



# Material Safety Data Sheet

## Anderol FR-200

### 1. Product and company identification

<b>Common name</b>	: Anderol FR-200	<b>Supplier/Manufacturer</b>
<b>MSDS#</b>	: AC1030	Anderol Canada Corp.
<b>Material use</b>	: Lubricant.	700 Third Line
<b>In case of emergency</b>	: CANUTEC (613) 996-6666 (Canada) CHEMTREC: 800-424-9300 (United States)	Oakville, ONT
<b>MSDS authored by:</b>	: Kemika XXI Inc. + 1-450-435-7475	Canada L6J 5A3
<b>Date of issue</b>	: 05/31/2006	Tel: (905) 827-9087
		Fax: (905) 827-2862

### 2. Hazards identification

<b>Physical state</b>	: Liquid.
<b>Odor</b>	: Mild.
<b>Color</b>	: Reddish
<b>Hazard status</b>	: This material is classified hazardous under OSHA regulations in the United States, the WHMIS Controlled Product Regulation in Canada, the NOM-018-STPS-2000 in Mexico and Brazil NBR 14725:2001.
<b>Emergency overview</b>	: WARNING! CONTAINS MATERIAL WHICH CAUSES DAMAGE TO THE FOLLOWING ORGANS: KIDNEYS, LIVER, SKIN, EYE, LENS OR CORNEA. Avoid contact with eyes, skin and clothing.
<b>Routes of entry</b>	: Dermal contact. Eye contact. Inhalation. Ingestion.
<b>Potential acute health effects</b>	
<b>Eyes</b>	: No known significant effects or critical hazards.
<b>Skin</b>	: No known significant effects or critical hazards.
<b>Inhalation</b>	: No known significant effects or critical hazards.
<b>Ingestion</b>	: No known significant effects or critical hazards.
<b>Potential chronic health effects</b>	: Carcinogenic effects: Not applicable. Mutagenic effects: Not applicable. Teratogenic effects: Not applicable.
<b>Medical conditions aggravated by over-exposure</b>	: Repeated or prolonged exposure to the substance can produce target organ damage.

See toxicological information (section 11)

### 3. Composition/information on ingredients

#### United States

Name	CAS number	%
Diethylene Glycol	111-46-6	40 - 60

#### Mexico

Name	UN number	IDLH	Classification				CAS number	%
			H	F	R	Special		
Diethylene Glycol	Not regulated.	-	1	1	0	111-46-6	40 - 60	

See Sections 8, 11 and 14 for details.

## 4 . First aid measures

- Eye contact** : Check for and remove any contact lenses. In case of contact, immediately flush skin with plenty of water for at least 20 minutes while removing contaminated clothing and shoes. Get medical attention if irritation occurs.
- Skin contact** : Wash with soap and water. Get medical attention if irritation occurs.
- Inhalation** : If inhaled, remove to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms appear.
- Ingestion** : Do not induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention if symptoms appear.
- Notes to physician** : Not available.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training.

## 5 . Fire-fighting measures

- Flammability of the product** : May be combustible at high temperature.
- Products of combustion** : The final products of combustion are carbon oxides and water. Nitrogen, sulfur and metal oxides may also be produced in some cases.
- Extinguishing media**
- Suitable** : Use an extinguishing agent suitable for the surrounding fire.
- Not suitable** : None known.
- Special exposure hazards** : No specific hazard.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## 6 . Accidental release measures

- Personal precautions** : Immediately contact emergency personnel. Keep unnecessary personnel away. Use suitable protective equipment.
- Environmental precautions** : Avoid dispersal of spilled material, runoff and contact with soil, waterways, drains and sewers.
- Methods for cleaning up** : If emergency personnel are unavailable, contain spilled material. For small spills, add absorbent (soil may be used in the absence of other suitable materials), scoop up material and place in a sealable, liquid-proof container for disposal. For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway. Place spilled material in an appropriate container for disposal.

## 7 . Handling and storage

- Handling** : Wash thoroughly after handling.
- Storage** : Keep container tightly closed. Keep container in a cool, well-ventilated area.

## 8 . Exposure controls/personal protection

### United States

**Product name**

Diethylene Glycol

**Exposure limits**

**AIHA WEEL (United States, 1/2004).**

TWA: 10 mg/m<sup>3</sup> 8 hour(s). Form: All forms.

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- Engineering measures** : No special ventilation requirements. Good general ventilation should be sufficient to control airborne levels. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.
- Personal protection**
- Eye protection** : Safety glasses with side shields.

- Skin protection/Body** : Not applicable.  
**Respiratory protection** : Not applicable.  
**Hand protection.** : Natural rubber (latex).



- HMIS Code/Personal protective equipment** : B  
**Personal protection in case of a large spill** : Safety glasses, goggles or face shield. Impervious gloves. Full suit. Boots. Wear NIOSH-approved self-contained breathing apparatus or equivalent and full protective gear. Wash hands, forearms and face thoroughly after handling compounds and before eating, smoking and using the lavatory and at the end of the day. Follow good industrial hygiene practice.

## 9 . Physical and chemical properties

- Physical state** : Liquid.  
**Color** : Reddish  
**Odor** : Mild.  
**Specific gravity** : 1.28 (Water = 1)  
**Flash point** : Closed cup: Higher than 93.3°C (200°F)(Pensky-Martens.)

## 10 . Stability and reactivity

- Stability and reactivity** : The product is stable.  
**Conditions of instability** : None known.  
**Incompatibility with various substances** : Reactive with oxidizing materials.  
**Hazardous polymerization** : Will not occur.  
**Conditions of reactivity** : None known.

## 11 . Toxicological information

### Toxicity data

Product/ingredient name	Test	Result	Route	Species
Diethylene Glycol	LD50	12565 mg/kg	Oral	Rat
	LD50	4400 mg/kg	Oral	Rabbit
	LD50	11890 mg/kg	Dermal	Rabbit

### Acute Effects

- Eyes** : No known significant effects or critical hazards.  
**Skin** : No known significant effects or critical hazards.  
**Inhalation** : No known significant effects or critical hazards.  
**Ingestion** : No known significant effects or critical hazards.  
**Potential chronic health effects** : Carcinogenic effects: Not applicable.  
 Mutagenic effects: Not applicable.  
 Teratogenic effects: Not applicable.  
**Target organs** : Contains material which causes damage to the following organs: kidneys, liver, skin, eye, lens or cornea.

## 12 . Ecological information

### Ecotoxicity data

Product/ingredient name	Species	Period	Result
Diethylene Glycol	Pimephales promelas (LC50)	96 hour(s)	75200 mg/l

**Environmental precautions** : No known significant effects or critical hazards.

**Products of degradation** : The final products of biodegradation are carbon oxides and water. Nitrogen and sulfur oxides and metal salts may also be produced in some cases.

**Toxicity of the products of biodegradation** : The products of degradation are less toxic than the product itself.

## 13 . Disposal considerations

**Waste disposal** : The generation of waste should be avoided or minimized wherever possible. Avoid dispersal of spilled material, runoff and contact with soil, waterways, drains and sewers. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional and local authority requirements.

## 14 . Transport information

**NAERG** : Not applicable.

### Regulatory information

**UN/ IMDG/IATA DOT/TDG** : Not regulated by any transport mode.

## 15 . Regulatory information

### United States

**HCS Classification** : Target organ effects

**U.S. Federal regulations** : TSCA 8(b) inventory: All components listed.

SARA 302/304/311/312 extremely hazardous substances: No products were found.

SARA 302/304 emergency planning and notification: No products were found.

SARA 302/304/311/312 hazardous chemicals: Diethylene Glycol

SARA 311/312 MSDS distribution - chemical inventory - hazard identification: Diethylene Glycol: Immediate (acute) health hazard, Delayed (chronic) health hazard

Clean Water Act (CWA) 307: No products were found.

Clean Water Act (CWA) 311: No products were found.

Clean Air Act (CAA) 112 accidental release prevention: No products were found.

Clean Air Act (CAA) 112 regulated flammable substances: No products were found.

Clean Air Act (CAA) 112 regulated toxic substances: No products were found.

**State regulations** : Pennsylvania RTK: Diethylene Glycol: (generic environmental hazard)

California prop. 65: No products were found.

### Canada

**WHMIS (Canada)** : Not controlled under WHMIS (Canada).

CEPA DSL: All components listed.

This product has been classified in accordance with the hazard criteria of the Canadian CPR, the United States OSHA, the Mexican NOM -018-STPS-2000 and the Brazilian NBR 14725:2001. This MSDS contains all the information required by the CPR, OSHA, the American National Standard Institute (ANSI) Z400.1, NOM -018-STPS-2000 and NBR 14725:2001.

**Mexico**

**Classification** :



**HAZARD RATINGS**

- 4- Extreme
- 3- Serious
- 2- Moderate
- 1- Slight
- 0- Minimal

**International lists** : This product, (and its ingredients) is (are) listed on national inventories, or is (are) exempted from being listed, Australia (AICS), in Europe (EINECS/ELINCS), in Korea (TCCL), in Japan (METI), in the Philippines (RA6969).

**16 . Other information**

**Label requirements (U.S.A.)** : CONTAINS MATERIAL WHICH CAUSES DAMAGE TO THE FOLLOWING ORGANS: KIDNEYS, LIVER, SKIN, EYE, LENS OR CORNEA.

**Hazardous Material Information System (U.S.A.)** :

HMIS RATING	
Health	0*
Fire hazard	1
Physical Hazard	0
Personal protection	B

**HAZARD RATINGS**

- 4- Extreme
  - 3- Serious
  - 2- Moderate
  - 1- Slight
  - 0- Minimal
- See section 8 for more detailed information on personal protection.

**National Fire Protection Association (U.S.A.)** :



**References** : ANSI Z400.1, MSDS Standard, 2004. - Manufacturer's Material Safety Data Sheet. - 29CFR Part1910.1200 OSHA MSDS Requirements. - 49CFR Table List of Hazardous Materials, UN#, Proper Shipping Names, PG. - Canada Gazette Part II, Vol. 122, No. 2. Registration SOR/88-64, 31 December 1987. Hazardous Products Act "Ingredient Disclosure List" - Canadian Transport of Dangerous Goods, Regulations and Schedules, Clear Language version 2005. - Official Mexican Standards NOM-018-STPS-2000 and NOM-004-SCT2-1994. Brazil NBR 14725:2001.

**Responsible name** : Mr. Max Naggar  
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**Version** : 3

**Notice to reader**

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