# MATERIAL SAFETY DATA SHEET

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

<table>
<thead>
<tr>
<th>NFPA</th>
<th>HMIS</th>
<th>Personal Protective Equipment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td><img src="3" alt="Health Hazard" /> 3</td>
</tr>
</tbody>
</table>

**Product code:** S1260  
**Product Name:** SODIUM CYANIDE, REAGENT, ACS  
**Chemical Name:** Sodium Cyanide  
Cyanide of sodium  
Hydrocyanic acid, sodium salt  
Cyanobrik  
Cyanogran  
Prussiate of soda  
Cy8anure de sodium (French)

**Recommended use:** No information available.

**CAS #:** 143-33-9  
**RTECS #:** VZ7525000  
**Formula:** NaCN  
**Cl#:** Not available

**Supplier:** Spectrum Chemicals and Laboratory Products, Inc.  
14422 South San Pedro St.  
Gardena, CA  90248  
(310) 516-8000

**Order Online At:** [https://www.spectrumchemical.com](https://www.spectrumchemical.com)  
**Emergency Telephone Number:** CHEMTREC: 1-800-424-9300

**Contact Person:**  
Regina Wachenheim (East Coast)  
Martin LaBenz (West Coast)

## 2. HAZARDS IDENTIFICATION

See Section 8.
2. HAZARDS IDENTIFICATION

<table>
<thead>
<tr>
<th>Odor:</th>
<th>Physical state:</th>
<th>Appearance:</th>
<th>Color:</th>
</tr>
</thead>
</table>

OSHA Regulatory Status
This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200)

POTENTIAL HEALTH EFFECTS

Principal Routes of Exposure:
Ingestion. Inhalation. Skin.

Acute Potential Health Effects:

Skin Contact:
Fatal if absorbed through skin. If absorbed through skin it may cause systemic effects with symptoms similar to those of ingestion. Causes skin irritation. Can cause itching and irritation and possible burns, especially if skin is wet or moist. It can be absorbed through the skin***

Eye Contact:
Causes eye irritation. Possible eye damage. When in Sodium Cyanide is in powdered or granular form, contact with eyes causes eye irritation and possible eye damage When is it in briquette form, it is not considered an eye irritation hazard.

Inhalation:
For Sodium Cyanide in powdered form:. Irritating to respiratory system. It acts as a systemic asphyxiant because of the slow release of cyanide .

Ingestion:
May be fatal if swallowed. Causes digestive (gastrointestinal) tract irritation. Ingestion may cause vomiting and nausea. May cause central nervous system effects. May affect the cardiovascular system. May cause cyanosis. May cause flushing of the skin.

Chronic Potential Health Effects:

<table>
<thead>
<tr>
<th>Component</th>
<th>Carcinogen Status:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Cyanide 143-33-9 (100)</td>
<td>No information available</td>
</tr>
</tbody>
</table>

Target Organs: No information available

Mutagenic Effects: No information available

Teratogenic Effects: No information available

Aggravated Medical Conditions: No information available
See Section 11 for additional Toxicological Information

POTENTIAL ENVIRONMENTAL EFFECTS

No information available

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Cyanide</td>
<td>143-33-9</td>
<td>100</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

General Advice: Poison information centres in each State capital city can provide additional assistance for scheduled poisons (13 1126). Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves. First aider needs to protect himself.

Skin Contact: Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. Get medical attention. If skin irritation persists, call a physician.

Eye Contact: Flush eye with water for 15 minutes. Get medical attention.

Inhalation: Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. WARNING! It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled or ingested material is toxic, infectious or corrosive. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce 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 without medical advice. Never give anything by mouth to an unconscious person. Fatal if swallowed. Immediate medical attention is required. Call a physician or Poison Control Centre immediately.

Notes to Physician: Antidote: Always have a cyanide antidote kit on hand when working with cyanide compounds. Get medical advice on how to use it and when it should be used. Another antidote: If cyanide gas is inhaled, break an Amyl nitrate pearl in a cloth and hold it lightly under the nose for 15 seconds. Repeat 5 times at about 15 seconds intervals. If cyanide is swallowed, use Amyl nitrate as previously stated for 15 seconds. if patient is conscious, give emetic and repeat until vomit fluid is clear.

5. FIRE-FIGHTING MEASURES

Flammable Properties

Flashpoint (°C/°F): No information available.

Flash Point Tested according to: Not available

Lower Explosion Limit (%): No information available

Upper Explosion Limit (%): No information available

Autoignition Temperature (°C/°F): No information available

Product code: S1260
Product name: SODIUM CYANIDE, REAGENT, ACS
Suitable Extinguishing Media: The product is not flammable. If it is involved in a fire, extinguish the fire using an agent suitable for the type of surrounding fire.

Unsuitable Extinguishing Media: No information available.

Hazardous Combustion Products: Hydrogen cyanide; Nitrogen oxides

Specific hazards: This material is an inorganic dust/powder and will not create nor support conditions that would result in a dust explosion or fire.

Special Protective Equipment for Firefighters: As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

Specific Methods: For large fires, flood fire area with water from a distance. Cool affected containers with flooding quantities of water.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions:
Keep people away from and upwind of spill/leak. Ensure adequate ventilation. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Use personal protective equipment. Avoid contact with skin, eyes and clothing. Avoid dust formation.

Environmental Precautions:
Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Prevent entry into waterways, sewers, basements or confined areas.

Methods for Cleaning Up:
Sweep up and shovel into suitable containers for disposal. Clean contaminated surface thoroughly.

7. HANDLING AND STORAGE

Handling

Technical Measures/Precautions:
Provide sufficient air exchange and/or exhaust in work rooms. Avoid dust formation. Keep away from incompatible materials.

Safe Handling Advice:
Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Do not ingest. Do not breathe vapours/dust. Avoid dust formation. Keep away from heat and sources of ignition. Handle in accordance with good industrial hygiene and safety practice.

Storage

Technical Measures/Storage Conditions:
Keep container tightly closed in a dry and well-ventilated place. Store at room temperature in the original container. Store away from incompatible materials.

Incompatible Materials:
8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering measures to reduce exposure: Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Personal Protective Equipment

Eye protection: Safety glasses. Safety glasses with side-shields.

Skin and body protection: Long sleeved clothing. Chemical resistant apron. Gloves.

Respiratory protection: Wear respirator with dust filter.

Hygiene measures: Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product. When using, do not eat, drink or smoke.

National occupational exposure limits

United States
U.S Occupational Exposure Limits: Not determined

<table>
<thead>
<tr>
<th>Components</th>
<th>OSHA</th>
<th>NIOSH</th>
<th>ACGIH</th>
<th>AIHA WHEEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Cyanide - 143-33-9</td>
<td>None</td>
<td>4.7 ppm Ceiling 10 min</td>
<td>5 mg/m³ Ceiling 10 min</td>
<td>None</td>
</tr>
</tbody>
</table>

Canada
Canada Occupational Exposure Limits: Not determined

<table>
<thead>
<tr>
<th>Components</th>
<th>Alberta</th>
<th>British Columbia</th>
<th>Ontario</th>
<th>Quebec</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Cyanide 143-33-9</td>
<td>5 mg/m³ Ceiling CN</td>
<td>5 mg/m³ Ceiling CN</td>
<td>5 mg/m³ Ceiling Hydrogen cyanide and Cyanide salts</td>
<td>None</td>
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</tbody>
</table>

Australia and Mexico
Occupational Exposure Limits for Australia and Mexico: Not determined

<table>
<thead>
<tr>
<th>Components</th>
<th>Australia</th>
<th>Mexico</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Cyanide 143-33-9</td>
<td>5 mg/m³ TWA</td>
<td>5 mg/m³ Ceiling</td>
</tr>
</tbody>
</table>

9. PHYSICAL AND CHEMICAL PROPERTIES
9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Solid.


Color: White.

Odor: Odorless when perfectly dry, but emits odor of hydrogen cyanide when damp. Faint odor of bitter almonds.

Taste: No information available

Molecular/Formula weight: 49.01

Flash point (°C): No data available

Lower Explosion Limit (%): No information available

Upper Explosion Limit (%): No information available

Autoignition Temperature (°C/°F): No information available

Melting point/range(°C/°F): 563 °C/1045 °C

Boiling point/range(°C/°F): 1496 °C/2724.8 °F

pH: No information available

Specific gravity: 1.595

Density (g/cm³): No information available

Decomposition temperature(°C/°F): No information available

Bulk density: No information available

Vapor pressure @ 20°C (kPa): No information available

Evaporation rate: No information available

Vapor density: No information available

VOC content (g/L): No information available

Odor threshold (ppm): No information available

Partition coefficient (n-octanol/water): No information available

Miscibility: No information available

Solubility:
Soluble in Water
Slightly soluble in alcohol
Solubility in Water: 48g/100 ml water @ 10 deg. C; 82 g/100 ml water @ 35 deg. C.; 58% @ 77 deg. F
Soluble in ammonia

10. STABILITY AND REACTIVITY

Stability: Stable at normal conditions

Conditions to avoid: Avoid dust formation. Exposure to water. Exposure to water vapour. Incompatible materials.


Hazardous decomposition products: Hydrogen cyanide (hydrocyanic acid). Nitrogen oxides (NOx).
Possibility of Hazardous Reactions:
Violent reaction with fluorine gas, magnesium, nitrates, nitric acid.
Dangerous on contact with acids, acid fumes. It will produce toxic and flammable vapors of CN-H and sodium oxide.
Sodium Cyanide is an alkaline cyanide salt compound. It is decomposed slowly by water releasing flammable, toxic hydrogen cyanide gas. In water of neutral pH, not enough hydrogen gas is released to be dangerous, except in closed spaces. However, if the water is acidic, significant amounts of hydrogen cyanide gas may be released. Weak alkaline solutions in contact with Sodium cyanide may produce dangerous amounts of hydrogen cyanide gas in confined areas. Cyanide may react with CO2 in ordinary air to form toxic hydrogen cyanide gas. Strong oxidizers such as acids, acid salts, chlorates, and nitrates. Contact with acids and acid salts causes immediate formation of toxic and flammable hydrogen cyanide gas.
Dangerous on contact with acids, acid fumes, water or stream. It will produce toxic and flammable vapors of CN-H and sodium oxide. Contact with acids and acid salts causes immediate formation of toxic and flammable hydrogen cyanide gas. When heated to decomposition it emits toxic fumes hydrogen cyanide and oxides of nitrogen. Fusion mixtures of metal cyanides with metal chlorates, perchlorated or nitrates causes a violent explosion.

Polymerization:
Hazardous polymerisation does not occur

Corrosivity:
No information available

Special Remarks on Corrosivity:
No information available

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Component Information

Sodium Cyanide - 143-33-9

LD50/oral/rat = 4.8 mg/kg Oral LD50 Rat (LOLI and EU Chemicals Bureau IUCLID dataset)
6.44 mg/kg (RTECS)
LD50/oral/mouse = No information available
LD50/dermal/rat = No information available
LD50/dermal/rabbit = > 200 mg/kg Dermal LD50 Rabbit (LOLI and EU Chemicals Bureau IUCLID dataset)
10.4 mg.kg (RTECS)
LC50/inhalation/rat = 0.16 mg/L Inhalation LC50 Rat 1 h
LC50/inhalation/mouse = No information available
Other LD50 or LC50 information = No information available

Product Information

LC50/inhalation/rat 0.16 mg/L  1 h
LC50/inhalation/mouse No information available
LD50/dermal/rabbit > 200mg/kg
LD50/dermal/rat No information available
LD50/oral/mouse = No information available
LD50/oral/rat = 4.8mg/kg

Local Effects

Skin irritation: Causes skin irritation. Can cause itching and irritation and possible burns, especially if skin is wet or moist. It can be absorbed through the skin***

Product code: S1260  Product name: SODIUM CYANIDE, REAGENT, ACS
Eye irritation: Causes eye irritation. Possible eye damage. When in Sodium Cyanide is in powdered or granular form, contact with eyes causes eye irritation and possible eye damage. When in briquette form, it is not considered an eye irritation hazard.

Inhalation: For Sodium Cyanide in powdered form:
Irritating to respiratory system
May be fatal if inhaled
If inhaled, Sodium cyanide inhibits cellular respiration causing metabolic asphyxiation. May cause headache, weakness, dizziness, labored breathing, nausea, vomiting. May be followed by cardiovascular effects, unconsciousness, convulsions, coma, and death
For Sodium Cyanide in briquette form:
Sodium Cyanide in briquette form is not considered an inhalation hazard

Ingestion: May be fatal if swallowed. May cause gastrointestinal tract irritation with nausea, vomiting, flushing. May affect behavior and nervous systems (seizures, convulsions, change in motor activity, ataxia, headache, dizziness, confusion, weakness, tetany, irritability, stupor, anixiety, hallucinations, agitation, tremors, coma), respiration (hyperventilation, pulmonary edema, breathing difficulty, respiratory failure), cardiovascular system (palpitations, cardiac arrhythmias, slow or rapid heart beat, hypertension, hypotension), and it may cause cyanosis (bluish skin and lips due to deficient oxygenation of the blood). Massive doses by produce sudden loss of consciousness and prompt death from respiratory arrest. Smaller but still lethal doses may prolong the illness for 1 or more hours. A bitter almond odor may be noted on the breath or vomitus. Can also cause lactic acidosis and dilation of pupils.

Sensitization: No information available

Chronic Toxicity

Central Nervous system effects (headaches, vertigo, insomnia, memory loss, tremors, fatigue and other symptoms similar to ingestion), metabolic effects (poor appetite), cardiovascular effects (chest discomfort, palpitations), progressive nerve damage to the eyes resulting in blindness, dermatitis, respiratory tract irritation, eye irritation, thyroid deficiency, goiter, hyperglycemia, metabolic acidosis, anemia, kidney damage, liver damage, or death can occur. It may also affect the brain.

Carcinogenic effects: Not considered carcinogenic

<table>
<thead>
<tr>
<th>Components</th>
<th>NTP</th>
<th>IARC</th>
<th>OSHA HCS - Carcinogens</th>
<th>ACGIH - Carcinogens</th>
<th>Australia - Prohibited Carcinogenic Substances</th>
<th>Australia - Notifiable Carcinogenic Substances</th>
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</thead>
<tbody>
<tr>
<td>Sodium Cyanide</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
<td>Not listed</td>
</tr>
</tbody>
</table>

Mutagenic Effects: No information available

Reproductive Effects: Evidence of reproductive and developmental effects in animals is limited and is only reported in the Registery of Toxic Effects of Chemical Substances (RTECS). No information on developmental toxicity effects on humans was found. No information on reproductive toxicity effects on humans was found.

Teratogenic Effects: No information available

Target Organs: No information available

12. ECOLOGICAL INFORMATION

ECOTOXICITY

Product code: S1260  Product name: SODIUM CYANIDE, REAGENT, ACS
Toxicity to terrestrial and aquatic plants and animals: Information given is based on data on the components and the ecotoxicology of similar products.

Ecotoxicity effects: Aquatic environment.

Aquatic toxicity:

Sodium Cyanide - 143-33-9

Freshwater Fish Species Data:
- 0.0391 - 0.0548 mg/L LC50 Oncorhynchus mykiss 96 h static 1
- 0.0558 - 0.0586 mg/L LC50 Oncorhynchus mykiss 96 h flow-through 1
- 0.066 - 0.0852 mg/L LC50 Lepomis macrochirus 96 h flow-through 1
- 0.0712 - 0.0936 mg/L LC50 Pimephales promelas 96 h flow-through 1
- 0.15 mg/L LC50 Lepomis macrochirus 96 h static 1
- 0.17 mg/L LC50 Pimephales promelas 96 h static 1

Mobility: No information available

Persistence and degradability: No information available

Bioaccumulative potential: No information available

13. DISPOSAL CONSIDERATIONS

Waste from residues / unused products:
Waste must be disposed of in accordance with Federal, State and Local regulation.

Contaminated packaging:
Empty containers should be taken for local recycling, recovery or waste disposal.

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Sodium Cyanide</td>
<td>None</td>
<td>None</td>
<td>P106</td>
<td>None</td>
</tr>
</tbody>
</table>

14. TRANSPORT INFORMATION

DOT

- UN-No: UN1689
- Proper Shipping Name: Sodium cyanide, solid
- Hazard Class: 6.1
- Packing Group: I
- Subsidiary Risk: Not applicable
- Marine Pollutant: Marine Pollutant
- ERG No: 157
- DOT RQ (lbs): No information available
- Symbol(s): PP, R2

TDG (Canada)

- UN-No: UN1689
- Proper Shipping Name: Sodium cyanide, solid
- Hazard Class: 6.1
- Packing Group: I
- Subsidiary Risk: No information available
- Description: No information available

ADR

- UN-No: UN1689
- Proper Shipping Name: Sodium cyanide, solid

Product code: S1260 Product name: SODIUM CYANIDE, REAGENT, ACS
Hazard Class: 6.1
Packing Group: I
Subsidiary Risk: No information available
Classification Code: No information available
Description: No information available
CEFIC Tremcard No: No information available

IMO / IMDG
UN-No: UN1689
Proper Shipping Name: Sodium cyanide, solid
Hazard Class: 6.1
Packing Group: I
Subsidiary Risk: P
Description: No information available
IMDG Page: No information available
Marine Pollutant: Marine Pollutant
EMS: F-A
MFAG: No information available
Maximum Quantity: No information available

RID
UN-No: UN1689
Proper Shipping Name: Sodium cyanide, solid
Hazard Class: 6.1
Packing Group: I
Subsidiary Risk: 6.1
Classification Code: No information available
Description: No information available

ICAO
UN-No: UN1689
Proper Shipping Name: Sodium cyanide, solid
Hazard Class: 6.1
Packing Group: I
Subsidiary Risk: No information available
Description: No information available

IATA
UN-No: UN1689
Proper Shipping Name: Sodium cyanide, solid
Hazard Class: 6.1
Packing Group: I
Subsidiary Risk: No information available
ERG Code: 6L
Description: No information available

15. REGULATORY INFORMATION

International Inventories

<table>
<thead>
<tr>
<th>Components</th>
<th>U.S. TSCA</th>
<th>Philippines (PICCS)</th>
<th>KOREA KECL</th>
<th>Japan ENCS</th>
<th>CHINA</th>
<th>Australia (AICS)</th>
<th>EINECS-No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Cyanide</td>
<td>Present</td>
<td>Present</td>
<td>Present KE-31401</td>
<td>Present (1)-158</td>
<td>Present</td>
<td>Present</td>
<td>Present 205-599-4</td>
</tr>
</tbody>
</table>

U.S. Regulations

Product code: S1260
Product name: SODIUM CYANIDE, REAGENT, ACS
Sodium Cyanide

Massachusetts RTK: Present
New Jersey RTK Hazardous Substance List: Present
New Jersey (EHS) List: Present
New Jersey - Discharge Prevention - List of Hazardous Substances: Present
Pennsylvania RTK: Environmental hazard
Pennsylvania RTK - Environmental Hazard List: Present
Minnesota - Hazardous Substance List: Present
New York Release Reporting - List of Hazardous Substances:
10 lb RQ
1 lb RQ
Louisiana Reportable Quantity List for Pollutants: 10lb final RQ
4.54kg final RQ
California Directors List of Hazardous Substances: Present


Chemicals Known to the State of California to Cause Cancer:
This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Chemicals Known to the State of California to Cause Reproductive Toxicity:
WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm (See table below)***

<table>
<thead>
<tr>
<th>Components</th>
<th>Carcinogen</th>
<th>Developmental Toxicity</th>
<th>Male Reproductive Toxicity</th>
<th>Female Reproductive Toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Cyanide</td>
<td>Not Listed</td>
<td>Not Listed</td>
<td>Present (listed under cyanide salts)***</td>
<td>Not Listed</td>
</tr>
</tbody>
</table>

CERCLA/SARA

<table>
<thead>
<tr>
<th>Components</th>
<th>CERCLA - Hazardous Substances and their Reportable Quantities</th>
<th>Section 302 Extremely Hazardous Substances and TPQs</th>
<th>Section 302 Extremely Hazardous Substances and RQs</th>
<th>Section 313 - Chemical Category</th>
<th>Section 313 - Reporting de minimis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Cyanide</td>
<td>10 lb final RQ 4.54 kg final RQ</td>
<td>100 lb TPQ</td>
<td>None</td>
<td>None</td>
<td>None</td>
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</tbody>
</table>

U.S. TSCA

<table>
<thead>
<tr>
<th>Components</th>
<th>TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS)</th>
<th>TSCA 8(d) - Health and Safety Reporting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Cyanide</td>
<td>Not Applicable</td>
<td>10/29/1990 12/19/1995</td>
</tr>
</tbody>
</table>

Canada

WHMIS hazard class:
D1A  Very toxic materials
E    Corrosive material

Sodium Cyanide
D1A E

Canada Controlled Products Regulation:
This product has been classified according to the hazard criteria of the CPR (Controlled Products Regulation) and the MSDS contains all of the information required by the CPR.

Inventory

<table>
<thead>
<tr>
<th>Components</th>
<th>Canada (DSL)</th>
<th>Canada (NDSL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Cyanide</td>
<td>Present</td>
<td>Not Listed</td>
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</tbody>
</table>

Product code: S1260  
Product name: SODIUM CYANIDE, REAGENT, ACS
<table>
<thead>
<tr>
<th>Components</th>
<th>CEPA Schedule I - Toxic Substances</th>
<th>CEPA - 2010 Greenhouse Gases Subject to Mandatory Reporting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Cyanide</td>
<td>Not listed</td>
<td>Not listed</td>
</tr>
</tbody>
</table>

EU Classification

**R-phrase(s)**
R32 - Contact with acids liberates very toxic gas.
R26/27/28 - Very toxic by inhalation, in contact with skin and if swallowed.
R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**S-phrase(s)**
S 7 - Keep container tightly closed.
S28 - After contact with skin, wash immediately with plenty of .?
S29 - Do not empty into drains.
S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
S60 - This material and its container must be disposed of as hazardous waste.
S61 - Avoid release to the environment. Refer to special instructions/safety data sheets.***

<table>
<thead>
<tr>
<th>Components</th>
<th>Classification</th>
<th>Concentration Limits:</th>
<th>Safety Phrases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Cyanide</td>
<td></td>
<td>No information</td>
<td></td>
</tr>
</tbody>
</table>

The product is classified in accordance with Annex VI to Directive 67/548/EEC

**Indication of danger:**
T+ - Very toxic.

16. OTHER INFORMATION

The MSDS format complies with ANSI Z400.1/Z129.1-2010 standards.

**Preparation Date:** 10-Apr-2014

**Reason for revision:** Not applicable

**Prepared by:** Sonia Owen

**Literature reference:** No information available
All chemicals may pose unknown hazards and should be used with caution. This Material Safety Data Sheet (MSDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this MSDS. The physical properties reported in this MSDS are obtained from the literature and do not constitute product specifications. Information contained herein does not constitute a warranty, whether expressed or implied, as to the safety, merchantability or fitness of the goods for a particular purpose. Spectrum Chemicals & Laboratory Products, Inc. assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied. It shall be the user’s responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this MSDS is based on technical data judged to be reliable, Spectrum assumes no responsibility for the completeness or accuracy of the information contained herein.