



Material Safety Data Sheet

Anderol DDF Series

1. Product and company identification

Common name	: Anderol DDF Series	
Trade name	: Anderol DDF 32, Anderol DDF 46, Anderol DDF 68	
MSDS#	: EH1158	Supplier/Manufacturer
		Anderol, Inc.
Material use	: Lubricant.	215 Merry Lane
In case of emergency	: CHEMTREC: 800-424-9300 (United States) CANUTEC (613) 996-6666 (Canada)	East Hanover, NJ 07936
		Tel: (973) 887-7410
Date of issue	: 05/30/2007	Fax: (973) 887-8422

2. Hazards identification

Physical state	: Liquid [Clear.]
Color	: DDF 32: Light Amber. DDF 68 : Green. DDF 46 : Red.
Hazard status	: This material is classified as not hazardous under OSHA regulations in the United States, the WHMIS in Canada, the NOM-018-STPS-2000 in Mexico and Brazil NBR 14725:2001.
Emergency overview	: No specific hazard. USE WITH CARE. Follow good industrial hygiene practice.
Potential acute health effects	
Eyes	: Slightly irritating to the eyes.
Skin	: Slightly irritating to the skin.
Inhalation	: No known significant effects or critical hazards.
Ingestion	: May be harmful if swallowed.
Potential chronic health effects	: Carcinogenic effects: Not applicable. Mutagenic effects: Not applicable. Teratogenic effects: Not applicable.
Medical conditions aggravated by over-exposure	: Pre-existing digestive disorders may be aggravated by over-exposure to this product.

See toxicological information (section 11)

3. Composition/information on ingredients

United States

Name	CAS number	%
Distillates (petroleum), hydrotreated light naphthenic	64742-53-6	30 - 60
Distillates (Petroleum), Hydrotreated Light	64742-47-8	10 - 30
Mineral Oil, Light	8042-47-5	5 - 10
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based	72623-86-0	5 - 10

Canada

Name	CAS number	%
Distillates (petroleum), hydrotreated light naphthenic	64742-53-6	30 - 60
Distillates (Petroleum), Hydrotreated Light	64742-47-8	10 - 30
Mineral Oil, Light	8042-47-5	5 - 10
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based	72623-86-0	5 - 10

Mexico

Name	UN number	IDLH	Classification				CAS number	%
			H	F	R	Special		
Distillates (petroleum), hydrotreated light naphthenic	Not regulated.	-	1	1	0		64742-53-6	30 - 60
Distillates (Petroleum), Hydrotreated Light	Not regulated.	-	0	1	0		64742-47-8	10 - 30
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based	Not regulated.	-	1	1	0		72623-86-0	5 - 10
Mineral Oil, Light	Not regulated.	-	0	1	0		8042-47-5	5 - 10

Brazil

Name	CAS number	%
Distillates (petroleum), hydrotreated light naphthenic	64742-53-6	30 - 60
Distillates (Petroleum), Hydrotreated Light	64742-47-8	10 - 30
Mineral Oil, Light	8042-47-5	5 - 10
Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based	72623-86-0	5 - 10

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. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

5 . Fire-fighting measures

- Flammability of the product** : May be combustible at high temperature.
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** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
In a fire or if heated, a pressure increase will occur and the container may burst.
- 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** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see section 8).
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
- Methods for cleaning up** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see section 1 for emergency contact information and section 13 for waste disposal.

7 . Handling and storage

- Handling** : Put on appropriate personal protective equipment (see section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Do not breathe vapor or mist. Do not ingest. Avoid contact with eyes, skin and clothing. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Storage** : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

8 . Exposure controls/personal protection

United States

Product name

Distillates (petroleum), hydrotreated light naphthenic
 Distillates (Petroleum), Hydrotreated Light
 Mineral Oil, Light
 Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based

Exposure limits

ACGIH TLV (United States).
 TWA: 5 mg/m³ 8 hour(s).

ACGIH TLV (United States, 1/2006). Skin
 TWA: 200 mg/m³ 8 hour(s).

ACGIH TLV (United States).
 STEL: 10 mg/m³ 15 minute(s). Form: Mist
 TLV: 5 mg/m³ Form: Mist

ACGIH TLV (United States).
 STEL: 10 mg/m³ 15 minute(s). Form: Mist
 TWA: 5 mg/m³ 8 hour(s). Form: Mist

OSHA PEL Z2 (United States).
 STEL: 10 mg/m³ 15 minute(s). Form: Mist
 TWA: 5 mg/m³ 8 hour(s). Form: Mist

Canada

Product name

Distillates (petroleum), hydrotreated light naphthenic

Distillates (Petroleum), Hydrotreated Light

Mineral Oil, Light

Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based

Exposure limits
ACGIH TLV (United States).

 TWA: 5 mg/m³ 8 hour(s).

ACGIH TLV (United States, 1/2006). Skin

 TWA: 200 mg/m³ 8 hour(s).

ACGIH TLV (United States).

 STEL: 10 mg/m³ 15 minute(s). Form: Mist

 TLV: 5 mg/m³ Form: Mist

ACGIH TLV (United States).

 STEL: 10 mg/m³ 15 minute(s). Form: Mist

 TWA: 5 mg/m³ 8 hour(s). Form: Mist

Mexico

Product name

Distillates (petroleum), hydrotreated light naphthenic

Distillates (Petroleum), Hydrotreated Light

Mineral Oil, Light

Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based

Exposure limits
ACGIH TLV (United States).

 TWA: 5 mg/m³ 8 hour(s).

ACGIH TLV (United States, 1/2006). Skin

 TWA: 200 mg/m³ 8 hour(s).

ACGIH TLV (United States).

 STEL: 10 mg/m³ 15 minute(s). Form: Mist

 TLV: 5 mg/m³ Form: Mist

ACGIH TLV (United States).

 STEL: 10 mg/m³ 15 minute(s). Form: Mist

 TWA: 5 mg/m³ 8 hour(s). Form: Mist

Brazil

Product name

Distillates (petroleum), hydrotreated light naphthenic

Distillates (Petroleum), Hydrotreated Light

Mineral Oil, Light

Lubricating oils (petroleum), C15-30, hydrotreated neutral oil-based

Exposure limits
ACGIH TLV (United States).

 TWA: 5 mg/m³ 8 hour(s).

ACGIH TLV (United States, 1/2006). Skin

 TWA: 200 mg/m³ 8 hour(s).

ACGIH TLV (United States).

 STEL: 10 mg/m³ 15 minute(s). Form: Mist

 TLV: 5 mg/m³ Form: Mist

ACGIH TLV (United States).

 STEL: 10 mg/m³ 15 minute(s). Form: Mist

 TWA: 5 mg/m³ 8 hour(s). Form: Mist

Engineering measures

: No special ventilation requirements. Good general ventilation should be sufficient to control worker exposure to airborne contaminants. 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.

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 [Clear.]

Color : DDF 32: Light Amber.
DDF 68 : Green.
DDF 46 : Red.

Specific gravity : 0.88 to 0.89

Flash point : Closed cup: 110 to 112°C (230 to 233.6°F)

10 . Stability and reactivity

Stability and reactivity : The product is stable.

Conditions of instability : None known.

Incompatibility with various substances : Reactive or incompatible with the following materials: oxidizing materials and acids.

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Hazardous polymerization : Will not occur.

Conditions of reactivity : None known.

11 . Toxicological information

Toxicity data

Product/ingredient name	Test / Route	Species	Result
Distillates (petroleum), hydrotreated light naphthenic	LD Dermal	Rabbit	>2 g/kg
	LD Oral	Rat	>5 g/kg

Acute Effects

Eyes : Slightly irritating to the eyes.

Skin : Slightly irritating to the skin.

Inhalation : No known significant effects or critical hazards.

Ingestion : May be harmful if swallowed.

Potential chronic health effects : Carcinogenic effects: Not applicable.
Mutagenic effects: Not applicable.
Teratogenic effects: Not applicable.

12 . Ecological information

Ecotoxicity data

Product/ingredient name	Species	Test	Exposure	Result
Distillates (Petroleum), Hydrotreated Light	Fish	Mortality	96 hours	Acute LC50 2.9 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.

13 . Disposal considerations

Waste disposal : The generation of waste should be avoided or minimized wherever possible. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. 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 local authority requirements. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

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 : Not regulated.

U.S. Federal regulations : **United States inventory (TSCA 8b)**: All components are listed or exempted.
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: Distillates (Petroleum), Hydrotreated Light
SARA 311/312 MSDS distribution - chemical inventory - hazard identification: Distillates (Petroleum), Hydrotreated Light: 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 : **Connecticut Carcinogen Reporting**: None of the components are listed.
Connecticut Hazardous Material Survey: None of the components are listed.
Florida substances: None of the components are listed.
Illinois Chemical Safety Act: None of the components are listed.
Illinois Toxic Substances Disclosure to Employee Act: None of the components are listed.
Louisiana Reporting: None of the components are listed.
Louisiana Spill: None of the components are listed.
Massachusetts Spill: None of the components are listed.
Massachusetts Substances: The following components are listed: Distillates (petroleum), hydrotreated light naphthenic
Michigan Critical Material: None of the components are listed.
Minnesota Hazardous Substances: None of the components are listed.
New Jersey Hazardous Substances: None of the components are listed.
New Jersey Spill: None of the components are listed.
New Jersey Toxic Catastrophe Prevention Act: None of the components are listed.
New York Acutely Hazardous Substances: None of the components are listed.
New York Toxic Chemical Release Reporting: None of the components are listed.
Pennsylvania RTK Hazardous Substances: None of the components are listed.
Rhode Island Hazardous Substances: None of the components are listed.
California prop. 65: No products were found.

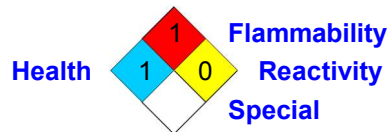
Canada

WHMIS (Canada) : Not regulated.

CEPA Toxic substances: None of the components are listed.
Canadian ARET: None of the components are listed.
Canadian NPRI: None of the components are listed.
Alberta Designated Substances: None of the components are listed.
Ontario Designated Substances: None of the components are listed.
Quebec Designated Substances: None of the components are 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, in Australia (AICS), in Europe (EINECS/ELINCS), in Korea (TCCL), in Japan (METI), in the Philippines (RA6969).
 In compliance.

16 . Other information

Label requirements (U.S.A.) : MAY BE HARMFUL IF SWALLOWED. MAY CAUSE EYE AND SKIN IRRITATION.

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

HMIS RATING

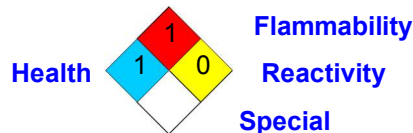
Health	1
Fire hazard	1
Physical Hazard	0
Personal protection	B

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
Date of issue : 05/30/2007
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Version : 1.1

Notice to reader

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