



Safety Data Sheet

Potassium Cyanide, Granular, ACS

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Potassium Cyanide, Granular, ACS

Synonyms/Generic Names: None

Product Number: CP-J1888D, CP-A1888D, CP-M1888D, 4275

Product Use: Industrial, Manufacturing or Laboratory use

Manufacturer: ChemPure Brand Chemicals
39103 Warren Road
Westland, MI 48185

For More Information Call: 734-729-1805 (Monday-Friday 8:00-4:30)

In Case of Emergency Call: CHEMTREC - 800-424-9300 or 703-527-3887 (24 Hours/Day, 7 Days/Week)

2. HAZARDS IDENTIFICATION

OSHA Hazards: Target organ effect, Highly toxic by inhalation, Highly toxic by ingestion, Highly toxic by skin absorption

Target Organs: Blood, Central nervous system, Cardiovascular system, Thyroid

Signal Word: Danger

Pictograms:



GHS Classification:

Corrosive to metals	Category 1
Acute toxicity, Oral	Category 2
Acute toxicity, Inhalation	Category 2
Acute toxicity, Dermal	Category 1
Specific target organ toxicity-single exposure	Category 1
Specific target organ toxicity-repeated exposure	Category 1
Acute aquatic toxicity	Category 1

GHS Label Elements, including precautionary statements:

Hazard Statements:

H290	May be corrosive to metals.
H300+H310+H330	Fatal if swallowed, in contact with skin or if inhaled.
H370	Causes damage to organs through prolonged or repeated exposure.
H372	Causes damage to organs.
H410	Very toxic to aquatic life.

Precautionary Statements:

P260	Do not breathe dust/ fume/ gas/ mist/ vapors/ spray.
P264	Wash hands thoroughly after handling.
P273	Avoid release to the environment.
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.
P284	Wear respiratory protection.
P302+P350	IF ON SKIN: Gently wash with plenty of soap and water.
P310	Immediately call a POISON CENTER or doctor/ physician.

Potential Health Effects

Eyes	Causes eye irritation.
Inhalation	May be fatal if inhaled. Causes respiratory tract irritation.
Skin	May be fatal if absorbed through skin. Causes skin irritation.
Ingestion	May be fatal if swallowed.

NFPA Ratings

Health	4
Flammability	0
Reactivity	0
Specific hazard	Not Available

HMIS Ratings

Health	4
Fire	0
Reactivity	0
Personal	J

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	Weight %	CAS #	EINECS# / ELINCS#	Formula	Molecular Weight
Potassium Cyanide	>96	151-50-8	205-792-3	KCN	65.12 g/mol

4. FIRST-AID MEASURES

Eyes	Rinse with plenty of water for at least 15 minutes and seek medical attention immediately.
Inhalation	Move casualty to fresh air and keep at rest. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention immediately.
Skin	Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and wash using soap. Get medical attention immediately.
Ingestion	Do Not Induce Vomiting! Never give anything by mouth to an unconscious person. If conscious, wash out mouth with water. Get medical attention immediately.

5. FIRE-FIGHTING MEASURES

Suitable (and unsuitable) extinguishing media	Product is not flammable. Use appropriate media for adjacent fire. Do not use water or carbon dioxide on chemical, use dry chemical or alcohol foam.
Special protective equipment and precautions for firefighters	Wear self-contained, approved breathing apparatus and full protective clothing, including eye protection and boots.
Specific hazards arising from the chemical	Emits toxic fumes (carbon oxides, nitrogen oxides, potassium oxides) under fire conditions. (See also Stability and Reactivity section).

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	See section 8 for recommendations on the use of personal protective equipment.
Environmental precautions	Prevent spillage from entering drains. Any release to the environment may be subject to federal/national or local reporting requirements.
Methods and materials for containment and cleaning up	Pick up and arrange disposal without creating dust. Sweep up and place in suitable, closed containers for disposal. Do not flush with water. Dispose of all waste and cleanup materials in accordance with regulations.

7. HANDLING AND STORAGE

Precautions for safe handling

See section 8 for recommendations on the use of personal protective equipment. Use with adequate ventilation. Wash thoroughly after using. Keep container closed when not in use. Avoid formation of dusts.

Conditions for safe storage, including any incompatibilities

Store in cool, dry well ventilated area. Light sensitive. Hygroscopic. Moisture sensitive. Keep away from incompatible materials (see section 10 for incompatibilities).

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational exposure controls:

Component	Exposure Limits	Basis	Entity
Potassium Cyanide	5 mg/m ³	CEIL	ACGIH
	5 mg/m ³	PEL	OSHA
	5 mg/m ³ 4.78 ppm	CEIL	NIOSH

TWA: Time Weighted Average over 8 hours of work.

TLV: Threshold Limit Value over 8 hours of work.

REL: Recommended Exposure Limit

PEL: Permissible Exposure Limit

STEL: Short Term Exposure Limit during x minutes.

IDLH: Immediately Dangerous to Life or Health

WEEL: Workplace Environmental Exposure Levels

CEIL: Ceiling

Personal Protection

Eyes	Wear chemical safety glasses or goggles.
Inhalation	If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US).
Skin	Wear nitrile or rubber gloves, apron or lab coat. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
Other	Not Available

Other Recommendations

Provide eyewash stations, quick-drench showers and washing facilities accessible to areas of use and handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance (physical state, color, etc.)	White solid.
Odor	Almond-like.
Odor threshold	Not Available
pH	11.5 at 20 g/l at 20°C (68°F)
Melting point/freezing point	634.5°C (1174.1°F)
Initial boiling point and boiling range	1625°C (2957°F)
Flash point	Not Flammable
Evaporation rate	Not Available
Flammability (solid, gas)	Not Flammable
Upper/lower flammability or explosive limit	Not Explosive
Vapor pressure	Not Available
Vapor density	Not Available
Density	1.553 (Water = 1)
Solubility (ies)	Soluble in water. Partially soluble in methanol. Slightly soluble in ethanol.
Partition coefficient: n-octanol/water	log Pow: 0.44
Auto-ignition temperature	Not Available
Decomposition temperature	Not Available

10. STABILITY AND REACTIVITY

Chemical Stability	Stable.
Possibility of Hazardous Reactions	Will not occur.
Conditions to Avoid	Moisture.
Incompatible Materials	Acids, strong oxidizing agents, iodine, permanganates, e.g. potassium permanganate, peroxides, metallic salts, chloral hydrate, alkaloids, chlorates.
Hazardous Decomposition Products	Carbon oxides, nitrogen oxides, potassium oxides, hydrogen cyanide.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Skin	Not Available
Eyes	Not Available
Respiratory	Not Available
Ingestion	LDLO Oral - Human - 2.857 mg/kg LD50 Oral - mouse - 8.5 mg/kg LD50 Oral - rabbit - 5 mg/kg LD50 Oral - rat - 6 mg/kg
Other	LD50 Subcutaneous - rat - 7.814 mg/kg LD50 Intravenous - rat - 3.6 mg/kg LD50 Intraperitoneal - rat - 4 mg/kg LD50 Subcutaneous - mouse - 6.5 mg/kg LD50 Intravenous - mouse - 2.6 mg/kg LD50 Intravenous - cat - 2.2 mg/kg LD50 Intraperitoneal - rabbit - 3.972 mg/kg LD50 Subcutaneous - rabbit - 4 mg/kg LD50 Intramuscular - rabbit - 3.256 mg/kg LD50 Ocular - rabbit - 7.87 mg/kg LD50 Intramuscular - Pigeon - 4 mg/kg

Carcinogenicity

IARC	No components of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
ACGIH	No components of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
NTP	No components of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
OSHA	No components of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Signs & Symptoms of Exposure

Skin	Causes skin irritation and possible burns especially if the skin is wet or moist.
Eyes	Causes eye irritation and possible eye burns.
Respiratory	Causes respiratory tract and mucous membrane irritation.
Ingestion	Causes severe gastrointestinal tract irritation with nausea, vomiting and possible burns. May cause tissue anoxia. May affect behavior/central nervous system, metabolism, cardiovascular system, respiratory system, blood, respiration.

Chronic Toxicity	Causes damage to the following organs: blood, liver. May cause damage to the following organs: cardiovascular system, upper respiratory tract, Urinary system, central nervous system (CNS).
Teratogenicity	Not Available
Mutagenicity	Mutagenic for mammalian somatic cells.
Embryotoxicity	Not Available
Specific Target Organ Toxicity-single exposure	Ingestion - Causes damage to organs. - Heart, Testes
Specific Target Organ Toxicity-repeated exposure	Causes damage to organs through prolonged or repeated exposure.
Reproductive Toxicity	May cause adverse reproductive effects (female fertility and fetotoxicity).
Respiratory/Skin Sensitization	Not Available

12. ECOLOGICAL INFORMATION

Ecotoxicity

Aquatic Vertebrate	LC50 - Oncorhynchus mykiss (rainbow trout) - 0.052 mg/l - 96.0 h LC50 - Lepomis macrochirus - 0.45 mg/l - 96.0 h
Aquatic Invertebrate	EC50 - Daphnia magna (Water flea) - 2 mg/l - 48 h EC50 - Daphnia magna (Water flea) - 0.53 mg/l - 24 h
Terrestrial	IC50 - Scenedesmus quadricauda (Green algae) - 0.03 mg/l - 192 h
Other	Bacteria - 0.6 - 2.3 mg/l - 0.5 h

Persistence and Degradability	Not Available
Bioaccumulative Potential	Oncorhynchus mykiss (rainbow trout) - 16 Weeks Bioconcentration factor (BCF): 170
Mobility in Soil	Not Available
PBT and vPvB Assessment	Not Available
Other Adverse Effects	Chemical Oxygen Demand (COD) < 1 mg/g Very toxic to aquatic life with long lasting effects.

13. DISPOSAL CONSIDERATIONS

Waste Residues	Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste product container or residue.
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Product Containers	Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste product container.
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The information offered in section 13 is for the product as shipped. Use and/or alterations to the product may significantly change the characteristics of the material and alter the waste classification and proper disposal methods.

14. TRANSPORTATION INFORMATION

US DOT	UN1680, Potassium cyanide, solid, 6.1, pg I
TDG	UN1680, POTASSIUM CYANIDE, SOLID, 6.1, pg I
IMDG	UN1680, POTASSIUM CYANIDE, SOLID, 6.1, pg I
Marine Pollutant	Yes
IATA/ICAO	UN1680, Potassium cyanide, solid, 6.1, pg I

15. REGULATORY INFORMATION

TSCA Inventory Status	All ingredients are listed on the TSCA inventory.
DSCL (EEC)	All ingredients are listed on the DSCL inventory.
California Proposition 65	Not Listed
SARA 302	Listed: Potassium cyanide
SARA 304	Listed: Potassium cyanide
SARA 311	Acute Health Hazard, Chronic Health Hazard
SARA 312	Acute Health Hazard, Chronic Health Hazard
SARA 313	Listed: Potassium cyanide
WHMIS Canada	Class D-1A: Poisonous and infectious material- Immediate and serious effects- Very toxic Class E: Corrosive material

16. OTHER INFORMATION

Revision	Date
Revision 1	08-07-2012
Revision 2	11/14/2013

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