SODIUM NITRITE SOLUTION

1. CORRECTIVE RESPONSE ACTIONS

- Dilute and disperse
- Stop discharge

2. CHEMICAL DESIGNATIONS

2.1 CG Compatibility Group: 5; Cautious
2.2 Formula: NaNO2
2.3 IMO/UN Designation: Not listed.
2.4 DOT No.: Not listed.
2.5 CAS Registry No.: 7632-00-0
2.6 NAERG Guide No.: Not listed.
2.7 Standard Industrial Trade Classification: 52351

3. HEALTH HAZARDS

3.1 Personal Protective Equipment: Wear impervious protective clothing and goggles.
3.2 Symptoms Following Exposure: Ingestion (or inhalation of large amounts) causes poisoning which may produce cyanosis, marked fall in blood pressure, leading to collapse, coma, and possibly death. Irritating to skin, eyes, and respiratory tract.
3.3 Treatment of Exposure: Get medical attention. INHALATION: Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. INGESTION: Give patient 2 to 4 glasses of water and induce vomiting. EYES or SKIN: Flush with water, holding lids open.
3.4 TLV-TWA: Not listed.
3.5 TLV-STEL: Not listed.
3.6 TLV-CEILING: Not listed.
3.7 Toxicity by Ingestion: Grade 3; LD50 = 80-185 mg/kg (rat)
3.8 Toxicity by Inhalation: Currently not available.
3.9 Chronic Toxicity: Currently not available
3.10 Vapor (Gas) Irritant Characteristics: Vapors cause moderate irritation such that personnel will find high concentrations unpleasant. The effect is temporarily.
3.11 Liquid or Solid Characteristics: Causes smearing of the skin and first-degree burns on short exposure; may cause second-degree burns on long exposure.
3.12 Odor Threshold: Currently not available
3.13 IDLH Value: Not listed.
3.14 OSHA PEL-TWA: Not listed.
3.15 OSHA PEL-STEL: Not listed.
3.16 OSHA PEL-Ceiling: Not listed.
3.17 EPA AEGL: Not listed.

4. FIRE HAZARDS

4.1 Flash Point: Not flammable, but may intensify fire.
4.2 Flammable Limits in Air: Not pertinent.
4.3 Fire Extinguishing Agents: Apply plenty of water to adjacent fires. Cool exposed containers with water.
4.4 Fire Extinguishing Agents Not to Be Used: Do not use ammonium phosphate dry chemical.
4.5 Special Hazards of Combustion Products: Toxic oxides of nitrogen may form in fires.
4.6 Behavior in Fire: May increase intensity of fire if water evaporates.
4.7 Auto Ignition Temperature: Not pertinent.
4.8 Electrical Hazards: Not pertinent.
4.9 Burning Rate: Not pertinent.
4.10 Adiabatic Flame Temperature: Not pertinent.
4.11 Stoichiometric Air to Fuel Ratio: Not pertinent.
4.12 Flame Temperature: Not pertinent.
4.14 Minimum Oxygen Concentration for Combustion (MOCC): Not listed

5. CHEMICAL REACTIVITY

5.1 Reactivity with Water: No reaction
5.2 Reactivity with Common Materials: Incompatible with acids, ammonium salts, amines, cyanides, and reducing agents.
5.3 Stability During Transport: Stable
5.4 Neutralizing Agents for Acids and Caustics: Not pertinent.
5.5 Polymerization: Will not polymerize.
5.6 Initiator of Polymerization: Not pertinent.

6. WATER POLLUTION

6.1 Aquatic Toxicity: Currently not available
6.2 Waterflow Toxicity: Currently not available
6.3 Biological Oxygen Demand (BOD): Currently not available
6.4 Food Chain Concentration Potential: None
6.5 GESAMP Hazard Profile: Bioaccumulation: 0, Damage to living resources: 3, Human oral hazard: 2, Human Contact hazard: 0, Reduction of amenities: 0

7. SHIPPING INFORMATION

7.1 Grades of Purity: Technical grade solutions of varying concentrations.
7.2 Storage Temperature: Ambient.
7.3 Inert Atmosphere: No requirement.
7.4 Venting: Open.
7.5 IMO Pollution Category: B
7.6 Ship Type: 2
7.7 Barge Hull Type: Currently not available

8. HAZARD CLASSIFICATIONS

8.1 49 CFR Category: Not listed.
8.2 49 CFR Class: Not pertinent.
8.3 49 CFR Package Group: Not listed.
8.4 Marine Explosive: No
8.5 NFPA Hazard Classification: Not listed
8.6 EPA Reportable Quantity: 100 pounds
8.7 EPA Pollution Category: B
8.8 RCRA Waste Number: Not listed
8.9 EPA FWPCA List: Yes

9. PHYSICAL & CHEMICAL PROPERTIES

9.1 Physical State at 15° C and 1 atm: Liquid
9.2 Molecular Weight: 69
9.3 Boiling Point at 1 atm: 239°F = 115°C = 388°K
9.4 Freezing Point: 30°F = –1°C = 272°K
9.5 Critical Temperature: Currently not available
9.6 Critical Pressure: Currently not available
9.7 Specific Gravity: 1.32 at 16°C (solid)
9.8 Liquid Surface Tension: Currently not available
9.9 Liquid Water Interfacial Tension: Currently not available
9.10 Vapor (Gas) Specific Gravity: 0.0009
9.11 Ratio of Specific Heats of Vapor (Gas): Currently not available
9.12 Latent Heat of Vaporization: Currently not available
9.13 Heat of Combustion: Currently not available
9.14 Heat of Decomposition: Currently not available
9.15 Heat of Solution: Currently not available
9.16 Heat of Polymerization: Not pertinent.
9.17 Heat of Fusion: Currently not available
9.18 Limiting Value: Currently not available
9.19 Reid Vapor Pressure: Currently not available

NOTES

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### SODIUM NITRITE SOLUTION

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<thead>
<tr>
<th>9.20</th>
<th>SATURATED LIQUID DENSITY</th>
<th>9.21</th>
<th>LIQUID HEAT CAPACITY</th>
<th>9.22</th>
<th>LIQUID THERMAL CONDUCTIVITY</th>
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<th>LIQUID VISCOSITY</th>
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<tbody>
<tr>
<td>Temperature (degrees F)</td>
<td>Pounds per cubic foot</td>
<td>Temperature (degrees F)</td>
<td>British thermal unit per pound-F</td>
<td>Temperature (degrees F)</td>
<td>British thermal unit inch per hour-square foot-F</td>
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<th>9.24</th>
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<th>9.27</th>
<th>IDEAL GAS HEAT CAPACITY</th>
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<tbody>
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<td>Temperature (degrees F)</td>
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<td>Pounds per square inch</td>
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