SAFETY DATA SHEET

1. Product and Company Identification

Product identifier **Pro Pot Perm Plus**

Other means of identification Not available.

Recommended use Regeneration of greensand iron filters

Recommended restrictions None known.

Manufacturer information

Pro Products LLC
7201 Engle Road
Fort Wayne, IN 46804-5875 US
Phone: 260-483-2519
Emergency Phone: 1-800-424-9300 (CHEMTREC)

2. Hazards Identification

Physical hazards	Oxidizing solids	Category 2
Health hazards	Acute toxicity, oral	Category 4
	Skin corrosion/irritation	Category 1B
	Serious eye damage/eye irritation	Category 1
	Specific target organ toxicity, single exposure	Category 1
	Specific target organ toxicity, repeated exposure	Category 1

Environmental hazards Not classified.

OSHA defined hazards Not classified.

Label elements

Signal word Danger

Hazard statement

May intensify fire; oxidizer.
Harmful if swallowed.
Causes severe skin burns and eye damage.
Causes damage to organs.
Causes damage to organs through prolonged or repeated exposure.

Precautionary statement

Prevention

Keep away from heat. Take any precaution to avoid mixing with combustibles.
Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Do not breathe dust.
Wear protective gloves/eye protection/face protection.

Response

In case of fire: Use appropriate media to extinguish.
If swallowed: Rinse mouth. Do NOT induce vomiting.
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. Specific treatment (see information on this label). Immediately call a poison center/doctor.
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.

Storage Store locked up.

Disposal Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard(s) not otherwise classified (HNOC) None known.

Supplemental information 100% of the mixture consists of component(s) of unknown acute inhalation toxicity. 100% of the mixture consists of component(s) of unknown acute dermal toxicity.

3. Composition/Information on Ingredients

Mixture

Chemical name	Common name and synonyms	CAS number	%
Potassium permanganate		7722-64-7	60 - 100

Composition comments US GHS: The exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200.

4. First Aid Measures

Inhalation If inhaled: Remove person to fresh air and keep comfortable for breathing. Immediately call a poison center/doctor/.

Skin contact If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. Immediately call a poison center/doctor/. Specific treatment (see information on this label).

Eye contact 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/doctor.

Ingestion If swallowed: Rinse mouth. Do NOT induce vomiting. Immediately call a poison center/doctor/.

Most important symptoms/effects, acute and delayed Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. Skin irritation. May cause redness and pain.

Indication of immediate medical attention and special treatment needed Provide general supportive measures and treat symptomatically. In case of shortness of breath, give oxygen. Keep victim warm. Keep victim under observation. Symptoms may be delayed.

General information Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Avoid contact with eyes and skin. Keep out of reach of children.

5. Fire Fighting Measures

Suitable extinguishing media Water.

Unsuitable extinguishing media None known.

Specific hazards arising from the chemical May intensify fire; oxidizer. Container may explode in heat of fire. May decompose spontaneously if exposed to temperatures above 150°C. Increases flammability of combustible materials.

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 In the event of fire, cool tanks with water spray. Move containers from fire area if you can do so without risk. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out.

Specific methods Cool containers exposed to flames with water until well after the fire is out.

General fire hazards May intensify fire; oxidizer.

Hazardous combustion products Oxides of manganese. Oxygen.

Explosion data

- **Sensitivity to mechanical impact** Not available.
- **Sensitivity to static discharge** Not available.

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. This product is miscible in water. Stop the flow of material, if this is without risk. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water. For waste disposal, see section 13 of the SDS.

Environmental precautions Avoid release to the environment. Contact local authorities in case of spillage to drain/aquatic environment. Prevent further leakage or spillage if safe to do so. Do not contaminate water. Avoid discharge into drains, water courses or onto the ground.

7. Handling and Storage

Precautions for safe handling

Keep away from heat. Take any precaution to avoid mixing with combustibles. Do not get this material in contact with eyes. Do not taste or swallow. Avoid contact with skin. Avoid prolonged exposure. Avoid contact with clothing. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. When using, do not eat, drink or smoke. Wash hands thoroughly after handling. Use care in handling/storage. Avoid release to the environment. Do not empty into drains.

Conditions for safe storage, including any incompatibilities

Keep away from heat. Store locked up. Keep container tightly closed. Store in a cool, dry place out of direct sunlight. Store away from incompatible materials (see Section 10 of the SDS). Do not store near combustible materials.

8. Exposure Controls/Personal Protection

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
Potassium permanganate (CAS 7722-64-7)	Ceiling	5 mg/m3

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Potassium permanganate (CAS 7722-64-7)	TWA	0.1 mg/m3	Inhalable fraction.
		0.02 mg/m3	Respirable fraction.

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value	Form
Potassium permanganate (CAS 7722-64-7)	STEL	3 mg/m3	Fume.
	TWA	1 mg/m3	Fume.

Biological limit values

No biological exposure limits noted for the ingredient(s).

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.

Individual protection measures, such as personal protective equipment

Eye/face protection

Chemical splash goggles.

Skin protection

Hand protection

Wear appropriate chemical resistant gloves.

Other

Wear appropriate chemical resistant clothing.

Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment.

Thermal hazards

Not applicable.

General hygiene considerations

When using, do not eat, drink or smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and Chemical Properties

Appearance	Crystals
Physical state	Solid.
Form	Solid.
Color	Dark Metallic Purple
Odor	Odorless
Odor threshold	Not available.
pH	Not available
Melting point/freezing point	Not available.
Initial boiling point and boiling range	Not applicable
Pour point	Not available.
Specific gravity	2.7
Partition coefficient (n-octanol/water)	Not available

Flash point	None
Evaporation rate	Not applicable
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	Not applicable
Flammability limit - upper (%)	Not applicable
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	Not applicable
Vapor density	Not applicable
Relative density	Not available.
Solubility(ies)	Partially soluble
Auto-ignition temperature	Not applicable
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Percent volatile	0

10. Stability and Reactivity

Reactivity	This product may react with acids. This product may react with oxidizing agents.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Chemical stability	Material is stable under normal conditions.
Conditions to avoid	Heat, open flames, static discharge, sparks and other ignition sources. Contact with incompatible materials.
Incompatible materials	Acids. Oxidizers. Reducing agents. Metals. Organic materials. Combustible materials. Hydrogen peroxide.
Hazardous decomposition products	Oxides of manganese. Oxygen.

11. Toxicological Information

Routes of exposure	Eye, Skin contact, Inhalation, Ingestion.
Information on likely routes of exposure	
Ingestion	Harmful if swallowed.
Inhalation	Prolonged inhalation may be harmful.
Skin contact	Causes severe skin burns.
Eye contact	Causes serious eye damage.
Symptoms related to the physical, chemical and toxicological characteristics	Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. May cause redness and pain.
Information on toxicological effects	
Acute toxicity	Harmful if swallowed.

Components	**Species**	**Test Results**
Potassium permanganate (CAS 7722-64-7)		
Acute		
Dermal		
LD50	Not available	
Inhalation		
LC50	Not available	
Oral		
LD50	Guinea pig	810 mg/kg
	Mouse	1500 mg/kg, CCOHS
		750 mg/kg

Components	Species	Test Results
	Rat	1090 mg/kg, CCOHS
		750 mg/kg

Skin corrosion/irritation Causes severe burns.

Exposure minutes Not available.

Erythema value Not available.

Oedema value Not available.

Serious eye damage/eye irritation Causes serious eye damage.

Corneal opacity value Not available.

Iris lesion value Not available.

Conjunctival reddening value Not available.

Conjunctival oedema value Not available.

Recover days Not available.

Respiratory or skin sensitization

Respiratory sensitization Not available.

Skin sensitization This product is not expected to cause skin sensitization.

Germ cell mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

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

Not listed.

Reproductive toxicity This product is not expected to cause reproductive or developmental effects.

Teratogenicity Not classified.

Specific target organ toxicity - single exposure Causes damage to organs.

Specific target organ toxicity - repeated exposure Causes damage to organs through prolonged or repeated exposure.

Aspiration hazard Not classified.

Chronic effects Prolonged inhalation may be harmful.

Further information Not available.

Name of Toxicologically Synergistic Products Not available.

12. Ecological Information

Ecotoxicity See below

Ecotoxicological data

Components		Species	Test Results
Potassium permanganate (CAS 7722-64-7)			
Aquatic			
Crustacea	EC50	Amphipod (Crangonyx pseudogracilis)	0.86 - 1.12 mg/L, 48 hours
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	0.275 - 0.339 mg/L, 96 hours

Persistence and degradability No data is available on the degradability of this product.

Bioaccumulative potential No data available.

Mobility in soil No data available.

Mobility in general 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. This material and its container must be disposed of as hazardous waste. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.
Local disposal regulations	Dispose in accordance with all applicable regulations.
Hazardous waste code	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
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

General Canada: TDG Proof of Classification: In accordance with Part 2.2.1 (SOR/2014-152) of the Transportation of Dangerous Goods Regulations, we certify that the classification of this product is correct as of the SDS date of issue. If applicable, the technical name and the classification of the product will appear below.

U.S. Department of Transportation (DOT)

Basic shipping requirements:

UN number	UN1490
Proper shipping name	Potassium permanganate, mixture
Hazard class	5.1
Packing group	II
Special provisions	IB8, IP2, IP4, T3, TP33
Packaging exceptions	152
Packaging non bulk	212
Packaging bulk	240

Transportation of Dangerous Goods (TDG - Canada)

Basic shipping requirements:

UN number	UN1490
Proper shipping name	POTASSIUM PERMANGANATE
Hazard class	5.1
Packing group	II

DOT

TDG

15. Regulatory Information

Canadian federal regulations This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations.

Canada WHMIS Ingredient Disclosure: Listed substance

Potassium permanganate (CAS 7722-64-7) Listed.

WHMIS status Controlled

WHMIS classification Class C - Oxidizing Material, Class D - Division 2B, Class E - Corrosive Material

WHMIS labeling

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

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

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Potassium permanganate (CAS 7722-64-7) Listed.

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

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

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

SARA 302 Extremely hazardous substance No

SARA 311/312 Hazardous chemical No

SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
Potassium permanganate	7722-64-7	60 - 100

Other federal regulations

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

Potassium permanganate (CAS 7722-64-7)

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.

Food and Drug Administration (FDA) Total food additive
Direct food additive
Indirect food additive
Controlled substance

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 - Illinois Chemical Safety Act: Listed substance

Potassium permanganate (CAS 7722-64-7)

US - Minnesota Haz Subs: Listed substance

Potassium permanganate (CAS 7722-64-7)

US - New Jersey RTK - Substances: Listed substance

Potassium permanganate (CAS 7722-64-7)

US - North Carolina Toxic Air Pollutants: Listed substance

Potassium permanganate (CAS 7722-64-7)

US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)

Not listed.

US. Massachusetts RTK - Substance List

Potassium permanganate (CAS 7722-64-7)

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

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.

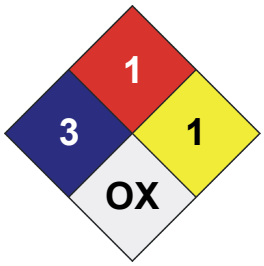
Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

16. Other Information

LEGEND	
Severe	4
Serious	3
Moderate	2
Slight	1
Minimal	0



Disclaimer

The data contained in this material safety data sheet was obtained from sources that were technically accurate, reliable, and state of the art when this document was prepared. If data was unavailable to complete certain sections, the absence of that data is identified in this document. Because the supplier cannot know the exact circumstances during actual use of this product, other hazards, exposure scenarios, disposal considerations, and regulations may apply and it is the responsibility of the user to read and understand the product label and this document before use. Do not use the product for purposes other than those stated in Section 1.

Issue date 23-February-2016

Effective date 23-February-2016

Expiry date 23-February-2019

Further information For an updated SDS, please contact the supplier/manufacturer listed on the first page of the document.

Prepared by Dell Tech Laboratories, Ltd. Phone: (519) 858-5021

Other information This Safety Data Sheet was prepared to comply with the current OSHA Hazard Communication Standard (HCS) adoption of the Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

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