



OUT Filter-Mate Potassium Permanganate

Safety Data Sheet

according to the Hazardous Products Regulation (WHMIS 2015) & OSHA Hazard Communication Standard 29 CFR 1910.1200 (HazCom 2012)
Issue date: 8/22/2024 Revision date: 8/22/2024 Version: 05.0

SECTION 1: Identification

1.1. Product identifier

Product form : Mixture
Product name : OUT Filter-Mate Potassium Permanganate

1.2. Recommended use and restrictions on use

Recommended use : Regeneration of greensand iron filters

1.3. Supplier

Iron Out dba Summit Brands
6714 Pointe Inverness Way, Suite 200
Fort Wayne, IN 46804-7935
US

1.4. Emergency telephone number

No additional information available

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

Classification (GHS CA/US)

Oxidizing solids Category 2	May intensify fire; oxidizer
Skin corrosion/irritation Category 1	Causes severe skin burns and eye damage
Serious eye damage/eye irritation Category 1	Causes serious eye damage
Reproductive toxicity Category 2	Suspected of damaging fertility or the unborn child
Specific target organ toxicity (repeated exposure) Category 2	May cause damage to organs through prolonged or repeated exposure
Not classified	

2.2. GHS Label elements, including precautionary statements

GHS CA/US labeling

Hazard pictograms (GHS CA/US) :



Signal word (GHS CA/US) :

Danger

Hazard statements (GHS CA/US) :

May intensify fire; oxidizer
Causes severe skin burns and eye damage
Suspected of damaging fertility or the unborn child
May cause damage to organs through prolonged or repeated exposure

Precautionary statements (GHS CA/US) :

Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Keep away from clothing and other combustible materials.
Do not breathe dust.
Wash hands, forearms and face thoroughly after handling.
Wear protective gloves, protective clothing, eye protection, face protection.
In case of fire: Use media other than water to extinguish.
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting

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IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or 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.
Specific treatment (see supplemental first aid instruction on this label).
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 or attention.
Store locked up.
Dispose of container in accordance with local, regional, national and international regulations.

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS CA/US)

No additional information available

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%
Potassium permanganate	CAS-No.: 7722-64-7	60 - 80

Comments : All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.
CANADA GHS: The exact percentage (concentration) of composition has been withheld as a trade secret in accordance with the amended HPR as of April 2018.
US GHS: The exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200.

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. If you feel unwell, seek medical advice.
First-aid measures after skin contact : Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing. Call a physician immediately. Obtain medical attention if irritation persists.
First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately. Obtain medical attention if irritation persists.
First-aid measures after ingestion : Rinse mouth. Do not induce vomiting. Call a physician immediately. If vomiting occurs have person lean forward. Never give anything by mouth to an unconscious person.
First-aid measures general : Call a physician immediately. If you feel unwell, seek medical advice (show the label where possible). Medical personnel should be made aware of substance(s) involved and take measures for self protection. Show this safety data sheet to the doctor in attendance. Avoid contact with skin and eyes. Keep out of the reach of children.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects after inhalation : Prolonged inhalation may be harmful.

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Symptoms/effects after skin contact : Burns. Prolonged or repeated contact may dry skin and cause irritation.
Symptoms/effects after eye contact : Serious damage to eyes. Direct contact with eyes may cause temporary irritation.
Symptoms/effects after ingestion : Burns. May cause stomach distress, nausea or vomiting.

4.3. Immediate medical attention and special treatment, if necessary

Other medical advice or treatment : Symptoms may be delayed. Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media

Suitable extinguishing media : Treat for surrounding material.

5.2. Unsuitable extinguishing media

Unsuitable extinguishing media : Do not use a water jet since it may cause the fire to spread.

5.3. Specific hazards arising from the hazardous product

Fire hazard : May intensify fire; oxidizer. During fire, gases hazardous to health may be formed. In case of fire or explosion do not breathe fumes.
Explosion hazard : No direct explosion hazard.
Hazardous decomposition products in case of fire : May include and are not limited to: oxides of carbon.

5.4. Special protective equipment and precautions for fire-fighters

Firefighting instructions : Move containers from fire area if it can be done without personal risk.
Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Keep unnecessary personnel away. For personal protection, see section 8 of the SDS. In the event of a significant spillage : Notify authorities if product enters sewers or public waters.

6.2. Methods and materials for containment and cleaning up

For containment : Stop leaks if it can be done without personal risk. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.
Methods for cleaning up : Notify authorities if product enters sewers or public waters. Soak up with inert absorbent material (for example sand, sawdust, a universal binder, silica gel). Take up mechanically (sweeping, shoveling) and collect in suitable container for disposal. Clean contaminated surfaces with an excess of water. Minimize generation of dust.
Other information : This material and its container must be disposed of in a safe way, and as per local legislation.

6.3. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection"

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SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling	: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Wear personal protective equipment. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe dust/fume/gas/mist/vapors/spray. Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapours/spray. Do not taste or swallow. Ensure good ventilation of the work station. Handle and open container with care.
Hygiene measures	: Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	: Store locked up. Keep out of reach of children. Store tightly closed in a dry, cool and well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS).
Incompatible materials	: Combustible materials.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Appropriate engineering controls

Appropriate engineering controls	: Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.
Environmental exposure controls	: Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Hand protection:
Wear protective gloves. Confirm with a reputable supplier first.
Eye protection:
Wear eye protection
Skin and body protection:
Wear suitable protective clothing. As required by employer code.
Respiratory protection:
[In case of inadequate ventilation] wear respiratory protection. Where exposure guideline levels may be exceeded, use an approved NIOSH respirator. Respirator should be selected by and used under the direction of a trained health and safety professional following requirements found in OSHA's respirator standard (29 CFR 1910.134), CAN/CSA-Z94.4 and ANSI's standard for respiratory protection (Z88.2).

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
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Appearance	: Crystals.
Color	: Dark Metallic Purple
Odor	: odorless
Odor threshold	: No data available
pH	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Relative evaporation rate (ether=1)	: No data available
Melting point	: No data available
Freezing point	: Not applicable
Boiling point	: No data available
Flash point	: Not applicable
Auto-ignition temperature	: Not applicable
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapor pressure	: No data available
Relative vapor density at 20°C	: No data available
Relative density	: 2.7
Solubility	: Partially soluble.
Partition coefficient n-octanol/water (Log Pow)	: No data available
Viscosity, kinematic	: Not applicable
Explosive properties	: Not explosive.
Oxidizing properties	: Not oxidising.
Explosion limits	: Not applicable

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

Reactivity	: May intensify fire; oxidizer.
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: No dangerous reactions known under normal conditions of use.
Conditions to avoid	: Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.
Incompatible materials	: Combustible materials. Strong oxidizing agents.
Hazardous decomposition products	: May include and are not limited to: oxides of carbon.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified.
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	:

Potassium permanganate (7722-64-7)	
LD50 oral rat	> 2000 mg/kg (Source: ECHA_API)
LD50 dermal rat	> 2000 mg/kg (Source: ECHA_API)
ATE CA (oral)	500 mg/kg body weight

Skin corrosion/irritation	: Causes severe skin burns.
Serious eye damage/irritation	: Causes serious eye damage.
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified

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Carcinogenicity : Not classified
Reproductive toxicity : Suspected of damaging fertility or the unborn child.
STOT-single exposure : Not classified
STOT-repeated exposure : May cause damage to organs through prolonged or repeated exposure.

Potassium permanganate (7722-64-7)	
NOAEL (dermal,rat/rabbit,90 days)	150 mg/kg body weight Animal: rat, Guideline: OECD Guideline 410 (Repeated Dose Dermal Toxicity: 21/28-Day Study)
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard : Not classified
Likely routes of exposure : Skin and eye contact. Ingestion. Inhalation.
Symptoms/effects after inhalation : Prolonged inhalation may be harmful.
Symptoms/effects after skin contact : Burns. Prolonged or repeated contact may dry skin and cause irritation.
Symptoms/effects after eye contact : Serious damage to eyes. Direct contact with eyes may cause temporary irritation.
Symptoms/effects after ingestion : Burns. May cause stomach distress, nausea or vomiting.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Before neutralisation, the product may represent a danger to aquatic organisms. See below for route-specific details.
Hazardous to the aquatic environment, short-term (acute) : Not classified.
Hazardous to the aquatic environment, long-term (chronic) : Not classified.

Potassium permanganate (7722-64-7)	
LC50 - Fish [1]	2.97 – 3.11 mg/l (Exposure time: 96 h - Species: Cyprinus carpio Source: EPA)
LC50 - Fish [2]	3.16 – 3.77 mg/l (Exposure time: 96 h - Species: Cyprinus carpio Source: EPA)
EC50 - Crustacea [1]	0.06 mg/l Test organisms (species): Daphnia magna

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Ozone : Not classified

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods : Dispose of the material collected according to regulations.
Sewage disposal recommendations : Disposal must be done according to official regulations.



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Product/Packaging disposal recommendations : Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling, disposal or collection.

SECTION 14: Transport information

TDG	DOT
14.1. UN number	
UN1490	UN1490
14.2. Proper Shipping Name	
POTASSIUM PERMANGANATE	Potassium permanganate
Transport document description	
UN1490 POTASSIUM PERMANGANATE, 5.1, II	UN1490 Potassium permanganate, 5.1, II
14.3. Transport hazard class(es)	
5.1 (LTD QTY)	5.1 (LTD QTY)
	
14.4. Packing group	
II	II
14.5. Environmental hazards	
Dangerous for the environment: No	Dangerous for the environment: No
No supplementary information available	

14.6. Special precautions for user

TDG
UN-No. (TDG) : UN1490
Excepted quantities (TDG) : E2
Emergency Response Guide (ERG) Number : 140

DOT
UN-No.(DOT) : UN1490

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DOT Special Provisions (49 CFR 172.102)	: IB8 - Authorized IBCs: Metal (11A, 11B, 11N, 21A, 21B, 21N, 31A, 31B and 31N); Rigid plastics (11H1, 11H2, 21H1, 21H2, 31H1 and 31H2); Composite (11HZ1, 11HZ2, 21HZ1, 21HZ2, 31HZ1 and 31HZ2); Fiberboard (11G); Wooden (11C, 11D and 11F); Flexible (13H1, 13H2, 13H3, 13H4, 13H5, 13L1, 13L2, 13L3, 13L4, 13M1 or 13M2). IP2 - When IBCs other than metal or rigid plastics IBCs are used, they must be offered for transportation in a closed freight container or a closed transport vehicle. IP4 - Flexible, fiberboard or wooden IBCs must be sift-proof and water-resistant or be fitted with a sift-proof and water-resistant liner. T3 - 2.65 178.274(d)(2) Normal..... 178.275(d)(2) TP33 - The portable tank instruction assigned for this substance applies for granular and powdered solids and for solids which are filled and discharged at temperatures above their melting point which are cooled and transported as a solid mass. Solid substances transported or offered for transport above their melting point are authorized for transportation in portable tanks conforming to the provisions of portable tank instruction T4 for solid substances of packing group III or T7 for solid substances of packing group II, unless a tank with more stringent requirements for minimum shell thickness, maximum allowable working pressure, pressure-relief devices or bottom outlets are assigned in which case the more stringent tank instruction and special provisions shall apply. Filling limits must be in accordance with portable tank special provision TP3. Solids meeting the definition of an elevated temperature material must be transported in accordance with the applicable requirements of this subchapter.
DOT Packaging Exceptions (49 CFR 173.xxx)	: 152
DOT Packaging Non Bulk (49 CFR 173.xxx)	: 212
DOT Packaging Bulk (49 CFR 173.xxx)	: 240
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)	: 5 kg
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)	: 25 kg
DOT Vessel Stowage Location	: D - The material must be stowed "on deck only" on a cargo vessel and on a passenger vessel carrying a number of passengers limited to not more than the larger of 25 passengers or one passenger per each 3 m of overall vessel length, but the material is prohibited on passenger vessels in which the limiting number of passengers is exceeded.
DOT Vessel Stowage Other	: 56 - Stow "separated from" ammonium compounds, 58 - Stow "separated from" cyanides, 138 - Stow "Separated from" peroxides.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. National regulations

All components of this product are present on DSL

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

This product or mixture is not known to contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

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SECTION 16: Other information

Issue date : 08/22/2024
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Other information : For an updated SDS, please contact the supplier or manufacturer listed on the first page of the document. Redbook revision #(6, 1/6/17).

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