



U.S. Department
of Transportation

Pipeline and Hazardous
Materials Safety
Administration

1200 New Jersey Avenue, SE
Washington, DC 20590

NOV 16 2017

Andrew Roley
Public Works
Naval Station Everett
2000 W Marine View Drive
Everett, WA 98207

Reference No. 17-0067

Dear Mr. Roley:

This letter is in response to your June 14, 2017, e-mail requesting clarification of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) applicable to classification. Specifically, you ask whether the products listed in the Material Safety Data Sheets (MSDS) you provided would be considered hazardous materials under the HMR.

In accordance with § 173.22 of the HMR, it is the shipper's responsibility to classify a hazardous material. This Office does not normally perform this function. However, based on the information provided in your e-mail, it is the opinion of this Office that both the "All Purpose SAE 10W-40 Four Stroke Engine Oil" and "TGMO SN 5W-30" oil have flash points above 200 °F and are not considered to be a flammable or combustible liquid under the HMR. Therefore, provided these oils do not meet any other hazard classes, they would not be subject to the requirements of the HMR.

I hope this information is helpful. Please contact us if we can be of further assistance.

Sincerely,

T. Glenn Foster
Chief, Regulatory Review and Reinvention Branch
Standards and Rulemaking Division

Dodd, Alice (PHMSA)

Andrews
8/17/13
Packaging Specs
17-0067

From: INFOCNTR (PHMSA)
Sent: Thursday, June 15, 2017 10:31 AM
To: Hazmat Interps
Subject: FW: Request for Interpretation
Attachments: LUB-10W40-AP-XX YAMALUBE ALL PURPOSE 10W-40 AP SDS 11-29-2014.pdf; Toyota Genuine Motor Oil SN 5W-30 updated.pdf

Hi Shante/Alice,

Please submit this as a letter of interpretation. Mr. Roley spoke with Eamonn.

Please let me know if you have any questions.

Thanks,
Jordan

-----Original Message-----

From: Roley, Andrew B LT NAVFAC NW, PRE2 [mailto:andrew.roley@navy.mil]
Sent: Wednesday, June 14, 2017 2:27 PM
To: INFOCNTR (PHMSA) <INFOCNTR.INFOCNTR@dot.gov>
Subject: Request for Interpretation

[resending attachments]

Good morning, PHMSA.

I was speaking with Eamonn in your office earlier today, who assisted with some informal guidance over the phone. He suggested sending this request via email for formal guidance when I requested a written response.

Background: I am in the United States Navy and recently moved from Naval Station Guantanamo Bay, Cuba, to Everett, WA. As part of my orders, I am entitled to movement of household goods. This excludes any hazardous material. I had attempted to "offer" two types of motor oil for shipment, and classified them as being non-hazardous based on their SDSs (attached). The Naval Supply Systems Command (NAVSUP), who utilized a contractor to pack and move my goods, overrode my classification, saying it was flammable, specifically a "petroleum product" (The Defense Transportation Regulation lists "Petroleum products" as an example of prohibited flammable materials). They made this determination without viewing the SDSs and did not change it after I provided the SDSs (I do not believe they were read, though). I then mailed it through the military postal service agency (which NAVSUP manages a portion of) with the SDSs attached with no issues, and submitted for reimbursement. NAVSUP again said it was a hazardous material not allowable to be reimbursed for shipment.

Questions:

- 1) Are either of these materials classifiable as petroleum products?
- 2) Are either of these materials classifiable as a flammable or combustible liquid?
- 3) Would these materials be regulated in any other way under Hazardous Material Regulations?

I apologize if these seem to be very easy and straight forward questions based on the SDS contents. However, I believe your expert formal opinion may be needed to convince NAVSUP of the answers and to receive reimbursement.

Very Respectfully,

Andrew Roley
LT, CEC, USN

Address:
Public Works, Naval Station Everett
2000 W Marine View Dr.
Everett, WA 98207

Phone:
425-304-3637

SAFETY DATA SHEET

Part No. : LUB-10W40-AP-xx
 Date Prepared: 2012/10/04
 Date Revised: 2014/11/29

Product Name: Yamalube Performance All Purpose SAE 10W-40 Four Stroke Engine Oil

1. Identification of the substance/mixture and of the company/undertaking

Product Name: Yamalube Performance All Purpose SAE 10W-40 Four Stroke Engine Oil
 "Distributed by Yamaha Motor Corporation, U.S.A."
 Identification of the supplier: JX Nippon Oil & Energy USA Inc.
 Address: 20 N. Martingale., Suite 325, Schaumburg, IL 60173
 Charge section: (TEL:+1-847-413-2188)

2. Hazards identification

hazard category	Category
Flammable liquids	No Classification
Acute toxicity (oral)	No Classification
Acute toxicity (dermal)	No Classification
Specific target organ systemic toxicity following single exposure	No Classification
Specific target organ systemic toxicity following repeated exposure	No Classification
Aspiration hazard	No Classification

LABEL ELEMENTS

Precautionary pictograms: Not applicable
 Signal word: Not applicable
 Hazard Statement: Not applicable
 Precautionary Statements:

Prevention Do not handle until all safety precautions have been read and understood.
 Wear protective gloves/protective clothing/eye protection/face protection.
 Do not allow the eyes to become exposed to the product. Do not swallow the product.
 Wash hands thoroughly after handling.
 Do not eat, drink or smoke when using this product.

Response IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
 If the eyes are exposed to the product: Rinse the eyes with plenty of running water and immediately contact a physician.
 IF ON SKIN: Wash with plenty of soap and water.

Storage The product must be stored in a cool, well-ventilated location where it will not be exposed to direct sunlight.
 Containers that have been opened must be tightly sealed.

Disposal Dispose of contents/container in accordance with local/regional/national/international regulations.
 If there are any doubts about proper methods of handling the product, contact the point of purchase before proceeding with usage.

SAFETY DATA SHEET

Part No. : LUB-10W40-AP-xx
 Date Prepared: 2012/10/04
 Date Revised: 2014/11/29

Product Name: Yamalube Performance All Purpose SAE 10W-40 Four Stroke Engine Oil

3. Composition/information on ingredients

Substance/Mixture: Mixture

Ingredients and Concentration

Ingredient Name	Concentrationwt. %
Base Oil(s)	80-90
Additives	<20

4. First-aid measures

Inhalation: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
 Cover the body with blankets to keep warm and quiet. If you feel unwell, seek medical advice.

Skin Contact: Immediately flush skin with large amounts of water.
 Wash contaminated clothing before reuse.
 If skin irritation occurs: Get medical advice/attention.

Eye Contact: Rinse with clean water carefully for several minutes. Remove contact lenses if present and if removal is easy, then continue rinsing. Rinse for 15 minutes at a minimum and seek medical attention.

Ingestion: Do not induce vomiting. Drink water. Call a physician or poison control center immediately.

5. Fire-fighting measures

Suitable Extinguishing Media: Mist of loaded liquid, dry chemicals, carbon dioxide, fire foam, and dry sand are effective.

Extinguishing Media to Avoid: Use of straight steam of water can cause a risk of spreading fire.

Specific hazards arising from the chemical: In some cases of fire, may release irritant gases.

Fire Fighting: When burnt, may generate carbon monoxide and other toxic gases.
 Spray water to the surrounding facilities for cooling.
 Keep unauthorized persons off the site of occurrence of fire and the surroundings.
 Even after extinction, cool containers thoroughly with plenty of water.

Special protective equipment and precautions for fire fighters: Wear fire/flammable resistant/retardant clothing.
 Fight fire from windward direction while wearing protective equipment. If contact with skin is expected, wear impervious protective equipment and gloves.
 Use air-breathing apparatus and protective clothing whenever necessary.

SAFETY DATA SHEET

Part No. : LUB-10W40-AP-xx
 Date Prepared: 2012/10/04
 Date Revised: 2014/11/29

Product Name: Yamalube Performance All Purpose SAE 10W-40 Four Stroke Engine Oil

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures:	<p>Wear protective equipment when working.</p> <p>Remove nearby potential ignition sources immediately.</p> <p>When mist is generated, use respiratory equipment to prevent inhalation of mist.</p> <p>Do not touch or walk through spillage.</p>
Environmental precautions:	<p>Pay attention to the site of spillage, which is slippery.</p> <p>Prevent spreading of oil spill with earth and sand, sandbags, or other proper materials and use care not to allow the oil spill to flow to street drains, sewer systems, and rivers.</p> <p>At sea, install oil spill containment booms to prevent spreading of spills and absorb with absorption mat or other proper materials.</p>
Methods and materials for containment and cleaning up:	<p>In case of spillage in small quantity, collect spillage by absorbing with earth, sand, sawdust, waste, or other proper materials.</p> <p>In case of spillage in large quantity, enclose with embankment to prevent spreading of spillage and collect spillage in empty containers to the extent possible.</p>
Prevention of second accident:	<p>In case of spillage, immediately inform the organizations concerned of the spillage to prevent possible accidents and spreading of spillage.</p> <p>Remove nearby potential ignition sources immediately and make fire-extinguishing agents available. Remove spillage completely, and ventilate and clean the site and the surroundings.</p>

7. Handling and storage

Handling	
Technical Measures:	<p>Keep away from any possible contact with sparks, open flames, and high-temperature materials, and do not allow release of vapor without justification.</p> <p>Use pumps or other proper equipment for taking out from containers. Do not siphon with your mouth using a tube. Do not drink.</p> <p>When mist is generated, use respiratory equipment to prevent inhalation of mist.</p> <p>In case of vapor/mist dispersion, install a closed system, local ventilation system, and/or other proper equipment for the sources of vapor/mist generation.</p> <p>Avoid rough handling of containers such as falling, dropping, exposing to shock, and dragging.</p> <p>Maintain adequate ventilation when handling indoors.</p>
Ventilation requirements:	
Precautions:	<p>Wash hands and face thoroughly after handling.</p> <p>Be careful with fire.</p>
Precautions for safe handling:	<p>Avoid falling, dropping, exposing to shock, or dragging of containers.</p>

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Part No. : LUB-10W40-AP-xx
 Date Prepared: 2012/10/04
 Date Revised: 2014/11/29

Product Name: Yamalube Performance All Purpose SAE 10W-40 Four Stroke Engine Oil

Storage

Wear protective gloves when opening containers to eliminate a risk of hand injury.

Storage Conditions: Store in a well ventilated, cool, dry, dark place, protecting from direct sunlight and keeping away from any potential ignition sources and high-temperature materials. Store tightly stopped after use to prevent possible contamination with dust and moisture. Preferably store locked up in a proper storage area.

Safety adequate container materials: Use spill-proof containers that are free of damage/corrosion.

8. Exposure controls/personal protection

Appropriate engineering controls: In case of mist generation, enclose the source of mist generation, or install a ventilation system. Install eye cleaning and body cleaning equipment near the handling site.

Control parameters

Ingredient Name	Japan Society for Occupational Exposure Limits	ACGIH	
		TLV-STEL	TLV-TWA
Base Oil(s)	None established ppm, 3mg/m3 (Mineral Oil Mist)	None established ppm, None establishedmg/m3	None established ppm, 5mg/m3 (Mineral Oil Mist)

Personal Protective Equipment

Respiratory Protection: Not needed under normal conditions, but wear a gas mask (against organic gases) whenever required.

Hand protection: In case of prolonged or repeated exposure, wear oil-resistant hand protection.

Eye/face protection: In case of exposure to splashes, wear ordinary type goggles.

Skin Protection: In case of handling over a prolonged period of time or in case of exposure to oil, wear oil-resistant, long-sleeved work clothing.

Hygiene Measures: Take off contaminated clothing and wash thoroughly before reuse. Wash hands thoroughly after handling.

9. Physical and chemical properties

Product

Physical state: Liquid

Form: Liquid

Color: Yellow

Odor: Slight odor

Melting point/freezing point: Pour Point-40(°C)

SAFETY DATA SHEET

Part No. : LUB-10W40-AP-xx
 Date Prepared: 2012/10/04
 Date Revised: 2014/11/29

Product Name: Yamalube Performance All Purpose SAE 10W-40 Four Stroke Engine Oil

Initial boiling point and boiling range:	Initial boiling point - End point No data
Flash point:	224(°C)Cleveland Open Cup
Auto-ignition temperature:	Estimate200-410(°C)
Vapour density:	No data.
Density(g/cm3):	0.86(15°C)
Solubility:	water : Insoluble.
Partition coefficient: n-octanol/water:	No data.
Decomposition temperature:	No data.

10. Stability and reactivity

Chemical stability:	Stable when stored or preserved in a dark place at room temperature.
Possibility of hazardous reactions:	Keep away from any possible contact with strong oxidizing agents.
Conditions to avoid:	Contact with incompatible hazard substances Prolonged heating, open flames, and ignition sources
Incompatible materials:	Use care to keep away from any possible contact with halogens, strong acids, alkalis, and acidifying substances.
Hazardous decomposition products:	When burnt, may release carbon monoxide and other gases.

11. Toxicological information

Product

Acute toxicity (oral):	For mixtures, hazard category was identified based on the classification criteria for mixtures.
Acute toxicity (dermal):	For mixtures, hazard category was identified based on the classification criteria for mixtures.
Acute toxicity (inhalation):	For mixtures, hazard category was identified based on the classification criteria for mixtures.
Skin corrosion/irritation:	For mixtures, hazard category was identified based on the classification criteria for mixtures.
Serious eye damage/irritation:	For mixtures, hazard category was identified based on the classification criteria for mixtures.
Respiratory sensitization:	For mixtures, hazard category was identified based on the classification criteria for mixtures.
Skin sensitization:	For mixtures, hazard category was identified based on the classification criteria for mixtures.
Mutagenicity:	For mixtures, hazard category was identified based on the classification criteria for mixtures.
Carcinogenicity:	For mixtures, hazard category was identified based on the classification criteria for mixtures.
Reproductive toxicity:	For mixtures, hazard category was identified based on the classification criteria for mixtures.
Target organ effect/Single exposure:	For mixtures, hazard category was identified based on the classification criteria for mixtures.

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Product Name: Yamalube Performance All Purpose SAE 10W-40 Four Stroke Engine Oil

Target organ effect/Multi exposure:
 Respiratory toxic:

For mixtures, hazard category was identified based on the classification criteria for mixtures.
 For mixtures, hazard category was identified based on the classification criteria for mixtures.

Ingredient
 Base Oil(s)

Acute toxicity (oral):	LD50: \geq 5000 mg/kg[rat]
Acute toxicity (dermal):	LD50: \geq 5000 mg/kg[rat]
Serious eye damage/irritation:	Practically None [rabbit]
Skin sensitization:	None Buehler method [guinea pig]
Mutagenicity:	Ames Test: Negative
Carcinogenicity:	EU: Category 2 : R45 need not apply. (NOTE L is Applicable), IARC:3

12. Ecological information

Product

Ecotoxicity

Fish acute toxicity:	For mixtures, hazard category was identified based on the classification criteria for mixtures.
Algae acute toxicity:	For mixtures, hazard category was identified based on the classification criteria for mixtures.
Fish chronic toxicity:	For mixtures, hazard category was identified based on the classification criteria for mixtures.
Algae chronic toxicity:	For mixtures, hazard category was identified based on the classification criteria for mixtures.

Ingredient
 Base Oil(s)

Ecotoxicity

Fish acute toxicity:	96hLC50: > 5000 mg/L [Oncorhynchus mykiss]
Daphnia acute toxicity:	48hEC50: > 1000 mg/L [Daphnia magna]

13. Disposal considerations

Disposal methods: Dispose of contents/container in accordance with local/regional/national/international regulations.

Every customer/user of the product should dispose of industrial waste on its own responsibility, otherwise it must rely on a company authorized by prefectural governor for treating industrial waste or a local public body involved in the disposal of industrial waste for proper disposal.

Before disposal of used container, remove contents completely.

14. Transport information

IMDG UN classification: Not applicable

SAFETY DATA SHEET

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Product Name: Yamalube Performance All Purpose SAE 10W-40 Four Stroke Engine Oil

Specific security precaution and condition of transportation: Transport containers without causing any significant friction or shaking.

15. Regulatory information

Korea (KECL) :	All components are listed or exempted.
Australia (AICS) :	All components are listed or exempted.
Canada (DSL) :	All components are listed or exempted.
China (IECSC) :	All components are listed or exempted.
EU (REACH) :	In the case where one or more components are not listed or, even if listed, in the case of importing to the country or area concerned, an application or notification is required.
New Zealand (NZIoC) :	All components are listed or exempted.
USA (TSCA) :	All components are listed or exempted.
Philippines (PICCS) :	All components are listed or exempted.
Taiwan :	In the case where one or more components are not listed or, even if listed, in the case of importing to the country or area concerned, an application or notification is required.

16. Other information

Disclaimer We at JX Nippon Oil & Energy Corporation have prepared the copyrighted Safety Data Sheet to provide reference information on the hazardous chemical product of interest for our customers/users to ensure secure and safe handling.

We would like every customer/user of the product to refer to the information and understand the necessity of taking appropriate measures for the actual handling conditions on their own responsibilities for optimum practical application of the product of interest.

Consequently, the Safety Data Sheet is not intended to guarantee the safety of the product referenced to herein.

Product Name: TGMO SN 5W-30

Revision Date: 16 Mar 2015

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SAFETY DATA SHEET

SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

PRODUCT

Product Name: TGMO SN 5W-30
Product Description: Base Oil and Additives
Product Code: 20201030C056, 477547-00, 97Z831
Intended Use: Engine oil

COMPANY IDENTIFICATION

Supplier: EXXON MOBIL CORPORATION
22777 Springwoods Village Parkway
Spring, TX. 77389 USA
24 Hour Health Emergency 609-737-4411
Transportation Emergency Phone 800-424-9300 or 703-527-3887 CHEMTREC
Product Technical Information 800-662-4525
MSDS Internet Address <http://www.exxon.com>, <http://www.mobil.com>

SECTION 2 HAZARDS IDENTIFICATION

This material is not hazardous according to regulatory guidelines (see (M)SDS Section 15).

Other hazard information:

HAZARD NOT OTHERWISE CLASSIFIED (HNOC): None as defined under 29 CFR 1910.1200.

PHYSICAL / CHEMICAL HAZARDS

No significant hazards.

HEALTH HAZARDS

High-pressure injection under skin may cause serious damage. Excessive exposure may result in eye, skin, or respiratory irritation.

ENVIRONMENTAL HAZARDS

No significant hazards.

NFPA Hazard ID:	Health: 0	Flammability: 1	Reactivity: 0
HMIS Hazard ID:	Health: 0	Flammability: 1	Reactivity: 0

NOTE: This material should not be used for any other purpose than the intended use in Section 1 without expert advice. Health studies have shown that chemical exposure may cause potential human health risks which may vary from person to person.

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SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

This material is defined as a mixture.

Hazardous Substance(s) or Complex Substance(s) required for disclosure

Name	CAS#	Concentration*	GHS Hazard Codes
SEVERELY HYDROTREATED HEAVY PARAFFINIC DISTILLATE	64742-54-7	1 - < 5%	H304
SOLVENT DEWAXED HEAVY PARAFFINIC DISTILLATE	64742-65-0	1 - < 5%	H304

* All concentrations are percent by weight unless material is a gas. Gas concentrations are in percent by volume.

As per paragraph (i) of 29 CFR 1910.1200, formulation is considered a trade secret and specific chemical identity and exact percentage (concentration) of composition may have been withheld. Specific chemical identity and exact percentage composition will be provided to health professionals, employees, or designated representatives in accordance with applicable provisions of paragraph (i).

SECTION 4 FIRST AID MEASURES

INHALATION

Remove from further exposure. For those providing assistance, avoid exposure to yourself or others. Use adequate respiratory protection. If respiratory irritation, dizziness, nausea, or unconsciousness occurs, seek immediate medical assistance. If breathing has stopped, assist ventilation with a mechanical device or use mouth-to-mouth resuscitation.

SKIN CONTACT

Wash contact areas with soap and water. If product is injected into or under the skin, or into any part of the body, regardless of the appearance of the wound or its size, the individual should be evaluated immediately by a physician as a surgical emergency. Even though initial symptoms from high pressure injection may be minimal or absent, early surgical treatment within the first few hours may significantly reduce the ultimate extent of injury.

EYE CONTACT

Flush thoroughly with water. If irritation occurs, get medical assistance.

INGESTION

First aid is normally not required. Seek medical attention if discomfort occurs.

SECTION 5 FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

Appropriate Extinguishing Media: Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.

Inappropriate Extinguishing Media: Straight Streams of Water

FIRE FIGHTING

Product Name: TGMO SN 5W-30

Revision Date: 16 Mar 2015

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Fire Fighting Instructions: Evacuate area. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply. Firefighters should use standard protective equipment and in enclosed spaces, self-contained breathing apparatus (SCBA). Use water spray to cool fire exposed surfaces and to protect personnel.

Hazardous Combustion Products: Incomplete combustion products, Smoke, Fume, Aldehydes, Sulfur oxides, Oxides of carbon

FLAMMABILITY PROPERTIES

Flash Point [Method]: >200°C (392°F) [ASTM D-92]

Flammable Limits (Approximate volume % in air): LEL: 0.9 UEL: 7.0

Autoignition Temperature: N/D

SECTION 6

ACCIDENTAL RELEASE MEASURES

NOTIFICATION PROCEDURES

In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations. US regulations require reporting releases of this material to the environment which exceed the applicable reportable quantity or oil spills which could reach any waterway including intermittent dry creeks. The National Response Center can be reached at (800)424-8802.

PROTECTIVE MEASURES

Avoid contact with spilled material. See Section 5 for fire fighting information. See the Hazard Identification Section for Significant Hazards. See Section 4 for First Aid Advice. See Section 8 for advice on the minimum requirements for personal protective equipment. Additional protective measures may be necessary, depending on the specific circumstances and/or the expert judgment of the emergency responders.

For emergency responders: Respiratory protection: respiratory protection will be necessary only in special cases, e.g., formation of mists. Half-face or full-face respirator with filter(s) for dust/organic vapor or Self Contained Breathing Apparatus (SCBA) can be used depending on the size of spill and potential level of exposure. If the exposure cannot be completely characterized or an oxygen deficient atmosphere is possible or anticipated, SCBA is recommended. Work gloves that are resistant to hydrocarbons are recommended. Gloves made of polyvinyl acetate (PVA) are not water-resistant and are not suitable for emergency use. Chemical goggles are recommended if splashes or contact with eyes is possible. Small spills: normal antistatic work clothes are usually adequate. Large spills: full body suit of chemical resistant, antistatic material is recommended.

SPILL MANAGEMENT

Land Spill: Stop leak if you can do it without risk. Recover by pumping or with suitable absorbent.

Water Spill: Stop leak if you can do it without risk. Confine the spill immediately with booms. Warn other shipping. Remove from the surface by skimming or with suitable absorbents. Seek the advice of a specialist before using dispersants.

Water spill and land spill recommendations are based on the most likely spill scenario for this material; however, geographic conditions, wind, temperature, (and in the case of a water spill) wave and current direction and speed may greatly influence the appropriate action to be taken. For this reason, local experts should be consulted. Note: Local regulations may prescribe or limit action to be taken.

ENVIRONMENTAL PRECAUTIONS

Large Spills: Dike far ahead of liquid spill for later recovery and disposal. Prevent entry into waterways,

Product Name: TGMO SN 5W-30

Revision Date: 16 Mar 2015

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sewers, basements or confined areas.

SECTION 7 HANDLING AND STORAGE

HANDLING

Avoid contact with used product. Prevent small spills and leakage to avoid slip hazard. Material can accumulate static charges which may cause an electrical spark (ignition source). When the material is handled in bulk, an electrical spark could ignite any flammable vapors from liquids or residues that may be present (e.g., during switch-loading operations). Use proper bonding and/or ground procedures. However, bonding and grounds may not eliminate the hazard from static accumulation. Consult local applicable standards for guidance. Additional references include American Petroleum Institute 2003 (Protection Against Ignitions Arising out of Static, Lightning and Stray Currents) or National Fire Protection Agency 77 (Recommended Practice on Static Electricity) or CENELEC CLC/TR 50404 (Electrostatics - Code of practice for the avoidance of hazards due to static electricity).

Static Accumulator: This material is a static accumulator.

STORAGE

The container choice, for example storage vessel, may effect static accumulation and dissipation. Do not store in open or unlabelled containers.

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE LIMIT VALUES

Exposure limits/standards (Note: Exposure limits are not additive)

Substance Name	Form	Limit / Standard			NOTE	Source
SEVERELY HYDROTREATED HEAVY PARAFFINIC DISTILLATE	Inhalable fraction.	TWA	5 mg/m3		N/A	ACGIH
SEVERELY HYDROTREATED HEAVY PARAFFINIC DISTILLATE	Mist.	TWA	5 mg/m3		N/A	ACGIH
SOLVENT DEWAXED HEAVY PARAFFINIC DISTILLATE	Mist.	TWA	5 mg/m3		N/A	OSHA Z1
SOLVENT DEWAXED HEAVY PARAFFINIC DISTILLATE		TWA	2000 mg/m3	500 ppm	N/A	OSHA Z1
SOLVENT DEWAXED HEAVY PARAFFINIC DISTILLATE	Mist.	TWA	5 mg/m3		N/A	ACGIH

Exposure limits/standards for materials that can be formed when handling this product: When mists/aerosols can occur the following are recommended: 5 mg/m³ - ACGIH TLV (inhalable fraction), 5 mg/m³ - OSHA PEL.

NOTE: Limits/standards shown for guidance only. Follow applicable regulations.

No biological limits allocated.

ENGINEERING CONTROLS

The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Control measures to consider:

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No special requirements under ordinary conditions of use and with adequate ventilation.

PERSONAL PROTECTION

Personal protective equipment selections vary based on potential exposure conditions such as applications, handling practices, concentration and ventilation. Information on the selection of protective equipment for use with this material, as provided below, is based upon intended, normal usage.

Respiratory Protection: If engineering controls do not maintain airborne contaminant concentrations at a level which is adequate to protect worker health, an approved respirator may be appropriate. Respirator selection, use, and maintenance must be in accordance with regulatory requirements, if applicable. Types of respirators to be considered for this material include:

No special requirements under ordinary conditions of use and with adequate ventilation.

For high airborne concentrations, use an approved supplied-air respirator, operated in positive pressure mode. Supplied air respirators with an escape bottle may be appropriate when oxygen levels are inadequate, gas/vapor warning properties are poor, or if air purifying filter capacity/rating may be exceeded.

Hand Protection: Any specific glove information provided is based on published literature and glove manufacturer data. Glove suitability and breakthrough time will differ depending on the specific use conditions. Contact the glove manufacturer for specific advice on glove selection and breakthrough times for your use conditions. Inspect and replace worn or damaged gloves. The types of gloves to be considered for this material include:

No protection is ordinarily required under normal conditions of use.

Eye Protection: If contact is likely, safety glasses with side shields are recommended.

Skin and Body Protection: Any specific clothing information provided is based on published literature or manufacturer data. The types of clothing to be considered for this material include:

No skin protection is ordinarily required under normal conditions of use. In accordance with good industrial hygiene practices, precautions should be taken to avoid skin contact.

Specific Hygiene Measures: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned. Practice good housekeeping.

ENVIRONMENTAL CONTROLS

Comply with applicable environmental regulations limiting discharge to air, water and soil. Protect the environment by applying appropriate control measures to prevent or limit emissions.

SECTION 9

PHYSICAL AND CHEMICAL PROPERTIES

Note: Physical and chemical properties are provided for safety, health and environmental considerations only and may not fully represent product specifications. Contact the Supplier for additional information.

GENERAL INFORMATION

Physical State: Liquid

Color: Amber

Odor: Characteristic

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Odor Threshold: N/D

IMPORTANT HEALTH, SAFETY, AND ENVIRONMENTAL INFORMATION

Relative Density (at 15 °C): 0.86
Flammability (Solid, Gas): N/A
Flash Point [Method]: >200°C (392°F) [ASTM D-92]
Flammable Limits (Approximate volume % in air): LEL: 0.9 UEL: 7.0
Autoignition Temperature: N/D
Boiling Point / Range: > 316°C (600°F)
Decomposition Temperature: N/D
Vapor Density (Air = 1): > 2 at 101 kPa
Vapor Pressure: < 0.013 kPa (0.1 mm Hg) at 20 °C
Evaporation Rate (n-butyl acetate = 1): N/D
pH: N/A
Log Pow (n-Octanol/Water Partition Coefficient): > 3.5
Solubility in Water: Negligible
Viscosity: 61.9 cSt (61.9 mm²/sec) at 40 °C | 10.5 cSt (10.5 mm²/sec) at 100°C
Oxidizing Properties: See Hazards Identification Section.

OTHER INFORMATION

Freezing Point: N/D
Melting Point: N/A
Pour Point: -27°C (-17°F)
DMSO Extract (mineral oil only), IP-346: < 3 %wt

SECTION 10 STABILITY AND REACTIVITY

REACTIVITY: See sub-sections below.

STABILITY: Material is stable under normal conditions.

CONDITIONS TO AVOID: Excessive heat. High energy sources of ignition.

MATERIALS TO AVOID: Strong oxidizers

HAZARDOUS DECOMPOSITION PRODUCTS: Material does not decompose at ambient temperatures.

POSSIBILITY OF HAZARDOUS REACTIONS: Hazardous polymerization will not occur.

SECTION 11 TOXICOLOGICAL INFORMATION

INFORMATION ON TOXICOLOGICAL EFFECTS

Hazard Class	Conclusion / Remarks
Inhalation	
Acute Toxicity: No end point data for material.	Minimally Toxic. Based on assessment of the components.
Irritation: No end point data for material.	Negligible hazard at ambient/normal handling temperatures.
Ingestion	
Acute Toxicity: No end point data for material.	Minimally Toxic. Based on assessment of the components.

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Skin	
Acute Toxicity: No end point data for material.	Minimally Toxic. Based on assessment of the components.
Skin Corrosion/Irritation: No end point data for material.	Negligible irritation to skin at ambient temperatures. Based on assessment of the components.
Eye	
Serious Eye Damage/Irritation: No end point data for material.	May cause mild, short-lasting discomfort to eyes. Based on assessment of the components.
Sensitization	
Respiratory Sensitization: No end point data for material.	Not expected to be a respiratory sensitizer.
Skin Sensitization: No end point data for material.	Not expected to be a skin sensitizer. Based on assessment of the components.
Aspiration: Data available.	Not expected to be an aspiration hazard. Based on physico-chemical properties of the material.
Germ Cell Mutagenicity: No end point data for material.	Not expected to be a germ cell mutagen. Based on assessment of the components.
Carcinogenicity: No end point data for material.	Not expected to cause cancer. Based on assessment of the components.
Reproductive Toxicity: No end point data for material.	Not expected to be a reproductive toxicant. Based on assessment of the components.
Lactation: No end point data for material.	Not expected to cause harm to breast-fed children.
Specific Target Organ Toxicity (STOT)	
Single Exposure: No end point data for material.	Not expected to cause organ damage from a single exposure.
Repeated Exposure: No end point data for material.	Not expected to cause organ damage from prolonged or repeated exposure. Based on assessment of the components.

OTHER INFORMATION

For the product itself:

Diesel engine oils: Not carcinogenic in animals tests. Used and unused diesel engine oils did not produce any carcinogenic effects in chronic mouse skin painting studies.

Oils that are used in gasoline engines may become hazardous and display the following properties: Carcinogenic in animal tests. Caused mutations in vitro. Possible allergen and photoallergen. Contains polycyclic aromatic compounds (PAC) from combustion products of gasoline and/or thermal degradation products.

Contains:

Base oil severely refined: Not carcinogenic in animal studies. Representative material passes IP-346, Modified Ames test, and/or other screening tests. Dermal and inhalation studies showed minimal effects; lung non-specific infiltration of immune cells, oil deposition and minimal granuloma formation. Not sensitizing in test animals.

The following ingredients are cited on the lists below: None.

--REGULATORY LISTS SEARCHED--

1 = NTP CARC

3 = IARC 1

5 = IARC 2B

2 = NTP SUS

4 = IARC 2A

6 = OSHA CARC

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SECTION 12

ECOLOGICAL INFORMATION

The information given is based on data available for the material, the components of the material, and similar materials.

ECOTOXICITY

Material -- Not expected to be harmful to aquatic organisms.

MOBILITY

Base oil component -- Low solubility and floats and is expected to migrate from water to the land.
Expected to partition to sediment and wastewater solids.

PERSISTENCE AND DEGRADABILITY

Biodegradation:

Base oil component -- Expected to be inherently biodegradable

BIOACCUMULATION POTENTIAL

Base oil component -- Has the potential to bioaccumulate, however metabolism or physical properties may reduce the bioconcentration or limit bioavailability.

SECTION 13

DISPOSAL CONSIDERATIONS

Disposal recommendations based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal.

DISPOSAL RECOMMENDATIONS

Product is suitable for burning in an enclosed controlled burner for fuel value or disposal by supervised incineration at very high temperatures to prevent formation of undesirable combustion products. Protect the environment. Dispose of used oil at designated sites. Minimize skin contact. Do not mix used oils with solvents, brake fluids or coolants.

REGULATORY DISPOSAL INFORMATION

RCRA Information: The unused product, in our opinion, is not specifically listed by the EPA as a hazardous waste (40 CFR, Part 261D), nor is it formulated to contain materials which are listed as hazardous wastes. It does not exhibit the hazardous characteristics of ignitability, corrosivity or reactivity and is not formulated with contaminants as determined by the Toxicity Characteristic Leaching Procedure (TCLP). However, used product may be regulated.

Empty Container Warning Empty Container Warning (where applicable): Empty containers may contain residue and can be dangerous. Do not attempt to refill or clean containers without proper instructions. Empty drums should be completely drained and safely stored until appropriately reconditioned or disposed. Empty containers should be taken for recycling, recovery, or disposal through suitably qualified or licensed contractor and in accordance with governmental regulations. DO NOT PRESSURISE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION. THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.

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SECTION 14	TRANSPORT INFORMATION
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LAND (DOT): Not Regulated for Land Transport

LAND (TDG): Not Regulated for Land Transport

SEA (IMDG): Not Regulated for Sea Transport according to IMDG-Code

Marine Pollutant: No

AIR (IATA): Not Regulated for Air Transport

SECTION 15	REGULATORY INFORMATION
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OSHA HAZARD COMMUNICATION STANDARD: This material is not considered hazardous in accordance with OSHA HazCom 2012, 29 CFR 1910.1200.

Listed or exempt from listing/notification on the following chemical inventories: DSL, KECI, PICCS, TSCA

EPCRA SECTION 302: This material contains no extremely hazardous substances.

SARA (311/312) REPORTABLE HAZARD CATEGORIES: None.

SARA (313) TOXIC RELEASE INVENTORY: This material contains no chemicals subject to the supplier notification requirements of the SARA 313 Toxic Release Program.

The following ingredients are cited on the lists below:

Chemical Name	CAS Number	List Citations
DIPHENYLAMINE	122-39-4	18
ZINC ALKYL DITHIOPHOSPHATE	68649-42-3	15, 19
ZINC DITHIOPHOSPHATE	68649-42-3	15, 19

--REGULATORY LISTS SEARCHED--

1 = ACGIH ALL	6 = TSCA 5a2	11 = CA P65 REPRO	16 = MN RTK
2 = ACGIH A1	7 = TSCA 5e	12 = CA RTK	17 = NJ RTK
3 = ACGIH A2	8 = TSCA 6	13 = IL RTK	18 = PA RTK
4 = OSHA Z	9 = TSCA 12b	14 = LA RTK	19 = RI RTK
5 = TSCA 4	10 = CA P65 CARC	15 = MI 293	

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Code key: CARC=Carcinogen; REPRO=Reproductive

SECTION 16

OTHER INFORMATION

N/D = Not determined, N/A = Not applicable

KEY TO THE H-CODES CONTAINED IN SECTION 3 OF THIS DOCUMENT (for information only):

H304: May be fatal if swallowed and enters airways; Aspiration, Cat 1

THIS SAFETY DATA SHEET CONTAINS THE FOLLOWING REVISIONS:

Updates made in accordance with implementation of GHS requirements.

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