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Page 1

**Section I: Product Identification**

CATALOG NUMBER: 4300, 4302, 224300	PRODUCT NAME: DRO (Wisconsin)
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**Section II - Hazardous Ingredients/Identity Information**

Chemical Name	CAS Reg. No.	OSHA PEL (TWA)	% Composition*
Methylene Chloride	75-09-2	100 ppm	>98%
A table of the compounds possible in this analytical standard is attached. Data included in the table are formulas, CAS numbers, oral LD50 values for rats and PEL/TWA values if available. Total concentration of volatile compounds in the standard is less than 2% with individual compound concentrations of less than 0.1%.			

**Section III - Physical/Chemical Characteristics of Hazardous Ingredients****Methanol**

BOILING POINT: 40 C (104 F) @ 760 mmHg	SPECIFIC GRAVITY: (H2O=1) 1.32
VAPOR PRESSURE: (Air=1) 2.9 mm	SOLUBILITY IN WATER: 1-10% APPEARANCE/ODOR: Clear, colorless liquid with a penetrating ether-like odor.

**Section IV - Fire and Explosion Hazard Data**

FLASH POINT (Closed cup): N/A	AUTO IGNITION TEMPERATURE: Not Available	FLAMMABLE LIMITS	LEL 12%	UEL 19%
EXTINGUISHING MEDIA: Use extinguisher media appropriate for surrounding fire since sample is small.				
SPECIAL FIRE FIGHTING PROCEDURES: Firefighters should wear proper protective equipment and self contained breathing apparatus with full face piece operated in positive pressure mode. Move containers from fire area if it can be done without risk. Use water to keep fire-exposed containers cool.				
UNUSUAL FIRE AND EXPLOSION HAZARDS: Closed containers exposed to heat may explode. Toxic gases produced: hydrogen chloride, phosgene, carbon monoxide, carbon dioxide.				

**Section V - Reactivity Data**

STABILITY:	Unstable <input type="checkbox"/>	Stable <input checked="" type="checkbox"/>	Conditions to Avoid: Heat, flame, other sources of ignition, moisture.
INCOMPATIBILITY (Materials to avoid): Strong oxidizing agents, strong bases, oxides of nitrogen, amines, water, zinc, aluminum, magnesium, alkali metals.			
HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide, hydrogen chloride, phosgene.			
HAZARDOUS POLYMERIZATION:	May Occur <input type="checkbox"/>	Will Not Occur <input checked="" type="checkbox"/>	Conditions to Avoid: None Known

**Section VI - Health Hazard Data**

<b>ROUTES OF ENTRY</b>	Inhalation? YES	Skin? YES	Ingestion? YES
HEALTH HAZARDS (Acute and Chronic): ACUTE: Yes, see chronic symptoms. CHRONIC: Yes, ingestion and inhalation are harmful and may be fatal or cause headache, nausea, vomiting, dizziness, narcosis, suffocation, lower blood pressure, Central Nervous System depression, gastrointestinal irritation, central nervous system depression, hearing loss. Inhalation may cause severe irritation of the respiratory system. Liquid may be irritating to skin and eyes. Prolonged skin contact may result in dermatitis. Eye contact may result in temporary corneal damage.			
COMPONENTS LISTED AS CARCINOGENS OR POTENTIAL CARCINOGENS: None listed in IARC Monograph. ACGIH denotes that this substance is of suspect			

carcinogenic potential for man.
SIGNS AND SYMPTOMS OF EXPOSURE: Irritation of skin, eyes, nose, throat and headache. Prolonged contact may cause dermatitis. Exposure effects may differ between individuals.
MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: None Identified.
EMERGENCY AND FIRST AID PROCEDURES: Seek medical assistance for treatment, observation and support if necessary. EYE CONTACT: Flush with water, obtain medical attention. SKIN CONTACT: Wash with soap and water, use protective creams. INHALATION: Remove to fresh air, if not breathing, give artificial respiration. If breathing is difficult, give oxygen, obtain medical attention. INGESTION: Do not induce vomiting. Obtain medical assistance immediately.

## Section VII - Precautions for Safe Handling and Use

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: (Sample) shut off ignition sources. No flares, smoking or flames in area. Take up with sand or other non-combustible absorbent material and place into container for later disposal. Flush area with water.
WASTE DISPOSAL METHOD: Dispose in accordance with all applicable federal, state, and local environmental regulations. Excess sample should be placed in a proper waste solvent container.
PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Keep container tightly closed, store in a cool, dry, well ventilated, flammable liquid storage area.
OTHER PRECAUTIONS* Do not heat or evaporate sample to dryness.

## Section VIII - Control Measures

RESPIRATORY PROTECTION (Please specify): (Methanol) MSHA/NIOSH approved respirator with organic vapor cartridge, required if airborne concentration exceeds TWA of 200 ppm.	
VENTILATION: Local exhaust. General or local exhaust to meet TLV regulations.	
PROTECTIVE GLOVES: Rubber gloves recommended.	EYE PROTECTION: Safety glasses or goggles.
OTHER PROTECTIVE EQUIPMENT: Impervious clothing	
EMERGENCY WASH FACILITIES: Maintain eye wash and quick drench showers in work area.	

The information stated in this Material Safety Data Sheet (MSDS) is believed to be correct on the date of publication and must not be considered all conclusive. The information has been obtained only by a search of available literature and is only a guide for handling the chemicals. Persons not specifically and properly trained should not handle this chemical or its container. This MSDS is provided without any warranty expressed or implied, including merchantability or fitness for any particular purpose.

This product is furnished for laboratory use ONLY! Our standards may not be used as drugs, cosmetics, agricultural or pesticidal products, food additives or as house hold chemicals.

\* Various Government agencies (i.e., Department of Transportation, Occupational Safety and Health Administration, Environmental Protection Agency, and others) may have specific regulations concerning the transportation, handling, storage or use of this product which may not be contained herein. The customer or user of this product should be familiar with these regulations.

## Hazardous components of the DRO (Wisconsin) Standard

<b>CHEMICAL</b>	<b>CAS #</b>	<b>% by WEIGHT</b>	<b>LD50</b>
Decane	124-18-5	<0.2%	Not Available
Dodecane	112-40-3	<0.2%	Not Available
Tertridecane	629-59-4	<0.2%	Not Available
Hexadecane	544-76-3	<0.2%	Not Available
Octadecane	593-45-3	<0.2%	Not Available
Eicosane	112-95-8	<0.2%	Not Available
Docosane	629-97-0	<0.2%	Not Available
Tetracosane	646-31-1	<0.2%	Not Available
Hexacosane	630-01-3	<0.2%	Not Available
Octacosane	630-02-4	<0.2%	Not Available