

Safety Data Sheet

Part Number 327560

Section 1. Substance Identity and Company Contact Information

Product Name STD-Cyanide 25 ppm 9310 QC **Product Part Number(s)** 328686
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

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

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

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

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

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

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

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

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

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

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

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

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		
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

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

Section 16. Other Information

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For R&D use only. Not for drug, household, or other uses.

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