



Material Safety Data Sheet Cyanide Standard, 1000 ppm

Section 1 - Chemical Product and Company Identification

MSDS Name:

Cyanide Standard, 1000 ppm

Catalog Numbers:

LC13545

Synonyms:

None

Company Identification:

LabChem Inc
200 William Pitt Way
Pittsburgh, PA 15238

Company Phone Number:

(412) 826-5230

Emergency Phone Number:

(800) 424-9300

CHEMTREC Phone Number:

(800) 424-9300

Section 2 – Composition, Information on Ingredients

CAS#	Chemical Name:	Percent
7732-18-5	Water	balance
1310-73-2	Sodium hydroxide	<0.16
151-50-8	Potassium cyanide	0.25

Section 3 - Hazards Identification

Emergency Overview

Appearance: *Clear, colorless solution*

Danger! May be fatal if inhaled, swallowed, or absorbed through the skin. Contact with acids liberates toxic gas. May cause long-term effects in the aquatic environment. May cause irritation to eyes, skin, respiratory, and gastrointestinal tracts.

Target Organs: *Central nervous system, lungs, eyes, thyroid, skin*

Potential Health Effects

Eye:

Causes eye irritation.

Skin:

Causes skin irritation. If absorbed through the skin, causes symptoms similar to those of ingestion.

Ingestion:

May be fatal if swallowed. Causes tissue anoxia, characterized by weakness, headache, dizziness, confusion, cyanosis, weak and irregular heartbeat, collapse, unconsciousness, convulsions and



Material Safety Data Sheet Cyanide Standard, 1000 ppm

death, sometimes within 1-15 minutes. May cause gastrointestinal irritation with nausea, vomiting and diarrhea.

Inhalation:

Causes respiratory tract irritation. Inhalation of high concentrations of vapors may cause effects similar to those of ingestion.

Chronic:

Exposure to low levels over long periods of time may cause loss of appetite, headache, nausea, dizziness, upper respiratory tract irritation. Prolonged skin contact may cause dermatitis and "cyanide rash" characterized by itching. Prolonged eye contact may cause conjunctivitis and corrosion of cornea.

Section 4 - First Aid Measures

Eyes:

Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower lids until chemical is gone. Get medical aid at once.

Skin:

Immediately flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid at once.

Ingestion:

SPEEDY ACTION IS CRITICAL. NOTIFY MEDICAL PERSONNEL IMMEDIATELY. Call a poison control center. If conscious, drink water, then induce vomiting with syrup of ipecac. If unconscious, immediately take victim to a physician and do NOT attempt to induce vomiting.

Inhalation:

SPEEDY ACTION IS CRITICAL. NOTIFY MEDICAL PERSONNEL IMMEDIATELY. Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Do NOT use mouth-to-mouth resuscitation.

Notes to Physician:

Exposure should be treated as a cyanide poisoning.

Section 5 - Fire Fighting Measures

General Information:

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

Extinguishing Media:

Substance is noncombustible; use agent most appropriate to extinguish surrounding fire. Do NOT use carbon dioxide.

Autoignition Temperature:

Not applicable

Flash Point:

Not applicable

NFPA Rating:

CAS# 7732-18-5: Health- 0, Flammability- 0, Instability- 0.

CAS# 1310-73-2: Health- 3, Flammability- 0, Instability- 1.

CAS# 151-50-8: Health- 4, Flammability- 0, Instability- 1.

Explosion Limits:

Lower: n/a Upper: n/a



Material Safety Data Sheet Cyanide Standard, 1000 ppm

Section 6 - Accidental Release Measures

General Information:

Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks:

Absorb spills with absorbent (vermiculite, sand, fuller's earth) and place in plastic bags for later disposal. Clean up spills immediately, observing precautions in the Protective Equipment section.

Section 7 - Handling and Storage

Handling:

Wash thoroughly after handling. Use with adequate ventilation. Do not get in eyes, on skin, or on clothing. Avoid ingestion and inhalation. Do not ingest or inhale. Wash clothing before reuse.

Storage:

Store in a tightly closed container. Keep from contact with oxidizing materials. Store in a cool, dry, well-ventilated area away from incompatible substances. Keep away from acids.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations below the permissible exposure limits.

Exposure Limits:

Chemical Name:	ACGIH	NIOSH	OSHA
Water	none listed	none listed	none listed
Sodium hydroxide	2 mg/m ³ Ceiling	10 mg/m ³ IDLH	2 mg/m ³ TWA
Potassium cyanide	5 mg/m ³ Ceiling (as CN) (listed as Hydrogen cyanide and cyanide salts)	25 mg/m ³ IDLH (as CN)	5 mg/m ³ TWA (listed under Cyanide anion)

OSHA Vacated PELs:

None.

Personal Protective Equipment**Eyes:**

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:

Wear appropriate gloves to prevent skin exposure.

Clothing:

Wear appropriate protective clothing to prevent skin exposure.

Respirators:

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.



Material Safety Data Sheet Cyanide Standard, 1000 ppm

Section 9 - Physical and Chemical Properties

Physical State:	Clear liquid
Color:	Colorless
Odor:	Odorless to slight odor of bitter almond
pH:	Alkaline
Vapor Pressure:	Not available
Vapor Density:	Not available
Evaporation Rate:	Not available
Viscosity:	Not available
Boiling Point:	>100°C (>212°F)
Freezing/Melting Point:	<0°C (<32°F)
Decomposition Temperature:	Not available
Solubility in water:	Soluble
Specific Gravity/Density:	1.0
Molecular Formula:	Not applicable
Molecular Weight:	Not applicable

Section 10 - Stability and Reactivity

Chemical Stability:

Absorbs carbon dioxide from the air.

Conditions to Avoid:

Incompatible materials, excess heat.

Incompatibilities with Other Materials:

Acids, bases, aluminum, chlorates, permanganates, peroxides, zinc, aldehydes, metallic salts, chloral hydrate, iodine.

Hazardous Decomposition Products:

Hydrogen cyanide, nitrogen oxides, potassium oxides.

Hazardous Polymerization:

Has not been reported.

Section 11- Toxicological Information

RTECS:

CAS# 7732-18-5: ZC0110000.

CAS# 1310-73-2: WB4900000.

CAS# 151-50-8: TS8750000.

LD50/LC50:

CAS# 7732-18-5:

Oral, rat: LD50 = >90 mL/kg.

CAS# 1310-73-2:

Draize test, rabbit, eye: 50ug/24h Severe,

Draize test, rabbit, skin: 500mg/24h Severe

CAS# 151-50-8:

Oral, mouse: LD50 = 8500 ug/kg

Oral, rabbit: LD50 = 5 mg/kg

Oral, rat: LD50 = 5 mg/kg



Material Safety Data Sheet Cyanide Standard, 1000 ppm

Carcinogenicity:

CAS# 7732-18-5: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65.
CAS# 1310-73-2: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65.
CAS# 151-50-8: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65.

Epidemiology:

Workers exposed to cyanide long-term experienced headaches, weakness, changes in taste and smell, irritation of the throat, vomiting, and effort dyspnea. Enlargement of the thyroid occurred in 50% of the workers.

Teratogenicity:

Animal studies have only shown harmful effects in the offspring of animals exposed to doses that also produced significant maternal toxicity.

Reproductive:

See actual entry in RTECS for complete information.

Mutagenicity:

See actual entry in RTECS for complete information.

Neurotoxicity:

No information found

Section 12 - Ecological Information

No information found

Section 13 - Disposal Considerations

Dispose of in accordance with Federal, State, and local regulations.

Section 14 - Transport Information

US DOT

Shipping Name: Not regulated.

Hazard Class:

UN Number:

Packing Group:

Section 15 - Regulatory Information

US Federal

TSCA:

CAS# 7732-18-5 is listed on the TSCA Inventory.
CAS# 1310-73-2 is listed on the TSCA Inventory.
CAS# 151-50-8 is listed on the TSCA Inventory.

SARA Reportable Quantities (RQ):

CAS# 1310-73-2: final RQ = 1000 pounds (454 kg)
CAS# 151-50-8: final RQ = 10 pounds (4.54 kg)

CERCLA/SARA Section 313:

None of the components are on this list.



Material Safety Data Sheet Cyanide Standard, 1000 ppm

OSHA - Highly Hazardous:

None of the chemicals in this product are considered highly hazardous by OSHA.

US State

State Right to Know:

Sodium hydroxide can be found on the following state Right-to-Know lists: California, New Jersey, Florida, Pennsylvania, Minnesota, Massachusetts.

Potassium cyanide can be found on the following state Right-to-Know lists: California, New Jersey, Florida, Pennsylvania, Minnesota, Massachusetts.

California Regulations:

None.

European/International Regulations

Canadian DSL/NDSL:

CAS# 7732-18-5 is listed on Canada's DSL List.

CAS# 1310-73-2 is listed on Canada's DSL List.

CAS# 151-50-8 is listed on Canada's DSL List.

Canada Ingredient Disclosure List:

CAS# 7732-18-5 is not listed on Canada's Ingredient Disclosure List.

CAS# 1310-73-2 is listed on Canada's Ingredient Disclosure List.

CAS# 151-50-8 is not listed on Canada's Ingredient Disclosure List as Cyanides, inorganic salts.

Section 16 - Other Information

MSDS Creation Date: July 20, 1998

Revision Date: October 13, 2009

Information in this MSDS is from available published sources and is believed to be accurate. No warranty, express or implied, is made and LabChem Inc. assumes no liability resulting from the use of this MSDS. The user must determine suitability of this information for his application.