



MATERIAL SAFETY DATA SHEET

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To Reorder Call:
800-323-2594

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME

UNITED 975 UNITED CARUSOL® Liquid Permanganate

FOR MEDICAL AND TRANSPORTATION EMERGENCIES
24 Hour INFOTRAC (US and CANADA): **800-535-5053**

REVISION DATE
January 31, 2014

HMIS III HEALTH (0 = Maximum Safety)

***3**

Always follow Label Directions and Cautions.

* Chronic
4 Severe
3 Serious
2 Moderate
1 Slight
0 Minimal

**See Hazards Identification Section of this MSDS
for more detailed information.**

FLAMMABILITY (0 = Maximum Safety)

O

Susceptibility of Material to Burning.

4 Extremely flammable.	1 Must be preheated
3 Ignites at normal temperature.	to burn.
2 Ignites when moderately heated.	0 Will not burn.

PHYSICAL HAZARD (0 = Maximum Safety)

1

Susceptible to Release of Energy.

4 May detonate-vacate area if materials are exposed to fire.	2 Violent chemical change possible-use hose stream from distance
3 Strong shock of heat may detonate-use monitors from behind explosion resistant barriers.	1 Unstable if heated-use precaution.
	0 Normally stable.

PERSONAL PROTECTION: D



2. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Ingredients	CAS#	%Range	ACGIH (TLV-TWA)	OSHA (PEL-TWA)	LD50 (Species/Route)	LC50 (Species)
Sodium Permanganate	10101-50-5	19 - 21	0.2 mg/m3	5 mg/m3 Ceiling	780 mg/kg (rat/oral)	NE

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

3. HAZARDS IDENTIFICATION

Emergency overview: DANGER

Oxidizer – contact with other material may cause fire.

Route of exposure: Eye contact - Skin Contact - Inhalation - Ingestion

Effects: Corrosive. Damaging to eye tissue on contact. It may cause severe burns that result in damage to the eye. Permanent eye damage including blindness could result.

Skin: Corrosive. Causes skin burns.

Inhalation: May cause irritation of respiratory tract.

Ingestion: May cause irritation of respiratory tract. May causes burns of the upper digestive and respirator tracts.

4. FIRST AID MEASURES

Eyes: Immediately flush with plenty of water for up to 15 minutes. Remove any contact lenses and open eyelids wide apart. continue rinsing. Get medical attention immediately.

Skin: Take off immediately all contaminated clothing. (Caution: Solution may ignite certain textiles). Immediately flush skin with plenty of water. Get medical attention immediately. Wash contaminated clothing before reuse.

Contact with skin may leave a brown stain of insoluble manganese dioxide. This can be easily removed by washing with a mixture of equal volume of household vinegar and 3% hydrogen peroxide, followed by washing with soap and water.

Inhalation: Remove victim to fresh air and keep at rest in a position comfortable for breathing. For breathing difficulties, oxygen may be necessary. Get medical attention immediately.

Ingestion: Immediately rinse mouth and drink plenty of water. Never give anything by mouth to a victim who is unconscious or is having convulsions. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Get medical attention immediately.

Notes to physician: Provide general supportive measures and treat symptomatically. In case of shortness of breath, give oxygen. Decomposition products are alkaline. Brown stain is insoluble manganese dioxide. Show the label and safety data sheet of the product to the doctor, if possible.

5. FIRE FIGHTING MEASURES

Flash Point (TCC): None - does not flash.

Explosive Limits: Lower (LEL): ND Upper (UEL): ND

Hazardous Products of Combustion: When strongly heated, such as a fire, corrosive vapors/gases may be formed.

Fire and Explosion Hazards: The product is not flammable. May intensify fire; oxidizer. May ignite combustibles (wood, paper, oil, clothing, etc.) Contact with incompatible materials or heat (135°C/275°F) could result in violent exothermic chemical reaction.

Extinguishing Media: Flood with water from a distance, water spray or fog. The following extinguishing media are ineffective: Dry chemical, Foam, Carbon dioxide, Halogenated materials.

Fire Fighting Instructions: Wear self-contained breathing apparatus w/full protective clothing. Move container from fire area if it can be done without risk. Cool containers exposed to flames with water until well after the fire is out. Prevent runoff from fire control or dilution from entering streams, storm sewers, or drinking water supply. Dike fire control water for later disposal. Water runoff can cause environmental damage.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Keep unnecessary personnel away. Keep upwind. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Avoid inhalation of vapors and contact with skin and eyes. See section 8 for protective clothing.

Small Spills: Absorb with inert media like diatomaceous earth or inert floor dry, collect into a drum and dispose of properly. Do not use saw dust or other incompatible media. Disposal of all materials shall be in full and strict compliance with all federal, state, and local regulations pertaining to permanganates. Never return spills to original containers for reuse.

Large Spills: Same as above. Do not allow to enter storm drains, storm sewers, or watercourses. Contact local authorities in case of spillage to drain/aquatic environment. Sanitary drains going to collection systems are okay.

7. HANDLING AND STORAGE

Store in accordance with NFPA 430 requirements for Class II oxidizers. Store in cool dry area in tightly closed containers and in a well-ventilated place. Store away from incompatible materials listed in section 10. Do not mix with combustibles. Do not get this material in your eyes, on your skin, or on your clothing. Do not breathe mist or vapor. See section 8 for protective equipment. Wash hands thoroughly with soap and water after handling, and before eating or smoking. Wear proper protective equipment. Remove contaminated clothing. Spontaneous ignition may occur in contact with cloth or paper. When using do not eat, drink or smoke.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Eyes: Safety glasses with side shields (or safety goggles) are recommended. Wear face shield if there is risk of splashes.

Skin: Chemical resistant impervious gloves (rubber or plastic gloves) are recommended. Wear appropriate chemical resistant clothing. Rubber or plastic apron.

Respiratory: Where overexposure may exist or risk of inhalation of vapors, the use of a suitable respirator is advised. A program should be instituted to assure compliance with OSHA 29 CFR 1910.34.

Engineering Controls: Provide sufficient general or local exhaust ventilation to maintain exposure below the TLV-TWA.

9. PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point: >213.8F/>101C **Specific Gravity:** 1.15 - 1.17 (20C) (H₂O)=1) **Vapor Pressure:** 760mmHg (200F/105C)

Melting Point: <24.8F/<4C **Vapor Density:** NA **Evaporation Rate:** As water **Solubility in Water:** Miscible with water **pH:** 5 - 8

Appearance and Odor: Dark purple liquid, odorless.

10. STABILITY AND REACTIVITY

Conditions to avoid: Contact with incompatible materials or heat (275F/135C) could result in violent exothermic chemical reaction.

Hazardous Polymerization: Will not occur.

Hazardous Decomposition: When involved in fire or heated, corrosive vapors/gases may be formed. Contact with hydrochloric acid liberates chlorine gas.

Chemical Stability: Stable at normal conditions.

Incompatibility: Acids; Peroxides; Reducing agents. Combustible material. Metal powders.

Possibility of hazardous reactions: Contact with combustible material may cause fire. Can explode in contact with sulfuric acid, peroxides and metal powders.

11. TOXICOLOGICAL INFORMATION

Carcinogenicity (NTP/IARC/OSHA): Not classified.

California Proposition 65: Does this product contain chemical(s) known to the State of California to cause cancer and/or to cause birth defects or other reproductive harm? None

Toxicological data: Toxicity data is not available for sodium permanganate. Toxicity is expected to be similar to that of potassium permanganate.

12. ECOLOGICAL INFORMATION

Toxicological data: Toxicity data is not available for sodium permanganate. Toxicity is expected to be similar to that of potassium permanganate.

Ecotoxicity: Very toxic to aquatic life with long lasting effects. **Persistence and degradability:** Expected to be readily converted by oxidizable materials to insoluble manganese oxide. **Bioaccumulation/Accumulation:** Potential to bioaccumulate is low.

13. DISPOSAL CONSIDERATIONS

Consult your local, state and federal regulations for proper disposal guidelines. Disposal regulations may be different for each state and/or locality.

D001 Ignitable Waste

Waste from residue/unused product: Do not allow this material to drain into storm sewers/water supplies. Dispose in accordance with all applicable regulations.

14. TRANSPORT INFORMATION

DOT: Available upon request.

TDG: Available upon request.

UN: Available upon request.

15. REGULATORY INFORMATION

VOC (Volatile Organic Compounds): None

TSCA (Toxic Substances Control Act): Listed

SARA Title III Section 302 EHS: No

SARA Title III Section 311/312: Yes: Immediate Hazard – Yes Fire hazard – Yes Physical Hazard - Yes

SARA Title III Section 313 Toxic Chemicals: CAS 10101-50-5 Sodium permanganate listed substance N450 listed: Deminimis concentration 1.0% N450

Drug Enforcement Administration (DEA) 21 CFR 1308.11-15): Not controlled.

WHMIS Classification: Controlled C - Oxidizing E - Corrosive

This product has been classified in accordance with the hazard criteria of the CPR (Controlled Products Regulations/ WHMIS) and the MSDS contains all the information required by the CPR.

16. OTHER INFORMATION

Read and follow all label directions and precautions before using this product. These products are intended for industrial and institutional use only. NOT FOR HOUSEHOLD USE OR RESALE. KEEP OUT OF REACH OF CHILDREN.

UNITED 975 UNITED CARUSOL®

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