result in acute toxic effects; nausea, conversion of hemoglobin to methaglobin (producing cyanosis), and a marked fall in blood pressure leading to collapse, coma and possibly death. TDLo (oral – human): 14mg/kg. May cause reproductive and fetal effects. Dusts and mists may irritate respiratory tract and cause systemic effects. May cause local irritation of skin and eyes.

Carcinogenicity – NTP? IARC Monographs? OSHA Regulated?
Not listed as a carcinogen. However, under certain conditions, nitrite compounds may react with secondary amines to form potentially carcinogenic nitrosamines.

Signs and Symptoms of Exposure –
Irritation of exposed area. Ingestion may lead to toxic effects (see above).

Medical Conditions Generally Aggravated by Exposure –
None known.

Emergency and First Aid Procedures –
Eyes – immediately flush with lots of water for at least 15 minutes holding lids apart to ensure flushing of entire surface. Seek medical attention.
Skin – Immediately wash with lots of soap and water. Flush well with water. Remove contaminated clothes & footwear and wash before reuse.
Ingestion – If conscious, give 2 – 4 glasses of water or milk. Never give anything by mouth to an unconscious person. Get medical help immediately. Induce vomiting by giving one teaspoon of Syrup of Ipecac. If skin is blue, give oxygen.
Inhalation – Remove to fresh air. If breathing has stopped, apply artificial respiration or O₂. Seek immediate medical aid.

Section VII – Precautions for Safe Handling and Use

Steps to be Taken in Case Material is Released or Spilled –
Immediately sweep or shovel spilled material into a clean fiber or steel drum. Close and label ‘oxidizer.’ Store as indicated below. If flammable materials are present, they should be removed. Monitor clean-up procedures with a CO₂ fire extinguisher. Flush trace residues with lots of water. Do NOT flush to sewer. Release of product is subject to reporting. Wear all protective equipment when handling.

Waste Disposal Method –
Disposal of sodium nitrite may be subject to federal, state, and local regulations as an EPA ignitable waste. Users should review their operations in terms of applicable federal, state, and local laws and regulations, then consult with appropriate regulatory agencies before discharging or disposing of waste material.

Precautions to be Taken in Handling and Storing –
Danger! Strong Oxidizer! Avoid contact with eyes and skin. Avoid breathing in dust or mist. Keep from contact with clothing or other combustible materials. Avoid generating dust. Wear all safety equipment. Store in tightly closed containers in a cool, dry area away from incompatible materials. Avoid wooden floors. Storage in an isolated non-combustible building is advised. Follow NFPA code. Protect container from damage.

Other Precautions –
WARNING! Material decomposes even by weak acids with evolution of brown fumes of N₂O₃. It is slowly oxidized to sodium nitrate when exposed to air. May be fatal if directly ingested (adult lethal dose is approximately 2 – 5 grams).

Section VIII – Control Measures

Respiratory Protection (Specify Type) –
NIOSH approved respirator for dusts or mists or nitrogen oxide gases where applicable. If extreme exposure, NIOSH approved self-contained breathing apparatus.

Ventilation –
Local Exhaust: Necessary at all times
Mechanical (General): Recommended
Special: Other:

Protective Gloves: Chemical impermeable
Eye Protection: Face shield or chemical safety goggles

Other Protective Clothing or Equipment –
Clothing must protect areas of the body that risk contact. Safety shoes, rubber boots, rubber apron are all recommended. Have an Eyewash and Safety Shower on hand.

Work/Hygienic Practices –
Wash thoroughly after handling. Wash clothing separate from other laundry before reuse. Do NOT wear contact lenses when handling.