

1. Identification

Product identifier	POTASSIUM PERMANGANATE, REAGENT (ACS)	
Other means of identification		
Product code	556	
Recommended use	professional, scientific and technical activities: other professional, scientific and technical activities	
Recommended restrictions	None known.	
Manufacturer/Importer/Supplier/Distributor information		
Company name	GFS Chemicals, Inc.	
Address	P.O. Box 245 Powell OH 43065 US	
Telephone	Phone	740-881-5501
	Toll Free	800-858-9682
	Fax	740-881-5989
Website	www.gfschemicals.com	
E-mail	service@gfschemicals.com	
Emergency phone number	Emergency Assistance	Chemtrec 800-424-9300

2. Hazard(s) identification

Physical hazards	Oxidizing solids	Category 2
Health hazards	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)
OSHA hazard(s)	Not classified.	

Label elements



Signal word	Danger
Hazard statement	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.
Precautionary statement	
Prevention	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.

Response	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.	
Storage	Store away from combustibles. Store locked up.	
Disposal	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.	
Hazard(s) not otherwise classified (HNOC)	Not classified.	
Environmental hazards	Hazardous to the aquatic environment, acute hazard	Category 1
	Hazardous to the aquatic environment, long-term hazard	Category 1
Supplemental information		
Precautionary statement		
Prevention	Avoid release to the environment.	
Response	Collect spillage.	
Disposal	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	%
Chemical name			
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

Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a physician or poison control center immediately.
Skin contact	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.
Eye contact	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.
Ingestion	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.
Most important symptoms/effects, acute and delayed	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.
Indication of immediate medical attention and special treatment needed	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.
General information	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

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

Fire-fighting equipment/instructions	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.
Specific methods	Cool containers exposed to flames with water until well after the fire is out.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	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.
Methods and materials for containment and cleaning up	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.
Environmental precautions	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

Precautions for safe handling	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.
Conditions for safe storage, including any incompatibilities	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

Occupational exposure limits	No exposure limits noted for ingredient(s).
Biological limit values	No biological exposure limits noted for the ingredient(s).
Appropriate engineering controls	An eye wash and safety shower must be available in the immediate work area.
Individual protection measures, such as personal protective equipment	
Eye/face protection	Wear eye/face protection.
Skin protection	
Hand protection	Wear protective gloves.
Other	Wear appropriate chemical resistant clothing. It may provide little or no thermal protection. Wear protective gloves.
Respiratory protection	In case of insufficient ventilation wear suitable respiratory equipment.
Thermal hazards	Not available.
General hygiene considerations	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

Appearance	Crystalline.
Physical state	Solid.
Form	Solid.
Color	Dark purple.

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

10. Stability and reactivity

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

11. Toxicological information

Information on likely routes of exposure

Ingestion	Causes digestive tract burns. Harmful if swallowed.
Inhalation	May cause irritation to the respiratory system.
Skin contact	Causes severe skin burns.
Eye contact	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)		
Acute		
<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.

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

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

13. Disposal considerations

Disposal instructions	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.
Local disposal regulations	Not available.
Hazardous waste code	D001: Waste Flammable material with a flash point <140 F
Waste from residues / unused products	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).
Contaminated packaging	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

UN number	UN1490
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Material name: POTASSIUM PERMANGANATE, REAGENT (ACS)

556

Version #: 01

Revision date: Issue date: October-24-2013

SDS US

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

IATA

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

IMDG

UN number	UN1490
UN proper shipping name	POTASSIUM PERMANGANATE, MARINE POLLUTANT
Transport hazard class(es)	5.1
Subsidiary class(es)	•
Packaging group	II
Environmental hazards	
Marine pollutant	Yes
Labels required	Not available.
EmS	F-H, S-Q
Special precautions for user	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 Codes
Hazards Identification: US Hazard Categories
Composition / Information on Ingredients: Disclosure Overrides
Physical & Chemical Properties: Multiple Properties
Transport Information: Proper Shipping Name/Packing Group
Regulatory Information: United States