

Classified According to OSHA Hazard Communication Standard (HCS)

# **SECTION 1: Identification**

## **1.1. Product Identifier**

Trade Name or Designation: Cyanide QC Standard, 25 ppm, 250 ml

Product Number: 328686

Other Identifying Product Numbers:

1.2. Recommended Use and Restrictions on Use

General Laboratory Reagent

# 1.3. Details of the Supplier of the Safety Data Sheet

Company: EZkem Address: 1045 Cannon Drive Hood River, OR 9703

**Telephone:** 541-387-0343

# 1.4. Emergency Telephone Number (24 hours)

CHEMTREC (USA) CHEMTREC (International) 800-424-9300 1+ 703-527-3887

# SECTION 2: Hazard(s) Identification

## 2.1. Classification of the Substance or Mixture

For the full text of the Hazard and Precautionary Statements listed below, see Section 16.

This product is not categorized as hazardous in any GHS hazard class.

## 2.2. GHS Label Elements

Pictograms: None Required.

Signal Word: None Required.



Hazard Statements: None Required.

Precautionary Statements: None Required.

#### **2.4. Hazards not Otherwise Classified or Covered by GHS** Data not available.

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# **SECTION 3: Composition / Information on Ingredients**

## 3.1. Components of Substance or Mixture

Chemical Name	Formula	Molecular Weight CAS Numbe	er Weight%
Water	H₂O	18.01 g/mol 7732-18-5	99.59
Sodium Hydroxide	NaOH	39.99 g/mol 1310-73-2	0.506
Sodium Cyanide	NaCN	49.00 g/mol 143-33-9	< 0.1

# **SECTION 4: First-Aid Measures**

## 4.1. General First Aid Information

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

Inhalation: Not expected to require first aid. If necessary, remove to fresh air.

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

**Ingestion:** Dilute immediately with water or milk. Induce vomiting. Call a physician.

# 4.2. Most Important Symptoms and Effects, Acute and Delayed

DANGER! Poisonous. Do not pipet by mouth. Do not get in eyes, on skin, or on clothing. If swallowed, give large quantity of water and induce vomiting. Call a physician. If contacted, wash areas of contact with plenty of water for 15 minutes. For eyes, get medical attention. Do not acidify. Contact with acid liberates poisonous Hydrogen Cyanide gas. EYE CONTACT: May cause irritation, redness, pain, and tearing. SKIN CONTACT: Will pass through unbroken skin and enter the bloodstream. Large exposures can be fatal.

## 4.3. Medical Attention or Special Treatment Needed

Not expected to require special treatment.

# **SECTION 5: Fire-Fighting Measures**

# 5.1. Extinguishing Media

Use any means suitable for extinguishing surrounding fire.

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# 5.2. Specific Hazards Arising from the Substance or Mixture

Not considered to be a fire or explosion hazard.

## **5.3. Special Protective Equipment for Firefighters**

Use protective clothing and NIOSH-approved breathing equipment appropriate for the surrounding fire.

# **SECTION 6: Accidental Release Measures**

## 6.1. Personal Precautions, Protective Equipment and Emergency Procedures

Wear appropriate PPE for the size and nature of the spill. As a general rule, wear safety glasses and gloves.

## 6.2. Cleanup and Containment Methods and Materials

Do not flush to sewer. Containerize for disposal with a hazardous waste disposal facility. Dispose of in accordance with local regulations.

# **SECTION 7: Handling and Storage**

# 7.1. Precautions for Safe Handling and Storage Conditions

As with all chemicals, wash hands thoroughly after handling. Avoid contact with eyes and skin. Protect from freezing and physical damage.



# **SECTION 8: Exposure Controls / Personal Protection**

## **8.1 Control Parameters**

Chemical Name	Limit Type	Country	Exposure Limit	Information Source
Sodium Hydroxide (1310-73-2)	TWA	USA	2 mg/m³ TWA	U.S OSHA - Final PELs - Time
				Weighted Averages (TWAs)
Sodium Hydroxide (1310-73-2)	TLV-Ceiling	USA	2 mg/m <sup>3</sup> Ceiling	ACGIH - Threshold Limit Values -
				Ceilings (TLV-C)
Sodium Cyanide (143-33-9)	TWA	USA	"5 mg/m <sup>3</sup> TWA (as CN)" As	U.S OSHA - Final PELs - Time
			Cyanides [RR-00812-8]	Weighted Averages (TWAs)
Sodium Cyanide (143-33-9)	TLV-Ceiling	USA	5 mg/m <sup>3</sup> Ceiling (as CN,	ACGIH - Threshold Limit Values -
			listed under Hydrogen	Ceilings (TLV-C)
			cyanide and cyanide salts)	
Sodium Cyanide (143-33-9)	TWA	USA	"5 mg/m <sup>3</sup> TWA (as CN)" As	U.S OSHA - Final PELs - Time
			Cyanides [RR-00812-8]	Weighted Averages (TWAs)
Sodium Cyanide (143-33-9)	TWA	USA	"5 mg/m <sup>3</sup> TWA (as CN)" As	U.S OSHA - Final PELs - Time
			Cyanides [RR-00812-8]	Weighted Averages (TWAs)
Sodium Cyanide (143-33-9)	TWA	USA	5 mg/m <sup>3</sup> TWA (as CN)	U.S OSHA - Final PELs - Time
				Weighted Averages (TWAs)
Sodium Cyanide (143-33-9)	TWA	USA	"5 mg/m <sup>3</sup> TWA (as CN)" As	U.S OSHA - Final PELs - Time
- · · · ·			Cyanides [RR-00812-8]	Weighted Averages (TWAs)
Sodium Cyanide (143-33-9)	TWA	USA	"5 mg/m <sup>3</sup> TWA (as CN)" As	U.S OSHA - Final PELs - Time
,			Cyanides [RR-00812-8]	Weighted Averages (TWAs)

## 8.2. Exposure Controls

Engineering Controls: A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limit.

Respiratory Protection: Normal room ventilation is adequate.

Skin Protection: Chemical resistant gloves.

Eye Protection: Safety glasses or goggles.

# 8.3. Personal Protective Equipment

Normal room ventilation is adequate. Chemical resistant gloves. Safety glasses or goggles.



# **SECTION 9: Physical and Chemical Properties**

# 9.1. Basic Physical and Chemical Properties

Appearance: Colorless liquid Physical State: Liquid Odor: Data not available. Odor Threshold: Data not available. pH: Data not available. Melting/Freezing Point: 0.0°C Initial Boiling Point/Range: 100°C - 100°C Flash Point: Data not available. Evaporation Rate: Data not available. Flammability: Data not available. Flammability/Explosive Limits: Data not available. Vapor Pressure: Data not available. Vapor Density: Data not available. Relative Density: 1.0 Solubility: Miscible Partition Coefficient: Data not available. Auto-Ignition Temperature: Data not available. **Decomposition Temperature:** Data not available. Viscosity: Data not available. Explosive Properties: Data not available. Oxidizing Properties: Data not available.

# **SECTION 10: Stability and Reactivity**

## **10.1. Reactivity and Chemical Stability**

Stable under normal conditions of use and storage.

## **10.2. Possibility of Hazardous Reactions**

Data not available.

## 10.3. Conditions to Avoid and Incompatible Materials

Protect from freezing and physical damage.

## **10.4. Hazardous Decomposition Products**

Will not occur.

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# **SECTION 11: Toxicological Information**

# 11.1. Information on Toxicological Effects

#### Acute Toxicity - Oral Exposure:

Not applicable.

#### Acute Toxicity - Dermal Exposure:

Not applicable.

#### Acute Toxicity - Inhalation Exposure:

Not applicable.

#### Acute Toxicity - Other Information:

LD50, Oral, Rat: 6.44 mg/kg (Sodium Cyanide), details of toxic effects not reported other than lethal dose value. LD50, Dermal, Rabbit: 10.4 mg/kg (Sodium Cyanide), behavioral and respiratory effects noted.

#### Skin Corrosion and Irritation:

Not applicable.

# Serious Eye Damage and Irritation:

Not applicable.

## **Respiratory Sensitization:**

Not applicable.

#### Skin Sensitization: Not applicable.

# Germ Cell Mutagenicity:

Not applicable.

## **Carcinogenicity:**

Not applicable.

#### **Reproductive Toxicity:**

Not applicable.

#### Specific Target Organ Toxicity from Single Exposure:

Not applicable.

#### Specific Target Organ Toxicity from Repeated Exposure:

Not applicable.

#### **Aspiration Hazard:**

Not applicable.

#### Additional Toxicology Information:

Data not available.



# **SECTION 12: Ecological Information**

## 12.1. Ecotoxicity

Not applicable.

- **12.2. Persistence and Degradability** Data not available.
- **12.3. Bioaccumulative Potential** Data not available.
- 12.4. Mobility in Soil

Data not available.

12.5. Other Adverse Ecological Effects

Data not available.

# **SECTION 13: Disposal Considerations**

## **13.1. Waste Treatment Methods**

Data not available.

**SECTION 14: Transportation Information** 

# 14.1. Transportation by Land-Department of Transportation (DOT, United States of America)

Not regulated according to DOT Regulations.



# 14.2. Transportation by Air - International Air Transport Association (IATA)

Not regulated according to IATA Dangerous Goods Regulations.

# 14.3 Transportation of Dangerous Goods (TDG, Canada)

Not regulated according to TDG Regulations.

# **SECTION 15: Regulatory Information**

# 15.1. Occupational Safety and Health Administration (OSHA) Hazards

Not listed.

# 15.2. Superfund Amendments and Reauthorization Act (SARA) 302 Extremely Hazardous Substances

Sodium Cyanide (CAS # 143-33-9): 10 lb EPCRA RQ Sodium Cyanide (CAS # 143-33-9): 100 lb TPQ (this material is a reactive solid, the TPQ does not default to 10000 pounds for non-powder, non-molten, non-solution form)

# 15.3. Superfund Amendments and Reauthorization Act (SARA) 311/312 Hazardous Chemicals

Sodium Hydroxide (CAS # 1310-73-2): 1000 lb final RQ; 454 kg final RQ Sodium Cyanide (CAS # 143-33-9): "10 lb final RQ; 4.54 kg final RQ" As F019-Hazardous wastes [RR-00647-3] Sodium Cyanide (CAS # 143-33-9): 10 lb final RQ; 4.54 kg final RQ



## 15.4. Superfund Amendments and Reauthorization Act (SARA) 313 Toxic Release Inventory (TRI)

Sodium Cyanide (CAS # 143-33-9): "1.0 % de minimis concentration (X+CN- where X=H+ or any other group where a formal dissociation can be made, for example, KCN or Ca(CN)2, listed under Chemical Category N106)" As Cyanide compounds [RR-00812-8] Sodium Cyanide (CAS # 143-33-9): 1.0 % de minimis concentration (X+CN- where X=H+ or any other group where a formal dissociation can be made, for example, KCN or Ca(CN)2, listed under Chemical Category N106)

## 15.5. Massachusetts Right-to-Know Substance List

Sodium Hydroxide (CAS # 1310-73-2): Present Sodium Cyanide (CAS # 143-33-9): Extraordinarily hazardous Sodium Cyanide (CAS # 143-33-9): Present

# 15.6. Pennsylvania Right-to-Know Hazardous Substances

Sodium Hydroxide (CAS # 1310-73-2): Environmental hazard Sodium Hydroxide (CAS # 1310-73-2): Present Sodium Cyanide (CAS # 143-33-9): "Environmental hazard" As Cyanide compounds [RR-00812-8] Sodium Cyanide (CAS # 143-33-9): "Present" As Cyanide compounds [RR-00812-8] Sodium Cyanide (CAS # 143-33-9): Environmental hazard Sodium Cyanide (CAS # 143-33-9): Present Sodium Cyanide (CAS # 143-33-9): Present Sodium Cyanide (CAS # 143-33-9): Present (listed under Cyanide) Water (CAS # 7732-18-5): "Present" As Ethyl alcohol and water [RR-00802-6] Water (CAS # 7732-18-5): Present

# 15.7. New Jersey Worker and Community Right-to-Know Components

Sodium Hydroxide (CAS # 1310-73-2): corrosive Sodium Hydroxide (CAS # 1310-73-2): sn 1706 Sodium Cyanide (CAS # 143-33-9): "SN 2308 500 lb TPQ (Category Code N106. Includes any unique chemical substance that contains the named metal as part of that chemical structure)" As Cyanide compounds [RR-00812-8] Sodium Cyanide (CAS # 143-33-9): "sn 2308" As Cyanide compounds [RR-00812-8] Sodium Cyanide (CAS # 143-33-9): sn 0553 (listed under Cyanide) Sodium Cyanide (CAS # 143-33-9): SN 0553 500 lb TPQ Sodium Cyanide (CAS # 143-33-9): SN 0553 500 lb TPQ Sodium Cyanide (CAS # 143-33-9): SN 1693 100 lb TPQ Sodium Cyanide (CAS # 143-33-9): SN 1693 100 lb TPQ Sodium Cyanide (CAS # 143-33-9): SN 2308 Sodium Cyanide (CAS # 143-33-9): SN 2308 500 lb TPQ (Category Code N106. Includes any unique chemical substance that contains the named metal as part of that chemical structure)

## 15.8. California Proposition 65

Sodium Cyanide (CAS # 143-33-9): "male reproductive toxicity, 7/5/13" As Hydrogen cyanide salts [RR-04817-9] Sodium Cyanide (CAS # 143-33-9): male reproductive toxicity, 7/5/13

# 15.9. Canada Domestic Substances List / Non-Domestic Substances List (DSL/NDSL)

Sodium Hydroxide (CAS # 1310-73-2): Present (DSL) Sodium Cyanide (CAS # 143-33-9): Present (DSL) Water (CAS # 7732-18-5): Present (DSL)



# 15.10. United States of America Toxic Substances Control Act (TSCA) List

All components of this solution are listed as active on the TSCA Inventory or are mixtures (hydrates) of active items listed on the TSCA Inventory.

Sodium Hydroxide (CAS # 1310-73-2): Present (ACTIVE) Sodium Cyanide (CAS # 143-33-9): Present (ACTIVE) Water (CAS # 7732-18-5): Present (ACTIVE)

# 15.11. European Inventory of Existing Commercial Chemical Substances (EINECS), European

# List of Notified Chemical Substances (ELINCS), and No Longer Polymers (NLP)

Sodium Hydroxide (CAS # 1310-73-2): 215-185-5 Sodium Cyanide (CAS # 143-33-9): 205-599-4 Water (CAS # 7732-18-5): 231-791-2

# **SECTION 16: Other Information**

# 16.1. Full Text of Hazard Statements and Precautionary Statements

## 16.2. Miscellaneous Hazard Classes

Canadian Carcinogenicity Hazard Class: Not Applicable. Physical Hazards Not Otherwise Classified (PHNOC): Not Applicable. Health Hazards Not Otherwise Classified (HHNOC): Not Applicable. Biohazardous Infectious Materials Hazard Class: Not Applicable.

## 16.3. National Fire Protection Association (NFPA) Rating

Health:	2
Flammability:	0
Reactivity:	0
Special Hazard:	



# 16.4. Document Revision

Last Revision Date: 2023-05-02

# DISCLAIMER

When handled properly by qualified personnel, the product described herein does not present a significant health or safety hazard. Alteration of its characteristics by concentration, evaporation, addition of other substances, or other means may present hazards not specifically addressed herein and which must be evaluated by the user. The information furnished herein is believed to be accurate and represents the best data currently available to us. No warranty, expressed or implied, is made and EZKEM assumes no legal responsibility or liability whatsoever resulting from its use.