



MATERIAL SAFETY DATA SHEET

EQUILON MSDS: GEN05ET 01/04/99

MEROPA OILS

TELEPHONE NUMBER:

24 HOUR EMERGENCY ASSISTANCE

EQUIVA SERVICES: 877-276-7283

CHEMTREC: 800-424-9300

GENERAL MSDS ASSISTANCE

877-276-7285

NAME AND ADDRESS:

EQUILON ENTERPRISES LLC

PRODUCT STEWARDSHIP

P.O. BOX 674414

HOUSTON, TX 77267-4414

LEGEND:

N.D. - NOT DETERMINED N.A. - NOT APPLICABLE N.T- NOT TESTED

< - LESS THAN > - GREATER THAN

1. NAME

MATERIAL IDENTITY

Product Code and Name:

GEN05 MEROPA OILS

Chemical Name and/or Family or Description:

Gear Oils

This Material Safety Data Sheet may be used for the following products for Hazard Communications purposes only; not intended to imply identical performance/technical specifications:

02319 MEROPA 68

02320 MEROPA 150

02321 MEROPA 220

02324 MEROPA 320

02325 MEROPA 460

02312 MEROPA 600

02601 MEROPA 100

2. COMPOSITION/INFORMATION ON INGREDIENTS

THE CRITERIA FOR LISTING COMPONENTS IN THE COMPOSITION SECTION IS AS FOLLOWS: CARCINOGENS ARE LISTED WHEN PRESENT AT 0.1 % OR GREATER; COMPONENTS WHICH ARE OTHERWISE HAZARDOUS ACCORDING TO OSHA ARE LISTED WHEN PRESENT AT 1.0 % OR GREATER; NON-HAZARDOUS COMPONENTS ARE LISTED AT 3.0 % OR GREATER. THIS IS NOT INTENDED TO BE A COMPLETE COMPOSITIONAL DISCLOSURE. REFER TO SECTION 14 FOR APPLICABLE STATES' RIGHT TO KNOW AND OTHER REGULATORY INFORMATION.

Product and/or Component(s) Carcinogenic According to:

OSHA	IARC	NTP	OTHER	NONE
				X
-	-	-	-	-

Composition: (Sequence Number and Chemical Name

Seq. Chemical Name	CAS Number	Range in %
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Products represented by this Material Safety Data Sheet may contain one or more of the following components in the concentration ranges listed below:

01 # Solvent-dewaxed heavy paraffinic petroleum distillates	64742-65-0	49.99- 79.99
02 # Residual oils, petroleum, hydrotreated	64742-57-0	10.00- 99.99
03 # Solvent deasphalted residual petroleum oil	64741-95-3	20.00- 79.99
04 # Hydrotreated heavy paraffinic petroleum distillates	64742-54-7	20.00- 34.99
05 * Asphalt	8052-42-4	35.00-49.99

PRODUCT IS NON-HAZARDOUS ACCORDING TO OSHA (1910.1200).

* COMPONENT IS HAZARDOUS ACCORDING TO OSHA.

COMPONENT, BY DEFINITION, IS CONSIDERED HAZARDOUS ACCORDING TO OSHA BECAUSE IT CARRIES THE PERMISSIBLE EXPOSURE LIMIT (PEL) FOR MINERAL OIL MIST.

Exposure Limits referenced by Sequence Number in the Composition Section

Seq.	Limit
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01	5	mg/m3 TWA-OSHA (MINERAL OIL MIST)
01	5	mg/m3 TWA-ACGIH (MINERAL OIL MIST)
01	10	mg/m3 STEL ACGIH (MINERAL OIL MIST)
02	5.0	mg/m3 TWA-OSHA (MINERAL OIL MIST)
02	5.0	mg/m3 TWA-ACGIH (MINERAL OIL MIST)
02	10.0	mg/m3 STEL ACGIH (MINERAL OIL MIST)
03	5	mg/m3 TWA-OSHA (MINERAL OIL MIST)

03 5 mg/m3 TWA-ACGIH (MINERAL OIL MIST)
 03 10 mg/m3 STEL ACGIH (MINERAL OIL MIST)
 04 5 mg/m3 TWA-OSHA (MINERAL OIL MIST)
 04 5 mg/m3 TWA-ACGIH (MINERAL OIL MIST)
 04 10 mg/m3 STEL ACGIH (MINERAL OIL MIST)
 05 5.0 mg/m3 TWA-ACGIH-(FUME) (A4)

3. HAZARD IDENTIFICATION

EMERGENCY OVERVIEW

Appearance:

Red liquid to opaque liquid with green bloom

Odor:

Not determined

WARNING STATEMENT

NONE CONSIDERED NECESSARY

HMIS

Health: 0 Reactivity: 0
 Flammability: 1 Special : -

NFPA

Health: 0 Reactivity: 0
 Flammability: 1 Special : -

POTENTIAL HEALTH EFFECTS

	EYE	SKIN	INHALATION	INGESTION
Primary Route of Exposure:	X	X	X	
	-	-	-	-

EFFECTS OF OVEREXPOSURE

Acute:

Eyes:

May cause minimal irritation, experienced as temporary discomfort.

Skin:

Brief contact is not irritating. Prolonged contact, as with clothing wetted with material, may cause defatting of skin or irritation, seen as local redness with possible mild discomfort.

Other than the potential skin irritation effects noted above, acute (short term) adverse effects are not expected from brief skin contact; see other effects, below, and Section 11 for information regarding potential long term effects.

Inhalation:

Vapors or mist, in excess of permissible concentrations, or in unusually high concentrations generated from spraying, heating the material or as from exposure in poorly ventilated areas or confined spaces, may cause

irritation of the nose and throat, headache, nausea, and drowsiness.

Ingestion:

If more than several mouthfuls are swallowed, abdominal discomfort, nausea, and diarrhea may occur.

Sensitization Properties:

Unknown.

Chronic:

No adverse effects have been documented in humans as a result of chronic exposure. Section 11 may contain applicable animal data.

Medical Conditions Aggravated by Exposure:

Because of its defatting properties, prolonged and repeated skin contact may aggravate an existing dermatitis (skin condition).

Other Remarks:

When overheated, product may release hydrogen sulfide (H₂S) gas. H₂S concentrations above permissible concentrations can cause irritation of the eyes and respiratory tract, headache, dizziness, nausea, vomiting, diarrhea and pulmonary edema. At concentrations above 300 ppm, respiratory paralysis, causing unconsciousness and death, can occur.

4. FIRST AID MEASURES**Eyes:**

Flush eyes with plenty of water for several minutes. Get medical attention if eye irritation persists.

Skin:

Wash skin with plenty of soap and water for several minutes. Get medical attention if skin irritation develops or persists.

Ingestion:

If more than several mouthfuls of this material are swallowed, give two glasses of water (16 oz.). Get medical attention.

Inhalation:

If irritation, headache, nausea, or drowsiness occurs, remove to fresh air. Get medical attention if breathing becomes difficult or respiratory irritation persists.

Other Instructions:

cleaning of potential hazards associated with handling contaminated clothing.

5. FIRE-FIGHTING MEASURES

Ignition Temperature-AIT (degrees F):

Not determined.

Flash Point (degrees F):

415 - 480 (COC)

Flammable Limits (%):

Lower: Not determined.

Upper: Not determined.

Recommended Fire Extinguishing Agents And Special Procedures:

Use water spray, dry chemical, foam, or carbon dioxide to extinguish flames. Use water spray to cool fire-exposed containers. Water or foam may cause frothing.

Unusual or Explosive Hazards:

Hydrogen sulfide (H2S) may be released if overheated.

Special Protective Equipment for Firefighters:

Other than normal protective fire-fighting equipment, no special equipment or procedures required.

6. ACCIDENTAL RELEASE MEASURES

(Transportation Spills : CHEMTREC (800) 424-9300)

Procedures in Case of Accidental Release, Breakage or Leakage:

Ventilate area. Avoid breathing vapor. Wear appropriate personal protective equipment, including appropriate respiratory protection. Contain spill if possible. Wipe up or absorb on suitable material and shovel up. Prevent entry into sewers and waterways. Avoid contact with skin, eyes or clothing.

If more than 5,208,333 pounds of product is spilled, then report spill according to SARA 304 and/or CERCLA 102(a) requirements, unless product qualifies for the petroleum exemption (CERCLA Section 101(14)).

7. HANDLING AND STORAGE

Precautions to be Taken in

Handling:

Minimum feasible handling temperatures should be maintained.

Storage:

Periods of exposure to high temperatures should be minimized. Water contamination should be avoided.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Protective Equipment (Type)**Eye/Face Protection:**

Safety glasses, chemical type goggles, or face shield recommended to prevent eye contact.

Skin Protection:

Workers should wash exposed skin several times daily with soap and water. Soiled work clothing should be laundered or dry-cleaned.

Respiratory Protection:

Airborne concentrations should be kept to lowest levels possible. If vapor, mist or dust is generated and the occupational exposure limit of the product, or any component of the product, is exceeded, use appropriate NIOSH or MSHA approved air purifying or air supplied respirator after determining the airborne concentration of the contaminant. Air supplied respirators should always be worn when airborne concentration of the contaminant or oxygen content is unknown.

Ventilation:

Adequate to meet component occupational exposure limits (see Section 2).

Exposure Limit for Total Product:

None established for product; refer to Section 2 for component exposure limits.

9. PHYSICAL AND CHEMICAL PROPERTIES**Appearance:**

Red liquid to opaque liquid with green bloom

Odor:

Not determined

Boiling Point (degrees F):

Not determined.

Melting/Freezing point (degrees F):

Not applicable.

Specific Gravity (water=1):

.8833 - .9402

pH of undiluted product:

Not applicable.

Vapor Pressure:

Not determined.

Viscosity:

68 - 3200 cSt at 40.0 C

VOC Content:

Not determined.

Vapor Density (air=1):

Not determined.

Solubility in Water (%):

Not determined.

Other: None**10. STABILITY AND REACTIVITY****This Material Reacts Violently With:**

(If Others is checked below, see comments for details)

Air	Water	Heat	Strong Oxidizers	Others	None of These
-	-	-	X	-	-

Comments:

Under extreme temperatures or extended storage periods, hydrogen sulfide (H2S) gas may accumulate in the head-space of container.

Products Evolved When Subjected to Heat or Combustion:

Toxic levels of carbon monoxide, carbon dioxide, irritating aldehydes and ketones, and combustion products or compounds of sulfur (may include hydrogen sulfide).

Hazardous Polymerizations: DO NOT OCCUR**11. TOXICOLOGICAL INFORMATION****TOXICOLOGICAL INFORMATION (ANIMAL TOXICITY DATA)**

Median Lethal Dose

Oral:

LD50 Similar product > 5.00 g/kg (rat) practically non-toxic

Inhalation:

Not determined.

Dermal:

LD50 Similar product > 3.00 g/kg (rabbit) practically non-toxic

Irritation Index, Estimation of Irritation (Species)**Skin:**

(Draize) Similar product < .01 /8.0 (rabbit) no appreciable effect

Eyes:

(Draize) Similar product 5.30 /110 (rabbit) no appreciable effect

Sensitization:

Not determined.

Other:

12. DISPOSAL CONSIDERATIONS**Waste Disposal Methods**

This product has been evaluated for RCRA characteristics and does not meet the criteria of a hazardous waste if discarded in its purchased form. Under RCRA, it is the responsibility of the user of the product to determine at the time of disposal, whether the product meets RCRA criteria for hazardous waste. This is because product uses, transformations, mixtures, processes, etc. may render the resulting materials hazardous.

Remarks

None

13. TRANSPORT INFORMATION**Transportation****DOT:**

Proper Shipping Name:

Not regulated

IMDG:

Proper Shipping Name:

Not regulated

ICAO:

Proper Shipping Name:

Not regulated

TDG:

Proper Shipping Name:

Not regulated

14. REGULATORY INFORMATION**Federal Regulations:****SARA Title III:****Section 302/304 Extremely Hazardous Substances**

Seq. Chemical Name	CAS Number	Range in %
None		

None

Section 302/304 Extremely Hazardous Substances (CONT)

Seq. TPQ	RQ
None	

None

Section 311 Hazardous Categorization:

Acute	Chronic	Fire	Pressure	Reactive	N/A
					X

-	-	-	-	-	-
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Section 313 Toxic Chemical

Chemical Name	CAS Number	Concentration
None		

CERCLA 102(a)/DOT Hazardous Substances: (+ indicates DOT Hazardous Substance)

Seq. Chemical Name	CAS Number	Range in %
01+ Toluene	108-88-3	0.01-0.09

CERCLA/DOT Hazardous Substances (Sequence Numbers and RQ's):

Seq. RQ
01+ 1000

TSCA Inventory Status:

This product, or its components, are listed on or are exempt from the Toxic Substance Control Act (TSCA) Chemical Substance Inventory.

Other:

A risk assessment has been performed on this product which indicates that no California Proposition 65 warnings are required.

State Regulations:

California Proposition 65:

The following detectable components of this product are substances, or belong to classes of substances, known to the State of California to cause cancer and/or reproductive toxicity.

Chemical Name	CAS Number
Toluene	108-88-3

International Regulations:

Export Notification (TSCA-12b):

This product may be subject to export notification under TSCA section 12(b); contains:
Isopropyl alcohol

WHMIS Classification:

Not controlled

Canada Inventory Status:

This product, or its components, are listed on or are exempt from the

Canadian Domestic Substance List (DSL).

EINECS Inventory Status:

Not determined.

Australia Inventory Status:

Not determined.

Japan Inventory Status:

Not determined.

15. ENVIRONMENTAL INFORMATION

Aquatic Toxicity:

LC50-96hr Similar product > 1000.00 mg/liter (rainbow trout) practical non-toxic

EC50-48hr Similar product > 1000.00 mg/liter (Daphnia magna) practical non-toxic

EC50-96 hr Similar product 25.00 mg/liter Selenastrum (cell dens.) slightly toxic

LC50-96hr Similar product > 1000.00 mg/liter mysid shrimp (marine) practically non-toxic

LC50-96hr Similar product > 1000.00 mg/liter sheepshead minnow(marine) practically non-toxic

Mobility:

Not determined.

Persistence and Biodegradability:

This product is estimated to have a slow (< 30%) rate of biodegradation. A test for ready biodegradation.

Potential to Bioaccumulate:

Not evaluated.

Remarks:

None

16. OTHER INFORMATION

None

THE INFORMATION CONTAINED IN THIS DATA SHEET IS BASED ON THE DATA AVAILABLE TO US AT THIS TIME, AND IS BELIEVED TO BE ACCURATE BASED UPON THAT DATA IS

PROVIDED INDEPENDENTLY OF ANY SALE OF THE PRODUCT, FOR PURPOSE OF HAZARDOUS COMMUNICATION. IT IS NOT INTENDED TO CONSTITUTE PRODUCT PERFORMANCE INFORMATION, AND NO EXPRESS OR IMPLIED WARRANTY OF ANY KIND IS MADE WITH RESPECT TO THE PRODUCT, UNDERLYING DATA OR THE INFORMATION CONTAINED HEREIN. YOU ARE URGED TO OBTAIN DATA SHEETS FOR ALL PRODUCTS YOU BUY,

PROCESS, USE OR DISTRIBUTE, AND ARE ENCOURAGED TO ADVISE THOSE WHO MAY COME IN CONTACT WITH SUCH PRODUCTS OF THE INFORMATION CONTAINED HEREIN.

TO DETERMINE THE APPLICABILITY OR EFFECT OF ANY LAW OR REGULATION WITH RESPECT TO THE PRODUCT, YOU SHOULD CONSULT WITH YOUR LEGAL ADVISOR OR THE APPROPRIATE GOVERNMENT AGENCY. WE WILL NOT PROVIDE ADVICE ON SUCH MATTERS, OR BE RESPONSIBLE FOR ANY INJURY FROM THE USE OF THE PRODUCT DESCRIBED HEREIN. THE UNDERLYING DATA, AND THE INFORMATION PROVIDED HEREIN AS A RESULT OF THAT DATA, IS THE PROPERTY OF EQUIVA SERVICES, LLC AND IS NOT TO BE THE SUBJECT OF SALE OR EXCHANGE WITHOUT THE EXPRESS WRITTEN CONSENT OF EQUIVA SERVICES, LLC.

Date: 1999-01-04 New X Revised, Supersedes: 1997-11-12

Inquiries regarding MSDS should be directed to:

Equiva Services LLC
Manager Product Stewardship
P.O. Box 674414
Houston, TX 77267-4414

17. PRODUCT LABEL

READ AND UNDERSTAND MATERIAL SAFETY DATA SHEET BEFORE HANDLING OR DISPOSING OF PRODUCT. THIS LABEL COMPLIES WITH THE REQUIREMENTS OF THE OSHA HAZARD COMMUNICATION STANDARD (29 CFR 1910.1200) FOR USE IN THE WORKPLACE. THIS LABEL IS NOT INTENDED TO BE USED WITH PACKAGING INTENDED FOR SALE TO CONSUMERS

AND MAY NOT CONFORM WITH THE REQUIREMENTS OF THE CONSUMER PRODUCT SAFETY ACT OR OTHER RELATED REGULATORY REQUIREMENTS.

GEN05 MEROPA OILS

WARNING STATEMENT

NONE CONSIDERED NECESSARY

PRECAUTIONARY MEASURES

- Avoid prolonged breathing of vapor, mist, or gas.
- Workers should wash exposed skin several times daily with soap and water.

FIRST AID

Eye Contact:

Flush eyes with plenty of water for several minutes. Get medical attention if eye irritation persists.

Skin Contact:

Wash skin with plenty of soap and water for several minutes. Get medical attention if skin irritation develops or persists.

Ingestion:

If more than several mouthfuls of this material are swallowed, give two glasses of water (16 oz.). Get medical attention.

Inhalation:

If irritation, headache, nausea, or drowsiness occurs, remove to fresh air. Get medical attention if breathing becomes difficult or respiratory irritation persists.

Note to Physician:

None

FIRE

In case of fire, use water spray, dry chemical, foam or carbon dioxide. Water may cause frothing. Use water spray to cool fire-exposed containers.

If more than 5,208,333 pounds of product is spilled, then report spill according to SARA 304 and/or CERCLA 102(a) requirements, unless product qualifies for the petroleum exemption (CERCLA Section 101(14)).

Chemical Name	CAS Number	Range in
§		

Products represented by this Material Safety Data Sheet may contain one or more of the following components in the concentration ranges listed below:

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#	Solvent deasphalted residual petroleum oil	64741-95-3	20.00- 79.99
#	Hydrotreated heavy paraffinic petroleum distillates	64742-54-7	20.00- 34.99
*	Asphalt	8052-42-4	35.00-49.99

PRODUCT IS NON-HAZARDOUS ACCORDING TO OSHA (1910.1200).

* COMPONENT IS HAZARDOUS ACCORDING TO OSHA.

COMPONENT, BY DEFINITION, IS CONSIDERED HAZARDOUS ACCORDING TO OSHA BECAUSE IT CARRIES THE PERMISSIBLE EXPOSURE LIMIT (PEL) FOR MINERAL OIL MIST.

Pennsylvania Special Hazardous Substance(s)	CAS Number	Range in
§		

None

Health: 0 Reactivity: 0
Flammability: 1 Special : -

Health: 0 Reactivity: 0
Flammability: 1 Special : -

Transportation**DOT:****Proper Shipping Name:**

Not regulated

CAUTION: Misuse of empty containers can be hazardous. Empty containers can

be hazardous if used to store toxic, flammable, or reactive materials. Cutting or welding of empty containers might cause fire, explosion or toxic fumes from residues. Do not pressurize or expose to open flame or heat. Keep container closed and drum bungs in place.

Name and Address:

Equilon Enterprises LLC
P.O. Box 674414
Houston ,TX 77267-4414

TRANSPORTATION EMERGENCY: (877)276-7283
CHEMTREC: (800)424-9300

HEALTH EMERGENCY: (877)276-7283