

DURAGUARD HYDRAULIC OILS  
DURAGUARD COMPRESSOR/ TURBINE OILS  
DURAGUARD AIR TOOL OIL



**MATERIAL SAFETY DATA SHEET FOR USA AND CANADA**

**SECTION 1: PRODUCT AND COMPANY IDENTIFICATION**

**PRODUCT NAME:**

DURAGUARD AW, AW(RED), and AW (GREEN)  
DURAGUARD HYDRAULIC OIL AW-D  
DURAGUARD HYDRAULIC OIL AW-LT  
DURAGUARD HYDRAULIC OIL AW-S  
DURAGUARD HYDRAULIC OIL AW-ZF  
DURAGUARD HYDRAULIC OIL R & O  
DURAGUARD COMPRESSOR/ TURBINE OILS  
DURAGUARD AIR TOOL OIL (BLUE)  
DURAGUARD HYDRAULIC SPINDLE OILS  
includes ISO viscosity grades 15, 22, 32, 46, 68, 100, 150 and 220.

**SYNONYMS:**

Petroleum oil; Lube oil; Petroleum hydrocarbon; Lubricant.

**PRODUCT CODE:**

Prefix 31

**PRODUCT USE:**

For lubricating hydraulic systems.

If these products are used in combination with other products, refer to the Material Safety Data Sheets for those products.

24-HOUR EMERGENCY PHONE NUMBERS		
These numbers are for emergency use only. If you desire non-emergency product information, please call a phone number listed below.	<b>MEDICAL:</b>	<b>TRANSPORTATION (SPILL):</b>
	1-800-752-7869	1-800-468-1760

**SUPPLIER:**

Paulson Oil Company  
950 Wabash Ave  
PO Box 903  
Chesterton, IN 46304  
1-800-726-7626

**TECHNICAL INFORMATION:** 1-800-726-7626

**MSDS FORM NUMBER:** 82551

**ISSUE:** December 5, 2002

**ORIGINAL ISSUE:** April 22, 1993

**SUPERSEDES:** April 12, 2001

**PREPARED BY:** Product MSDS Coordinator

**APPROVED BY:** MSDS Task Force

# DURAGUARD HYDRAULIC OILS, COMPRESSOR/ TURBINE OILS, AND AIR TOOL OIL MATERIAL SAFETY DATA SHEET FOR USA AND CANADA

## SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

WT%	NAME	SYNONYM	CAS NO.	OSHA PEL		ACGIH TLV®		LD <sup>a</sup>	LC <sup>b</sup>
				TWA mg/m <sup>3</sup>	STEL	TWA mg/m <sup>3</sup>	STEL mg/m <sup>3</sup>		
25 to 99*	Lubricating oils, petroleum, hydrotreated spent	Hydrotreated paraffinic base oil	64742-58-1	5 <sup>c</sup>	N. Av.	5 <sup>c</sup>	10 <sup>c,d</sup>	N. Av. (>2000) <sup>e</sup>	N. Av.
0 to 75*	Residual oils (petroleum), solvent-dewaxed	Bright stock	64742-62-7	5 <sup>c</sup>	N. Av.	5 <sup>c</sup>	10 <sup>c,d</sup>	>10000 (>2000) <sup>e</sup>	N. Av.
0 to 75*	Residual oils (petroleum), hydrotreated	Bright stock	64742-57-0	5 <sup>c</sup>	N. Av.	5 <sup>c</sup>	10 <sup>c,d</sup>	N. Av.	N. Av.
0 to 75*	Lubricating oils, petroleum, C>25, hydrotreated bright-stock based	Bright stock	72623-83-7	5 <sup>c</sup>	N. Av.	5 <sup>c</sup>	10 <sup>c,d</sup>	>5000 (>3000) <sup>e</sup>	N. Av.
0 to 8*	Additive containing mineral oil***	***	***	5 <sup>c</sup>	N. Av.	5 <sup>c</sup>	10 <sup>c,d</sup>	>5000 (>2000) <sup>e</sup>	N. Av.
0 to 1.5**	Mineral oil***	***	***	5 <sup>c</sup>	N. Av.	5 <sup>c</sup>	10 <sup>c,d</sup>	N. Av.	N. Av.
0 to 1*	Zinc dialkyldithiophosphates**	***	***	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.	N. Av.

\*Even though the concentration range does not fall under the ranges prescribed by WHMIS, this is the actual range which varies with each batch of the product.  
\*\*Supplier advises that the concentration is a trade secret; however, it will fall within this range.

\*\*\*Supplier advises that this is a trade secret.

N.Av. = Not Available

<sup>a</sup>Oral-Rat LD<sub>50</sub> (mg/kg)

<sup>b</sup>Inhalation-Rat LC<sub>50</sub>

<sup>c</sup>Based on Oil mist, mineral.

<sup>d</sup>Notice of Intended Changes: Value to be eliminated.

<sup>e</sup>Skin-Rabbit LD<sub>50</sub> (mg/kg)

## SECTION 3: HAZARDS IDENTIFICATION

### EMERGENCY OVERVIEW

#### APPEARANCE

Liquid; amber, red, green, or blue; petroleum odor.

#### CAUTION!

#### HEALTH HAZARDS

May be harmful if swallowed.

May irritate eyes and skin.

### POTENTIAL HEALTH EFFECTS

**INHALATION (BREATHING):** These products are not likely to present an inhalation hazard at normal temperatures and pressures. However, when aerosolizing, misting, or heating these products, high concentrations of generated vapor or mist may irritate the respiratory tract (nose, throat, and lungs).

**DURAGUARD HYDRAULIC OILS, COMPRESSOR/ TURBINE OILS, AND AIR TOOL OIL**  
**MATERIAL SAFETY DATA SHEET FOR USA AND CANADA**

---

**EYES:** May cause irritation.

**SKIN:** May cause irritation. Not likely to be absorbed through the skin in harmful amounts.

**INGESTION (SWALLOWING):** May cause throat irritation, nausea, vomiting, and diarrhea. Breathing product into the lungs during ingestion or vomiting may cause lung injury and possible death.

**MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:** Individuals with pre-existing respiratory tract (nose, throat, and lungs), eye, and/or skin disorders may have increased susceptibility to the effects of exposure.

**CHRONIC:** Prolonged or repeated inhalation of oil mist may cause oil pneumonia, lung tissue inflammation, and/or fibrous tissue formation. Prolonged or repeated eye contact may cause inflammation of the membrane lining the eyelids and covering the eyeball (conjunctivitis). Prolonged or repeated skin contact may cause drying, cracking, redness, itching, and/or swelling (dermatitis).

**CANCER INFORMATION:** No known carcinogenicity. For more information, see **SECTION 11: MUTAGENICITY and CARCINOGENICITY.**

Also see **SECTION 15: CALIFORNIA.**

**POTENTIAL ENVIRONMENTAL EFFECTS**

Not available. Also see **SECTION 12: ECOLOGICAL INFORMATION.**

<b>SECTION 4: FIRST AID MEASURES</b>
--------------------------------------

**INHALATION: (BREATHING)** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Oxygen should only be administered by qualified personnel. Someone should stay with victim. Get medical attention if breathing difficulty persists.

**EYES:** If irritation or redness from exposure to vapor develops, move away from exposure into fresh air. Upon contact, immediately flush eyes with plenty of lukewarm water, holding eyelids apart, for 15 minutes. Get medical attention.

**SKIN:** Remove affected clothing and shoes. Wash skin thoroughly with soap and water. Get medical attention if irritation or pain develops or persists. If product is injected under pressure into or under the skin, or into any part of the body, regardless of the appearance of the wound or its size, a physician should immediately evaluate the individual as a medical emergency.

**INGESTION:** Do NOT induce vomiting. Immediately get medical attention.

# DURAGUARD HYDRAULIC OILS, COMPRESSOR/ TURBINE OILS, AND AIR TOOL OIL MATERIAL SAFETY DATA SHEET FOR USA AND CANADA

**(SWALLOWING)** Call 1-800-752-7869 for additional information. If spontaneous vomiting occurs, keep head below hips to avoid breathing the product into the lungs. Never give anything to an unconscious person by mouth.

**NOTE TO PHYSICIANS:** Treat symptomatically and supportively. Treatment may vary with condition of victim and specifics of incident. Call 1-800-752-7869 for additional information.

## SECTION 5: FIRE FIGHTING MEASURES

**FLASH POINT:** 356°F (180°C) (minimum) Cleveland Open Cup

**FLAMMABLE LIMITS IN AIR:** **LOWER:** Not available. **UPPER:** Not available.

**AUTOIGNITION TEMPERATURE:** Not available.

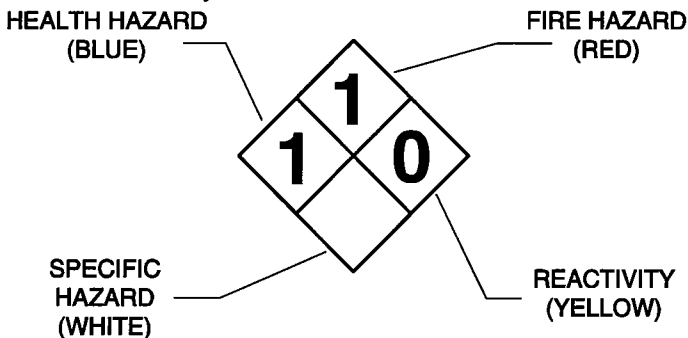
**HAZARDOUS COMBUSTION PRODUCTS:** Decomposition and combustion materials may be toxic. Burning may produce aldehydes, hydrogen sulfide, alkyl mercaptans, sulfides, nitrogen oxides, phosphorus oxides, sulfur oxides, carbon monoxide, and unidentified organic compounds.

**CONDITIONS OF FLAMMABILITY:** Heat, sparks, or flame. Products may burn, but do not ignite readily.

**EXTINGUISHING MEDIA:** Carbon dioxide, regular foam, dry chemical, water spray, or water fog. Water or foam may cause frothing.

### NFPA 704 HAZARD IDENTIFICATION:

This information is intended solely for the use by individuals trained in this system.



**DURAGUARD HYDRAULIC OILS, COMPRESSOR/ TURBINE OILS, AND AIR TOOL OIL  
MATERIAL SAFETY DATA SHEET FOR USA AND CANADA**

---

**FIRE FIGHTING  
INSTRUCTIONS:**

Keep storage containers cool with water spray.  
A positive-pressure, self-contained breathing apparatus (SCBA) and full-body protective equipment are required for fire emergencies.

**FIRE AND  
EXPLOSION HAZARDS:**

Heated containers may rupture. "Empty" containers may retain residue and can be dangerous. Products are not sensitive to mechanical impact or static discharge.

**SECTION 6: ACCIDENTAL RELEASE MEASURES**

Remove all ignition sources. Do not touch or walk through spilled product. Stop leak if you can do it without risk. Wear protective equipment and provide engineering controls as specified in **SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Ventilate area and avoid breathing vapor or mist. Contain spill away from surface waters and sewers. Contain spill as a liquid for possible recovery, or sorb with compatible sorbent material and shovel with a clean tool into a sealable container for disposal.

Additionally, for large spills: Dike far ahead of liquid spill for collection and later disposal.

**SECTION 7: HANDLING AND STORAGE**

**HANDLING:**

Keep away from heat, sparks, or flame. Where flammable mixtures may be present, equipment safe for such locations should be used. Use clean tools and explosion-proof equipment. When transferring large volumes of product, metal containers, including trucks and tank cars, should be grounded and bonded. These products have a low vapor pressure and are not expected to present an inhalation hazard under normal temperatures and pressures. However, when aerosolizing, misting, or heating these products, do not breathe vapor or mist. Use in a well ventilated area. Avoid contact with eyes, skin, clothing, and shoes.

**SHIPPING AND  
STORING:**

Keep container tightly closed when not in use and during transport. Store containers in a cool, dry place. Do not pressurize, cut, weld, braze, solder, drill, or grind containers. Keep containers away from heat, flame, sparks, static electricity, or other sources of ignition. Empty product containers may retain product residue and can be dangerous.

# DURAGUARD HYDRAULIC OILS, COMPRESSOR/ TURBINE OILS, AND AIR TOOL OIL MATERIAL SAFETY DATA SHEET FOR USA AND CANADA

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

**ENGINEERING CONTROLS:** Provide general ventilation needed to maintain concentration of vapor or mist below applicable exposure limits. Where adequate general ventilation is unavailable, use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below applicable exposure limits.

### PERSONAL PROTECTIVE EQUIPMENT

**RESPIRATORY PROTECTION:** Use NIOSH-certified, air-purifying respirators with combination P- or R- series particulate filter and organic vapor cartridges when concentration of vapor or mist exceeds applicable exposure limits. Protection provided by air-purifying respirators is limited. Do not use N-rated respirators. Selection and use of respiratory protective equipment should be in accordance in the USA with OSHA General Industry Standard 29 CFR 1910.134; or in Canada with CSA Standard Z94.4.

**EYE PROTECTION:** Where eye contact is likely, wear safety glasses; contact lens use is not recommended.

**SKIN PROTECTION:** Where skin contact is likely, wear neoprene, nitrile, or equivalent protective gloves; use of natural rubber or equivalent gloves is not recommended.

When products are heated and skin contact is likely, wear heat-insulating gloves, boots, and other protective clothing.

To avoid prolonged or repeated contact where spills and splashes are likely, wear appropriate chemical-resistant faceshield, boots, apron, coveralls, long sleeve shirts, or other protective clothing.

**PERSONAL HYGIENE:** Use good personal hygiene. Wash thoroughly with soap and water after handling product and before eating, drinking, or using tobacco products. Clean affected clothing, shoes, and protective equipment before reuse. Discard leather articles, such as shoes, saturated with these products.

**OTHER PROTECTIVE EQUIPMENT:** Where spills and splashes are likely, facilities storing or using these products should be equipped with an emergency eyewash and shower, both equipped with clean water, in the immediate work area.

**DURAGUARD HYDRAULIC OILS, COMPRESSOR/ TURBINE OILS, AND AIR TOOL OIL  
MATERIAL SAFETY DATA SHEET FOR USA AND CANADA**

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

**PHYSICAL STATE, APPEARANCE, AND ODOR:** Liquid; amber, red, green, or blue; petroleum odor.

**ODOR THRESHOLD:** Not available.

**MOLECULAR WEIGHT:** Not applicable.

**SPECIFIC GRAVITY:** 0.88 (water = 1) (approximately)

**DENSITY:** 7.3 LB/US gal (880 g/l) (approximately)

**VAPOR DENSITY:** Not available.

**VAPOR PRESSURE:** less than 0.1 mm Hg at 68°F (20°C)

**BOILING POINT:** 475°F (246°C) (minimum)

**FREEZING/MELTING POINT:** Not available [pour point 21°F (-6°C) (maximum)].

**pH:** Not applicable.

**EVAPORATION RATE:** Not available.

**SOLUBILITY IN WATER:** Insoluble.

**FLASH POINT:** 356°F (180°C) (minimum) Cleveland Open Cup

**FLAMMABLE LIMITS IN AIR:** **LOWER:** Not available. **UPPER:** Not available.

**AUTOIGNITION TEMPERATURE:** Not available.

**SECTION 10: STABILITY AND REACTIVITY**

**STABILITY:** Stable under normal temperatures and pressures. Avoid heat, sparks, or flame.

**INCOMPATIBILITY:** Avoid oxidizing agents, reducing agents, and/or acids.

**REACTIVITY:** Polymerization is not known to occur under normal temperatures and pressures. Not reactive with water.

**DURAGUARD HYDRAULIC OILS, COMPRESSOR/ TURBINE OILS, AND AIR TOOL OIL  
MATERIAL SAFETY DATA SHEET FOR USA AND CANADA**

---

**HAZARDOUS DECOMPOSITION PRODUCTS:** None under normal temperatures and pressures. Also see **SECTION 5: HAZARDOUS COMBUSTION PRODUCTS.**

**SECTION 11: TOXICOLOGICAL INFORMATION**

**SENSITIZATION:** Based on best current information, there is no known human sensitization associated with these products.

**MUTAGENICITY:** Experimental evidence suggests that these products do not cause mutagenesis.

**CARCINOGENICITY:** No animal skin carcinogenicity tests of the hydrotreated paraffinic base oil CAS 64742-58-1 have been conducted. Neither OSHA, ACGIH, IARC, nor NTP have classified this material as to its carcinogenic risk.

Based on best current information, for the other components listed in **SECTION 2**, there is no known carcinogenicity as regulated by OSHA; as categorized by ACGIH A1 or A2 substances; as categorized by IARC Group 1, Group 2A, or Group 2B agents; or as listed by NTP as either known carcinogens or substances for which there is limited evidence of carcinogenicity in humans or sufficient evidence of carcinogenicity in experimental animals.

Also see **SECTION 15: CALIFORNIA.**

**REPRODUCTIVE TOXICITY:** Based on best current information, there is no known reproductive toxicity associated with these products.

Also see **SECTION 15: CALIFORNIA.**

**TERATOGENICITY:** Based on best current information, there is no known teratogenicity associated with these products.

**TOXICOLOGICALLY SYNERGISTIC PRODUCT(S):** Based on best current information, there are no known toxicologically synergistic products associated with these products.

**SECTION 12: ECOLOGICAL INFORMATION**

**ECOTOXICITY:** Not available.

**OCTANOL/WATER PARTITION COEFFICIENT:** Not available.

**DURAGUARD HYDRAULIC OILS, COMPRESSOR/ TURBINE OILS, AND AIR TOOL OIL  
MATERIAL SAFETY DATA SHEET FOR USA AND CANADA**

**VOLATILE ORGANIC COMPOUNDS:** 100 WT%; 7.3 LB/US gal; 880 g/l (approximately)  
As per 40 CFR Part 51.100(s).

**SECTION 13: DISPOSAL CONSIDERATIONS**

**DISPOSAL:** Dispose in accordance with federal, state, provincial, and local regulations. Regulations may also apply to empty containers. The responsibility for proper waste disposal lies with the owner of the waste. Contact Safety-Kleen regarding proper recycling or disposal.

**USEPA WASTE CODE(S):** These products, if discarded, are not expected to be a characteristic or listed hazardous waste. If recycled in the USA, they must be managed in accordance with 40 CFR Part 279. Processing, use, or contamination by the user may change the waste code(s) applicable to the disposal of these products.

**SECTION 14: TRANSPORT INFORMATION**

**DOT:** Not regulated.

**TDG:** Not regulated.

**EMERGENCY RESPONSE GUIDE NUMBER:** Not applicable.  
Reference *North American Emergency Response Guidebook*

**SECTION 15: REGULATORY INFORMATION**

**USA REGULATIONS**

**SARA SECTIONS 302 AND 304:** Based on the ingredients listed in **SECTION 2**, these products do not contain any "extremely hazardous substances" listed pursuant to Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) Section 302 or Section 304 as identified in 40 CFR Part 355, Appendix A and B.

**SARA SECTIONS 311 AND 312:** These products pose the following health hazards as defined in 40 CFR Part 370 and are subject to the requirements of sections 311 and 312 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA):  
Immediate (Acute) Health Hazard  
Delayed (Chronic) Health Hazard

**DURAGUARD HYDRAULIC OILS, COMPRESSOR/ TURBINE OILS, AND AIR TOOL OIL  
MATERIAL SAFETY DATA SHEET FOR USA AND CANADA**

---

**SARA SECTION 313:** These products contain a "toxic" chemical subject to the requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) and 40 CFR Part 372 (based on the Zinc Compounds category):

Material	CAS
Zinc dialkyldithiophosphates	N. Av.

**CERCLA:** Based on the ingredients listed in **SECTION 2**, these products do not contain any "hazardous substances" listed pursuant to the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) in 40 CFR Part 302, Table 302.4.

**TSCA:** All the components of these products are listed on, or are exempted from the requirement to be listed on, the TSCA Inventory.

**CALIFORNIA:** These products may contain detectable amounts of aniline CAS 62-53-3, arsenic CAS 7440-38-2, benzene CAS 71-43-2, cadmium CAS 7440-43-9, chromium CAS 7440-47-3, 1,4-dioxane CAS 123-91-1, ethyl acrylate CAS 140-88-5, ethylene oxide CAS 75-21-8, lead CAS 7439-92-1, beta-naphthylamine CAS 91-59-8, propylene oxide CAS 75-56-9, and ortho-toluidine CAS 95-53-4 from additives. These products may contain detectable amounts of benzo(a)anthracene CAS 56-55-3, benzo(k)fluoranthene CAS 207-08-9, benzo(a)pyrene CAS 50-32-8, benzo(b)fluoranthene CAS 205-99-2, chrysene CAS 218-01-9, dibenz(a,h)anthracene CAS 53-70-3, and indeno(1,2,3-cd)pyrene CAS 193-39-5. **WARNING:** These chemicals are known to the State of California to cause cancer. Our testing of these products indicates that these chemicals are not always detectable.

These products may contain detectable amounts of arsenic CAS 7440-38-2, benzene CAS 71-43-2, cadmium CAS 7440-43-9, ethylene oxide CAS 75-21-8, lead CAS 7439-92-1, and toluene CAS 108-88-3 from additives. **WARNING:** These chemicals are known to the State of California to cause birth defects or other reproductive harm.

**CANADIAN REGULATIONS**

These products have been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

**WHMIS:** Not regulated.

