

Safety Data Sheet

Part Number 327561

Section 1. Substance Identity and Company Contact Information

Product Name STD-Cyanide 150 ppm 9310 QC **Product Part Number(s)** 328685

Trade Name **Unit Size** 250 mL

Company OI Analytical, P.O. Box 9010, College Station, TX 77842-9010 Phone: (979) 690-1711, Fax: (979) 690-0440

Emergency No. 1-800-424-9300 (Chemtrec). Use only in the event of chemical emergencies involving spills, leaks, fire, exposure, or accidents involving chemicals.

Section 2. Hazards Identification

Pictogram(s)



Signal Word

Danger

Hazard Statement(s)

DANGER! Poisonous. May be fatal if swallowed. Do not get in eyes, on skin, or on clothing. Do not pipet by mouth. If ingested, give large quantity of water and induce vomiting. Call a physician. Wash areas of contact with plenty of water for at least 15 minutes. For eyes, get medical attention. Keep fresh 0.3 mL Amyl nitrite ampules, with instructions, on hand.

Target Organ(s)

Eyes, skin, respiratory system, central nervous system, liver, kidneys, cardiovascular system.

Potential Health Effects

Eye: May cause irritation, redness, pain, and tearing.

Skin: Will pass through unbroken skin and enter the bloodstream. Large exposures can be fatal.

Ingestion: A poison by ingestion. May cause systemic effects, hallucinations, distorted perceptions, muscle weakness, gastritis, and death.

Inhalation: May cause irritation. High exposures can cause rapid and severe lung damage, with shortness of breath, chest pain, cough, loss of consciousness, and death.

Chronic Effects/Carcinogenicity

IARC: No

NTP: No

OSHA: No

Teratology (Birth Defects) Information

Mutation cited in "Registry of Toxic Effects of Chemical Substances" for Potassium Cyanide.

Reproductive Information

Mutation data cited in "Registry of Toxic Effects of Chemical Substances" for Sodium Hydroxide.

NFPA Ratings

Health: 2

Flammability: 0

Reactivity: 0

Special Notice Key: No data available

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| HMIS Rating | Health: | 2 |
| | Flammability: | 0 |
| | Reactivity: | 0 |
| | Protective Equipment: | No data available |

Section 3. Chemical Composition and Data on Components

| Ingredient | CAS No. | Percent | Hazardous |
|-------------------|----------------|----------------|------------------|
| Water | 7732-18-5 | 99.9039 | No |
| Sodium hydroxide | 1310-73-2 | 0.0506 | Yes |
| Sodium cyanide | 143-33-9 | 0.0238 | Yes |
| Copper(I) cyanide | 544-92-3 | 0.0218 | Yes |

Section 4. First Aid Measures

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| General Advice | No data available |
| If Inhaled | Remove to fresh air. Give oxygen, if necessary. Contact a physician. |
| In Case of Skin Contact | Flush with copious amounts of water. Remove contaminated clothing. Contact a physician. |
| In Case of Eye Contact | Flush with copious amounts of water., lifting eyelids occasionally. Contact a physician. |
| If Swallowed | Contact poison center immediately for recommended procedure. Contact a physician. |
| Indication of Any Immediate Medical Attention and Special Treatment Needed | No data available |

Section 5. Fire-fighting Measures

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| General Information | Non-combustible |
| Suitable Extinguishing Media | Use any means suitable for extinguishing surrounding fire. |
| Special Hazards Arising from the Substance or mixture | No data available |
| Advice for Firefighters | No data available |
| Flash Point | No data available |
| Autoignition Temperature | No data available |
| Further Information | No data available |

Section 6. Accidental Release Measures

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| Personal Precautions, Protective Equipment, and Emergency Procedures | Ventilate area of the leak or spill. Wear appropriate personal protective equipment as specified in Section 8. |
| Environmental Precautions | No data available |
| Methods and Materials for Containment and Cleaning | A leaking bottle, vial, or ampule may be placed in a plastic bag, and normal disposal procedures followed. Take up spilled material with sand or other non-combustible absorbant material, and place in an appropriate container for later disposal. Flush spill area with water. |
| Reference to Other Sections | For disposal, see Section 13. |

Section 7. Handling and Storage

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| Precautions for Safe Handling | As with all chemicals, wash hands thoroughly after handling. Avoid contact with eyes and skin. |
| Conditions for Safe Storage, Including any Incompatibilities | Store at room temperature (18-25 °C). Keep in a tightly closed container, and store in a corrosion proof area. Protect from freezing and physical damage. Refrigeration will help maintain the strength of this solution. |
| Specific End Use(s) | Analytical chemistry |

Section 8. Exposure Controls and Personal Protection

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| Components with Workplace Control Parameters | No data available |
| Appropriate Engineering Controls | Use appropriate MSHA/NIOSH approved safety equipment. |
| Eye/Face Protection | Wear chemical goggles and face shield. |
| Skin Protection | Wear chemical resistant gloves. |
| Body Protection | Wear chemical resistant clothing, such as a laboratory coat and/or a rubber apron. |
| Respiratory Protection | Ensure there is adequate ventilation to prevent airborne levels from exceeding recommended exposure limits. |
| Control of Environmental Exposure | No data available |

Section 9. Physical and Chemical Properties

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| Appearance | Form: Clear liquid; Color: Colorless |
| Odor | Almond-like |
| Odor Threshold | No data available |
| pH | No data available |
| Melting Point/Freezing Point | 0 °C |
| Initial Boiling Point and Boiling Range | 100 °C |
| Flash Point | No data available |
| Evaporation Rate | No data available |
| Flammability (solid, gas) | No data available |
| Upper/Lower Flammability or Explosive Limits | No data available |
| Vapor Pressure | 17.542 |
| Vapor Density | No data available |
| Relative Density | No data available |
| Water Solubility | Complete |
| Partition Coefficient : n-octanol/water | No data available |
| Auto-ignition Temperature | No data available |
| Decomposition Temperature | No data available |
| Viscosity | No data available |
| Explosive Properties | No data available |
| Oxidizing Properties | No data available |
| Other Safety Information | No data available |

Section 10. Stability and Reactivity

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| Reactivity | No data available |
| Chemical Stability | This material is chemically stable under normal and anticipated storage and handling conditions. |
| Possibility of Hazardous Reactions | Can release Hydrogen Cyanide |
| Conditions to Avoid | Avoid strong acids |
| Incompatible Materials | No data available |

Section 11. Toxicological Information

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| Routes of Exposure | <i>On the skin:</i> In case of skin contact, flush with copious amounts of water. Remove contaminated clothing. Contact a physician. |
| | <i>On the eye:</i> In case of eye contact, flush with copious amounts of water, lifting eyelids occasionally. Contact a physician. |
| | <i>Inhalation:</i> If inhaled, remove to fresh air. Give oxygen, if necessary. Contact a physician. |
| | <i>Ingestion:</i> If ingested, contact poison center immediately for recommended procedure. Contact a physician. |
| Respiratory or Skin Sensitization | No data available |
| Signs and Symptoms of Overexposure | No data available |
| Toxicity Data | <i>Oral Rat</i> 5 mg/kg (Potassium cyanide) |

Section 12. Ecological Information

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| General Notes | Cyanides have high acute and chronic toxicity to aquatic life, birds, and land animals. Potassium Cyanide is non-persistent in water with a half-life of less than 2 days. |
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Section 13. Disposal Considerations

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| Product | In the fume hood, add the Cyanide solution to a solution of 1% Sodium Hydroxide (about 50 mL/g of Cyanide). Household bleach (about 70 mL/g of Cyanide) is slowly added to the basic Cyanide solution with stirring. When the addition of the bleach is complete, the solution can be tested for the presence of Cyanide using the Prussian Blue test: to 1 mL of the solution to be tested add 2 drops of freshly prepared 5% aqueous Ferrous Sulfate solution. Boil this mixture for at least 60 seconds, cool to room temperature, and then add 2 drops of 1% Ferric chloride solution. The resulting mixture is made acid to litmus with 6 Molar hydrochloric acid (prepared with equal amounts of concentrated Hydrochloric acid and water). If Cyanide is present, a deep blue precipitate will form. (Concentrations of greater than 1 ppm Cyanide can be detected.) If the test is positive, more bleach is added to the Cyanide solution, and the test is repeated. Continue until no Prussian Blue precipitate is formed. Wash the solution down the drain with excess water. Always dispose of in accordance with local, state, and federal regulations. |
| Contaminated Packaging | No data available |

Section 14. Transport Information

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| DOT Shipping Name | - |
| UN Proper Shipping Name | No data available |
| DOT Hazard Class | - |
| Packing Group | No data available |
| UN Number | No data available |
| Hazardous Ingredients | No data available |
| DOT Label | No data available |
| DOT Placard | No data available |
| | |
| IMDG Shipping Name | No information available |
| UN Number | No information available |
| Class | No information available |
| Packing Group | No information available |
| | |
| IATA Shipping Name | No information available |
| Technical Shipping Name | No information available |
| IATA Hazard Class | No information available |
| UN Number | No information available |
| Hazardous Ingredients | No information available |
| IATA Label | No information available |
| IATA Placard | No data available |

Section 15. Regulatory Information

Federal, State, International Regulations-Part 2

| Ingredient | CERCLA | RCRA 261.33 | TSCA 8 (d) |
|------------------------------------|--|--------------------|-------------------|
| Sodium cyanide | 10 pounds | P098 | - |
| Sodium hydroxide | 1000 pounds | | |
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| OSHA Status | Meets OSHA Hazard Communication Standard (29 CFR 1910.1200) definition of a hazardous material | | |
| TSCA Status | Components listed on the TSCA Inventory are mixtures of listed items. | | |
| CERCLA Reportable Quantity | No data available | | |
| SARA Title III | No data available | | |
| RCRA Status | No data available | | |
| California Proposition 65 | None Reported | | |
| Chemical Weapons Convention | No | | |
| TSCA 12 (b) | Unknown | | |
| SARA 311/312 | Acute: | | Yes |
| | Chronic: | | Yes |
| | Fire: | | No |
| | Pressure: | | No |
| | Reactivity: | | No |

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| Australian Hazchem Code | No data available |
| Poison Schedule | No data available |
| WHMIS | D-2A Poisonous and Infectious material |

Section 16. Other Information

Date Prepared: August 29, 2012

Revised: May 22, 2015

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