



Fisher Scientific

Part of Thermo Fisher Scientific

SAFETY DATA SHEET

Creation Date 03-Dec-2010

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Revision Number 2

1. Identification

Product Name Sodium azide
Cat No. : S227I-1; S227I-25; S227I-100; S227I-500; S227I-500LC
Synonyms Sodium salt of hydrazoic acid; Smite
Recommended Use Laboratory chemicals.
Uses advised against No Information available
Details of the supplier of the safety data sheet

Company

Fisher Scientific
One Reagent Lane
Fair Lawn, NJ 07410
Tel: (201) 796-7100

Emergency Telephone Number

CHEMTREC®, Inside the USA: 800-424-9300
CHEMTREC®, Outside the USA: 001-703-527-3887

2. Hazard(s) identification

Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

| | |
|--|------------|
| Acute oral toxicity | Category 2 |
| Acute dermal toxicity | Category 1 |
| Specific target organ toxicity - (repeated exposure) | Category 2 |
| Target Organs - Central nervous system (CNS), Cardiovascular system, Liver, Kidney, Heart, spleen. | |

Label Elements

Signal Word

Danger

Hazard Statements

Fatal if swallowed
Fatal in contact with skin
May cause damage to organs through prolonged or repeated exposure



Precautionary Statements**Prevention**

Wash face, hands and any exposed skin thoroughly after handling
 Do not eat, drink or smoke when using this product
 Do not get in eyes, on skin, or on clothing
 Wear protective gloves/protective clothing/eye protection/face protection
 Do not breathe dust/fume/gas/mist/vapors/spray
 Use only outdoors or in a well-ventilated area

Response

Get medical attention/advice if you feel unwell

Inhalation

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
 Call a POISON CENTER or doctor/physician if you feel unwell

Skin

Immediately call a POISON CENTER or doctor/physician
 IF ON SKIN: Gently wash with plenty of soap and water
 Remove/Take off immediately all contaminated clothing
 Wash contaminated clothing before reuse

Ingestion

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
 Rinse mouth

Storage

Store locked up
 Store in a well-ventilated place. Keep container tightly closed

Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Very toxic to aquatic life with long lasting effects
 Contact with acids liberates very toxic gas

3. Composition / information on ingredients

| Component | CAS-No | Weight % |
|--------------|------------|----------|
| Sodium azide | 26628-22-8 | >95 |

4. First-aid measures

| | |
|--|---|
| Eye Contact | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required. |
| Skin Contact | Wash off immediately with plenty of water for at least 15 minutes. Immediate medical attention is required. |
| Inhalation | Move to fresh air. If breathing is difficult, give oxygen. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Immediate medical attention is required. |
| Ingestion | Do not induce vomiting. Call a physician or Poison Control Center immediately. |
| Most important symptoms/effects | No information available. |
| Notes to Physician | Treat symptomatically |

5. Fire-fighting measures

| | |
|-------------------------------------|---|
| Suitable Extinguishing Media | Dry chemical, CO ₂ , water spray or alcohol-resistant foam. Use water spray or fog; do not use straight streams. |
|-------------------------------------|---|

Unsuitable Extinguishing Media Do not use a solid water stream as it may scatter and spread fire

Flash Point No information available
Method - No information available

Autoignition Temperature No information available

Explosion Limits

Upper No data available

Lower No data available

Sensitivity to Mechanical Impact No information available

Sensitivity to Static Discharge No information available

Specific Hazards Arising from the Chemical

In the event of fire, cool tanks with water spray. Containers may explode when heated or if contaminated with water. Thermal decomposition can lead to release of irritating gases and vapors. Runoff to sewer may create fire or explosion hazard. Flammable/toxic gases may accumulate in confined areas (basements, tanks, hopper/tank cars etc.). Do not allow run-off from fire fighting to enter drains or water courses.

Hazardous Combustion Products

Nitrogen oxides (NO_x) Sodium oxides

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

NFPA

Health
4

Flammability
1

Instability
2

Physical hazards
N/A

6. Accidental release measures

Personal Precautions

Use personal protective equipment. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Avoid dust formation. Do not subject to grinding/shock/friction. Do not get in eyes, on skin, or on clothing.

Environmental Precautions

Do not flush into surface water or sanitary sewer system. Do not allow material to contaminate ground water system. Prevent product from entering drains. Local authorities should be advised if significant spillages cannot be contained. See Section 12 for additional ecological information. Avoid release to the environment. Collect spillage.

Methods for Containment and Clean Up

Sweep up or vacuum up spillage and collect in suitable container for disposal. Avoid dust formation.

7. Handling and storage

Handling

Wear personal protective equipment. Use only under a chemical fume hood. Avoid dust formation. Do not breathe dust. Do not get in eyes, on skin, or on clothing. Keep away from open flames, hot surfaces and sources of ignition.

Storage

Keep in a dry, cool and well-ventilated place. Keep container tightly closed.

8. Exposure controls / personal protection

Exposure Guidelines

| Component | ACGIH TLV | OSHA PEL | NIOSH IDLH |
|--------------|--|--|--|
| Sodium azide | Ceiling: 0.29 mg/m ³ Ceiling: 0.11 ppm | Skin (Vacated) Ceiling: 0.1 ppm (Vacated) Ceiling: 0.3 mg/m ³ | Ceiling: 0.1 ppm Ceiling: 0.3 mg/m ³ |

| Component | Quebec | Mexico OEL (TWA) | Ontario TWAEV |
|--------------|---|------------------|--|
| Sodium azide | Ceiling: 0.11 ppm Ceiling: 0.3 mg/m ³ | | CEV: 0.29 mg/m ³ CEV: 0.11 ppm |

Legend

ACGIH - American Conference of Governmental Industrial Hygienists

OSHA - Occupational Safety and Health Administration

NIOSH IDLH: The National Institute for Occupational Safety and Health Immediately Dangerous to Life or Health

Engineering Measures Use only under a chemical fume hood. Ensure that eyewash stations and safety showers are close to the workstation location. Use explosion-proof electrical/ventilating/lighting/equipment.

Personal Protective Equipment

Eye/face Protection Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin and body protection Wear appropriate protective gloves and clothing to prevent skin exposure.

Respiratory Protection Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Hygiene Measures Handle in accordance with good industrial hygiene and safety practice.

9. Physical and chemical properties

| | |
|---|----------------------------|
| Physical State | Powder Solid |
| Appearance | White |
| Odor | Odorless |
| Odor Threshold | No information available |
| pH | 10 1M aq.sol |
| Melting Point/Range | 275 °C / 527 °F |
| Boiling Point/Range | 300 °C / 572 °F @ 760 mmHg |
| Flash Point | No information available |
| Evaporation Rate | Not applicable |
| Flammability (solid,gas) | No information available |
| Flammability or explosive limits | |
| Upper | No data available |
| Lower | No data available |
| Vapor Pressure | No information available |
| Vapor Density | Not applicable |
| Specific Gravity | 1.850 |
| Solubility | 420 g/L (17°C) |
| Partition coefficient; n-octanol/water | No data available |
| Autoignition Temperature | No information available |
| Decomposition Temperature | > 275°C |
| Viscosity | Not applicable |
| Molecular Formula | N3 Na |
| Molecular Weight | 65.01 |

10. Stability and reactivity

| | |
|-------------------------------|---|
| Reactive Hazard | Yes |
| Stability | Risk of explosion by shock, friction, fire or other sources of ignition. |
| Conditions to Avoid | Incompatible products. Heat, flames and sparks. Avoid shock and friction. Avoid dust formation. |
| Incompatible Materials | Acids, Oxidizing agents, Peroxides, Acid chlorides, Metals |

Hazardous Decomposition Products Nitrogen oxides (NOx), Sodium oxides

Hazardous Polymerization Hazardous polymerization does not occur.

Hazardous Reactions Contact with acids liberates very toxic gas. Do not flush down the drain. Sodium azide may react with plumbing systems to form highly explosive compounds.

11. Toxicological information

Acute Toxicity

Product Information Component Information

| Component | LD50 Oral | LD50 Dermal | LC50 Inhalation |
|--------------|-------------------------|-------------|-----------------|
| Sodium azide | LD50 = 27 mg/kg (Rat) | - | Not listed |

Toxicologically Synergistic Products No information available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Irritation Irritating to eyes, respiratory system and skin

Sensitization No information available

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

| Component | CAS-No | IARC | NTP | ACGIH | OSHA | Mexico |
|--------------|------------|------------|------------|------------|------------|------------|
| Sodium azide | 26628-22-8 | Not listed |

Mutagenic Effects Mutagenic effects have occurred in experimental animals.

Reproductive Effects Experiments have shown reproductive toxicity effects on laboratory animals.

Developmental Effects No information available.

Teratogenicity No information available.

STOT - single exposure None known

STOT - repeated exposure Central nervous system (CNS) Cardiovascular system Liver Kidney Heart spleen

Aspiration hazard No information available

Symptoms / effects, both acute and delayed No information available

Endocrine Disruptor Information No information available

Other Adverse Effects See actual entry in RTECS for complete information. Tumorigenic effects have been reported in experimental animals.

12. Ecological information

Ecotoxicity

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. The product contains following substances which are hazardous for the environment.

| Component | Freshwater Algae | Freshwater Fish | Microtox | Water Flea |
|--------------|------------------|---|------------|------------|
| Sodium azide | Not listed | LC50: = 5.46 mg/L, 96h flow-through (Pimephales promelas) LC50: = 0.7 mg/L, 96h (Lepomis macrochirus) LC50: = 0.8 mg/L, 96h | Not listed | Not listed |

| | | | | |
|--|--|-----------------------|--|--|
| | | (Oncorhynchus mykiss) | | |
|--|--|-----------------------|--|--|

Persistence and Degradability Soluble in water Persistence is unlikely based on information available.
Bioaccumulation/ Accumulation No information available.

Mobility Will likely be mobile in the environment due to its water solubility.

13. Disposal considerations

Waste Disposal Methods Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

14. Transport information

DOT

UN-No UN1687
Proper Shipping Name SODIUM AZIDE
Hazard Class 6.1
Packing Group II

TDG

UN-No UN1687
Proper Shipping Name SODIUM AZIDE
Hazard Class 6.1
Packing Group II

IATA

UN-No UN1687
Proper Shipping Name SODIUM AZIDE
Hazard Class 6.1
Packing Group II

IMDG/IMO

UN-No UN1687
Proper Shipping Name SODIUM AZIDE
Hazard Class 6.1
Packing Group II

15. Regulatory information

International Inventories

| Component | TSCA | DSL | NDSL | EINECS | ELINCS | NLP | PICCS | ENCS | AICS | IECSC | KECL |
|--------------|------|-----|------|-----------|--------|-----|-------|------|------|-------|------|
| Sodium azide | X | X | - | 247-852-1 | - | | X | X | X | X | X |

Legend:

X - Listed

E - Indicates a substance that is the subject of a Section 5(e) Consent order under TSCA.

F - Indicates a substance that is the subject of a Section 5(f) Rule under TSCA.

N - Indicates a polymeric substance containing no free-radical initiator in its inventory name but is considered to cover the designated polymer made with any free-radical initiator regardless of the amount used.

P - Indicates a commenced PMN substance

R - Indicates a substance that is the subject of a Section 6 risk management rule under TSCA.

S - Indicates a substance that is identified in a proposed or final Significant New Use Rule

T - Indicates a substance that is the subject of a Section 4 test rule under TSCA.

XU - Indicates a substance exempt from reporting under the Inventory Update Rule, i.e. Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(B)).

Y1 - Indicates an exempt polymer that has a number-average molecular weight of 1,000 or greater.

Y2 - Indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.

U.S. Federal Regulations

TSCA 12(b) Not applicable

SARA 313

| Component | CAS-No | Weight % | SARA 313 - Threshold Values % |
|--------------|------------|----------|-------------------------------|
| Sodium azide | 26628-22-8 | >95 | 1.0 |

SARA 311/312 Hazard Categories

| | |
|-----------------------------------|-----|
| Acute Health Hazard | Yes |
| Chronic Health Hazard | Yes |
| Fire Hazard | No |
| Sudden Release of Pressure Hazard | No |
| Reactive Hazard | Yes |

CWA (Clean Water Act) Not applicable

Clean Air Act Not applicable

OSHA Occupational Safety and Health Administration
Not applicable**CERCLA**

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

| Component | Hazardous Substances RQs | CERCLA EHS RQs |
|--------------|--------------------------|----------------|
| Sodium azide | 1000 lb | 1000 lb |

California Proposition 65 This product does not contain any Proposition 65 chemicals**U.S. State Right-to-Know Regulations**

| Component | Massachusetts | New Jersey | Pennsylvania | Illinois | Rhode Island |
|--------------|---------------|------------|--------------|----------|--------------|
| Sodium azide | X | X | X | - | X |

U.S. Department of Transportation

| | |
|-----------------------------|---|
| Reportable Quantity (RQ): | N |
| DOT Marine Pollutant | N |
| DOT Severe Marine Pollutant | N |

U.S. Department of Homeland Security

This product does not contain any DHS chemicals.

Other International Regulations

Mexico - Grade No information available

Canada

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR

WHMIS Hazard Class

D1A Very toxic materials
D2B Toxic materials
F Dangerously reactive material



16. Other information

| | |
|-------------------------|--|
| Prepared By | Regulatory Affairs Thermo Fisher Scientific Email: EMSDS.RA@thermofisher.com |
| Creation Date | 03-Dec-2010 |
| Revision Date | 19-Jan-2016 |
| Print Date | 19-Jan-2016 |
| Revision Summary | This document has been updated to comply with the US OSHA HazCom 2012 Standard replacing the current legislation under 29 CFR 1910.1200 to align with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS) |

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of SDS