

**SAFETY DATA SHEET**

**1. SUBSTANCE AND SOURCE IDENTIFICATION**

**Product Identifier**

**SRM Number:** 1848  
**SRM Name:** Lubricating Oil Additive Package  
**Other Means of Identification:** Not Applicable.

**Recommended Use of This Material and Restrictions of Use**

This Standard Reference Material (SRM) is intended primarily for use in the evaluation of methods and the calibration of equipment used in the analysis of lubricating oil additive packages, engine lubricating oils, and materials of a similar matrix. A unit of SRM 1848 consists of an amber borosilicate glass bottle containing approximately 100 g of material.

**Company Information**

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**2. HAZARDS IDENTIFICATION**

**Classification**

**Physical Hazard:** Not classified.  
**Health Hazard:** Skin Corrosion/Irritation Category 2  
 Eye Damage/Irritation Category 2B

**Label Elements**

**Symbol**



**Signal Word**

WARNING

**Hazard Statement(s)**

H315 Causes skin irritation.  
 H320 Causes eye irritation.

**Precautionary Statement(s):**

P264 Wash hands thoroughly after handling.  
 P280 Wear protective gloves, protective clothing, and eye protection.

P302+P352 If on skin: Wash with plenty of soap and water.  
 P333+P313 If skin irritation occurs: Get medical attention.

P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.  
 P337+P313 If eye irritation persists: Get medical attention.

P362+P364 Take off contaminated clothing and wash it before reuse.

**Hazards Not Otherwise Classified:** Not applicable.

**Ingredients(s) with Unknown Acute Toxicity:** Not applicable.

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### 3. COMPOSITION AND INFORMATION ON HAZARDOUS INGREDIENTS

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**Substance:** Lubricating Oil Additive Package.

**Other Designations:** Petroleum oil with additives, passenger car motor oil additive.

**NOTE:** This material is a complex mixture which may contain minor components, some of which have been reported to have toxic or irritant properties but are below the established OSHA cut-off values for mixtures or solutions. Components are listed below are in compliance with OSHA 29 CFR 1910.1200.

Hazardous Components	CAS Number	EC Number (EINECS)	Nominal Mass Concentration (%)
Lubricating Oil Additive Package	not applicable	not applicable	100
<b>Major Components</b>			
Distillates, petroleum, solvent-refined heavy naphthenic	64741-96-4	265-159-2	87 to 94
Zinc alkyldithiophosphate	not available	not available	5 to 9.9
Magnesium sulfonate	not available	not available	0.5 to 1.5

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### 4. FIRST AID MEASURES

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**Description of First Aid Measures:**

**Inhalation:** If adverse effects occur, remove to uncontaminated area. If not breathing, give artificial respiration or oxygen by qualified personnel. Seek immediate medical attention.

**Skin Contact:** Wash exposed skin with soap and water for at least 15 minutes. Seek medical attention if needed.

**Eye Contact:** Immediately flush eyes, including under the eyelids with copious amounts of water for at least 15 minutes. Seek immediate medical attention.

**Ingestion:** Aspiration hazard. Do not induce vomiting. If vomiting occurs, keep head lower than hips to prevent aspiration. If not breathing, give artificial respiration by qualified personnel. Seek immediate medical attention.

**Most Important Symptoms/Effects, Acute and Delayed:** Skin and/or eye irritation.

**Indication of any immediate medical attention and special treatment needed, if necessary:** Not applicable.

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### 5. FIRE FIGHTING MEASURES

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**Fire and Explosion Hazards:** Slight fire hazard. See Section 9, "Physical and Chemical Properties" for flammability properties.

**Extinguishing Media:**

Suitable: Regular dry chemical, carbon dioxide, and regular foam.

Unsuitable: Water may cause splattering.

**Specific Hazards Arising from the Chemical:** None listed.

**Special Protective Equipment and Precautions for Fire-Fighters:** Avoid inhalation of material or combustion by-products. Wear full protective clothing and NIOSH approved self-contained breathing apparatus (SCBA).

**NFPA Ratings** (0 = Minimal; 1 = Slight; 2 = Moderate; 3 = Serious; 4 = Severe)

Health = 2

Fire = 1

Reactivity = 0

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### 6. ACCIDENTAL RELEASE MEASURES

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**Personal Precautions, Protective Equipment and Emergency Procedures:** Use suitable protective equipment; see Section 8, "Exposure Controls and Personal Protection".

**Methods and Materials for Containment and Clean up:** Absorb spilled material with sand or non-combustible material and collect in appropriate container for disposal.

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## 7. HANDLING AND STORAGE

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**Safe Handling Precautions:** See Section 8, “Exposure Controls and Personal Protection”.

**Storage:** Store and handle in accordance with all current regulations and standards. The storage floor must be impermeable and form a collecting basin so that, in the event of an accident spillage, the liquid cannot spread beyond the storage area.

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## 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

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### Exposure Limits:

NIOSH (REL):	No exposure limits established.
ACGIH (TLV):	No exposure limits established.
OSHA (PEL):	No exposure limits established.

**Engineering Controls:** Provide local exhaust or process enclosure ventilation system. Ensure compliance with applicable exposure limits.

**Personal Protection Measures:** In accordance with OSHA 29 CFR 1910.132, subpart I, wear appropriate Personal Protective Equipment (PPE) to minimize exposure to this material.

**Respiratory Protection:** If workplace conditions warrant a respirator, a respiratory protection program that meets OSHA 29CFR 1910.134 must be followed. Refer to NIOSH 42 CFR 84 for applicable certified respirators.

**Eye/Face Protection:** Wear splash resistant safety goggles with a face shield. An eye wash station should be readily available near areas of use.

**Skin and Body Protection:** Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Chemical-resistant gloves should be worn at all times when handling chemicals.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

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### Descriptive Properties:

<b>Appearance (physical state, color, etc.):</b>	dark, viscous liquid
<b>Molecular Formula:</b>	not applicable
<b>Molar Mass (g/mol):</b>	not applicable
<b>Odor:</b>	mild oil smell
<b>Odor threshold:</b>	not available
<b>pH:</b>	not available
<b>Evaporation rate:</b>	not available
<b>Melting point/freezing point:</b>	not available
<b>Relative Density (water=1):</b>	0.95 at 15.6 °C
<b>Vapor Pressure:</b>	<0.1 mmHg 20°C
<b>Vapor Density:</b>	not available
<b>Kinematic Viscosity (at 40 °C)<sup>(a)</sup>:</b>	4000 cSt
<b>Solubility(ies):</b>	insoluble in water
<b>Partition coefficient (n-octanol/water):</b>	not available

### Thermal Stability Properties:

<b>Autoignition Temperature:</b>	not available
<b>Thermal Decomposition:</b>	not available
<b>Initial boiling point (°C):</b>	>260 (500 °F)
<b>Explosive Limits, LEL (%):</b>	0.6
<b>Explosive Limits, UEL (%):</b>	7
<b>Flash Point (PMCC)<sup>(a)</sup>:</b>	173°C (343 °F)
<b>Flammability (solid, gas):</b>	not applicable

<sup>(a)</sup> Value from Certificate of analysis.

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## 10. STABILITY AND REACTIVITY

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**Reactivity:** Stable at normal temperatures and pressure.

**Stability:**          X          Stable                      Unstable

**Possible Hazardous Reactions:** None listed.

**Conditions to Avoid:** Avoid heat, flames, sparks and other sources of ignition. Avoid contact with incompatible materials.

**Incompatible Materials:** Acids, oxidizers, halogens and halogenated compounds.

**Fire/Explosion Information:** See Section 5, "Fire Fighting Measures".

**Hazardous Decomposition:** Carbon monoxide, carbon dioxide, aldehydes, hydrogen sulfide, alkyl mercaptans, and oxides of carbon.

**Hazardous Polymerization:** \_\_\_\_\_ Will Occur     X  Will Not Occur

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## 11. TOXICOLOGICAL INFORMATION

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**Route of Exposure:**     X  Inhalation     X  Skin     X  Ingestion

**Symptoms Related to the Physical, Chemical and Toxicological Characteristics:** Skin and/or eye irritation.

**Potential Health Effects (Acute, Chronic and Delayed):**

**Inhalation:** Acute exposure to mists or sprays of insoluble mineral oils are usually not harmful to the respiratory tract; however, discomfort may occur at concentrations above 5 mg/m<sup>3</sup>. Prolonged or repeated exposure may cause fibrotic nodules, lipid pneumonia, and lipid granuloma.

**Skin Contact:** Acute exposure may cause oil folliculitis due to the mechanical plugging of the hair follicles. Some people may develop sensitivity to petroleum products or additives used in petroleum products. Chronic skin exposure may cause defatting and drying of the skin resulting in irritation and dermatitis.

**Eye Contact:** Acute exposure to liquid or mist may cause irritation. Repeated exposure may cause conjunctivitis.

**Ingestion:** Acute exposure by ingestion may cause gastrointestinal disturbances such as diarrhea.

**Numerical Measures of Toxicity:**

**Acute Toxicity:** Not classified.

Lubricating Oil Additive Package: Rat, Oral LD50: >5000 mg/kg  
Rabbit, Dermal LD50: >2000 mg/kg

**Skin Corrosion/Irritation:** Category 2, Mixture may cause skin irritation.

**Serious Eye Damage/Eye Irritation:** Category 2B, Mixture may cause moderate to strong eye irritation.

**Respiratory Sensitization:** No data available.

**Skin Sensitization:** No data available.

**Germ Cell Mutagenicity:** No data available.

**Carcinogenicity:** Not classified.

**Listed as a Carcinogen/Potential Carcinogen**    \_\_\_\_\_ Yes     X  No

Hazardous components listed in this SDS are not listed by NTP, IARC, or OSHA as a carcinogen/potential carcinogen.

**Reproductive Toxicity:** Not classified.

**Specific Target Organ Toxicity, Single Exposure:** Not classified.

**Specific Target Organ Toxicity, Repeated Exposure:** Not classified.

**Aspiration Hazard:** Not classified.

This material does not pose an aspiration hazard due to the high viscosity (see Section 9, "Physical and Chemical Properties").

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## 12. ECOLOGICAL INFORMATION

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**Ecotoxicity Data:**

Lubricating Oil Additive Package:

Freshwater Fish Toxicity: Acute LC50 is 10 mg/L to 100 mg/L

Freshwater Invertebrates Toxicity: Acute EC50 is 100 mg/L to 1000 mg/L

**Persistence and Degradability:** No data available

**Bioaccumulative Potential:** No data available.

**Mobility in Soil:** No data available.

**Other Adverse effects:** No data available.

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### **13. DISPOSAL CONSIDERATIONS**

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**Waste Disposal:** Dispose of waste in accordance with all applicable federal, state, and local regulations.

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### **14. TRANSPORTATION INFORMATION**

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**U.S. DOT and IATA:** This material is not regulated by IATA or DOT.

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### **15. REGULATORY INFORMATION**

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**U.S. Regulations:**

CERCLA Sections 102a/103 (40 CFR 302.4): Not regulated.

SARA Title III Section 302 (40 CFR 355.30): Not regulated.

SARA Title III Section 304 (40 CFR 355.40): Not regulated.

SARA Title III Section 313 (40 CFR 372.65): Not regulated.

OSHA Process Safety (29 CFR 1910.119): Not regulated.

SARA Title III Sections 311/312 Hazardous Categories (40 CFR 370.21):

ACUTE HEALTH: Yes.

CHRONIC HEALTH: Yes.

FIRE: No.

REACTIVE: No.

PRESSURE: No.

**State Regulations:**

California Proposition 65: Not listed.

**U.S. TSCA Inventory:** Distillates, petroleum, solvent-refined heavy naphthenic is listed.

**TSCA 12(b), Export Notification:** Not listed.

**Canadian Regulations:** WHMIS Information is not provided for this material.

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## 16. OTHER INFORMATION

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**Issue Date:** 16 July 2018

**Sources:** ChemADVISOR, Inc., SDS, *Severely Solvent-Refined Heavy Naphthenic Distillate*, 15 December 2014.

European Chemical Agency, Registered substances (ECHA), *Distillates (petroleum), solvent-refined heavy naphthenic*, CAS# 64741-96-4 available at <http://echa.europa.eu/information-on-chemicals> (accessed July 20185).

Supplier Proprietary SDS, *Passenger Car Motor Oil Additive*, 5 December 2006.

### Key of Acronyms:

ACGIH	American Conference of Governmental Industrial Hygienists	NRC	Nuclear Regulatory Commission
ALI	Annual Limit on Intake	NTP	National Toxicology Program
CAS	Chemical Abstracts Service	OSHA	Occupational Safety and Health Administration
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act	PEL	Permissible Exposure Limit
CFR	Code of Federal Regulations	RCRA	Resource Conservation and Recovery Act
DOT	Department of Transportation	REL	Recommended Exposure Limit
EINECS	European Inventory of Existing Commercial Chemical Substances	RQ	Reportable Quantity
EPCRA	Emergency Planning and Community Right-to-Know Act	RTECS	Registry of Toxic Effects of Chemical Substances
IARC	International Agency for Research on Cancer	SARA	Superfund Amendments and Reauthorization Act
IATA	International Air Transport Association	SCBA	Self-Contained Breathing Apparatus
IDLH	Immediately Dangerous to Life and Health	SRM	Standard Reference Material
LC50	Lethal Concentration	STEL	Short Term Exposure Limit
LD50	Median Lethal Dose or Lethal Dose, 50 %	TLV	Threshold Limit Value
LEL	Lower Explosive Limit	TPQ	Threshold Planning Quantity
MSDS	Material Safety Data Sheet	TSCA	Toxic Substances Control Act
NFPA	National Fire Protection Association	TWA	Time Weighted Average
NIOSH	National Institute for Occupational Safety and Health	UEL	Upper Explosive Limit
NIST	National Institute of Standards and Technology	WHMIS	Workplace Hazardous Materials Information System

**Disclaimer:** Physical and chemical data contained in this SDS are provided only for use in assessing the hazardous nature of the material. The SDS was prepared carefully, using current references; however, NIST does not certify the data in the SDS. The certified values for this material are given in the NIST Certificate of Analysis.

Users of this SRM should ensure that the SDS in their possession is current. This can be accomplished by contacting the SRM Program: telephone (301) 975-2200; fax (301) 948-3730; e-mail [srmmsds@nist.gov](mailto:srmmsds@nist.gov); or via the Internet at <https://www.nist.gov/srm>.