

# SAFETY DATA SHEET

## 1. Identification

**Product identifier:** POTASSIUM CYANIDE

**Other means of identification**

**Product No.:** 3080, 6881

**Recommended use and restriction on use**

**Recommended use:** Not available.

**Restrictions on use:** Not known.

**Manufacturer/Importer/Supplier/Distributor Information**

**Manufacturer**

Avantor Performance Materials, Inc.  
3477 Corporate Parkway, Suite 200  
Center Valley, PA 18034

Telephone:

Customer Service: 855-282-6867

Fax:

610-573-2610

Contact Person:

Environmental Health & Safety

E-mail:

info@avantormaterials.com

**Emergency telephone number:** CHEMTREC: 1-800-424-9300 within US and Canada

CHEMTREC: 1-703-527-3887 outside US and Canada

## 2. Hazard(s) identification

**Hazard Classification**

**Health Hazards**

Acute toxicity (Oral) Category 1

**Environmental Hazards**

Acute hazards to the aquatic environment Category 1

**Label Elements**

**Hazard Symbol:**



**Signal Word:** Danger

**Hazard Statement:** Fatal if swallowed.  
Very toxic to aquatic life.

**Precautionary Statement**

<b>Prevention:</b>	Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Avoid release to the environment.
<b>Response:</b>	IF SWALLOWED: Immediately call a POISON CENTER/doctor. Rinse mouth. Specific treatment (see this label). Collect spillage.
<b>Storage:</b>	Store locked up.
<b>Disposal:</b>	Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

**Unknown toxicity - Health**

Acute toxicity, dermal	100 %
Acute toxicity, inhalation, vapor	100 %
Acute toxicity, inhalation, dust or mist	100 %

**Unknown toxicity - Environment**

Acute hazards to the aquatic environment	0 %
Chronic hazards to the aquatic environment	100 %

**Other hazards which do not result in GHS classification:** None.

### 3. Composition/information on ingredients

**Substances**

Chemical Identity	Common name and synonyms	CAS number	Content in percent (%)*
POTASSIUM CYANIDE		151-50-8	96 - 100%

\* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

### 4. First-aid measures

<b>General information:</b>	Get medical attention immediately. Show this safety data sheet to the doctor in attendance.
<b>Ingestion:</b>	Call a physician or poison control center immediately. Never give liquid to an unconscious person. Give activated charcoal and keep patient quiet, in a dark place if possible. Do not induce vomiting without advice from poison control center. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Rinse mouth. Ensure unobstructed airway.
<b>Inhalation:</b>	Call a physician or poison control center immediately. Move to fresh air. Ensure unobstructed airway. Administer antidote kit and oxygen per pre-planned instructions if symptoms occur. Do not give mouth-to-mouth resuscitation.
<b>Skin Contact:</b>	Call a physician or poison control center immediately. Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash contaminated clothing before reuse. Destroy or thoroughly clean contaminated shoes.
<b>Eye contact:</b>	Call a physician or poison control center immediately. Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses.

**Most important symptoms/effects, acute and delayed**

**Symptoms:** Fatal if swallowed.

**Indication of immediate medical attention and special treatment needed**

**Treatment:** Treat symptomatically.

**5. Fire-fighting measures**

**General Fire Hazards:** In case of fire and/or explosion do not breathe fumes.

**Suitable (and unsuitable) extinguishing media**

**Suitable extinguishing media:** Dry chemical. Dry sand.

**Unsuitable extinguishing media:** Water, CO2 or Foam

**Specific hazards arising from the chemical:** Combustion by-products include oxides of nitrogen, hydrogen cyanide, and other irritants and toxic gases.

**Special protective equipment and precautions for firefighters**

**Special fire fighting procedures:** Move containers from fire area if you can do so without risk.

**Special protective equipment for fire-fighters:** Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

**6. Accidental release measures**

**Personal precautions, protective equipment and emergency procedures:** See Section 8 of the SDS for Personal Protective Equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep unauthorized personnel away. Ventilate closed spaces before entering them.

**Methods and material for containment and cleaning up:** Remove material, as much as possible, using mechanical equipment. Collect powder using special dust vacuum cleaner with particle filter or carefully sweep into closed container. Clean surface thoroughly to remove residual contamination.

**Notification Procedures:** Dike for later disposal. Prevent entry into waterways, sewer, basements or confined areas. Stop the flow of material, if this is without risk. Inform authorities if large amounts are involved.

**Environmental Precautions:** Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so. Avoid release to the environment.

## 7. Handling and storage

**Precautions for safe handling:** Do not get in eyes, on skin, on clothing. Wash hands thoroughly after handling. Do not taste or swallow. Wash thoroughly after handling. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. See Section 8 of the SDS for Personal Protective Equipment. Avoid dust formation. Use only with adequate ventilation. Wash at the end of each work shift and before eating, smoking and using the toilet. Immediately change contaminated clothes. Contaminated work clothing should not be allowed out of the workplace. Ensure no residue on outside of container before returning to storage. Use only in controlled area. Carefully open container. Toxic or caustic vapors may escape.

**Conditions for safe storage, including any incompatibilities:** Keep container tightly closed. Store in cool, dry place. Store in a well-ventilated place. Store in original container. Store locked up.

## 8. Exposure controls/personal protection

### Control Parameters

#### Occupational Exposure Limits

Chemical Identity	type	Exposure Limit Values	Source
POTASSIUM CYANIDE - as CN	CEILING	5 mg/m <sup>3</sup>	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2) (07 2009)
POTASSIUM CYANIDE - as CN	CEILING	5 mg/m <sup>3</sup>	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Potassium cyanide (K(CN)) - as CN	CEILING	5 mg/m <sup>3</sup>	Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act) (03 2012)
POTASSIUM CYANIDE - as CN	CEV	5 mg/m <sup>3</sup>	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
Potassium cyanide (K(CN))	Ceiling	5 mg/m <sup>3</sup>	Canada. Saskatchewan OELs (Occupational Health and Safety Regulations, 1996, Table 21) (05 2009)
POTASSIUM CYANIDE - as CN	CEILING	10 ppm 11 mg/m <sup>3</sup>	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)
POTASSIUM CYANIDE - as CN	Ceiling	5 mg/m <sup>3</sup>	US. ACGIH Threshold Limit Values (02 2012)

**Appropriate Engineering Controls**

No data available.

## Individual protection measures, such as personal protective equipment

<b>General information:</b>	Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. An eye wash and safety shower must be available in the immediate work area.
<b>Eye/face protection:</b>	Wear safety glasses with side shields (or goggles) and a face shield. Wear a full-face respirator, if needed.
<b>Skin Protection</b>	
<b>Hand Protection:</b>	Chemical resistant gloves
<b>Skin protection:</b>	Wear suitable protective clothing. Gloves made from: Natural rubber. Nitrile rubber.
<b>Respiratory Protection:</b>	In case of inadequate ventilation and work of brief duration, use suitable respiratory equipment.
<b>Hygiene measures:</b>	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not eat, drink or smoke when using the product. Wash contaminated clothing before reuse. Observe good industrial hygiene practices. Do not get this material in contact with skin. Wash hands before breaks and immediately after handling the product. Wash hands after handling.

## 9. Physical and chemical properties

### Appearance

<b>Physical state:</b>	solid
<b>Form:</b>	Granules
<b>Color:</b>	White
<b>Odor:</b>	Bitter almond-like odor
<b>Odor threshold:</b>	No data available.
<b>pH:</b>	11,0 (6,51 g/l, )
<b>Melting point/freezing point:</b>	634 °C
<b>Initial boiling point and boiling range:</b>	1.625 °C
<b>Flash Point:</b>	not applicable
<b>Evaporation rate:</b>	No data available.
<b>Flammability (solid, gas):</b>	No data available.
<b>Upper/lower limit on flammability or explosive limits</b>	
<b>Flammability limit - upper (%):</b>	No data available.
<b>Flammability limit - lower (%):</b>	No data available.
<b>Explosive limit - upper (%):</b>	No data available.
<b>Explosive limit - lower (%):</b>	No data available.
<b>Vapor pressure:</b>	No data available.
<b>Vapor density:</b>	No data available.
<b>Relative density:</b>	1,55
<b>Solubility(ies)</b>	
<b>Solubility in water:</b>	Very Soluble
<b>Solubility (other):</b>	water: 720 g/l (77 °F)
<b>Partition coefficient (n-octanol/water):</b>	No data available.
<b>Auto-ignition temperature:</b>	No data available.

**Decomposition temperature:** No data available.  
**Viscosity:** No data available.

## 10. Stability and reactivity

**Reactivity:** No dangerous reaction known under conditions of normal use.

**Chemical Stability:** No data available.

**Possibility of hazardous reactions:** Hazardous polymerization does not occur. Contact with water liberates toxic gas.

**Conditions to avoid:** Heat. Moisture. Sunlight. Contact with incompatible materials.

**Incompatible Materials:** Acids. Acid salts. Strong oxidizing agents. Fluorine. Alcohols. Aluminum. Copper. Magnesium. Zinc. Isocyanates.

**Hazardous Decomposition Products:** Cyanides. Nitrogen Oxides

## 11. Toxicological information

### Information on likely routes of exposure

**Ingestion:** Fatal if swallowed.

**Inhalation:** No data available.

**Skin Contact:** Fatal in contact with skin. Causes mild skin irritation.

**Eye contact:** No data available.

### Information on toxicological effects

#### Acute toxicity (list all possible routes of exposure)

**Oral Product:** LD 50 (Rat): 5 mg/kg

**Dermal Product:** No data available.

**Inhalation Product:** No data available.

**Repeated dose toxicity Product:** No data available.

**Skin Corrosion/Irritation Product:** No data available.

**Serious Eye Damage/Eye Irritation Product:** No data available.

#### Respiratory or Skin Sensitization

**Product:** No data available.

**Carcinogenicity**  
**Product:** No data available.

**IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:**  
No carcinogenic components identified

**US. National Toxicology Program (NTP) Report on Carcinogens:**  
No carcinogenic components identified

**ACGIH Carcinogens:**  
No carcinogenic components identified

**Germ Cell Mutagenicity**

**In vitro**  
**Product:** No data available.

**In vivo**  
**Product:** No data available.

**Reproductive toxicity**  
**Product:** No data available.

**Specific Target Organ Toxicity - Single Exposure**  
**Product:** No data available.

**Specific Target Organ Toxicity - Repeated Exposure**  
**Product:** No data available.

**Aspiration Hazard**  
**Product:** No data available.

**Other effects:** No data available.

<b>12. Ecological information</b>
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**Ecotoxicity:**

**Acute hazards to the aquatic environment:**

**Fish**  
**Product:** No data available.

**Specified substance(s):**  
POTASSIUM CYANIDE  
LC 50 (Bluegill (Lepomis macrochirus), 96 h): 0,01 - 0,08 mg/l Mortality  
LC 50 (Rainbow trout,donaldson trout (Oncorhynchus mykiss), 96 h): 0,071 - 0,079 mg/l Mortality  
LC 50 (Rainbow trout,donaldson trout (Oncorhynchus mykiss), 96 h): 0,04 - 0,046 mg/l Mortality

**Aquatic Invertebrates**  
**Product:** No data available.

**Specified substance(s):**  
POTASSIUM CYANIDE  
LC 50 (Water flea (Daphnia magna), 48 h): 2 - 3 mg/l Mortality

LC 50 (Green or European shore crab (*Carcinus maenas*), 48 h): > 5 mg/l Mortality  
LC 50 (Cockle (*Cerastoderma edule*), 48 h): > 25 mg/l Mortality

**Chronic hazards to the aquatic environment:**

**Fish**

**Product:** No data available.

**Aquatic Invertebrates**

**Product:** No data available.

**Toxicity to Aquatic Plants**

**Product:** No data available.

**Persistence and Degradability**

**Biodegradation**

**Product:** There are no data on the degradability of this product.

**BOD/COD Ratio**

**Product:** No data available.

**Bioaccumulative Potential**

**Bioconcentration Factor (BCF)**

**Product:** No data available on bioaccumulation.

**Partition Coefficient n-octanol / water (log Kow)**

**Product:** No data available.

**Mobility in Soil:**

The product is water soluble and may spread in water systems.

**Other Adverse Effects:**

Very toxic to aquatic life with long lasting effects.

**13. Disposal considerations**

**Disposal instructions:**

Discharge, treatment, or disposal may be subject to national, state, or local laws. Do not allow to enter drains, sewers or watercourses.

**Contaminated Packaging:**

Since emptied containers retain product residue, follow label warnings even after container is emptied.

**14. Transport information**

**TDG**

UN Number	UN1680
Proper Shipping Name	POTASSIUM CYANIDE, SOLID
Class	6.1
Packing Group	I
Label(s)	6.1
Subsidiary risk label	—

**IMDG**

UN Number:	UN 1680
UN Proper Shipping Name:	POTASSIUM CYANIDE, SOLID
Transport Hazard Class(es)	
Class:	6.1
Label(s):	6.1
EmS No.:	F-A, S-A
Packing Group:	I
Marine Pollutant:	Yes
Special precautions for user:	–

**IATA**

UN Number:	UN 1680
Proper Shipping Name:	Potassium cyanide, solid
Transport Hazard Class(es):	
Class:	6.1
Label(s):	6.1
Marine Pollutant:	Yes
Packing Group:	I
Special precautions for user:	–

<b>15. Regulatory information</b>
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**Canada Federal Regulations**

**List of Toxic Substances (CEPA, Schedule 1)**

Not Regulated

**Export Control List (CEPA 1999, Schedule 3)**

Not Regulated

**National Pollutant Release Inventory (NPRI)**

**Canada. National Pollutant Release Inventory (NPRI) Substances, Part 5, VOCs with Additional Reporting Requirements**

NPRI PT5                      Not Regulated

**Canada. Canadian Environmental Protection Act (CEPA). National Pollutant Release Inventory (NPRI) (Parts 1-4)**

NPRI                              POTASSIUM CYANIDE

**Greenhouse Gases**

Not Regulated

**Controlled Drugs and Substances Act**

CA CDSI                      Not Regulated

CA CDSII                      Not Regulated

CA CDSIII                      Not Regulated

CA CDSIV                      Not Regulated

CA CDSV                      Not Regulated

CA CDSVII                      Not Regulated

CA CDSVIII                      Not Regulated

**Precursor Control Regulations**

Not Regulated

**International regulations****Montreal protocol**

not applicable

**Stockholm convention**

not applicable

**Rotterdam convention**

not applicable

**Kyoto protocol**

not applicable

**16. Other information, including date of preparation or last revision****Issue Date:** 19.04.2016**Revision Date:** No data available.**Version #:** 1.0**Further Information:** No data available.

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