

# SAFETY DATA SHEET

# spectrum®



Revision date 06-May-2022

Revision Number 3

## 1. Identification

### Product identifier

**Product Name** POTASSIUM PERMANGANATE, CRYSTAL, REAGENT, ACS

### Other means of identification

**Product Code(s)** P1370

**UN/ID no** UN1490

**Synonyms** None

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

**Recommended use** No information available

**Restrictions on use** No information available

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

#### Supplier Address

Spectrum Chemical Mfg. Corp.  
14422 South San Pedro St.  
Gardena, CA 90248  
(310) 516-8000

### Emergency telephone number

**Emergency Telephone** Chemtrec 1-800-424-9300

## 2. Hazard(s) identification

### Classification

Acute toxicity - Oral	Category 4
Skin corrosion/irritation	Category 1 Sub-category A
Serious eye damage/eye irritation	Category 1
Reproductive toxicity	Category 2
Specific target organ toxicity (single exposure)	Category 3
Oxidizing solids	Category 3

### Hazards not otherwise classified (HNOC)

Not applicable

### Label elements

**Danger**

### Hazard statements

Harmful if swallowed

Causes severe skin burns and eye damage  
Suspected of damaging fertility or the unborn child  
May cause respiratory irritation  
May intensify fire; oxidizer



**Appearance** Crystals

**Physical state** Solid

**Odor** Odorless

#### **Precautionary Statements - Prevention**

Obtain special instructions before use  
Do not handle until all safety precautions have been read and understood  
Wear protective gloves/protective clothing/eye protection/face protection  
Wash face, hands and any exposed skin thoroughly after handling  
Do not eat, drink or smoke when using this product  
Do not breathe dusts or mists  
Use only outdoors or in a well-ventilated area  
Keep away from heat  
Keep/Store away from clothing/ combustible materials  
Take any precaution to avoid mixing with combustibles

#### **Precautionary Statements - Response**

Immediately call a POISON CENTER or doctor  
Specific treatment (see .? on this label)  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
Immediately call a POISON CENTER or doctor  
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower  
Wash contaminated clothing before reuse  
IF INHALED: Remove person to fresh air and keep comfortable for breathing  
Immediately call a POISON CENTER or doctor  
IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell  
Rinse mouth  
Do NOT induce vomiting  
In case of fire: Use CO<sub>2</sub>, dry chemical, or foam to extinguish

#### **Precautionary Statements - Storage**

Store locked up.  
Store in a well-ventilated place. Keep container tightly closed

#### **Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

#### **Other information**

Very toxic to aquatic life with long lasting effects. Very toxic to aquatic life.

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

#### **Substance**

Chemical name	CAS No	Weight-%	Trade secret
Potassium Permanganate	7722-64-7	100	*

\*The exact percentage (concentration) of composition has been withheld as a trade secret.

## 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 breathing has stopped, give artificial respiration. Get medical attention immediately. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. If breathing is difficult, (trained personnel should) give oxygen. Delayed pulmonary edema may occur. Get immediate medical advice/attention.
<b>Eye contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area. Remove contact lenses, if present and easy to do. Continue rinsing. Get immediate medical advice/attention.
<b>Skin contact</b>	IF ON CLOTHING: Rinse immediately contaminated clothing and skin with plenty of water before removing clothes. IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before reuse. Get immediate medical advice/attention.
<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. Use personal protective equipment as required. See section 8 for more information. Avoid contact with skin, eyes or clothing. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation.

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

<b>Symptoms</b>	Burning sensation.
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### Indication of any immediate medical attention and special treatment needed

<b>Note to physicians</b>	Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated. Do not give chemical antidotes. Asphyxia from glottal edema may occur. Marked decrease in blood pressure may occur with moist rales, frothy sputum, and high pulse pressure.
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## 5. Fire-fighting measures

<b>Suitable Extinguishing Media</b>	Use water. Do not use dry chemicals or foams. CO <sub>2</sub> or Halon may provide limited control. Flood fire area with water from a distance. Move containers from fire area if you can do it without risk. Cool containers with flooding quantities of water until well after fire is out.
<b>Large Fire</b>	CAUTION: Use of water spray when fighting fire may be inefficient.
<b>Unsuitable extinguishing media</b>	Dry chemical. Foam.
<b>Specific hazards arising from the chemical</b>	These substances will accelerate burning when involved in a fire. Some may decompose explosively when heated or involved in a fire. May ignite combustibles (wood, paper, oil, clothing, etc.). Runoff may create fire or explosion hazard. The product causes burns of eyes, skin and mucous membranes. Thermal decomposition can lead to release of irritating gases and vapors.
<b>Explosion data</b>	
<b>Sensitivity to mechanical impact</b>	none.
<b>Sensitivity to static discharge</b>	yes.

**Special protective equipment for fire-fighters**

Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment. Do not move cargo or vehicle if cargo has been exposed to heat. oxidizer. May ignite combustibles (wood, paper, oil, clothing, etc.). Move containers from fire area if you can do it without risk. Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. ALWAYS stay away from tanks engulfed in fire. For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible withdraw from area and let fire burn.

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

Ensure adequate ventilation. Avoid contact with skin, eyes or clothing. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. See section 8 for more information. Stop leak if you can do it without risk. Attention! Corrosive material. Use personal protective equipment as required.

**Other information**

Keep combustibles (wood, paper, oil, etc) away from spilled material. DO NOT GET WATER INSIDE CONTAINERS. Ventilate the area. Refer to protective measures listed in Sections 7 and 8.

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

Stop leak if you can do it without risk. Cover with DRY earth, DRY sand or other non-combustible material followed with plastic sheet to minimize spreading or contact with rain.

**Methods for cleaning up**

With clean shovel place material into clean, dry container and cover loosely; move containers from spill area. Flush area with flooding quantities of water. Prevent product from entering drains. Cover powder spill with plastic sheet or tarp to minimize spreading and keep powder dry.

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

Use personal protection equipment. Avoid contact with skin, eyes or clothing. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not eat, drink or smoke when using this product. Remove contaminated clothing and shoes. Handle in accordance with good industrial hygiene and safety practice. In case of insufficient ventilation, wear suitable respiratory equipment. Handle product only in closed system or provide appropriate exhaust ventilation. Take off contaminated clothing and wash before reuse. Avoid breathing vapors or mists.

**Conditions for safe storage, including any incompatibilities****Storage Conditions**

Keep containers tightly closed in a dry, cool and well-ventilated place. Keep in properly labeled containers. Do not store near combustible materials. Store in accordance with the particular national regulations. Store in accordance with local regulations. Keep out of the reach of children. Protect from moisture. Store locked up. Store away from other materials.

**8. Exposure controls/personal protection****Control parameters****Exposure Limits**

The following ingredients are the only ingredients of the product above the cut-off level (or level that contributes to the hazard classification of the mixture) which have an exposure

limit applicable in the region for which this safety data sheet is intended or other recommended limit. At this time, the other relevant constituents have no known exposure limits from the sources listed here.

### Appropriate engineering controls

**Engineering controls**                      Showers  
    Eyewash stations  
    Ventilation systems.

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

**Eye/face protection**                      Tight sealing safety goggles. Face protection shield.

**Hand protection**                            Wear suitable gloves. Impervious gloves.

**Skin and body protection**                Wear suitable protective clothing. Long sleeved clothing. Chemical resistant apron. Wear fire/flame resistant/retardant clothing.

**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.

**General hygiene considerations**        Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product. Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection.

## **9. Physical and chemical properties**

### Information on basic physical and chemical properties

**Physical state**                                Solid  
**Appearance**                                Crystals  
**Color**    Dark purple  
**Odor**     Odorless  
**Odor threshold**                              No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	no data available	None known
Melting point / freezing point	240 °C / 464 °F	None known
Boiling point / boiling range	no data available	None known
Flash point	no data available	None known
Evaporation rate	no data available	None known
Flammability (solid, gas)	no data available	None known
Flammability Limit in Air		None known
Upper flammability or explosive limits	No data available	
Lower flammability or explosive limits	No data available	
Vapor pressure	No data available	None known
Vapor density	no data available	None known
Relative density	2.7	None known
Water solubility	Soluble in water	None known
Solubility(ies)	Soluble in organic solvents Soluble in Acetic acid Soluble in pyridine Soluble in Acetone Soluble in Methanol	None known
Partition coefficient	No data available	None known
Autoignition temperature	no data available	None known
Decomposition temperature	> 240 - °C 464 °F	None known
Kinematic viscosity	no data available	None known

Dynamic viscosity	No data available	None known
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**Other information**

Explosive properties	No information available
Oxidizing properties	No information available
Softening point	No information available
Molecular weight	158.03
VOC Content (%)	No information available
Liquid Density	No information available
Bulk density	No information available

## **10. Stability and reactivity**

Reactivity	Oxidizer.
Chemical stability	May cause fire or explosion; strong oxidizer.
Possibility of hazardous reactions	None under normal processing.
Conditions to avoid	Heat, flames and sparks. Incompatible materials. Exposure to air or moisture over prolonged periods.
Incompatible materials	Organic material. Combustible material. Hydrocarbons. Acids. Bases. Oxidizing agent.
Hazardous decomposition products	None known based on information supplied.

## **11. Toxicological information**

**Information on likely routes of exposure**

**Product Information**

<b>Inhalation</b>	Specific test data for the substance or mixture is not available. Corrosive by inhalation. (based on components). Inhalation of corrosive fumes/gases may cause coughing, choking, headache, dizziness, and weakness for several hours. Pulmonary edema may occur with tightness in the chest, shortness of breath, bluish skin, decreased blood pressure, and increased heart rate. Inhaled corrosive substances can lead to a toxic edema of the lungs. Pulmonary edema can be fatal. May cause irritation of respiratory tract.
<b>Eye contact</b>	Specific test data for the substance or mixture is not available. Causes serious eye damage. (based on components). Corrosive to the eyes and may cause severe damage including blindness. May cause irreversible damage to eyes.
<b>Skin contact</b>	Specific test data for the substance or mixture is not available. Corrosive. (based on components). Causes burns.
<b>Ingestion</b>	Specific test data for the substance or mixture is not available. Causes burns. (based on components). Ingestion causes burns of the upper digestive and respiratory tracts. May cause severe burning pain in the mouth and stomach with vomiting and diarrhea of dark blood. Blood pressure may decrease. Brownish or yellowish stains may be seen around the mouth. Swelling of the throat may cause shortness of breath and choking. May cause lung damage if swallowed. May be fatal if swallowed and enters airways.

**Symptoms related to the physical, chemical and toxicological characteristics**

Symptoms	Redness. Burning. May cause blindness. Coughing and/ or wheezing.
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**Acute toxicity**

**Numerical measures of toxicity**

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Potassium Permanganate 7722-64-7	= 750 mg/kg ( Rat )	-	-

### Delayed and immediate effects as well as chronic effects from short and long-term exposure

<b>Skin corrosion/irritation</b>	Classification based on data available for ingredients. Causes burns.
<b>Serious eye damage/eye irritation</b>	Classification based on data available for ingredients. Risk of serious damage to eyes. Causes burns.
<b>Respiratory or skin sensitization</b>	No information available.
<b>Germ cell mutagenicity</b>	No information available.
<b>Reproductive toxicity</b>	Contains a known or suspected reproductive toxin. Classification based on data available for ingredients. Suspected of damaging fertility or the unborn child.
<b>STOT - single exposure</b>	May cause respiratory irritation.
<b>STOT - repeated exposure</b>	No information available.
<b>Target organ effects</b>	kidney, respiratory system, central nervous system, blood.
<b>Aspiration hazard</b>	No information available.
<b>Other adverse effects</b>	No information available.
<b>Interactive effects</b>	No information available.

## 12. Ecological information

### Ecotoxicity

Very toxic to aquatic life with long lasting effects.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Potassium Permanganate 7722-64-7	-	0.3-0.6 mg/L LC50 Oncorhynchus mykiss 96 h 0.769-1.27 mg/L LC50 Oncorhynchus mykiss 96 h static 1 1.08-1.38 mg/L LC50 Oncorhynchus mykiss 96 h 1 1.8-5.6 mg/L LC50 Lepomis macrochirus 96 h static 1 2.3 mg/L LC50 Lepomis macrochirus 96 h flow-through 1 2.7 mg/L LC50 Lepomis macrochirus 96 h 1 2.97-3.11 mg/L LC50 Cyprinus carpio 96 h 1 3.16-3.77 mg/L LC50 Cyprinus carpio 96 h 1 3.3-3.93 mg/L LC50 Carassius auratus 96 h static 1	-	0.84 mg/L LC50 Daphnia magna 48 h

<b>Persistence and degradability</b>	No information available.
<b>Bioaccumulation</b>	Inherently biodegradable.

<b>Other adverse effects</b>	No information available.
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## 13. Disposal considerations

### Waste treatment methods

<b>Waste from residues/unused products</b>	Should not be released into the environment. Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.
<b>Contaminated packaging</b>	Do not reuse empty containers.

## 14. Transport information

### DOT

<b>UN/ID no</b>	UN1490
<b>Proper Shipping Name:</b>	Potassium permanganate
<b>Hazard class</b>	5.1
<b>Packing group:</b>	II
<b>Special Provisions</b>	IB8, IP2, IP4, T3, TP33
<b>Marine Pollutant</b>	Severe Marine Pollutant
<b>Description:</b>	UN1490, Potassium permanganate, 5.1, II
<b>Emergency Response Guide Number</b>	140

### TDG

<b>UN-No:</b>	UN1490
<b>Proper Shipping Name:</b>	Potassium permanganate
<b>Hazard class</b>	5.1
<b>Packing Group:</b>	II
<b>Description:</b>	UN1490, Potassium permanganate, 5.1, II

### MEX

<b>UN-No</b>	UN1490
<b>Proper Shipping Name</b>	Potassium permanganate
<b>Hazard class</b>	5.1
<b>Packing Group</b>	II
<b>Description</b>	UN1490, Potassium permanganate, 5.1, II

### ICAO (air)

<b>UN-No:</b>	UN1490
<b>Proper Shipping Name:</b>	Potassium permanganate
<b>Hazard class</b>	5.1
<b>Packing Group:</b>	II
<b>Description:</b>	UN1490, Potassium permanganate, 5.1, II

### IATA

<b>UN number</b>	UN1490
<b>Proper Shipping Name:</b>	Potassium permanganate
<b>Transport hazard class(es)</b>	5.1
<b>Packing group</b>	II
<b>Description:</b>	UN1490, Potassium permanganate, 5.1, II

### IMDG

<b>UN number</b>	UN1490
<b>Proper shipping name</b>	Potassium permanganate
<b>Transport hazard class(es)</b>	5.1
<b>Packing group</b>	II
<b>EmS-No</b>	F-H, S-Q
<b>Marine pollutant</b>	P
<b>Description</b>	UN1490, Potassium permanganate, 5.1, II, Marine pollutant

### RID

<b>UN number</b>	UN1490
<b>Proper Shipping Name:</b>	Potassium permanganate
<b>Transport hazard class(es)</b>	5.1



**Packing group** II  
**Classification code** O2  
**Description:** UN1490, Potassium permanganate, 5.1, II, ENVIRONMENTALLY HAZARDOUS  
**Labels** 5.1

**ADR**

**UN number** 1490  
**Proper Shipping Name:** Potassium permanganate  
**Transport hazard class(es)** 5.1  
**Packing group** II  
**Classification code** O2  
**Tunnel restriction code** (E)  
**Description:** 1490, Potassium permanganate, 5.1, II, (E), ENVIRONMENTALLY HAZARDOUS  
**Labels** 5.1

**ADN**

**UN/ID No** UN1490  
**Proper shipping name** Potassium permanganate  
**Transport hazard class(es)** 5.1  
**Packing Group** II  
**Classification code** O2  
**Description** UN1490, Potassium permanganate, 5.1, II, ENVIRONMENTALLY HAZARDOUS  
**Hazard label(s)** 5.1  
**Limited quantity (LQ)** 1 kg  
**Equipment Requirements** PP

**15. Regulatory information**

**International Inventories**

**TSCA** Complies  
  
**DSL/NDSL** Complies  
**EINECS/ELINCS** Complies  
**ENCS** This product complies with ENCS:  
**IECSC** This product complies with China:  
**KECL** Complies  
**PICCS** Complies  
**AICS** All the constituents of this material are listed on the Australian Inventory of Chemical Substances (AICS).

**Legend:**

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

**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 Permanganate - 7722-64-7	1.0

**SARA 311/312 Hazard Categories**

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

### **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).

### **CERCLA**

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302).

Chemical name	Hazardous Substances RQs	Extremely Hazardous Substances RQs
Potassium Permanganate 7722-64-7	100 lb final RQ 45.4 kg final RQ	-

### **US State Regulations**

#### **California Proposition 65**

This product does not contain any Proposition 65 chemicals.

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

Chemical name	New Jersey	Massachusetts	Pennsylvania
Potassium Permanganate 7722-64-7	1578	Present	Environmental hazard

### **U.S. EPA Label Information**

**EPA Pesticide Registration Number** Not applicable

## **16. Other information**

### **NFPA**

**Health hazards** 3

**Flammability** 0

**Instability** 1

**Physical and chemical properties** OX

### **HMIS**

**Health hazards** 3 \*

**Flammability** 0

**Physical hazards** 1

**Personal protection** X

*Chronic Hazard Star Legend*

\* = Chronic Health Hazard

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

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

TWA TWA (time-weighted average)

STEL

STEL (Short Term Exposure Limit)

Ceiling Maximum limit value

### **Key literature references and sources for data used to compile the SDS**

Agency for Toxic Substances and Disease Registry (ATSDR)

U.S. Environmental Protection Agency ChemView Database

European Food Safety Authority (EFSA)

EPA (Environmental Protection Agency)

Acute Exposure Guideline Level(s) (AELG(s))

U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act

U.S. Environmental Protection Agency High Production Volume Chemicals

Food Research Journal

Hazardous Substance Database

International Uniform Chemical Information Database (IUCLID)

Japan GHS Classification

Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)

NIOSH (National Institute for Occupational Safety and Health)  
National Library of Medicine's ChemID Plus (NLM CIP)  
National Library of Medicine's PubMed database (NLM PUBMED)  
National Toxicology Program (NTP)  
New Zealand's Chemical Classification and Information Database (CCID)  
Organization for Economic Co-operation and Development Environment, Health, and Safety Publications  
Organization for Economic Co-operation and Development High Production Volume Chemicals Program  
Organization for Economic Co-operation and Development Screening Information Data Set  
World Health Organization

**Revision date** 06-May-2022  
**Revision Note** No information available.

**Disclaimer**

**The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.**

**End of Safety Data Sheet**