

Common Name: **SODIUM AZIDE**

Synonyms: Azide; Azium; Smite®

CAS No: 26628-22-8

 Molecular Formula: NaN_3

RTK Substance No: 1684

 Description: Colorless to white, odorless solid which is highly soluble in water which may result in the formation of *Hydrazoic Acid*

HAZARD DATA

| Hazard Rating | Firefighting | Reactivity |
|--|---|---|
| 3 - Health 1 - Fire 3 - Reactivity DOT#: UN 1687 ERG Guide #: 153 Hazard Class: 6.1 (Poison) | REACTIVE and SEVERE EXPLOSION HAZARD. Use dry sand or special powder as extinguishing agents. DO NOT USE WATER. POISONOUS GASES ARE PRODUCED IN FIRE, including <i>Nitrogen Oxides</i> and <i>Sodium Oxide</i> . CONTAINERS MAY EXPLODE IN FIRE. Use water spray to keep fire-exposed containers cool. DO NOT get water inside containers as Sodium Azide reacts with WATER to form <i>Hydrazoic Acid</i> . | Reacts with CARBON DISULFIDE and METALS (such as LEAD, BRASS, COPPER, SILVER and MERCURY) to form shock-sensitive compounds. Reacts with STRONG ACIDS (such as HYDROCHLORIC, SULFURIC and NITRIC) to form toxic and explosive <i>Hydrazoic Acid</i> . Sodium Azide reacts violently with OXIDIZING AGENTS (such as PERCHLORATES, PEROXIDES, PERMANGANATES, CHLORATES, NITRATES, CHLORINE, BROMINE and FLUORINE); BARIUM CARBONATE; DIMETHYL SULFATE; HALOGENATED SOLVENTS; and DIBROMOMALONONITRILE. Sodium Azide is not compatible with CAUSTICS; METAL OXIDES; METAL SULFIDES; METAL AZIDES; and PHOSGENE. Protect from HEAT, SHOCK and FRICTION. |

SPILL/LEAKS

Isolation Distance:

Liquids: 50 meters (150 feet)

Solid: 25 meters (75 feet)

Fire: 800 meters (1/2 mile)

Collect powdered material in the most convenient and safe manner and deposit in sealed containers.

 DO NOT FLUSH into *Copper* or *Lead* pipes, as violent explosions may occur.

Harmful to aquatic life.

PHYSICAL PROPERTIES

Odor Threshold: Odorless

Flash Point: Not flammable but decomposes explosively when heated

Vapor Density: 2.2 (air = 1)

Specific Gravity: 1.8 (water = 1)

Water Solubility: Soluble/Decomposes

Melting Point: 527°F (275°C) (decomposes and may explode)

Ionization Potential: 11.7 eV

Molecular Weight: 65

EXPOSURE LIMITS

NIOSH: 0.3 mg/m³, Ceiling (as **Sodium Azide**)

 0.1 ppm, Ceiling (as *Hydrazoic Acid*),

ACGIH: 0.29 mg/m³, Ceiling (as **Sodium Azide**)

 0.11 ppm, Ceiling (as *Hydrazoic Acid*)

PROTECTIVE EQUIPMENT

Gloves: Rubber

Coveralls: DuPont Tyvek® for **Sodium Azide**
 DuPont Responder® and St. Gobain ONESuit® TEC for *Hydrazoic Acid*
Respirator: Supplied air

HEALTH EFFECTS

Eyes: Irritation, burns, possible loss of vision

Skin: Irritation, burns, redness, blisters

Inhalation: Nose and throat irritation, coughing and/or shortness of breath (pulmonary edema)

Headache, nausea, vomiting and dizziness

Muscle weakness, dizziness, anxiety, tremor, collapse and even death

FIRST AID AND DECONTAMINATION

Remove the person from exposure.

Flush eyes with large amounts of water for at least 15 minutes.

Remove contact lenses if worn. Seek medical attention immediately.

Quickly remove contaminated clothing and wash contaminated skin with large amounts of soap and water.

Begin artificial respiration if breathing has stopped and CPR if necessary.

Transfer to a medical facility.

Medical observation is recommended as symptoms may be delayed.