



# SAFETY DATA SHEET

## 1. Product and Company Identification

<b>Product identifier</b>	<b>Culligan Fer-Sul, Potassium Permanganate</b>
<b>Other means of identification</b>	Not available
<b>Recommended use</b>	Regeneration of greensand iron filters
<b>Recommended restrictions</b>	None known.
<b>Manufacturer information</b>	Pro Products LLC 7201 Engle Road Fort Wayne, IN 46804-5875 US Phone: 260-483-2519 Emergency Phone: 1-800-424-9300 (CHEMTREC)
<b>Supplier</b>	See above.

## 2. Hazards Identification

<b>Physical hazards</b>	Oxidizing solids	Category 2
<b>Health hazards</b>	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
<b>Environmental hazards</b>	Not classified.	
<b>WHMIS 2015 defined hazards</b>	Not classified	
<b>Label elements</b>		



**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, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep away from clothing and other combustible materials. Wear protective gloves/eye protection/face protection. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Do not breathe dust.

**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 or shower. Wash contaminated clothing before reuse. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor. Specific treatment (see information 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: Call a POISON CENTER/doctor.

**Storage** Store locked up.

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

**WHMIS 2015: Health Hazard(s) not otherwise classified (HHNOC)** None known

**WHMIS 2015: Physical Hazard(s) not otherwise classified (PHNOC)** None known

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

**Supplemental information** None.

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### 3. Composition/Information on Ingredients

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**Mixture**

Chemical name	Common name and synonyms	CAS number	%
Potassium permanganate		7722-64-7	60-80*

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

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

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### 4. First Aid Measures

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<b>Inhalation</b>	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor.
<b>Skin contact</b>	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. Wash contaminated clothing before reuse. Immediately call a POISON CENTER/doctor. Specific treatment (see information on this label).
<b>Eye contact</b>	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.
<b>Ingestion</b>	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER/doctor.
<b>Most important symptoms/effects, acute and delayed</b>	Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. Skin irritation. May cause redness and pain.
<b>Indication of immediate medical attention and special treatment needed</b>	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.
<b>General information</b>	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. Wear rubber gloves and safety glasses with side shields. Keep out of reach of children.

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### 5. Fire Fighting Measures

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<b>Suitable extinguishing media</b>	Flood with water from a distance.
<b>Unsuitable extinguishing media</b>	Dry chemical. Foam. Carbon dioxide. Do not use halogenated foam.
<b>Specific hazards arising from the chemical</b>	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.
<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>	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.
<b>Specific methods</b>	Cool containers exposed to flames with water until well after the fire is out.
<b>General fire hazards</b>	May intensify fire; oxidizer.
<b>Hazardous combustion products</b>	May include and are not limited to: Oxides of manganese. Oxygen.

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### 6. Accidental Release Measures

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<b>Personal precautions, protective equipment and emergency procedures</b>	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.
<b>Methods and materials for containment and cleaning up</b>	Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. 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.
<b>Environmental precautions</b>	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

<b>Precautions for safe handling</b>	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.
<b>Conditions for safe storage, including any incompatibilities</b>	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

#### Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2)

Components	Type	Value
Potassium permanganate (CAS 7722-64-7)	TWA	0.2 mg/m3

#### Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)

Components	Type	Value
Potassium permanganate (CAS 7722-64-7)	TWA	0.2 mg/m3

#### Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act)

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

#### Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)

Components	Type	Value
Potassium permanganate (CAS 7722-64-7)	TWA	0.2 mg/m3

#### Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment)

Components	Type	Value	Form
Potassium permanganate (CAS 7722-64-7)	TWA	5 mg/m3	Dust.

#### 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.

<b>Other</b>	Wear appropriate chemical resistant clothing.
<b>Respiratory protection</b>	In case of insufficient ventilation, wear suitable respiratory equipment.
<b>Thermal hazards</b>	Not applicable.
<b>General hygiene considerations</b>	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.

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## 9. Physical and Chemical Properties

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<b>Appearance</b>	Crystals
<b>Physical state</b>	Solid.
<b>Form</b>	Solid.
<b>Color</b>	Dark Metallic 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 applicable
<b>Pour point</b>	Not available.
<b>Specific gravity</b>	2.7
<b>Partition coefficient (n-octanol/water)</b>	Not available
<b>Flash point</b>	None
<b>Evaporation rate</b>	Not applicable
<b>Flammability (solid, gas)</b>	Not applicable.
<b>Upper/lower flammability or explosive limits</b>	
<b>Flammability limit - lower (%)</b>	Not applicable
<b>Flammability limit - upper (%)</b>	Not applicable
<b>Explosive limit - lower (%)</b>	Not available.
<b>Explosive limit - upper (%)</b>	Not available.
<b>Vapor pressure</b>	Not applicable
<b>Vapor density</b>	Not applicable
<b>Relative density</b>	Not available.
<b>Solubility(ies)</b>	Partially soluble
<b>Auto-ignition temperature</b>	Not applicable
<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	Not available.
<b>Other information</b>	
<b>Percent volatile</b>	0

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## 10. Stability and Reactivity

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<b>Reactivity</b>	This product may react with acids. This product may react with oxidizing agents.
<b>Possibility of hazardous reactions</b>	No dangerous reaction known under conditions of normal use.
<b>Chemical stability</b>	Material is stable under normal conditions.
<b>Conditions to avoid</b>	Heat, open flames, static discharge, sparks and other ignition sources. Contact with incompatible materials.
<b>Incompatible materials</b>	Acids. Oxidizers. Reducing agents. Metals. Organic materials. Combustible materials. Hydrogen peroxide.
<b>Hazardous decomposition products</b>	May include and are not limited to: Oxides of manganese. Oxygen.

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## 11. Toxicological Information

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<b>Routes of exposure</b>	Eye, Skin contact, Inhalation, Ingestion.
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**Information on likely routes of exposure**

<b>Ingestion</b>	Harmful if swallowed.
<b>Inhalation</b>	Prolonged inhalation may be harmful.
<b>Skin contact</b>	Causes severe skin burns.
<b>Eye contact</b>	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.

<b>Components</b>	<b>Species</b>	<b>Test Results</b>
Potassium permanganate (CAS 7722-64-7)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rat	> 2000 mg/kg, 24 Hours, ECHA
<i>Inhalation</i>		
LC50	Not available	
<i>Oral</i>		
LD50	Guinea pig	810 mg/kg, HSDB
	Mouse	1500 mg/kg, CCOHS
		750 mg/kg, HSDB
	Rat	> 2000 mg/kg, ECHA
		1090 mg/kg, CCOHS
		750 mg/kg, HSDB

**Skin corrosion/irritation** Causes severe burns.

<b>Exposure minutes</b>	Not available.
<b>Erythema value</b>	Not available.
<b>Oedema value</b>	Not available.

**Serious eye damage/eye irritation** Causes serious eye damage.

<b>Corneal opacity value</b>	Not available.
<b>Iris lesion value</b>	Not available.
<b>Conjunctival reddening value</b>	Not available.
<b>Conjunctival oedema value</b>	Not available.
<b>Recover days</b>	Not available.

**Respiratory or skin sensitization**

<b>Respiratory sensitization</b>	Not available.
<b>Skin sensitization</b>	This product is not expected to cause skin sensitization.

**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.

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## 12. Ecological Information

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**Ecotoxicity** See below

**Ecotoxicological data**

<b>Components</b>		<b>Species</b>	<b>Test Results</b>
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	Rainbow trout, donaldson trout ( <i>Oncorhynchus mykiss</i> )	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.

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## 13. Disposal Considerations

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**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.

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## 14. Transport Information

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**Transport of Dangerous Goods (TDG) Proof of Classification** Classification Method: Classified as per Part 2, Sections 2.1 – 2.8 of the Transportation of Dangerous Goods Regulations. If applicable, the technical name and the classification of the product will appear below.

**U.S. Department of Transportation (DOT)**

**Basic shipping requirements:**

<b>UN number</b>	UN1490
<b>Proper shipping name</b>	Potassium permanganate, mixture
<b>Hazard class</b>	5.1
<b>Subsidiary hazard class</b>	Limited Quantity - US
<b>Packing group</b>	II
<b>Special provisions</b>	IB8, IP2, IP4, T3, TP33
<b>Packaging exceptions</b>	< 2.2 pounds - Limited Quantity
<b>Packaging non bulk</b>	212
<b>Packaging bulk</b>	240

**Transportation of Dangerous Goods (TDG - Canada)**

**Basic shipping requirements:**

<b>UN number</b>	UN1490
<b>Proper shipping name</b>	POTASSIUM PERMANGANATE
<b>Hazard class</b>	5.1
<b>Subsidiary hazard class</b>	Limited Quantity - Canada
<b>Packing group</b>	II
<b>Packaging exceptions</b>	<1 kg - Limited Quantity

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DOT



TDG




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### 15. Regulatory Information

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

**Export Control List (CEPA 1999, Schedule 3)**

Not listed.

**Greenhouse Gases**

Not listed.

**Precursor Control Regulations**

Potassium permanganate (CAS 7722-64-7)      Class A

**WHMIS 2015 Exemptions**      Not applicable

**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	60-80*

**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

**US state regulations**

**US - California Hazardous Substances (Director's): Listed substance**

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

**US - Illinois Chemical Safety Act: Listed substance**

Potassium permanganate (CAS 7722-64-7)

**US - Louisiana Spill Reporting: Listed substance**

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

**US - Minnesota Haz Subs: Listed substance**

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

**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 - Texas Effects Screening Levels: Listed substance**

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

**US. Massachusetts RTK - Substance List**

Potassium permanganate (CAS 7722-64-7)

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

Potassium permanganate (CAS 7722-64-7)

**US. Pennsylvania Worker and Community Right-to-Know Law**

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**

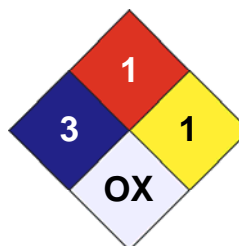
Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\*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

HEALTH	/ 3
FLAMMABILITY	1
PHYSICAL HAZARD	1
PERSONAL PROTECTION	X



**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**

13-August-2018

**Version #**

02

**Effective date**

13-August-2018

**Prepared by**

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

**Other information**

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

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