



Be Right™

# SAFETY DATA SHEET

Issue Date 14-Sep-2020

Revision Date  
30-May-2023

Version 4

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## 1. IDENTIFICATION

### Product identifier

**Product Name** ZincoVer® 5 Zinc Reagent

### Other means of identification

**Product Code(s)** 2106669

**Safety data sheet number** M00048

**UN/ID no** UN1588

### Recommended use of the chemical and restrictions on use

**Recommended Use** Laboratory reagent. Determination of zinc.

**Uses advised against** Consumer use.

**Restrictions on use** For Laboratory Use Only.

### Details of the supplier of the safety data sheet

#### **Manufacturer Address**

Hach Company, P.O.Box 389, Loveland, CO 80539, USA, +1(970) 669-3050

#### **Emergency telephone number**

+1(303) 623-5716 - 24 Hour Service

## 2. HAZARDS IDENTIFICATION

### Classification

#### **Regulatory Status**

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute toxicity - Oral	Category 4
Acute toxicity - Dermal	Category 3
Acute toxicity - Inhalation (Dusts/Mists)	Category 4
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2A
Reproductive toxicity	Category 1B
Specific target organ toxicity (single exposure)	Category 1
Specific target organ toxicity (single exposure)	Category 3
Specific target organ toxicity (repeated exposure)	Category 1
Aquatic Acute Toxicity	Category 1
Chronic aquatic toxicity	Category 1

#### **Hazards not otherwise classified (HNOC)**

Not applicable

#### **Label elements**

**Signal word**  
Danger



**Hazard statements**

H302 - Harmful if swallowed  
H311 - Toxic in contact with skin  
H315 - Causes skin irritation  
H319 - Causes serious eye irritation  
H332 - Harmful if inhaled  
H360 - May damage fertility or the unborn child  
H370 - Causes damage to organs  
H372 - Causes damage to organs through prolonged or repeated exposure  
H410 - Very toxic to aquatic life with long lasting effects  
H335 - May cause respiratory irritation

**Precautionary statements**

P302 + P352 - IF ON SKIN: Wash with plenty of soap and water  
P312 - Call a POISON CENTER or doctor/physician if you feel unwell  
P361 + P364 - Take off immediately all contaminated clothing and wash it before reuse  
P405 - Store locked up  
P501 - Dispose of contents/ container to an approved waste disposal plant  
P271 - Use only outdoors or in a well-ventilated area  
P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing  
P332 + P313 - If skin irritation occurs: Get medical attention  
P362 - Take off contaminated clothing and wash before reuse  
P280 - Wear protective gloves, protective clothing, eye protection, and face protection  
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
P337 + P313 - If eye irritation persists: Get medical attention  
P201 - Obtain special instructions before use  
P308 + P313 - IF exposed or concerned: Get medical advice/attention  
P260 - Do not breathe dust/fume/gas/mist/vapors/spray  
P270 - Do not eat, drink or smoke when using this product  
P308 + P311 - IF exposed or concerned: Call a POISON CENTER or doctor  
P273 - Avoid release to the environment  
P391 - Collect spillage  
P301 + P312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell  
P330 - Rinse mouth

**Other Hazards Known**

None

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

**Substance**

Not applicable

**Mixture**

<b>Common name</b>	No information available.
<b>Chemical Family</b>	Mixture.
<b>Chemical nature</b>	Mixture of inorganic salts.

Percent ranges are used where confidential product information is applicable.

Chemical name	CAS No	Percent Range	HMRIC #
Boron potassium oxide (B4K2O7)	1332-77-0	50 - 60%	-
Boron oxide (B2O3)	1303-86-2	10 - 20%	-
Potassium cyanide	151-50-8	1 - 5%	-

#### 4. FIRST AID MEASURES

##### Description of first aid measures

<b>General advice</b>	Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.
<b>Inhalation</b>	Remove to fresh air. IF exposed or concerned: Get medical advice/attention. Get medical attention immediately if symptoms occur. If breathing has stopped, give artificial respiration. Get medical attention immediately. If symptoms persist, call a physician.
<b>Eye contact</b>	Get immediate medical advice/attention. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Remove contact lenses, if present and easy to do. Continue rinsing. Do not rub affected area.
<b>Skin contact</b>	Get immediate medical advice/attention. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.
<b>Ingestion</b>	Do NOT induce vomiting. Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Get immediate medical advice/attention.
<b>Self-protection of the first aider</b>	Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Avoid contact with skin, eyes or clothing.

##### Most important symptoms and effects, both acute and delayed

**Symptoms** Burning sensation. Coughing and/ or wheezing. Difficulty in breathing.

##### Indication of any immediate medical attention and special treatment needed

**Note to physicians** Treat symptomatically.

#### 5. FIRE-FIGHTING MEASURES

<b>Suitable Extinguishing Media</b>	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
<b>Unsuitable Extinguishing Media</b>	Caution: Use of water spray when fighting fire may be inefficient.
<b>Specific hazards arising from the chemical</b>	No information available.
<b>Hazardous combustion products</b>	Cyanide compounds. Nitrogen oxides. Potassium oxides. Boron compounds.
<b>Special protective equipment for fire-fighters</b>	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

## 6. ACCIDENTAL RELEASE MEASURES

### U.S. Notice

Only persons properly qualified to respond to an emergency involving hazardous substances may respond to a spill according to federal regulations (OSHA 29 CFR 1910.120(a)(v)) and per your company's emergency response plan and guidelines/procedures. See Section 13, Special Instructions for disposal assistance. Outside of the US, only persons properly qualified according to state or local regulations should respond to a spill involving chemicals.

### Personal precautions, protective equipment and emergency procedures

#### Personal precautions

Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas. Avoid generation of dust. Do not breathe dust.

#### Other Information

Refer to protective measures listed in Sections 7 and 8.

### Environmental precautions

#### Environmental precautions

Prevent further leakage or spillage if safe to do so.

### Methods and material for containment and cleaning up

#### Methods for containment

Prevent further leakage or spillage if safe to do so.

#### Methods for cleaning up

Take up mechanically, placing in appropriate containers for disposal.

#### Prevention of secondary hazards

Clean contaminated objects and areas thoroughly observing environmental regulations.

#### Reference to other sections

See section 8 for more information. See section 13 for more information.

## 7. HANDLING AND STORAGE

### Precautions for safe handling

#### Advice on safe handling

Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Take off contaminated clothing and wash before reuse. Do not eat, drink or smoke when using this product. Remove contaminated clothing and shoes. Avoid breathing dust/fume/gas/mist/vapors/spray. Avoid generation of dust.

### Conditions for safe storage, including any incompatibilities

#### Storage Conditions

Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children. Store locked up.

#### Flammability class

Not applicable

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

#### Exposure Guidelines

Chemical name	ACGIH TLV	OSHA PEL	NIOSH
Boron potassium oxide (B4K2O7) CAS#: 1332-77-0	STEL: 6 mg/m <sup>3</sup> inhalable particulate matter TWA: 2 mg/m <sup>3</sup> inhalable	NDF	NDF

	particulate matter		
Boron oxide (B2O3) CAS#: 1303-86-2	TWA: 10 mg/m <sup>3</sup>	TWA: 15 mg/m <sup>3</sup> (vacated) TWA: 10 mg/m <sup>3</sup>	IDLH: 2000 mg/m <sup>3</sup> TWA: 10 mg/m <sup>3</sup>
Potassium cyanide CAS#: 151-50-8	S* Ceiling: 5 mg/m <sup>3</sup> CN	TWA: 5 mg/m <sup>3</sup> (vacated) TWA: 5 mg/m <sup>3</sup> *	IDLH: 25 mg/m <sup>3</sup> CN Ceiling: 4.7 ppm CN 10 min Ceiling: 5 mg/m <sup>3</sup> CN 10 min

**Appropriate engineering controls**

**Engineering Controls**

Showers  
 Eyewash stations  
 Ventilation systems.

**Individual protection measures, such as personal protective equipment**

**Respiratory protection**

No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

**Hand Protection**

Wear suitable gloves. Impervious gloves. Gloves must be inspected prior to use. The selected protective gloves have to satisfy the specifications of EU Directive 2016/425 and the standard EN 374 derived from it. Chemical resistant gloves made of butyl rubber or nitrile rubber category III according to EN 374-1:2016.

**Eye/face protection**

Wear safety glasses with side shields (or goggles). If splashes are likely to occur, wear safety glasses with side-shields.

**Skin and body protection**

Wear suitable protective clothing. Long sleeved clothing. Chemical resistant apron.

**General Hygiene Considerations**

Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product. Avoid breathing dust/fume/gas/mist/vapors/spray.

**Environmental exposure controls**

Local authorities should be advised if significant spillages cannot be contained. Do not allow into any sewer, on the ground or into any body of water.

**Thermal hazards**

None under normal processing.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

**Information on basic physical and chemical properties**

Physical state Solid  
 Appearance powder  
 Odor Odorless  
 Color purple  
 Odor threshold Not applicable

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
Molecular weight	Not applicable	
pH	8.7	5% Solution
Melting point/freezing point	155 °C / 311 °F	
Initial boiling point and boiling range	No data available	
Evaporation rate	Not applicable	
Vapor pressure	Not applicable	
Relative vapor density	No data available	

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Specific gravity - VALUE 1 1.83  
Partition Coefficient (n-octanol/water) log K<sub>ow</sub> ~ -1.6  
Soil Organic Carbon-Water Partition Coefficient log K<sub>oc</sub> ~ 0.07  
Autoignition temperature No data available  
Decomposition temperature No data available  
Dynamic viscosity Not applicable  
Kinematic viscosity Not applicable

#### Solubility(ies)

##### Water solubility

Water solubility classification	Water solubility	Water Solubility Temperature
Soluble	> 1000 mg/L	25 °C / 77 °F

##### Solubility in other solvents

Chemical Name	Solubility classification	Solubility	Solubility Temperature
Acid	Soluble	> 1000 mg/L	25 °C / 77 °F

#### Other information

##### Metal Corrosivity

Steel Corrosion Rate Not applicable  
Aluminum Corrosion Rate Not applicable

##### Volatile Organic Compounds (VOC) Content

Not applicable

Chemical name	CAS No	Volatile organic compounds (VOC) content	CAA (Clean Air Act)
Boron potassium oxide (B4K2O7)	1332-77-0	No data available	-
Boron oxide (B2O3)	1303-86-2	No data available	-
Potassium cyanide	151-50-8	Not applicable	-

##### Explosive properties

Upper explosion limit No data available  
Lower explosion limit No data available

##### Flammable properties

Flash point Not applicable

##### Flammability Limit in Air

Upper flammability limit: No data available  
Lower flammability limit: No data available

##### Oxidizing properties

No data available.

##### Bulk density

Not applicable

## 10. STABILITY AND REACTIVITY

### Reactivity

Not applicable.

### Chemical stability

Stable under normal conditions.

### Explosion data

**Sensitivity to Mechanical Impact** None.

**Sensitivity to Static Discharge** None.

### Possibility of hazardous reactions

None under normal processing.

### Hazardous polymerization

Hazardous polymerization does not occur.

### Conditions to avoid

Excessive heat.

### Incompatible materials

Strong acids. Strong bases. Strong oxidizing agents.

### Hazardous decomposition products

Cyanide. Boron compounds. Nitrogen oxides. Potassium oxide. Contact with acids/acid fumes releases toxic cyanide gas.

## 11. TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure

#### Product Information

##### **Inhalation**

May cause irritation of respiratory tract. Harmful by inhalation.

##### **Eye contact**

Irritating to eyes. Causes serious eye irritation.

##### **Skin contact**

Causes skin irritation. Toxic in contact with skin.

##### **Ingestion**

Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Harmful if swallowed.

#### **Symptoms**

Redness. May cause redness and tearing of the eyes. Coughing and/ or wheezing.

#### **Acute toxicity**

Harmful if swallowed

Toxic in contact with skin

Harmful if inhaled

#### **Mixture**

Test data reported below.

#### **Oral Exposure Route**

<u>Endpoint type</u>	<u>Reported dose</u>	<u>Toxicological effects</u>	<u>Key literature references and sources for data</u>
Rat LD <sub>50</sub>	383 mg/kg	<b>Behavioral</b> Loss of righting reflex Sedation Tonic convulsions <b>Eye</b> Ptosis <b>Gastrointestinal</b> Enteritis in the large intestine Enteritis in the small intestine <b>Lungs, Thorax, or Respiration</b> Congestion of the lungs Respiratory depression Infection of the lungs <b>Skin and Appendages</b> Piloerection	Outside testing

**Ingredient Acute Toxicity Data**  
 Test data reported below.

**Oral Exposure Route**

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Boron potassium oxide (B4K2O7) (50 - 60%) CAS#: 1332-77-0	Rat LD <sub>50</sub>	3500 mg/kg	None reported	None reported	Vendor SDS
Boron oxide (B2O3) (10 - 20%) CAS#: 1303-86-2	Rat LD <sub>50</sub>	3150 mg/kg	None reported	None reported	RTECS
Potassium cyanide (1 - 5%) CAS#: 151-50-8	Rat LD <sub>50</sub>	5 mg/kg	None reported	None reported	GESTIS

**Dermal Exposure Route**

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Boron potassium oxide (B4K2O7) (50 - 60%) CAS#: 1332-77-0	Rat LD <sub>50</sub>	> 2000 mg/kg	None reported	None reported	Vendor SDS
Potassium cyanide (1 - 5%) CAS#: 151-50-8	Rabbit LD <sub>50</sub>	22.3 mg/kg	None reported	None reported	Vendor SDS

**Inhalation (Dust/Mist) Exposure Route**

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Potassium cyanide (1 - 5%)	Rat LC <sub>50</sub>	0.04 mg/L	4 hours	None reported	ERMA

CAS#: 151-50-8					
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#### Unknown Acute Toxicity

0% of the mixture consists of ingredient(s) of unknown toxicity.

#### Acute Toxicity Estimations (ATE)

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral)	No information available
ATEmix (dermal)	641.80 mg/kg
ATEmix (inhalation-dust/mist)	2.00 mg/l
ATEmix (inhalation-vapor)	No information available
ATEmix (inhalation-gas)	No information available

#### Skin corrosion/irritation

Classification based on data available for ingredients. Irritating to skin.

#### Mixture

No data available.

#### Ingredient Skin Corrosion/Irritation Data

Test data reported below.

Chemical name	Test method	Species	Reported dose	Exposure time	Results	Key literature references and sources for data
Boron potassium oxide (B4K2O7) (50 - 60%) CAS#: 1332-77-0	Standard Draize Test	Rabbit	500 mg	4 hours	Skin irritant	ECHA
Boron oxide (B2O3) (10 - 20%) CAS#: 1303-86-2	Standard Draize Test	Rabbit	500 mg	24 hours	Mild skin irritant	ECHA

#### Serious eye damage/irritation

Classification based on data available for ingredients. Irritating to eyes.

#### Mixture

No data available.

#### Ingredient Eye Damage/Eye Irritation Data

Test data reported below.

Chemical name	Test method	Species	Reported dose	Exposure time	Results	Key literature references and sources for data
Boron potassium oxide (B4K2O7) (50 - 60%) CAS#: 1332-77-0	OECD Test 405: Acute Eye Corrosion/Irritation	Rabbit	100 mg	24 hours	Eye irritant	ECHA
Boron oxide (B2O3) (10 - 20%) CAS#: 1303-86-2	Standard Draize Test	Rabbit	100 mg	24 hours	Mild eye irritant	ECHA

#### Respiratory or skin sensitization

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

#### Mixture

No data available.

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#### Ingredient Sensitization Data

No data available.

#### STOT - single exposure

Based on the classification criteria of the Globally Harmonized System as adopted in the country or region with which this safety data sheet complies, this product has been determined to cause systemic target organ toxicity from acute exposure. (STOT SE). Causes damage to organs if swallowed. Causes damage to organs in contact with skin.

#### Mixture

No data available.

#### Ingredient Specific Target Organ Toxicity Single Exposure Data

Test data reported below.

#### Oral Exposure Route

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Potassium cyanide (1 - 5%) CAS#: 151-50-8	Man TD <sub>Lo</sub>	13.7 mg/kg	None reported	<b>Behavioral</b> Coma Convulsions or effect on seizure threshold <b>Blood</b> Metabolic acidosis	RTECS

#### STOT - repeated exposure

Causes damage to organs through prolonged or repeated exposure.

#### Mixture

No data available.

#### Ingredient Specific Target Organ Toxicity Repeat Exposure Data

Test data reported below.

#### Oral Exposure Route

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Potassium cyanide (1 - 5%) CAS#: 151-50-8	Rat TD <sub>Lo</sub>	4.5 mg/kg	15 days	<b>Nutritional and Gross Metabolic</b> Evidence of thyroid hypofunction, Changes in thyroid weight	RTECS

#### Carcinogenicity

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

#### Mixture

No data available.

#### Ingredient Carcinogenicity Data

No data available.

Chemical name	CAS No	ACGIH	IARC	NTP	OSHA
Boron potassium oxide (B4K2O7)	1332-77-0	-	-	-	-
Boron oxide (B2O3)	1303-86-2	-	-	-	-
Potassium cyanide	151-50-8	-	-	-	-

#### Legend

ACGIH (American Conference of Governmental Industrial Hygienists)	Does not apply
IARC (International Agency for Research on Cancer)	Does not apply
NTP (National Toxicology Program)	Does not apply
OSHA	Does not apply

**Germ cell mutagenicity**

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

**Mixture invitro Data**

No data available.

**Substance invitro Data**

Test data reported below.

Chemical name	Test	Cell Strain	Reported dose	Exposure time	Results	Key literature references and sources for data
Boron oxide (B <sub>2</sub> O <sub>3</sub> ) (10 - 20%) CAS#: 1303-86-2	Mutation in microorganisms	Mammalian cells - not specified	None reported	None reported	Negative	RTECS
Potassium cyanide (1 - 5%) CAS#: 151-50-8	DNA inhibition	Mouse lymphocyte	1 mmol/L	None reported	Positive test result for mutagenicity	RTECS

**Mixture invivo Data**

No data available.

**Substance invivo Data**

No data available.

**Reproductive toxicity**

Classification based on data available for ingredients. Contains a known or suspected reproductive toxin. The table below indicates ingredients above the cut-off threshold considered as relevant which are listed as reproductive toxins.

**Mixture**

No data available.

**Ingredient Reproductive Toxicity Data**

Test data reported below.

**Oral Exposure Route**

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Potassium cyanide (1 - 5%) CAS#: 151-50-8	Domestic mammal - Not specified TD <sub>Lo</sub>	1767 mg/kg	12 weeks	<b>Effects on Newborn</b> Other neonatal measures or effects Weaning or lactation index (e.g. # alive at weaning per # alive at day 4)	RTECS

**Aspiration hazard**

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

**12. ECOLOGICAL INFORMATION**

**Ecotoxicity**

Very toxic to aquatic life with long lasting effects.

**Unknown aquatic toxicity**

0% of the mixture consists of components(s) of unknown hazards to the aquatic environment.

**Mixture**

**Aquatic Acute Toxicity**

No data available.

**Aquatic Chronic Toxicity**

No data available.

**Substance**

**Aquatic Acute Toxicity**

Test data reported below.

**Fish**

Chemical name	Exposure time	Species	Endpoint type	Reported dose	Key literature references and sources for data
Potassium cyanide (1 - 5%) CAS#: 151-50-8	96 hours	None reported	LC <sub>50</sub>	0.068 mg/L	GESTIS

**Crustacea**

Chemical name	Exposure time	Species	Endpoint type	Reported dose	Key literature references and sources for data
Boron oxide (B <sub>2</sub> O <sub>3</sub> ) (10 - 20%) CAS#: 1303-86-2	48 Hours	<i>Daphnia magna</i>	LC <sub>50</sub>	370 mg/L	IUCLID
Potassium cyanide (1 - 5%) CAS#: 151-50-8	48 Hours	None reported	LC <sub>50</sub>	0.25 mg/L	GESTIS

**Aquatic Chronic Toxicity**

No data available.

**Persistence and degradability**

**Mixture**

No data available.

**Bioaccumulation**

MATERIAL DOES NOT BIOACCUMULATE

**Mixture**

No data available.

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

log K<sub>ow</sub> ~ -1.6

**Mobility**

**Soil Organic Carbon-Water Partition Coefficient**

log K<sub>oc</sub> ~ 0.07

**Other adverse effects**

No information available

Chemical name	EU - Endocrine Disrupters Candidate List	EU - Endocrine Disrupters - Evaluated Substances	Endocrine disrupting potential
Potassium cyanide (1 - 5%) CAS#: 151-50-8	Group III Chemical	-	-

### 13. DISPOSAL CONSIDERATIONS

**Waste treatment methods**

**Waste from residues/unused products** Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

**Contaminated packaging** Do not reuse empty containers.

**US EPA Waste Number** P030

Chemical name	RCRA	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes
Potassium cyanide 151-50-8	P098	Included in waste streams: F007, F008, F009, F010, F011	-	-

Chemical name	RCRA - Halogenated Organic Compounds	RCRA - P Series Wastes	RCRA - F Series Wastes	RCRA - K Series Wastes
Potassium cyanide 151-50-8	-	P098 P030	-	-

**Special instructions for disposal** Dispose of material in an E.P.A. approved hazardous waste facility.

### 14. TRANSPORT INFORMATION

**DOT**

**UN/ID no** UN1588  
**Proper shipping name** Cyanides, inorganic, solid, n.o.s.  
**DOT Technical Name** Potassium cyanide  
**Transport hazard class(es)** 6.1  
**Packing Group** III  
**Description** UN1588, Cyanides, inorganic, solid, n.o.s., 6.1, III  
**Emergency Response Guide Number** 157

**TDG**

**UN/ID no** UN1588  
**Proper shipping name** Cyanides, inorganic, solid, n.o.s.  
**TDG Technical Name** Potassium cyanide  
**Transport hazard class(es)** 6.1  
**Packing Group** III  
**Marine pollutant** This product contains a chemical which is listed as a marine pollutant according to TDG.  
**Description** UN1588, Cyanides, inorganic, solid, n.o.s. (Potassium cyanide), 6.1, III

**IATA**

**UN number or ID number** UN1588  
**Proper shipping name** Cyanides, inorganic, solid, n.o.s.  
**IATA Technical Name** Potassium cyanide  
**Transport hazard class(es)** 6.1  
**Packing group** III  
**ERG Code** 6L  
**Special precautions for user** A3, A13

**IMDG**

**UN number or ID number** UN1588  
**Proper shipping name** Cyanides, inorganic, solid, n.o.s.  
**IMDG Technical Name** Potassium cyanide  
**Transport hazard class(es)** 6.1  
**Packing Group** III  
**EmS-No** F-A, S-A  
**Special precautions for user** 47, 223, 274

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**Marine pollutant**

This material meets the definition of a marine pollutant

**Note:**

No special precautions necessary.

**Additional information**

There is a possibility that this product could be contained in a reagent set or kit composed of various compatible dangerous goods. If the item is not in a reagent set or kit, the classification given above applies.  
If the item is part of a reagent set or kit the classification would change to the following:  
UN3316 Chemical Kit, Hazard Class 9, Packing Group II or III.  
If the item is not regulated, the Chemical Kit classification does not apply.

**15. REGULATORY INFORMATION**

**National Inventories**

**TSCA** Complies  
**DSL/NDSL** Complies

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory  
**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

**International Inventories**

**EINECS/ELINCS** Complies  
**ENCS** Does not comply  
**IECSC** Complies  
**KECL - Existing substances** Complies  
**PICCS** Complies  
**TCSI** Complies  
**AICS** Complies  
**NZIoC** Complies

**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances  
**ENCS** - Japan Existing and New Chemical Substances  
**IECSC** - China Inventory of Existing Chemical Substances  
**KECL** - Korean Existing and Evaluated Chemical Substances  
**PICCS** - Philippines Inventory of Chemicals and Chemical Substances  
**TCSI** - Taiwan Chemical Substances Inventory  
**AICS** - Australian Inventory of Chemical Substances  
**NZIoC** - New Zealand Inventory of Chemicals

**US Federal Regulations**

**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical name	SARA 313 - Threshold Values %
Potassium cyanide (CAS #: 151-50-8)	1.0

**SARA 311/312 Hazard Categories**

**Acute health hazard** Yes  
**Chronic Health Hazard** Yes  
**Fire hazard** No  
**Sudden release of pressure hazard** No  
**Reactive Hazard** No

**CWA (Clean Water Act)**

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
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Potassium cyanide 151-50-8	10 lb	X	X	X
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**CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

Chemical name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
Potassium cyanide 151-50-8	10 lb	10 lb	RQ 10 lb final RQ RQ 4.54 kg final RQ

**U.S. - Department of Homeland Security - Chemical Facility Anti-Terrorism Standards (CFATS) - Security Issues**

Chemical name	U.S. - Department of Homeland Security - Chemical Facility Anti-Terrorism Standards (CFATS) - Security Issues
Potassium cyanide (1 - 5%) CAS#: 151-50-8	Sabotage/Contamination

**US State Regulations**

**California Proposition 65**

This product contains the following Proposition 65 chemicals

Chemical name	California Proposition 65
Potassium cyanide (CAS #: 151-50-8)	Male Reproductive



**WARNING:** This product can expose you to chemicals including Potassium cyanide, which is known to the State of California to cause birth defects or other reproductive harm.  
 For more information, go to <http://www.P65Warnings.ca.gov>

**IMERC:** Not applicable

**U.S. State Right-to-Know Regulations**

This product may contain substances regulated by state right-to-know regulations.

Chemical name	New Jersey	Massachusetts	Pennsylvania
Boron potassium oxide (B4K2O7) 1332-77-0	X	-	-
Boron oxide (B2O3) 1303-86-2	X	X	X
Potassium cyanide 151-50-8	X	X	X

**U.S. EPA Label Information**

Chemical name	FIFRA	FDA
Boron potassium oxide (B4K2O7)	180.1121	-
Boron oxide (B2O3)	180.1121	-

**16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION**

**Special Comments**

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None

**Additional information**

**Global Automotive Declarable Substance List (GADSL)**

Chemical name	Global Automotive Declarable Substance List Classifications	Global Automotive Declarable Substance List Thersholds
Boron potassium oxide (B4K2O7) 1332-77-0	Declarable Substance (FI)	1 % 0.1 %
Boron oxide (B2O3) 1303-86-2	Declarable Substance (LR)	None reported

**NFPA and HMIS Classifications**

<b>NFPA</b>	<b>Health hazards</b> - 3	<b>Flammability</b> - 0	<b>Instability</b> - 0	<b>Physical and chemical properties</b> -
<b>HMIS</b>	<b>Health hazards</b> - * - 3	<b>Flammability</b> - 0	<b>Physical hazards</b> - 0	<b>Personal protection</b> - X - I

**Key or legend to abbreviations and acronyms used in the safety data sheet**

ACGIH	ACGIH (American Conference of Governmental Industrial Hygienists)
ATSDR	ATSDR (Agency for Toxic Substances and Disease Registry)
CCRIS	CCRIS (Chemical Carcinogenesis Research Information System)
CDC	CDC (Center for Disease Control)
CEPA	CEPA (Canadian Environmental Protection Agency)
CICAD	CICAD (Concise International Chemical Assessment Documents)
ECHA	ECHA (The European Chemicals Agency)
EEA	EEA (European Environment Agency)
EPA	EPA (Environmental Protection Agency)
ERMA	ERMA (New Zealands Environmental Risk Management Authority)
ECOSARS	Estimation through ECOSARS v1.11 part of the Estimation Programs Interface (EPI) Suite™
FDA	FDA (Food & Drug Administration)
GESTIS	GESTIS (Information System on Hazardous Substances of the German Social Accident Insurance)
HSDB	HSDB (Hazardous Substances Data Bank)
INERIS	INERIS (The National Industrial Environment and Risks Institute)
IPCS INCHEM	IPCS INCHEM (International Programme on Chemical Safety)
IUCLID	IUCLID (The International Uniform Chemical Information Database)
NITE	Japan National Institute of Technology and Evaluation (NITE)
NIH	NIH (National Institutes of Health)
NIOSH	NIOSH (National Institute for Occupational Safety and Health)
LOLI	LOLI (List of Lists - An International Chemical Regulatory Database)
NDF	no data
NICNAS	Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
NIOSH IDLH	Immediately Dangerous to Life or Health
OSHA	OSHA (Occupational Safety and Health Administration of the US Department of Labor)
PEEN	PEEN (Pan European Ecological Network)
RTECS	RTECS (Registry of Toxic Effects of Chemical Substances)
SIDS	SIDS (Screening Information Dataset) for High Volume Chemicals
SYKE	The Finnish Environment Institute (SYKE)
USDA	USDA (United States Department of Agriculture)
USDC	USDC (United States Department of Commerce)
WHO	WHO (World Health Organization)

**Legend - Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

TWA TWA (time-weighted average) STEL STEL (Short Term Exposure Limit)

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MAC	Maximum Allowable Concentration	Ceiling	Ceiling Limit Value
X	Listed	Vacated	These values have no official status. The only binding levels of contaminants are those listed in the final OSHA PEL. These lists are for reference purposes only. Please note that some reference state regulations of these "liberated" exposure limits in their state regulations.
SKN*	Skin designation	SKN+	Skin sensitization
RSP+	Respiratory sensitization	**	Hazard Designation
C	Carcinogen	R	Reproductive toxicant
M	mutagen		

**Prepared By** Hach Product Compliance Department

**Issue Date** 14-Sep-2020

**Revision Date** 30-May-2023

**Revision Note** None

**Disclaimer**

**USER RESPONSIBILITY:** Each user should read and understand this information and incorporate it in individual site safety programs in accordance with applicable hazard communication standards and regulations.

**THE INFORMATION CONTAINED HEREIN IS BASED ON DATA CONSIDERED TO BE ACCURATE. HOWEVER, NO WARRANTY IS EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THESE DATA OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF.**

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**End of Safety Data Sheet**