

**Safety Data Sheet**

according to WHMIS

**Potassium Cyanide, ACS**

Revision: 22.10.2025

Product code: AC15.04954

Page 1 of 12

**1. Identification****Product identifier**

Potassium Cyanide, ACS

CAS No: 151-50-8

**Relevant identified uses of the substance or mixture and uses advised against****Use of the substance/mixture**Reagents and laboratory chemicals  
Only for laboratory and analysis purposes.**Uses advised against**

Do not use for private purposes (household).

**Details of the supplier of the safety data sheet****Details of the supplier of the safety data sheet**

Company name: AnalytiChem Services, Unipessoal, Lda  
Street: Rua de Júlio Dinis 676 7º  
Place: P-4050-320 Porto  
Telephone: +351 226002917  
E-mail: info@analytichem.com  
Contact person: SDS service department  
E-mail: SDS@analytichem.com  
Internet: www.analytichem.com  
Responsible Department: SDS service department

**Supplier or manufacturer details**

Company name: AnalytiChem Canada Inc.  
Québec, CANADA  
Street: 21800 Clark Graham Ave  
Place: CDN-H9X 4B6 Baie-D'Urfé  
Telephone: +1 (800) 361-6820 Telefax: +1 (800) 253-5549  
E-mail: info@analytichem.com  
Contact person: SDS service department  
E-mail: SDS@analytichem.com  
Internet: www.analytichem.com  
Responsible Department: AnalytiChem:  
EU-Belgium: AnalytiChem Belgium, Industriezone "De Arend" 2, 8210 Zedelgem, Belgium, +32 50 28 83 20  
EU-Germany: AnalytiChem Germany, Stempelstrasse 6, 47167 Duisburg, Germany, +49 203 51 94 – 200  
EU-Netherlands: AnalytiChem Netherlands, Communicatieweg 7, 3641 SG Mijdrecht, The Netherlands, +31 297 286848  
UK: AnalytiChem UK, Unit 7 Launton Business Center, Murdock Road, Bicester, OX26 4XB, England, +44 1869 355 500  
USA: AnalytiChem USA, 227 China Road, Winslow, Maine, 04901, United States, +1 800-244-8378  
Canada: AnalytiChem Canada, 21800 Clark Graham Avenue, Baie d'Urfe, H9X 4B6, Canada, +1 514-457-0701  
Australia: ORE Research & Exploration Pty Ltd, 37A Hosie Street, Bayswater North, 3153, Australia, +61 3 9729 0333  
**Emergency telephone number:** +1 703-741-5970 (CHEMTREC)

**Further Information**

No data available

**Safety Data Sheet**

according to WHMIS

**Potassium Cyanide, ACS**

Revision: 22.10.2025

Product code: AC15.04954

Page 2 of 12

**2. Hazard identification****Classification of the substance or mixture****WHMIS 2015**

Corrosive to metals: Met. Corr. 1  
Acute toxicity: Acute Tox. 1 (dermal)  
Acute toxicity: Acute Tox. 2 (inhalation)  
Acute toxicity: Acute Tox. 2 (oral)  
Specific target organ toxicity - repeated exposure: STOT RE 1  
Hazardous to the aquatic environment: Aquatic Acute 1  
Hazardous to the aquatic environment: Aquatic Chronic 1

**Label elements****WHMIS 2015****Signal word:** Danger**Pictograms:****Hazard statements**

May be corrosive to metals.  
Fatal if swallowed, in contact with skin or if inhaled.  
Causes damage to organs (thyroid gland) through prolonged or repeated exposure.  
Very toxic to aquatic life with long lasting effects.

**Precautionary statements**

Keep only in original packaging.  
Do not breathe dust/fume/gas/mist/vapours/spray.  
Do not get in eyes, on skin, or on clothing.  
Wash hands and face thoroughly after handling.  
Do not eat, drink or smoke when using this product.  
Use only outdoors or in a well-ventilated area.  
Avoid release to the environment.  
Wear protective gloves/protective clothing and eye protection/face protection.  
Wear respiratory protection.  
IF SWALLOWED: Immediately call a POISON CENTER/doctor.  
Rinse mouth.  
IF ON SKIN: Wash with plenty of water.  
Immediately call a POISON CENTER/doctor.  
Take off immediately all contaminated clothing and wash it before reuse.  
IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
Immediately call a POISON CENTER/doctor.  
Get medical advice/attention if you feel unwell.  
Collect spillage.  
Store in a well-ventilated place. Keep container tightly closed.  
Store locked up.  
Store in a corrosion resistant container with a resistant inner liner.  
Dispose of contents/container to an appropriate recycling or disposal facility.

**Other hazards**

No data available

**Safety Data Sheet**

according to WHMIS

**Potassium Cyanide, ACS**

Revision: 22.10.2025

Product code: AC15.04954

Page 3 of 12

**3. Composition/information on ingredients****Substances**

Sum formula: KCN  
Molecular weight: 65.12 g/mol

**Relevant ingredients**

CAS No	Chemical name	Quantity
151-50-8	Potassium cyanide	80 - 100 % (*)

(\*) The actual concentration is withheld as a trade secret.

**Further Information**

This product does not contain substances of very high concern according to Regulation (EC) No 1907/2006 (REACH), Article 57 above the respective regulatory concentration limit of = 0.1 % (w/w).

**4. First-aid measures****Description of first aid measures****General information**

First aider: Pay attention to self-protection!  
Call a physician immediately.  
Indication of any immediate medical attention and special treatment needed: Hydrogen cyanide (hydrocyanic acid)  
fast help required

**After inhalation**

Provide fresh air.  
If breathing is irregular or stopped, administer artificial respiration.  
Call a physician immediately.

**After contact with skin**

Wash immediately with: Water  
Take off immediately all contaminated clothing and wash it before reuse.  
Call a physician immediately.

**After contact with eyes**

After eye contact: Rinse immediately carefully and thoroughly with eye-bath or water.  
Remove contact lenses, if present and easy to do. Continue rinsing.  
Consult an ophthalmologist.

**After ingestion**

Rinse mouth immediately and drink plenty of water.  
Water, to which activated charcoal may be added  
Call a physician immediately.

**Most important symptoms and effects, whether acute or delayed**

Respiratory complaints  
Cardiac arrhythmias  
Circulatory collapse  
Dyspnoea  
Unconsciousness  
Irritant  
Dizziness  
Gastrointestinal complaints  
Vomiting  
Agitation

**Safety Data Sheet**

according to WHMIS

**Potassium Cyanide, ACS**

Revision: 22.10.2025

Product code: AC15.04954

Page 4 of 12

Spasms  
death

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

Antidote:  
Dimethylaminophenol  
Cobalt-EDTA  
Sodium thiosulfate

**5. Fire-fighting measures****Extinguishing media****Suitable extinguishing media**

Co-ordinate fire-fighting measures to the fire surroundings.

**Unsuitable extinguishing media**

Water  
Carbon dioxide (CO<sub>2</sub>)  
Foam

**Specific hazards arising from the hazardous product**

Non-combustible solids  
Hazardous combustion products  
In case of fire may be liberated:  
Hydrogen cyanide (hydrocyanic acid)

**Special protective equipment and precautions for fire-fighters**

In case of fire: Wear self-contained breathing apparatus.  
Wear full chemical protective clothing.  
In case of fire and/or explosion do not breathe fumes.

**Additional information**

Use water spray jet to protect personnel and to cool endangered containers.  
Move undamaged containers from immediate hazard area if it can be done safely.  
Suppress gases/vapours/mists with water spray jet.  
Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

**6. Accidental release measures****Personal precautions, protective equipment and emergency procedures****General advice**

Do not breathe dust.

**For non-emergency personnel**

Provide adequate ventilation.  
Use personal protection equipment.  
Avoid contact with skin, eyes and clothes.  
Remove persons to safety.  
Emergency procedures  
Consult an expert  
Do not breathe dust/fume/gas/mist/vapours/spray.

**For emergency responders**

Precautionary statements For emergency responders : Personal protection equipment: see section 8

**Environmental precautions**

Do not allow to enter into surface water or drains.

**Methods and material for containment and cleaning up**

**Safety Data Sheet**

according to WHMIS

**Potassium Cyanide, ACS**

Revision: 22.10.2025

Product code: AC15.04954

Page 5 of 12

**For containment**

- Cover drains.
- Prevent spread over a wide area (e.g. by containment or oil barriers).
- Collect in closed and suitable containers for disposal.
- Take up carefully when dry. Take up dust-free and set down dust-free.

**For cleaning up**

- Clean contaminated articles and floor according to the environmental legislation.

**Other information**

- Provide adequate ventilation.
- Do not breathe dust/fume/gas/mist/vapours/spray.
- Wear breathing apparatus if exposed to vapours/dusts/aerosols.

**Reference to other sections**

- Safe handling: see section 7
- Personal protection equipment: see section 8
- Disposal: see section 13

**7. Handling and storage****Precautions for safe handling****Advice on safe handling**

- Avoid exposure - obtain special instructions before use.
- If handled uncovered, arrangements with local exhaust ventilation have to be used.
- Read label before use. Handle and open container with care.
- When using do not eat, drink, smoke, sniff. Keep container tightly closed.
- Use personal protection equipment. Use extractor hood (laboratory).
- Do not breathe dust. Avoid dust formation.
- Provide adequate ventilation.

**Advice on protection against fire and explosion**

- Usual measures for fire prevention.

**Advice on general occupational hygiene**

- Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat or drink.
- The choice of body protection depends on the concentration and quantity of hazardous substances. The chemical resistance of protective agents must be clarified with their suppliers.

**Further information on handling**

- Take off immediately all contaminated clothing and wash it before reuse.
- Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. If handled uncovered, arrangements with local exhaust ventilation have to be used.

**Conditions for safe storage, including any incompatibilities****Requirements for storage rooms and vessels**

- Store in a place accessible by authorized persons only.
- Unsuitable container/equipment material:
  - Aluminium
  - tin
  - Zinc

**Hints on joint storage**

- National regulations

**Further information on storage conditions**

- Store in a well-ventilated place.
- Keep container tightly closed and dry.

**Safety Data Sheet**

according to WHMIS

**Potassium Cyanide, ACS**

Revision: 22.10.2025

Product code: AC15.04954

Page 6 of 12

**8. Exposure controls/Personal protection****Control parameters****Exposure limits (ACGIH)**

CAS No	Chemical name	ppm	mg/m <sup>3</sup>	Category	Origin
151-50-8	Cyanide salts, as CN: potassium cyanide		5	Peak	ACGIH-2025

**Exposure controls****Appropriate engineering controls**

Technical measures and the application of suitable work processes have priority over personal protection equipment.

If handled uncovered, arrangements with local exhaust ventilation have to be used.

**Individual protection measures, such as personal protective equipment****Eye/face protection**

goggles

**Hand protection**

Tested protective gloves must be worn. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

**Skin protection**

Protective clothing

Take off immediately all contaminated clothing and wash it before reuse.

Wash hands and face before breaks and after work and take a shower if necessary.

Draw up and observe skin protection programme.

**Respiratory protection**

Respiratory protection necessary at: dust formation

The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

**Thermal hazards**

No data available

**Environmental exposure controls**

Do not allow to enter into surface water or drains.

**9. Physical and chemical properties****Information on basic physical and chemical properties**

Physical state:	solid
Colour:	white
Odour:	like: Bitter almonds
Odour threshold:	No data available
Melting point/freezing point:	634 °C
Boiling point or initial boiling point and boiling range:	1625 °C
Flammability:	not applicable
Lower explosive limits:	No data available
Upper explosive limits:	No data available
Flash point:	not applicable
Auto-ignition temperature:	No data available

**Safety Data Sheet**

according to WHMIS

**Potassium Cyanide, ACS**

Revision: 22.10.2025

Product code: AC15.04954

Page 7 of 12

Decomposition temperature:	No data available
pH-Value (at 20 °C):	~ 11 - 12 (20 g/l)
Viscosity / kinematic:	No data available
Water solubility: (at 25 °C)	716 g/l
Solubility in other solvents not determined	
Dissolution rate:	No data available
Partition coefficient n-octanol/water:	No data available
Dispersion stability:	No data available
Vapour pressure:	No data available
Vapour pressure:	No data available
Density:	1.56 g/cm <sup>3</sup>
Relative density:	No data available
Bulk density:	~750 kg/m <sup>3</sup>
Relative vapour density:	not determined
Particle characteristics:	No data available

**Other information****Information with regard to physical hazard classes**

Explosive properties

No data available

Sustained combustibility:

No data available

Self-ignition temperature

Solid:

not applicable

Gas:

not applicable

Oxidizing properties

No data available

**Other safety characteristics**

Evaporation rate:

not determined

Solvent separation test:

not determined

Solvent content:

No data available

Solid content:

100%

Sublimation point:

No data available

Softening point:

No data available

Pour point:

No data available

No data available:

Viscosity / dynamic:

No data available

Flow time:

not determined

**Further Information**

No data available

**10. Stability and reactivity****Reactivity**

No data available

**Chemical stability**

Protect against: Humidity

**Possibility of hazardous reactions**

Fluorine

Oxidizing agent

## Safety Data Sheet

according to WHMIS

## Potassium Cyanide, ACS

Revision: 22.10.2025

Product code: AC15.04954

Page 8 of 12

permanganates, e.g. potassium permanganate  
Peroxides  
Water  
Hydrogen fluoride  
Carbon dioxide (CO<sub>2</sub>)  
Contact with acids liberates very toxic gas.  
Mg, NO<sub>2</sub>, NO<sub>3</sub>  
sodium hypochlorite

**Conditions to avoid**

Humidity

**Incompatible materials**

Aluminium  
tin  
Zinc

**Hazardous decomposition products**

in case of fire, see:  
SECTION 5: Firefighting measures

**Further information**

No data available

**11. Toxicological information****Information on toxicological effects****Toxicokinetics, metabolism and distribution**

Avoid exposure - obtain special instructions before use.

**Acute toxicity**

Fatal in contact with skin.  
Fatal if inhaled.  
Fatal if swallowed.

CAS No	Chemical name				
	Route of exposure	Dose	Species	Source	Method
151-50-8	Potassium cyanide				
	oral	LD50 >= 7,49 mg/kg	Rat	Clinical and Experimental Toxicology of	A reputable corporate laboratory
	dermal	LD50 ca. 11,28 mg/kg	Rabbit	J Toxicol – Cut and Ocular Toxicol 13:24	Animals were exposed to a solution of cy
	inhalation vapour	ATE 0,5 mg/l			
	inhalation dust/mist	ATE 0,05 mg/l			
	inhalation (1 h) gas	LC50 63 ppm	Rat	Study report (1981)	OECD Guideline 403

**Irritation and corrosivity**

Skin corrosion/irritation: Based on available data, the classification criteria are not met.  
Serious eye damage/eye irritation: Based on available data, the classification criteria are not met.

**Sensitizing effects**

Based on available data, the classification criteria are not met.

**Carcinogenic/mutagenic/toxic effects for reproduction**

**Safety Data Sheet**

according to WHMIS

**Potassium Cyanide, ACS**

Revision: 22.10.2025

Product code: AC15.04954

Page 9 of 12

Germ cell mutagenicity: Based on available data, the classification criteria are not met.

Carcinogenicity: Based on available data, the classification criteria are not met.

Reproductive toxicity: Based on available data, the classification criteria are not met.

**STOT-single exposure**

Based on available data, the classification criteria are not met.

**STOT-repeated exposure**

Causes damage to organs through prolonged or repeated exposure. (Potassium cyanide)

Causes damage to organs through prolonged or repeated exposure.

Organs affected: thyroid gland

**Aspiration hazard**

Based on available data, the classification criteria are not met.

**Information on likely routes of exposure**

No data available

**Specific effects in experiment on an animal**

No data available

**Additional information on tests**

No data available

**Practical experience**

No data available

**Information on other hazards****Endocrine disrupting properties**

This substance does not have endocrine disrupting properties with respect to non-target organisms.

**Other information**

No data available

**Further information**

Respiratory complaints

Cardiac arrhythmias

Circulatory collapse

Dyspnoea

Unconsciousness

Irritant

Dizziness

Gastrointestinal complaints

Vomiting

Agitation

Spasms

death

**12. Ecological information****Ecotoxicity**

Very toxic to aquatic life.

Very toxic to aquatic life with long lasting effects.

**Potassium Cyanide, ACS**

Revision: 22.10.2025

Product code: AC15.04954

Page 10 of 12

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h]   [d]	Species	Source	Method
151-50-8	Potassium cyanide					
	Acute fish toxicity	LC50 mg/l	0,1038	96 h	Gasterosteus aculeatus	Study report (2005) other: ASTM E729-96. Standard Guide for
	Acute algae toxicity	ErC50 mg/l	0,116	72 h	Pseudokirchneriella subcapitata	Journal of Hazardous Materials 197 (2011) ISO 8692
	Acute crustacea toxicity	EC50 mg/l	0,21638	48 h	other aquatic crustacea: Acartia tonsa	Study report (2006) other: ASTM E 729-96: Standard Guide for
	Algae toxicity	NOEC	0,1 mg/l	10 d	Chlamydomonas sp.	Bulletin 106. Virginia Water resources R Bartsch, A.F. 1971. Algal Assay Procedur
	Acute bacteria toxicity	EC50 ( )	2,3 mg/l	0,5 h	activated sludge, domestic	Acta hydrochim. hydrobiol. 20, 3 (1992) EU Method C.11

**Persistence and degradability**

The methods for determining the biological degradability are not applicable to inorganic substances.

**Bioaccumulative potential**

No data available

**BCF**

CAS No	Chemical name	BCF	Species	Source
151-50-8	Potassium cyanide	3,162		United States Enviro

**Mobility in soil**

No data available

**Endocrine disrupting properties**

This substance does not have endocrine disrupting properties with respect to non-target organisms.

**Other adverse effects**

No data available

**Further information**

Do not allow to enter into surface water or drains.  
Avoid release to the environment.

**13. Disposal considerations**

**Waste treatment methods**

**Disposal recommendations**

Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.  
Send to a physico-chemical treatment facility under observation of official regulations.  
Do not allow to enter into surface water or drains.  
Do not mix with other wastes.

**Contaminated packaging**

This material and its container must be disposed of as hazardous waste.  
Handle contaminated packages in the same way as the substance itself.

**Safety Data Sheet**

according to WHMIS

**Potassium Cyanide, ACS**

Revision: 22.10.2025

Product code: AC15.04954

Page 11 of 12

**14. Transport information**

**Canadian TDG**

**UN number:** UN 1680  
**Proper shipping name:** Potassium cyanide, solid  
**Hazard classes:** 6.1  
**Packing group:** I  
 Hazard label: 6.1  
 Limited quantity: 0

**Marine transport (IMDG)**

**UN number or ID number:** UN 1680  
**United Nations proper shipping name:** POTASSIUM CYANIDE, SOLID  
**Transport hazard class(es):** 6.1  
**Packing group:** I  
 Hazard label: 6.1  
 Marine pollutant: P  
 Special Provisions: -  
 Limited quantity: 0  
 Excepted quantity: E5  
 EmS: F-A, S-A  
 Segregation group: 6 - cyanides

**Air transport (ICAO-TI/IATA-DGR)**

**UN number or ID number:** UN 1680  
**United Nations proper shipping name:** POTASSIUM CYANIDE, SOLID  
**Transport hazard class(es):** 6.1  
**Packing group:** I  
 Hazard label: 6.1  
 Limited quantity Passenger: Forbidden  
 Passenger LQ: Forbidden  
 Excepted quantity: E5  
 IATA-packing instructions - Passenger: 666  
 IATA-max. quantity - Passenger: 5 kg  
 IATA-packing instructions - Cargo: 673  
 IATA-max. quantity - Cargo: 50 kg

**Environmental hazards**

**ENVIRONMENTALLY HAZARDOUS:** Yes  
 Danger releasing substance: potassium cyanide

**15. Regulatory information**

**Canadian regulations**

**16. Other information**

**Safety Data Sheet**

according to WHMIS

**Potassium Cyanide, ACS**

Revision: 22.10.2025

Product code: AC15.04954

Page 12 of 12

**Abbreviations and acronyms**

ADR: Accord européen sur le transport des marchandises dangereuses par Route  
(European Agreement concerning the International Carriage of Dangerous Goods by Road )  
IMDG: International Maritime Code for Dangerous Goods  
IATA: International Air Transport Association  
GHS: Globally Harmonized System of Classification and Labelling of Chemicals  
EINECS: European Inventory of Existing Commercial Chemical Substances  
ELINCS: European List of Notified Chemical Substances  
CAS: Chemical Abstracts Service  
LC50: Lethal concentration, 50%  
LD50: Lethal dose, 50%

**Further Information**

Provide appropriate information, instructions and training to users

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights.

The receiver of our product is singularly responsible for adhering to existing laws and regulations.