

MATERIAL SAFETY DATA SHEET**1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**

DUREX UNIVERSAL FLEET MOTOR OIL SAE 40

COMPANY IDENTIFICATIONChristenson Oil
3865 NW ST. HELENS RD.
PORTLAND, OR 97210**EMERGENCY TELEPHONE NUMBERS**Transportation: Chemtrec
(800) 424-9300 OR (202) 483-7616

PRODUCT INFORMATION & MSDS REQUESTS: (503)478-9905

2. COMPOSITION/INFORMATION ON INGREDIENTS

100.0 % DUREX UNIVERSAL FLEET MOTOR OIL SAE 40

COMPONENTS	AMOUNT	LIMIT/QTY	AGENCY/TYPE
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Refined Petroleum Oils containing one or more of the following;
> 80.0 %

CAS#64742-65-0		5 mg/m3 (mist)	ACGIH TWA
64741-88-4		10 mg/m3 (mist)	ACGIH STEL
64741-89-5		5 mg/m3 (mist)	OSHA PEL
64742-01-4			
64742-57-0			
64742-54-7			
72623-85-9			
72623-83-7			
72623-87-1	HAZARD DATA:	Oral LD50(rat): >5g/kg	

Detergent Inhibitor, Anti-Oxidant
(Contains Zinc Dialkyldithiophosphate)

CAS# Mixture	<15.0 %	HAZARD DATA:	Eye and Skin Irritant. At high temperatures may evolve H2S.
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Pour Depressant

CAS# Mixture	< 1.0 %	HAZARD DATA:	Non-hazardous
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COMPOSITION COMMENT:

DUREX UNIVERSAL FLEET MOTOR OIL SAE 40

All the components of this material are on the Toxic Substances Control Act Chemical Substances Inventory.

This product fits the ACGIH definition for mineral oil mist. The ACGIH TLV is 5 mg/m³, the OSHA PEL is 5 mg/m³.

TLV	- Threshold Limit Value	TWA	- Time Weighted Average
STEL	- Short-term Exposure Limit	TPQ	- Threshold Planning Quantity
RQ	- Reportable Quantity	PEL	- Permissible Exposure Limit
C	- Ceiling Limit	CAS	- Chemical Abstract service #
A1-5	- Appendix A Categories	()	- Change Has Been Proposed

3. HAZARDS IDENTIFICATION

POTENTIAL HEALTH EFFECTS**EYE:**

This substance is not expected to cause prolonged or significant eye irritation. This hazard evaluation is based on the data from similar materials.

SKIN:

This substance is not expected to cause prolonged or significant skin irritation. The systemic toxicity of this substance has not been determined. However, it should be practically non-toxic to internal organs if it gets on the skin.

INGESTION:

The systemic toxicity of this substance has not been determined. However, it should be practically non-toxic to internal organs if swallowed. This hazard evaluation is based on data from similar materials.

INHALATION:

The systemic toxicity of this substance has not been determined. However, it should be practically non-toxic to internal organs if inhaled. This hazard evaluation is based on data from similar materials.

4. FIRST AID MEASURES

EYE:

No first aid procedures are required. However, as a precaution, flush eyes with fresh water for 15 minutes. Remove contact lenses if worn. See physician if complications develop.

SKIN:

No first aid procedures are required. As a precaution, wash skin thoroughly with soap and water. Remove and wash contaminated clothing.

INGESTION:

If swallowed, give water or milk to drink and telephone for medical

advice. Consult medical personnel before inducing vomiting. If medical advice cannot be obtained, then take the person and product container to the nearest medical emergency treatment center or hospital.

DUREX UNIVERSAL FLEET MOTOR OIL SAE 40**INHALATION:**

Since this material is not expected to be an immediate inhalation problem, no first aid procedures are required. However, if necessary, remove from exposure to incidental fumes and provide respiratory support if needed.

5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES:

FLASH POINT: COC 468F (242C)

AUTOIGNITION: ND

FLAMMABILITY LIMITS (% by volume in air): Lower: ND Upper: ND

EXTINGUISHING MEDIA:

CO2, Dry Chemical, Foam, Water Fog

NFPA RATINGS: Health 1; Flammability 1; Reactivity 0

FIRE FIGHTING INSTRUCTIONS:

For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self contained breathing apparatus.

COMBUSTION PRODUCTS:

Normal combustion forms carbon dioxide, water vapor and may produce oxides of sulfur, nitrogen, Phosphorous, Zinc and Calcium. Incomplete combustion can produce carbon monoxide.

6. ACCIDENTAL RELEASE MEASURES

CHEMTREC EMERGENCY NUMBER (24 hr): (800) 424-9300 or (202) 483-7616

ACCIDENTAL RELEASE MEASURES:

Stop the source of the leak or release. Clean up releases as soon as possible. Contain liquid to prevent further contamination of soil, surface water or groundwater. Clean up small spills using appropriate techniques such as sorbent materials or pumping. Where feasible and appropriate, remove contaminated soil. Follow prescribed procedures for reporting and responding to larger releases.

7. HANDLING AND STORAGE

HANDLING AND STORAGE:

DO NOT weld, heat or drill container. Residue may ignite with explosive violence if heated sufficiently. CAUTION! Do not use pressure to empty drum or drum may rupture with explosive force.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS:

DUREX UNIVERSAL FLEET MOTOR OIL SAE 40

Use adequate ventilation to keep the airborne concentrations of this material below the recommended exposure standard.

EYE/FACE PROTECTION:

No special eye protection is usually necessary.

SKIN PROTECTION:

No special skin protection is usually necessary. Avoid prolonged or frequently repeated skin contact with this material. Skin contact can be minimized by wearing protective clothing.

RESPIRATORY PROTECTION:

No special respiratory protection is normally required. However, if operating conditions create airborne concentrations which exceed the recommended exposure standards, the use of an approved respirator is recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL DESCRIPTION:

Amber Liquid.

pH:	ND
VAPOR PRESSURE:	$< 1 \times 10^{-3}$ mmHg (25C)
VAPOR DENSITY (AIR=1):	>1
BOILING POINT:	Approx 430C(806F), 760 mmHg
FREEZING POINT:	ND
MELTING POINT:	NA
SOLUBILITY:	Negligible in water
SPECIFIC GRAVITY:	0.89 @15.6/15.6C (60F)
EVAPORATION RATE:	<1
VISCOSITY:	15.0 cSt @ 100C
PERCENT VOLATILE (VOL):	Negligible

10. STABILITY AND REACTIVITY

HAZARDOUS DECOMPOSITION PRODUCTS:

NDA

CHEMICAL STABILITY:

Stable

CONDITIONS TO AVOID:

No data available.

INCOMPATIBILITY WITH OTHER MATERIALS:

May react with strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.

HAZARDOUS POLYMERIZATION:

Polymerization will not occur.

11. TOXICOLOGICAL INFORMATION

DUREX UNIVERSAL FLEET MOTOR OIL SAE 40

EYE EFFECTS:

No product toxicology data available. The hazard evaluation was based on data from similar materials.

SKIN EFFECTS:

No product toxicology data available. The hazard evaluation was based on data from similar materials.

ACUTE ORAL EFFECTS:

No product toxicology data available. The hazard evaluation was based on data from similar materials.

ACUTE INHALATION EFFECTS:

No product toxicology data available. The hazard evaluation was based on data from similar materials.

SUBCHRONIC EFFECTS:

This product contains zinc alkyl dithiophosphates (ZDDPs). Several ZDDPs have been reported to have weak mutagenic activity in cultured mammalian cells but only at concentrations that were toxic to the test cells. We do not believe that there is any mutagenic risk to workers exposed to ZDDPs.

This product contains petroleum base oils which may be refined by various processes including severe solvent extraction, severe hydrocracking, or severe hydrotreating. None of the oils requires a cancer warning under the OSHA Hazard Communication Standard (29 CFR 1910.1200). These oils have not been listed in the National Toxicology Program (NTP) Annual Report nor have they been classified by the International Agency for Research on Cancer (IARC) as; carcinogenic to humans (Group 1), or possibly carcinogenic to humans (Group 2A), or possibly carcinogenic to humans (Group 2B).

During use in engines, contamination of oil with low levels of cancer-causing combustion products occurs. Used motor oils have been shown to cause skin cancer in mice following repeated application and continuous exposure. Brief or intermittent skin contact with used motor oil is not expected to have serious effects in humans if the oil is thoroughly removed by washing with soap and water.

12. ECOLOGICAL INFORMATION

ECOTOXICITY:

No data available.

ENVIRONMENTAL FATE:

This material is not expected to present any environmental problems other than those associated with oil spills.

13. DISPOSAL CONSIDERATIONS

DISPOSAL CONSIDERATIONS:

Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations. Contact local

DUREX UNIVERSAL FLEET MOTOR OIL SAE 40

environmental or health authorities for approved disposal of this material.

14. TRANSPORT INFORMATION

The description shown may not apply to all shipping situations. Consult 49 CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g., technical name) and mode-specific or quantity-specific shipping requirements.

DOT SHIPPING NAME: PETROLEUM LUBRICATING OIL, NOIBN
 DOT HAZARD CLASS: NOT APPLICABLE
 DOT IDENTIFICATION NUMBER: NOT APPLICABLE
 DOT PACKING GROUP: NOT APPLICABLE

15. REGULATORY INFORMATION

SARA 311 CATEGORIES: 1. Immediate (Acute) Health Effects: NO
 2. Delayed (Chronic) Health Effects: NO
 3. Fire Hazard: NO
 4. Sudden Release of Pressure Hazard: NO
 5. Reactivity Hazard: NO

REGULATORY LISTS SEARCHED:

01=SARA 313	10=NJ RTK	19=TSCA Sect 5(a)(2)
02=MASS RTK	11=CERCLA 302.4	20=TSCA Sect 6
03=NTP Carcinogen	12=MN RTK	21=TSCA Sect 12(b)
04=CA Prop 65-Carcin	13=ACGIH TWA	22=TSCA Sect 8(a)
05=CA Prop 65-Repro Tox	14=ACGIH STEL	23=TSCA Sect 8(d)
06=IARC Group 1	15=ACGIH Calc TLV	24=TSCA Sect 4(a)
07=IARC Group 2A	16=OSHA PEL	25=Canadian WHMIS
08=IARC Group 2B	17=DOT Marine Pollu	26=OSHA CEILING
09=SARA 302/304	18=PA RTK	27=EPA Carcinogen

The following components of this material are found on the regulatory lists indicated.

ZINC DIALKYL DITHIOPHOSPHATES
 is found on lists: 01,11

REFINED PETROLEUM OILS
 is found on lists: 10,13,14,16

16. OTHER INFORMATION

DUREX UNIVERSAL FLEET MOTOR OIL SAE 40

NFPA RATINGS: Health=1; Flammability=1; Reactivity=0;
(Least=0, Slight=1, Moderate=2, High=3, Extreme=4). These values are obtained using the guidelines or published evaluations prepared by the National Fire Protection Association (NFPA) or the National Paint and Coating Association (for HMIS ratings).

The above information is based on data of which we are aware and is believed to be correct as of the date thereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modification of the information, we do not assume any responsibility for the results from its use. The information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.
