Dynalene Inc

MATERIAL SAFETY DATA SHEET

DYNALENE SF

SECTION 1: PRODUCT IDENTIFICATION

TRADE NAME (AS LABELED): **DYNALENE SF™**

CHEMICAL NAME/CLASS: Heat Transfer Fluid

SYNONYMS: Mixture: None applicable.

DISTRIBUTOR'S NAME: **Dynalene Inc**

ADDRESS: 5250 West Coplay Road
Whitehall, PA 18052

EMERGENCY PHONE: 1-800-424-9300 (CHEMTREC)

BUSINESS PHONE: 610-262-9686

DATE OF PREPARATION: August 29, 2004
REVISION DATE: January 7, 2008

SECTION 2: COMPOSITION AND INFORMATION ON INGREDIENTS

CHEMICAL NAME	% v/v	EXPOSURE LIMITS IN AIR					
		ACGIH		OSHA			
		TLV	STEL	PEL	STEL	IDLH	OTHER
		mg/m^3	mg/m^3	mg/m^3	mg/m^3	mg/m^3	mg/m^3
Hydrocarbon Mixture	> 95%	NE	NE	NE	NE	NE	NE
Other components present in less than 1% concentration (or 0.1% for carcinogens, reproductive toxins, or respiratory sensitizers).	Balance	None of the other ingredients has established exposure limits or contributes any significant, additional hazard to this product. All pertinent hazard information has been provided in this Material Data Sheet, per the requirements of the Federal OSHA Hazard Communication Standard (29 CFR 1910.1200), U.S. State equivalent standards, and the requirements of the Canadian Workplace Hazardous Materials Information System.					

NE = Not Established **C =** Ceiling Level (See Section 16 for Definitions of Terms Used.)
NOTE (1): All WHMIS required information is included in appropriate sections based on the ANSI Z400.1-1993 format.
NOTE (2): Information on this product is being claimed as proprietary. All Pertinent hazard information has been provided, per the Trade Secret requirements of U.S. Federal Occupational Safety and Health Administration Standards (29 CFR 1910.1200) and Canadian WHMIS (CPR 12 and 19). Information on this mixture will be released when the conditions specified in these Standards are met.

SECTION 3: HAZARD IDENTIFICATION

EMERGENCY OVERVIEW: This product is a light brown, oily liquid, with a slight, hydrocarbon odor. Mists from this product may be slightly irritating if inhaled. The product may also be slightly irritating to contaminated eyes. The product must be substantially preheated before ignition can occur. This product is not reactive under typical emergency response conditions. Emergency responders must wear proper personal protective equipment for the situation to which they are responding.

SYMPTOMS OF OVER-EXPOSURE BY ROUTE OF EXPOSURE:

The most significant routes of exposure to this product are by inhalation of mists from product and contact with skin and eyes. The symptoms of overexposure are as follows.

INHALATION:

Due to low volatile, this product is not generally an inhalation hazard. In heated form, vapors may be irritating to the upper respiratory tract.

CONTACT WITH SKIN or EYES:

Irritation may occur with exposure to vapors. In the skin no hazard expected in normal use. Repeated or prolonged contact can cause redness, irritation, and scaling of the skin. Normal care and personal hygiene should prevent skin effects.

INGESTION:

No hazard under normal industrial use. Ingestion of large quantities may lead to discomfort, nausea, and vomiting.

INJECTION:

Though not an expected rout of occupational exposure for this product, injection (via punctures or lacerations in the skin) may cause local reddening, tissue swelling and discomfort.

HEALTH HAZARD:

Irritation to eyes and upper respiratory tract may occur with exposure to concentrated vapors. Irritation of eyes or skin may occur when in contact with product. This product is a negligible inhalation hazard due to its low volatility.

FIRE and EXPLOSION:

Material may burn, but does not readily ignite.

HAZARDOUS MATERIAL INFORMATION SYSTEM

HEALTH	(BLUE)	0
FLAMMABILITY	(RED)	1
REACTIVITY	yellow	0

PROTECTIVE EQUIPMENT

EYES	RESPIRATORY	HANDS	BODY
	SEE SECTION 8		

For routine industrial applications

SECTION 4: FIRST-AID MEASURES

SKIN EXPOSURE

If the product is spilled the skin, immediately begin decontamination with running water. Contaminated individual must seek immediate medical attention, especially if irritation or redness develops. Wash contaminated clothing and shoes before reuse.

EYE EXPOSURE

If the product enter the eyes, open victim's eyes while under gentle running water. Use sufficient force to open eyelids. Have victim "roll" eyes. Minimum flushing is for 15 minutes. Contaminated individual must seek immediate medical attention, especially if symptoms persist.

INHALATION

If mists of the product are inhaled, removed victim to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call physician immediately.

INGESTION

If the product is swallowed, CALL PHYSICIAN immediately. ONLY induce vomiting at the instruction of a physician. Never give anything by mouth to an unconscious person.

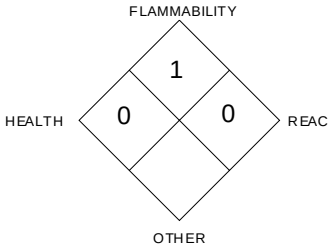
SECTION 5: FIRE-FIGHTING MEASURES

NFPA RATING

FLASH POINT (Pensky-Martens Closed Cup): 180°C (356°F)

AUTOIGNITION TEMPERATURE: 330°C (626°F)

FLAMMABLE LIMITS (in air by volume, %): Lower (LEL): Not available.
Upper (UEL): Not Available.



FIRE EXTINGUISHING MATERIALS:

Water Spray: YES (cooling only) Carbon Dioxide: YES Foam: YES
Dry Chemical: YES Halon: YES Other: Any "B" Class.

FIRE & EXPLOSION: Can burn in fire forming carbon dioxide (CO_2) and some carbon monoxide.

SPECIAL FIRE-FIGHTING PROCEDURES:

Cool exposed equipment with water spray until well after fire is out. Use full protective clothing and self-contained breathing apparatus (SCBA) if fighting fire. Containers can build up pressure if exposed to heat (fire).

SECTION 6: ACCIDENTAL RELEASE MEASURES

SPILL AND LEAK RESPONSE:

In case of a spill, clear the affected area, protect people. Uncontrolled releases should be responded to by trained personnel using pre-planned procedures. Proper protective equipment should be used. Absorb spilled liquid with polypads or other suitable sorbent materials. Decontaminate the area thoroughly. Do not contaminate any lakes, streams, ponds, groundwater, or soil. Dispose of in accordance with Federal, State, and local hazardous waste disposal regulations (see Section 13, Disposal Considerations).

SECTION 7: HANDLING AND STORAGE

WORK PRACTICES AND HYGIENE PRACTICES:

As with all chemicals, avoid getting this product ON YOU or IN YOU. Wash hands after handling this product. Do not eat or drink while handling this material. Use ventilation and other engineering controls to minimize potential exposure to the aerosols and mists of this product.

STORAGE AND HANDLING PRACTICES:

Carbon steels (without coating), carbon steels with baked phenolic or epoxy coating. Store in a cool, dry place; keep container closed when not in use. Open the container with caution. Avoid breathing vapor or mist. Avoid contact with eyes, skin and clothing.

ELECTROSTATIC ACCUMULATION HAZARD:

When transferring this product, there is a potential for the accumulation of static electricity. Consideration should be given to bonding and grounding of equipment during loading, unloading and transfer of this product.

STORAGE/TRANSPORT TEMPERATURE:

Ambient

STORAGE/ TRANSPORT PRESSURE:

Ambient

LOAD/ UNLOAD TEMPERATURE:

Ambient

SECTION 8: EXPOSURE CONTROLS - PERSONAL PROTECTION

VENTILATION AND ENGINEERING CONTROLS:

Mechanical ventilation may be necessary if working with the product in enclosed areas or at elevated temperatures.

RESPIRATORY PROTECTION:

Respiratory protection is normally not required except in emergencies or when conditions cause excessive airborne levels, mist, or vapors. Select the appropriate NIOSH-approved organic vapor air-purifying respirator, self-contained breathing apparatus, or air supplied respirators in situations where there may be potential for overexposure.

EYE PROTECTION:

Safety glasses with side shields or chemical goggles

HAND PROTECTION:

Wear chemical resistant gloves.

BODY PROTECTION:

If potentials for significant exposure to liquid exist, use full protective clothing and chemical boots.

PERSONAL PROTECTIVE EQUIPMENT LEVEL: C

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

RELATIVE VAPOR DENSITY (air = 1): > 1.0

EVAPORATION RATE (n-BuAc=1): < 1.0

SPECIFIC GRAVITY (water = 1): 0.877 g/cm^3 @ 20°C

MELTING POINT or RANGE: Aprox. - 81°F (-63°C)

SOLUBILITY IN WATER: Insoluble.

BOILING POINT: >626°F (>330°C)

VAPOR PRESSURE, mm Hg @ 20 °C: 3.6 @ 70°F/21°C

VISCOSITY: 1872 cSt @ -40°C

ODOR: Mild hydrocarbon odor

PHYSICAL STATE: Liquid

COEFFICIENT WATER/OIL DISTRIBUTION: Not Available.

pH: Not applicable.

APPEARANCE AND COLOR: This product is light brown, oily liquid.

SECTION 10: STABILITY AND REACTIVITY

STABILITY:

Stable

DECOMPOSITION PRODUCTS:

None expected.

MATERIALS WITH WHICH SUBSTANCE IS INCOMPATIBLE:

May react with strong oxidizers

HAZARDOUS POLYMERIZATION:

Should not occur

CONDITIONS TO AVOID:

Material is chemically stable. Avoid high temperatures.

SECTION 11: TOXICOLOGICAL INFORMATION

TOXICITY DATA: Additional toxicology information for components greater than 1 percent in concentration is provided below.

Alkylated benzenes:

EYES:	Primary Eye Irritation Index (Rabbits): 3.7 unwashed. (Maximum score is 110)
SKIN:	Acute Dermal LD_{50} (Rabbits): > 2000 mg/kg
	24 – hr primary skin irritation index (Rabbits): 0.8 (max score is 8.0)
INHALATION:	No specific data available.
INGESTION:	Acute Oral LD50 (Rat) > 5000mg/kg (OECD 401)

SECTION 12: ECOLOGICAL INFORMATION

ALL WORK PRACTICES MUST BE AIMED AT ELIMINATING ENVIROMENTAL CONTAMINATION.

ECOTOXICOLOGICAL INFORMATION:

Not available.

EFFECT OF MATERIAL ON PLANTS or ANIMALS:

This product may be harmful to contaminated plant and animal life (especially if large quantities are released). Refer to Section 11 (Toxicological Information) for specified information regarding effects of this product's components on test animals.

EFFECT OF CHEMICAL ON AQUATIC LIFE:

This product may be harmful to aquatic life if large quantities are released into bodies of water.

SECTION 13: DISPOSAL CONSIDERATIONS

PREPARING WASTES FOR DISPOSAL:

Waste disposal must be in accordance with appropriate Federal, State, and local regulations or those of Canada and its Provinces.

WASTE CLASSIFICATION:

Any unused product or empty containers may be disposed of as non-hazardous in accordance with state and federal requirements. Re-evaluation of the product may be required by the user at the time of disposal, since the product uses, transformations, mixture, contamination, and spillage may change the classification to hazardous. If the resulting material is determined to be hazardous, please dispose in accordance with state and federal (40 CFR 264) hazardous waste regulations.

EMPTY CONTAINERS:

Empty containers retain product residue (liquid and/or vapor) and can be dangerous. DO NOT pressurize, cut, weld, braze, solder, drill, grind, or exposed such containers to heat, flame, sparks, static electricity, or others sources of ignition. Empty drums should be completely drained, properly bunged and promptly returned to a drum reconditioner, or properly disposed of.

U.S. EPA WASTE NUMBER:

This product meets the criteria for synthetic used oil under the USEPA Waste Oil Regulation (40 CFR 219). Recycle or burn in accordance with applicable state and local regulations.

SECTION 14: TRANSPORTATION INFORMATION

THIS MATERIAL IS NON- HAZARDOUS , PER 49 CFR 172.101 (THE U.S. DEPARTMENT OF TRANSPORTATION).

PROPER SHIPPING NAME:	Not Applicable.
HAZARD CLASS NUMBER and DESCRIPTION:	Not Applicable.
UN IDENTIFICATION NUMBER:	Not Applicable.
PACKING GROUP:	Not Applicable.
DOT LABEL (S) REQUIRED:	Not Applicable.

NORTH AMERICAN EMERGENCY RESPONSE GUIDEBOOK NUMBER (1996):

Not Applicable.

MARINE POLLUTANT:

No component of this product is classified as a Marine Pollutant, as listed in Appendix B to 49 CFR 172.101.

TRANSPORT CANADA TRANSPORTATION OF DANGEROUS GOODS REGULATIONS:

THIS MATERIAL IS NOT CONSIDERED AS DANGEROUS GOODS.

SECTION 15: REGULATORY INFORMATION

UNITED STATE REGULATIONS:

SARA 302 STATUS:

Contains no chemicals subject to SARA 302 reporting

SARA 311/312:

Non-hazardous

SARA 313 CHEMICALS:

Contains no chemicals subject to SARA 313 reporting

TSCA INVENTORY STATUS:

The components of this product are listed on the TSCA Inventory.

CERCLA REPORTABLE QUANTITY (RQ):

Not Applicable.

OSHA:

Non-hazardous as defined by the OSHA Hazard Communication Standard

CALIFORNIA PROPOSITION 65:

No component of this solution is on the California Proposition 65 (California Safe Drinking Water Act Listing).

ADDITIONAL CANADIAN REGULATIONS:

CANADIAN DSL/NDSL INVENTORY STATUS:

The components of this product are the DSL or NDLS Inventory.

OTHER CANADIAN REGULATIONS:

Not Applicable.

CANADIAN ENVIROMENTAL PROTECTION (CEPA) PRORITIES SUBSTANCES LISTS:

The components of this product are not on the CEPA Priorities Substances Lists.

CANADIAN WHMIS SYMBOLS:

Not Applicable.

SECTION 16: OTHER INFORMATION

PREPARED BY:

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610-262 - 9686

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Key/Legend

ppm = parts per million; mg/m3 = milligrams per cubic meter of air; mppcf = million of particles per cubic foot of air; f/cc = fibers per cubic centimeter of air; OSHA = Occupational Safety and Health Administration; ACGIH = American Conference of Governmental Industrial Hygienists; TLV = Threshold Limit Value; TWA = 8-hour, time-weighted average; STEL = short-term exposure limit; EPA = Environmental Protection Agency; TSCA = Toxic Substances Control Act; DSL = Canada Domestic Substances List; EINECS = European Inventory of Existing Commercial Chemical Substances; ECL = Korea Existing and Evaluated Chemical Substances Inventory; ENCS = Japan Existing and New Chemical Substances Inventory; PICCS = Philippines Inventory of Chemicals and Chemical Substances; AICS = Australia Inventory of Chemical Substances; IARC = International Agency for Research on Cancer; NIOSH = National Institute for Occupational Safety and Health; NTP = National Toxicology Program; PMN = Premanufacture Notification; DSL = Domestic Substances List; NFPA = National Fire Protection Association; WHMIS = Workplace Hazardous Materials Identification System; HEPA = High Efficiency Particulate Air; CERCLA = Comprehensive Environmental Response, Compensation and Liability Act; SARA = Superfund Amendments and Reauthorization Act; NJTSR = New Jersey Trade Secret Registry; EPCRA= Emergency Planning and Community Right-to-Know Act (SARA, Title III); 302 = Extremely Hazardous Substance; HAP = Clean Air Act Hazardous Air Pollutant; TPQ = Threshold Planning Quantity; RQ = Reportable Quantity; NA = Not Available; NR = Not Regulated

END OF DATA SHEET