

## 1. Identification

<b>Product identifier</b>	<b>POTASSIUM PERMANGANATE, LOW MERCURY, REAGENT (ACS)</b>	
<b>Other means of identification</b>		
<b>Product code</b>	1693	
<b>Recommended use</b>	professional, scientific and technical activities: other professional, scientific and technical activities	
<b>Recommended restrictions</b>	None known.	
<b>Manufacturer/Importer/Supplier/Distributor information</b>		
<b>Company name</b>	GFS Chemicals, Inc.	
<b>Address</b>	P.O. Box 245 Powell OH 43065 US	
<b>Telephone</b>	Phone	740-881-5501
	Toll Free	800-858-9682
	Fax	740-881-5989
<b>Website</b>	www.gfschemicals.com	
<b>E-mail</b>	service@gfschemicals.com	
<b>Emergency phone number</b>	Emergency Assistance	Chemtrec 800-424-9300

## 2. Hazard(s) identification

<b>Physical hazards</b>	Oxidizing solids	Category 2
<b>Health hazards</b>	Acute toxicity, oral	Category 4
	Skin corrosion/irritation	Category 1A
	Serious eye damage/eye irritation	Category 1
	Germ cell mutagenicity	Category 2
	Reproductive toxicity	Category 2
	Specific target organ toxicity, single exposure	Category 1 (respiratory system)
	Specific target organ toxicity, repeated exposure	Category 1 (nervous system, respiratory system)
<b>OSHA hazard(s)</b>	Not classified.	

### Label elements



<b>Signal word</b>	Danger
<b>Hazard statement</b>	May intensify fire; oxidizer. Harmful if swallowed. Causes severe skin burns and eye damage. Causes serious eye damage. Suspected of causing genetic defects. Suspected of damaging fertility or the unborn child. Causes damage to organs (respiratory system). Causes damage to organs (nervous system, respiratory system) through prolonged or repeated exposure. Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects.
<b>Precautionary statement</b>	
<b>Prevention</b>	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat. Keep/Store away from clothing and other combustible materials. Take any precaution to avoid mixing with combustibles. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective gloves/protective clothing/eye protection/face protection.

<b>Response</b>	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. If swallowed: Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If exposed or concerned: Get medical advice/attention. Rinse mouth. In case of fire: Use water for extinction.
<b>Storage</b>	Store away from combustibles. 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.
<b>Hazard(s) not otherwise classified (HNOC)</b>	Not classified.
<b>Environmental hazards</b>	Hazardous to the aquatic environment, acute hazard Category 1 Hazardous to the aquatic environment, long-term hazard Category 1
<b>Supplemental information</b>	
<b>Precautionary statement</b>	
<b>Prevention</b>	Avoid release to the environment.
<b>Response</b>	Collect spillage.
<b>Disposal</b>	Dispose of contents/container in accordance with local/regional/national/international regulations.

### 3. Composition/information on ingredients

#### Substances

Hazardous components	Common name and synonyms	CAS number	%
POTASSIUM PERMANGANATE		7722-64-7	100

\*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

### 4. First-aid measures

<b>Inhalation</b>	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a physician or poison control center immediately.
<b>Skin contact</b>	Take off immediately all contaminated clothing. Rinse skin with water/shower. Get medical attention if irritation develops or persists. Call a physician or poison control center immediately. For minor skin contact, avoid spreading material on unaffected skin.
<b>Eye contact</b>	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician or poison control center immediately.
<b>Ingestion</b>	Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.
<b>Most important symptoms/effects, acute and delayed</b>	Corrosive effects. Irritation of eyes and mucous membranes. May cause temporary blindness and severe eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Narcosis. Decrease in motor functions. Behavioral changes. Prolonged exposure may cause chronic effects.
<b>Indication of immediate medical attention and special treatment needed</b>	In case of shortness of breath, give oxygen. Keep victim warm. Keep victim under observation. Symptoms may be delayed. Provide general supportive measures and treat symptomatically.
<b>General information</b>	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. IF exposed or concerned: Get medical advice/attention. Wash contaminated clothing before reuse.

### 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Water.
<b>Unsuitable extinguishing media</b>	None known.
<b>Specific hazards arising from the chemical</b>	May intensify fire; oxidizer.
<b>Special protective equipment and precautions for firefighters</b>	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

<b>Fire-fighting equipment/instructions</b>	Move containers from fire area if you can do so without risk. In the event of fire, cool tanks with water spray. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out. Water runoff can cause environmental damage.
<b>Specific methods</b>	Cool containers exposed to flames with water until well after the fire is out.

## 6. Accidental release measures

<b>Personal precautions, protective equipment and emergency procedures</b>	Keep unnecessary personnel away. Local authorities should be advised if significant spillages cannot be contained. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep people away from and upwind of spill/leak. Keep upwind. Keep out of low areas. Ventilate closed spaces before entering them. Wear appropriate personal protective equipment.
<b>Methods and materials for containment and cleaning up</b>	Keep combustibles (wood, paper, oil, etc.) away from spilled material. Should not be released into the environment. This material is a water pollutant and should be prevented from contaminating soil or from entering sewage and drainage systems and bodies of water. Prevent entry into waterways, sewers, basements or confined areas.  Large Spills: Stop leak if you can do so without risk. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Sweep up or vacuum up spillage and collect in suitable container for disposal. Avoid dust formation. Following product recovery, flush area with water. Clean up in accordance with all applicable regulations.  Small Spills: Clean surface thoroughly to remove residual contamination. This material is classified as a water pollutant under the Clean Water Act and should be prevented from contaminating soil or from entering sewage and drainage systems which lead to waterways. For waste disposal, see section 13 of the MSDS.
<b>Environmental precautions</b>	Contact local authorities in case of spillage to drain/aquatic environment. Avoid discharge into drains, water courses or onto the ground. Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Do not contaminate water.

## 7. Handling and storage

<b>Precautions for safe handling</b>	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Take any precaution to avoid mixing with combustibles. Keep away from heat. Do not get this material in contact with eyes. Do not get this material in contact with skin. Do not taste or swallow. Avoid contact during pregnancy/while nursing. Do not get this material on clothing. Use personal protective equipment as required. When using, do not eat, drink or smoke. Wash hands thoroughly after handling. Avoid release to the environment. Do not empty into drains.
<b>Conditions for safe storage, including any incompatibilities</b>	Store locked up. Keep away from heat. Keep container tightly closed. Do not store near combustible materials. Keep out of the reach of children. Store in a cool, dry place out of direct sunlight.

## 8. Exposure controls/personal protection

<b>Occupational exposure limits</b>	No exposure limits noted for ingredient(s).
<b>Biological limit values</b>	No biological exposure limits noted for the ingredient(s).
<b>Appropriate engineering controls</b>	An eye wash and safety shower must be available in the immediate work area.
<b>Individual protection measures, such as personal protective equipment</b>	
<b>Eye/face protection</b>	Wear eye/face protection.
<b>Skin protection</b>	
<b>Hand protection</b>	Wear protective gloves.
<b>Other</b>	Wear appropriate chemical resistant clothing. It may provide little or no thermal protection. Wear protective gloves.
<b>Respiratory protection</b>	In case of insufficient ventilation wear suitable respiratory equipment.
<b>Thermal hazards</b>	Not available.
<b>General hygiene considerations</b>	When using, do not eat, drink or smoke. Do not get in eyes. Do not get this material in contact with skin. Do not get this material on clothing. Wash hands before breaks and immediately after handling the product. Handle in accordance with good industrial hygiene and safety practice.

## 9. Physical and chemical properties

<b>Appearance</b>	Crystalline.
<b>Physical state</b>	Solid.
<b>Form</b>	Solid.
<b>Color</b>	Dark purple.

<b>Odor</b>	Odorless.
<b>Odor threshold</b>	Not available.
<b>pH</b>	Not available.
<b>Melting point/freezing point</b>	Not available.
<b>Initial boiling point and boiling range</b>	Not available.
<b>Flash point</b>	Not available.
<b>Evaporation rate</b>	Not available.
<b>Flammability (solid, gas)</b>	Not applicable.
<b>Upper/lower flammability or explosive limits</b>	
<b>Flammability limit - lower (%)</b>	Not available.
<b>Flammability limit - upper (%)</b>	Not available.
<b>Explosive limit - lower (%)</b>	Not available.
<b>Explosive limit - upper (%)</b>	Not available.
<b>Vapor density</b>	Not available.
<b>Relative density</b>	Not available.
<b>Solubility(ies)</b>	70 g/l
<b>Partition coefficient (n-octanol/water)</b>	Not available.
<b>Auto-ignition temperature</b>	Not available.
<b>Decomposition temperature</b>	464 °F (240 °C) with evolution of oxygen
<b>Viscosity</b>	Not available.
<b>Other information</b>	
<b>Density</b>	2.70 g/cm <sup>3</sup>
<b>Molecular formula</b>	KMnO <sub>4</sub>
<b>Molecular weight</b>	158.03 g/mol
<b>Specific gravity</b>	2.7003

## 10. Stability and reactivity

<b>Reactivity</b>	Combustible material. Reducing agent.
<b>Chemical stability</b>	Stable at normal conditions.
<b>Possibility of hazardous reactions</b>	Hazardous polymerization does not occur.
<b>Conditions to avoid</b>	Avoid temperatures exceeding the decomposition temperature. Excessive heat.
<b>Incompatible materials</b>	Combustible material.
<b>Hazardous decomposition products</b>	May include oxides of manganese.

## 11. Toxicological information

### Information on likely routes of exposure

<b>Ingestion</b>	Causes digestive tract burns. Harmful if swallowed.
<b>Inhalation</b>	May cause irritation to the respiratory system.
<b>Skin contact</b>	Causes severe skin burns.
<b>Eye contact</b>	Causes severe eye burns. Causes serious eye damage.

**Symptoms related to the physical, chemical and toxicological characteristics** Burning pain and severe corrosive skin damage. Permanent eye damage including blindness could result. Narcosis. Behavioral changes. Decrease in motor functions.

### Information on toxicological effects

**Acute toxicity** Causes severe skin burns and eye damage. Harmful if swallowed.

Product	Species	Test Results
POTASSIUM PERMANGANATE (CAS 7722-64-7)		
<b>Acute</b>		
<i>Oral</i>		
LD50	Guinea pig	810 mg/kg
	Mouse	750 mg/kg
	Rat	750 mg/kg
<i>Other</i>		
LD100	Mouse	500 mg/kg

\* Estimates for product may be based on additional component data not shown.

<b>Skin corrosion/irritation</b>	Causes severe skin burns and eye damage.
<b>Serious eye damage/eye irritation</b>	Causes severe eye burns. Causes serious eye damage.
<b>Respiratory sensitization</b>	Due to lack of data the classification is not possible.
<b>Skin sensitization</b>	Due to lack of data the classification is not possible.
<b>Germ cell mutagenicity</b>	Suspected of causing genetic defects.
<b>Carcinogenicity</b>	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.
<b>Reproductive toxicity</b>	Suspected of damaging fertility or the unborn child.
<b>Specific target organ toxicity - single exposure</b>	Causes damage to organs (respiratory system).
<b>Specific target organ toxicity - repeated exposure</b>	Causes damage to organs (nervous system, respiratory system) through prolonged or repeated exposure.
<b>Aspiration hazard</b>	Due to lack of data the classification is not possible.
<b>Chronic effects</b>	Causes damage to organs through prolonged or repeated exposure.

## 12. Ecological information

**Ecotoxicity** Very toxic to aquatic life with long lasting effects. Accumulation in aquatic organisms is expected.

Product	Species	Test Results
POTASSIUM PERMANGANATE (CAS 7722-64-7)		
<b>Aquatic</b>		
Crustacea	EC50	Amphipod ( <i>Crangonyx pseudogracilis</i> ) 0.86 - 1.12 mg/l, 48 hours
Fish	LC50	Channel catfish ( <i>Ictalurus punctatus</i> ) 0.189 - 0.246 mg/l, 96 hours

\* Estimates for product may be based on additional component data not shown.

<b>Persistence and degradability</b>	None known.
<b>Bioaccumulative potential</b>	Not available.
<b>Mobility in soil</b>	Not available.
<b>Other adverse effects</b>	Not available.

## 13. Disposal considerations

<b>Disposal instructions</b>	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. If discarded, this product is considered a RCRA ignitable waste, D001. Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>Local disposal regulations</b>	Not available.
<b>Hazardous waste code</b>	D001: Waste Flammable material with a flash point <140 F
<b>Waste from residues / unused products</b>	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
<b>Contaminated packaging</b>	Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

## 14. Transport information

### DOT

<b>UN number</b>	UN1490
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Material name: POTASSIUM PERMANGANATE, LOW MERCURY, REAGENT (ACS)

1693

Version #: 01

Revision date: Issue date: October-24-2013

SDS US

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<b>UN proper shipping name</b>	Potassium permanganate, MARINE POLLUTANT
<b>Transport hazard class(es)</b>	5.1
<b>Subsidiary class(es)</b>	Not available.
<b>Packing group</b>	II
<b>Special precautions for user</b>	Read safety instructions, SDS and emergency procedures before handling.
<b>Labels required</b>	5.1
<b>Special provisions</b>	IB8, IP2, IP4, T3, TP33
<b>Packaging exceptions</b>	152
<b>Packaging non bulk</b>	212
<b>Packaging bulk</b>	240

**IATA**

<b>UN number</b>	UN1490
<b>UN proper shipping name</b>	Potassium permanganate
<b>Transport hazard class(es)</b>	5.1
<b>Subsidiary class(es)</b>	-
<b>Packaging group</b>	II
<b>Environmental hazards</b>	No
<b>Labels required</b>	Not available.
<b>ERG Code</b>	5L
<b>Special precautions for user</b>	Not available.

**IMDG**

<b>UN number</b>	UN1490
<b>UN proper shipping name</b>	POTASSIUM PERMANGANATE, MARINE POLLUTANT
<b>Transport hazard class(es)</b>	5.1
<b>Subsidiary class(es)</b>	•
<b>Packaging group</b>	II
<b>Environmental hazards</b>	
<b>Marine pollutant</b>	Yes
<b>Labels required</b>	Not available.
<b>EmS</b>	F-H, S-Q
<b>Special precautions for user</b>	Not available.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** No information available.

**General information** DOT Regulated Marine Pollutant. IMDG Regulated Marine Pollutant.

**DOT**



**IATA**



## Marine pollutant



## 15. Regulatory information

**US federal regulations** All components are on the U.S. EPA TSCA Inventory List.

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

Not regulated.

**US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

Not on regulatory list.

**CERCLA Hazardous Substance List (40 CFR 302.4)**

POTASSIUM PERMANGANATE (CAS 7722-64-7) LISTED

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

**Hazard categories**  
Immediate Hazard - Yes  
Delayed Hazard - No  
Fire Hazard - No  
Pressure Hazard - No  
Reactivity Hazard - No

**SARA 302 Extremely hazardous substance** No

**SARA 311/312 Hazardous chemical** No

**Other federal regulations**

**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Not regulated.

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**

Not regulated.

**Clean Water Act (CWA) Section 112(r) (40 CFR 68.130)** Hazardous substance

**Safe Drinking Water Act (SDWA)** Not regulated.

**Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and Chemical Code Number**

POTASSIUM PERMANGANATE (CAS 7722-64-7) 6579

**Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))**

POTASSIUM PERMANGANATE (CAS 7722-64-7) 15 % wt

**DEA Exempt Chemical Mixtures Code Number**

POTASSIUM PERMANGANATE (CAS 7722-64-7) 6579

**Food and Drug Administration (FDA)** Not regulated.

**US state regulations**

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

**US. Massachusetts RTK - Substance List**

POTASSIUM PERMANGANATE (CAS 7722-64-7)

**US. New Jersey Worker and Community Right-to-Know Act**

Not regulated.

**US. Pennsylvania RTK - Hazardous Substances**

POTASSIUM PERMANGANATE (CAS 7722-64-7)

**US. Rhode Island RTK**

POTASSIUM PERMANGANATE (CAS 7722-64-7)

## US. California Proposition 65

### US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance

Not listed.

#### International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s)

#### 16. Other information, including date of preparation or last revision

**Issue date** October-24-2013

**Version #** 01

**Further information** Not available.

**Disclaimer** The information in the sheet was written based on the best knowledge and experience currently available. 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.

**Revision Information** Product and Company Identification: Product and Company Identification  
Hazards Identification: US Hazard Categories  
Composition / Information on Ingredients: Disclosure Overrides  
Transport Information: Proper Shipping Name/Packing Group  
Regulatory Information: United States