MATERIAL SAFETY DATA SHEET
Revision Date: 03/25/2003

SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

PRODUCT: SPIRAX® HD 85W-140
MSDS NUMBER: 864040E - 10
PRODUCT CODE(S): 5058307, 59212

MANUFACTURER ADDRESS:SOPUS Products, P.O. Box 4427, Houston, TX. 77210-4427

TELEPHONE NUMBERS
Spill Information: (877) 242-7400
Health Information: (877) 504-9351
MSDS Assistance Number: (877) 276-7285

MILSPEC: MIL-PRF-2105(E)

SECTION 2 PRODUCT/INGREDIENTS

CAS#	CONCENTRATION	INGREDIENTS
Heavy Duty Gear Oil Mixture	90 - 98.99 %volume	Highly refined petroleum oils
72162-26-6	1 - 2.99 %volume	Olefin sulfide
Mixture	1 - 2.99 %volume	Proprietary additives

SECTION 3 HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW
Appearance & Odor: Red green bloom liquid. Slight Hydrocarbon Odor.
Health Hazards: No known immediate health hazards. May cause CNS depression.
Physical Hazards: No known physical hazards.
NFPA Rating (Health, Fire, Reactivity): 0, 1, 0
Hazard Rating:Least - 0 Slight - 1 Moderate - 2 High - 3
Extreme - 4

Inhalation:
Inhalation of vapors (generated at high temperatures only) or oil mist may cause mild irritation of the nose, throat, and respiratory tract. Breathing of high vapor concentrations may cause CNS depression, evidenced by dizziness, light-headedness, headache, nausea, drowsiness, and loss of coordination. Continued inhalation may result in unconsciousness.

Eye Irritation:
Lubricating oils are generally considered no more than minimally irritating to the eyes.

Skin Contact:
May cause slight irritation of the skin. If irritation occurs, a temporary burning sensation and minor redness and/or swelling may result. Other adverse effects not expected from brief skin contact.

Ingestion:
Generally considered to have a low order of acute oral toxicity.

Signs and Symptoms:

Irritation as noted above.

Aggravated Medical Conditions:
Pre-existing eye, skin and respiratory disorders may be aggravated by exposure to this product.

For additional health information, refer to section 11.

SECTION 4 FIRST AID MEASURES

Inhalation:
If the victim has difficulty breathing or tightness of the chest, is dizzy, vomiting or unresponsive, give 100% oxygen with rescue breathing or CPR as required and transport to the nearest medical facility.

Skin:
Remove contaminated clothing and shoes and wipe excess from skin. Flush skin with water, then wash with soap and water. If irritation occurs, get medical attention. Do not reuse clothing until cleaned. If redness, swelling, pain and/or blisters occur, transport to the nearest medical facility for additional treatment.

Eye:
Flush with water. If irritation occurs, get medical attention.

Ingestion:
Do not induce vomiting. In general, no treatment is necessary unless large quantities of product are ingested. However, get medical attention. Have victim rinse mouth out with water, then drink sips of water to remove taste from mouth. If vomiting occurs spontaneously, keep head below hips to prevent aspiration.

Note to Physician:
In general, emesis induction is unnecessary in high viscosity, low volatility products such as oils and greases.

SECTION 5 FIRE FIGHTING MEASURES

Flash Point [Method]: >424 °F/>217.78 °C [Cleveland Open Cup]

Extinguishing Media:
Material will float and can be re-ignited on surface of water. Use water fog, 'alcohol foam', dry chemical or carbon dioxide (CO2) to extinguish flames. Do not use a direct stream of water.

Fire Fighting Instructions:
Material will not burn unless preheated. Do not enter confined fire space without full bunker gear (helmet with face shield, bunker coats, gloves and rubber boots), including a positive pressure, NIOSH approved, self-contained breathing apparatus.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Protective Measures:
May burn although not readily ignitable.

Wear appropriate personal protective equipment when cleaning up spills. Refer to Section 8.

Spill Management:
FOR LARGE SPILLS: Remove with vacuum truck or pump to storage/salvage vessels.

FOR SMALL SPILLS: Soak up residue with an absorbent such as clay, sand or other suitable material. Place in non-leaking container and seal tightly for proper disposal.

Reporting:
CERCLA: Product is covered by EPA's Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) petroleum exclusion. Releases to air, land, or water are not reportable under CERCLA (Superfund).

CWA: This product is an oil as defined under Section 311 of EPA's Clean Water Act (CWA). Spills into or leading to surface waters that cause a sheen must be reported to the National Response Center, 1-800-424-8802.

SECTION 7 HANDLING AND STORAGE

Precautionary Measures:
Wash with soap and water before eating, drinking, smoking, applying cosmetics, or using toilet. Launder contaminated clothing before reuse. Properly dispose of contaminated leather articles such as shoes or belts that cannot be decontaminated. Avoid heat, open flames, including pilot lights, and strong oxidizing agents. Use explosion-proof ventilation to prevent vapor accumulation. Ground all handling equipment to prevent sparking.

Storage:
Store in a cool, dry place with adequate ventilation. Keep away from open flames and high temperatures.

Container Warnings:
Keep containers closed when not in use. Containers, even those that have been emptied, can contain explosive vapors. Do not cut, drill, grind, weld or perform similar operations on or near containers.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Oil mist, mineral ACGIH TLV TWA: 5 mg/m3 STEL: 10 mg/m3
Oil mist, mineral OSHA PEL TWA: 5 mg/m3
Olefin sulfide ACGIH TLV TWA: 1 mg/m3

EXPOSURE CONTROLS
Adequate ventilation to control airborne concentrations below the exposure guidelines/limits.

PERSONAL PROTECTION
Personal protective equipment (PPE) selections vary based on potential exposure conditions such as handling practices, concentration and ventilation. Information on the selection of eye, skin and respiratory protection for use with this material is provided below.

Eye Protection:
Chemical Goggles, or Safety glasses with side shields

Skin Protection:
Use protective clothing which is chemically resistant to this material. Selection of protective clothing depends on potential exposure conditions and

may include gloves, boots, suits and other items. The selection(s) should take into account such factors as job task, type of exposure and durability requirements.

Published literature, test data and/or glove and clothing manufacturers indicate the best protection is provided by:
Neoprene, or Nitrile Rubber

Respiratory Protection:
If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker health, an approved respirator must be worn. Respirator selection, use and maintenance should be in accordance with the requirements of the OSHA Respiratory Protection Standard, 29 CFR 1910.134.

Types of respirator(s) to be considered in the selection process include:
For Mist: Air Purifying, R or P style NIOSH approved respirator.
For Vapors: Air Purifying, R or P style prefilter & organic cartridge, NIOSH approved respirator. Self-contained breathing apparatus for use in environments with unknown concentrations or emergency situations.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance & Odor: Red green bloom liquid. Slight Hydrocarbon Odor.
Substance Chemical Family: Lubricants
Appearance: Red green bloom liquid.

Flash Point: > 424 °F [Cleveland Open Cup]

Pour Point: -40 °F

Specific Gravity: 0.8969

Viscosity: 300 cSt - 325 cSt @ 40 °C

SECTION 10 REACTIVITY AND STABILITY

Stability:
Material is stable under normal conditions.

Conditions to Avoid:
Avoid heat and open flames.

Materials to Avoid:
Avoid contact with strong oxidizing agents.

Hazardous Decomposition Products:
Thermal decomposition products are highly dependent on combustion conditions. A complex mixture of airborne solids, liquids and gases will evolve when this material undergoes pyrolysis or combustion. Aldehydes, Carbon Monoxide, Carbon Dioxide, Ketones
and other unidentified organic compounds may be formed upon combustion.

SECTION 11 TOXICOLOGICAL INFORMATION

Carcinogenicity Classification
Heavy Duty Gear Oil
NTP: No IARC: Not Reviewed ACGIH: No OSHA: No

SECTION 12 ECOLOGICAL INFORMATION

Environmental Impact Summary:
There is no ecological data available for this product. However, this product is an oil. It is persistent and does not readily biodegrade. However, it does not bioaccumulate.

SECTION 13 DISPOSAL CONSIDERATIONS

RCRA Information:

Under RCRA, it is the responsibility of the user of the material to determine, at the time of the disposal, whether the material meets RCRA criteria for hazardous waste. This is because material uses, transformations, mixtures, processes, etc. may affect the classification. Refer to the latest EPA, state and local regulations regarding proper disposal.

SECTION 14 TRANSPORT INFORMATION

US Department of Transportation Classification
This material is not subject to DOT regulations under 49 CFR Parts 171-180.

Oil: This product is an oil under 49CFR (DOT) Part 130. If shipped by rail or highway in a tank with a capacity of 3500 gallons or more, it is subject to these requirements. Mixtures or solutions containing 10% or more of this product may also be subject to this rule.

International Air Transport Association
Not regulated under IATA rules.

International Maritime Organization Classification
Not regulated under International Maritime Organization rules.

SECTION 15 REGULATORY INFORMATION

FEDERAL REGULATORY STATUS

OSHA Classification:
Under normal conditions of use or in a foreseeable emergency, this product does not meet the definition of a hazardous chemical when evaluated according to the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Ozone Depleting Substances (40 CFR 82 Clean Air Act):
This material does not contain nor was it directly manufactured with any Class I or Class II ozone depleting substances.

Superfund Amendment & Reauthorization Act (SARA) Title III:

There are no components in this product on the SARA 302 list.

SARA Hazard Categories (311/312):
Immediate Health:NO Delayed Health:NO Fire:NO Pressure:NO

Reactivity:NO

SARA Toxic Release Inventory (TRI) (313):
There are no components in this product on the SARA 313 list.

Toxic Substances Control Act (TSCA) Status:
All component(s) of this material is(are) listed on the EPA/TSCA Inventory of Chemical Substances.

Other Chemical Inventories:
Component(s) of this material is (are) listed on the Canadian DSL,

State Regulation
The following chemicals are specifically listed by individual states; other product specific health and safety data in other sections of the MSDS may also be applicable for state requirements. For details on your regulatory requirements you should contact the appropriate agency in your state.

SECTION 16 OTHER INFORMATION

Revision#: 10
Revision Date: 03/25/2003
Revisions since last change (discussion): This Material Safety Data Sheet (MSDS) has been reviewed to fully comply with the guidance contained in the ANSI MSDS standard (ANSI Z400.1-1998). We encourage you to take the opportunity to read the MSDS and review the information contained therein.

SECTION 17 LABEL INFORMATION

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.

PRODUCT CODE(S): 5058307, 59212

SPIRAX® HD 85W-140

ATTENTION!

OVEREXPOSURE TO VAPORS CAN CAUSE CNS DEPRESSION. PROLONGED OR REPEATED SKIN CONTACT MAY CAUSE OIL ACNE OR DERMATITIS.

Precautionary Measures:
Avoid prolonged or repeated contact with eyes, skin and clothing. Avoid breathing of vapors, fumes, or mist. Use only with adequate ventilation. Wash thoroughly after handling.

FIRST AID

Inhalation: DO NOT attempt to rescue victim unless proper respiratory protection is worn. If the victim has difficulty breathing or tightness of the chest, is dizzy, vomiting or unresponsive, give 100% oxygen with rescue breathing or CPR as required and transport to the nearest medical facility.
Skin Contact: Remove contaminated clothing and shoes and wipe excess from skin. Flush skin with water, then wash with soap and water. If irritation

occurs, get medical attention. Do not reuse clothing until cleaned. If redness, swelling, pain and/or blisters occur, transport to the nearest medical facility for additional treatment.
Eye Contact: Flush with water. If irritation occurs, get medical attention.
Ingestion: Do not induce vomiting. In general, no treatment is necessary unless large quantities of product are ingested. However, get medical attention. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. Have victim rinse mouth out with water, then drink sips of water to remove taste from mouth.

FIRE

In case of fire, Use water fog, 'alcohol foam', dry chemical or carbon dioxide (CO2) to extinguish flames. Do not use a direct stream of water. Material will float and can be re-ignited on surface of water.

SPILL OR LEAK
Dike and contain spill.
FOR LARGE SPILLS: Remove with vacuum truck or pump to storage/salvage vessels.

FOR SMALL SPILLS: Soak up residue with an absorbent such as clay, sand or other suitable material. Place in non-leaking container and seal tightly for proper disposal.

CONTAINS: Highly refined petroleum oils, Mixture; Olefin sulfide, 72162-26-6; Proprietary additives, Mixture

NFPA Rating (Health, Fire, Reactivity): 0, 1, 0

TRANSPORTATION
US Department of Transportation Classification
This material is not subject to DOT regulations under 49 CFR Parts 171-180.

Oil: This product is an oil under 49CFR (DOT) Part 130. If shipped by rail or highway in a tank with a capacity of 3500 gallons or more, it is subject to these requirements. Mixtures or solutions containing 10% or more of this product may also be subject to this rule.

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 flames or heat. Keep container closed and drum bungs in place.

Name and Address
SOPUS Products
P.O. Box 4427
Houston, TX 77210-4427

ADMINISTRATIVE INFORMATION
MANUFACTURER ADDRESS: SOPUS Products, P.O. Box 4427, Houston, TX. 77210-4427
Company Product Stewardship & Regulatory Compliance Contact: Timothy W Childs
Phone Number: (713) 241-1524

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