

# SODIUM AZIDE

SAZ

## CAUTIONARY RESPONSE INFORMATION

<b>Common Synonyms</b> Hydrazoic acid, sodium salt	Solid White Odorless  Mixes with water.
<p><b>KEEP PEOPLE AWAY. AVOID CONTACT WITH SOLID AND DUST. Wear goggles and dust respirator. Stay upwind. Use water spray to "knock down" dust. Notify local health and pollution control agencies. Protect water intakes.</b></p>	
<b>Fire</b>	Not flammable. POISONOUS GASES MAY BE PRODUCED WHEN HEATED. Containers may explode in fire. Cool exposed containers with water.
<b>Exposure</b>	CALL FOR MEDICAL AID. DUST POISONOUS IF INHALED. Move victim to fresh air. If breathing has stopped, give artificial respiration. If breathing is difficult, give oxygen.  SOLID POISONOUS IF SWALLOWED. Remove contaminated clothing and shoes. Flush affected areas with plenty of water. IF IN EYES, hold eyelids open and flush with plenty of water. IF SWALLOWED and victim is CONSCIOUS, have victim drink water or milk and have victim induce vomiting. IF SWALLOWED and victim is UNCONSCIOUS OR HAVING CONVULSIONS, do nothing except keep victim warm.
<b>Water Pollution</b>	HARMFUL TO AQUATIC LIFE IN VERY LOW CONCENTRATIONS. May be dangerous if it enters water intakes. Notify local health and wildlife officials. Notify operators of nearby water intakes.

### 1. CORRECTIVE RESPONSE ACTIONS

Dilute and disperse  
Stop discharge

### 2. CHEMICAL DESIGNATIONS

- 2.1 CG Compatibility Group: Not listed.
- 2.2 Formula:  $\text{NaN}_3$
- 2.3 IMO/UN Designation: 6.1/1687
- 2.4 DOT ID No.: 1687
- 2.5 CAS Registry No.: 26628-22-8
- 2.6 NAERG Guide No.: 153
- 2.7 Standard Industrial Trade Classification: 52495

### 3. HEALTH HAZARDS

- 3.1 **Personal Protective Equipment:** Dust mask; protective clothing; goggles.
- 3.2 **Symptoms Following Exposure:** Inhalation or ingestion causes dizziness, weakness, blurred vision, slight shortness of breath, and feeling of going to faint; moderate reduction of blood pressure and bradycardia. Contact with eyes or skin causes irritation.
- 3.3 **Treatment of Exposure:** Give oxygen if weakness, pallor, or low blood pressure is observed.  
INHALATION: remove victim to fresh air; enforce rest; call a doctor. EYES: flush with water for at least 15 min. SKIN: flush with water; wash with soap and water. INGESTION: give large amount of water and induce vomiting at once; get medical attention.
- 3.4 TLV-TWA: Not listed.
- 3.5 TLV-STEL: Not listed.
- 3.6 TLV-Ceiling: 0.11 ppm as  $\text{HN}_3$  vapor
- 3.7 **Toxicity by Ingestion:** Grade 4; oral rat  $\text{LD}_{50}$  = 27 mg/kg (technical)
- 3.8 **Toxicity by Inhalation:** Currently not available.
- 3.9 **Chronic Toxicity:** Potent mutagen of salmon-sperm DNA
- 3.10 **Vapor (Gas) Irritant Characteristics:** Currently not available
- 3.11 **Liquid or Solid Characteristics:** Currently not available
- 3.12 **Odor Threshold:** Odorless
- 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
- 4.2 **Flammable Limits in Air:** Not flammable
- 4.3 **Fire Extinguishing Agents:** Not pertinent
- 4.4 **Fire Extinguishing Agents Not to Be Used:** Not pertinent
- 4.5 **Special Hazards of Combustion Products:** May form toxic hydrazoic acid fumes in fire
- 4.6 **Behavior in Fire:** Containers may explode.
- 4.7 **Auto Ignition Temperature:** Not pertinent
- 4.8 **Electrical Hazards:** Not pertinent
- 4.9 **Burning Rate:** Not pertinent
- 4.10 **Adiabatic Flame Temperature:** Currently not available
- 4.11 **Stoichiometric Air to Fuel Ratio:** Not pertinent.
- 4.12 **Flame Temperature:** Currently not available
- 4.13 **Combustion Molar Ratio (Reactant to Product):** Not pertinent.
- 4.14 **Minimum Oxygen Concentration for Combustion (MOCC):** Not listed

### 5. CHEMICAL REACTIVITY

- 5.1 **Reactivity with Water:** Dissolves to form an alkaline solution. The reaction is not hazardous.
- 5.2 **Reactivity with Common Materials:** Forms explosion-sensitive materials with some metals such as lead, silver, mercury, and copper
- 5.3 **Stability During Transport:** Stable unless in contact with acids
- 5.4 **Neutralizing Agents for Acids and Caustics:** Not pertinent
- 5.5 **Polymerization:** Not pertinent
- 5.6 **Inhibitor of Polymerization:** Not pertinent

### 6. WATER POLLUTION

- 6.1 **Aquatic Toxicity:**  
1.5 ppm/24 hr/bluegill/TL<sub>50</sub>/fresh water
- 6.2 **Waterfowl Toxicity:** Currently not available
- 6.3 **Biological Oxygen Demand (BOD):** None
- 6.4 **Food Chain Concentration Potential:** None
- 6.5 **GESAMP Hazard Profile:**  
Bioaccumulation: 0  
Damage to living resources: 3  
Human Oral hazard: 3  
Human Contact hazard: 0  
Reduction of amenities: XX

### 7. SHIPPING INFORMATION

- 7.1 **Grades of Purity:** Pure: 99+%; Practical grade
- 7.2 **Storage Temperature:** Ambient
- 7.3 **Inert Atmosphere:** No requirement
- 7.4 **Venting:** Open
- 7.5 **IMO Pollution Category:** Currently not available
- 7.6 **Ship Type:** Currently not available
- 7.7 **Barge Hull Type:** Currently not available

### 8. HAZARD CLASSIFICATIONS

- 8.1 **49 CFR Category:** Poison
- 8.2 **49 CFR Class:** 6.1
- 8.3 **49 CFR Package Group:** II
- 8.4 **Marine Pollutant:** No
- 8.5 **NFPA Hazard Classification:**

Category	Classification
Health Hazard (Blue).....	4
Flammability (Red).....	1
Instability (Yellow).....	3
- 8.6 **EPA Reportable Quantity:** 1,000 pounds
- 8.7 **EPA Pollution Category:** C
- 8.8 **RCRA Waste Number:** P105
- 8.9 **EPA FWPCA List:** Not listed

### 9. PHYSICAL & CHEMICAL PROPERTIES

- 9.1 **Physical State at 15° C and 1 atm:** Solid
- 9.2 **Molecular Weight:** 65
- 9.3 **Boiling Point at 1 atm:** Not pertinent (decomposes)
- 9.4 **Freezing Point:** Not pertinent
- 9.5 **Critical Temperature:** Not pertinent
- 9.6 **Critical Pressure:** Not pertinent
- 9.7 **Specific Gravity:** 1.85 at 20°C (solid)
- 9.8 **Liquid Surface Tension:** Not pertinent
- 9.9 **Liquid Water Interfacial Tension:** Not pertinent
- 9.10 **Vapor (Gas) Specific Gravity:** Not pertinent
- 9.11 **Ratio of Specific Heats of Vapor (Gas):** Not pertinent
- 9.12 **Latent Heat of Vaporization:** Not pertinent
- 9.13 **Heat of Combustion:** Not pertinent
- 9.14 **Heat of Decomposition:** Not pertinent
- 9.15 **Heat of Solution:** Not pertinent
- 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

# SODIUM AZIDE

SAZ

9.20 SATURATED LIQUID DENSITY		9.21 LIQUID HEAT CAPACITY		9.22 LIQUID THERMAL CONDUCTIVITY		9.23 LIQUID VISCOSITY	
Temperature (degrees F)	Pounds per cubic foot	Temperature (degrees F)	British thermal unit per pound-F	Temperature (degrees F)	British thermal unit inch per hour-square foot-F	Temperature (degrees F)	Centipoise
	N O T  P E R T I N E N T		N O T  P E R T I N E N T		N O T  P E R T I N E N T		N O T  P E R T I N E N T

9.24 SOLUBILITY IN WATER		9.25 SATURATED VAPOR PRESSURE		9.26 SATURATED VAPOR DENSITY		9.27 IDEAL GAS HEAT CAPACITY	
Temperature (degrees F)	Pounds per 100 pounds of water	Temperature (degrees F)	Pounds per square inch	Temperature (degrees F)	Pounds per cubic foot	Temperature (degrees F)	British thermal unit per pound-F
34	39.200		N		N		N
36	39.400		O		O		O
38	39.600		T		T		T
40	39.800		P		P		P
42	40.000		E		E		E
44	40.200		R		R		R
46	40.400		T		T		T
48	40.600		I		I		I
50	40.800		N		N		N
52	41.000		E		E		E
54	41.200		N		N		N
56	41.400		T		T		T
58	41.600		E		E		E
60	41.800		N		N		N
62	42.000		T		T		T
64	42.200						
66	42.400						
68	42.600						
70	42.800						
72	43.000						
74	43.200						
76	43.400						
78	43.600						
80	43.800						
82	44.000						
84	44.200						