EMERGENCY OVERVIEW
CAUTION!
OSHA/NFPA COMBUSTIBLE LIQUID - SLIGHT TO MODERATE IRRITANT
EFFECTS CENTRAL NERVOUS SYSTEM
HARMFUL OR FATAL IF SWALLOWED
Moderate fire hazard. Avoid breathing vapors or mists. May cause dizziness and drowsiness. May cause moderate eye irritation and skin irritation (rash). Long-term, repeated exposure may cause skin cancer. If ingested, do NOT induce vomiting, as this may cause chemical pneumonia (fluid in the lungs).

1. CHEMICAL PRODUCT AND COMPANY INFORMATION
Hess Corporation
1 Hess Plaza
Woodbridge, NJ 07095-0961
EMERGENCY TELEPHONE NUMBER: VALVOLINE: 800-247-5263
COMPANY CONTACT (business hours): Valvoline Info: 606-357-7847
Corporate EHS 732-750-6000
MSDS Internet Website: www.hess.com
SYNONYMS: Valvoline Product Code 52670453
This product is manufactured by The Valvoline Company and packaged under the Amerada Hess ("Hess") label. The information in this MSDS has been developed by The Valvoline Company, MSDS No. 505.0172013-013.002I, date 5/11/99.
See Section 16 for abbreviations and acronyms.

2. COMPOSITION and CHEMICAL INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>INGREDIENT NAME (CAS No.)</th>
<th>CONCENTRATION PERCENT BY WEIGHT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aliphatic Petroleum Distillates (64742-65-0)</td>
<td>83.0 – 93.0</td>
</tr>
<tr>
<td>Detergent/ Dispersant Engine Oil Package</td>
<td>N/A</td>
</tr>
<tr>
<td>Zinc Compounds</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Petroleum-based lubricating oil with detergent/dispersant engine oil package with zinc compounds.

3. HAZARDS IDENTIFICATION

EYES
May cause mild eye irritation. Symptoms include stinging, tearing, and redness.

SKIN
May cause mild skin irritation. Prolonged or repeated contact may dry the skin. Symptoms include redness, burning, drying and cracking of the skin, and skin burns. Additional symptoms of skin contact include: acne. Passage of this material into the body through the skin is possible, but it is unlikely that this would result in harmful effects during safe handling and use.

Revision Date: 7/1/2006
MATERIAL SAFETY DATA SHEET

Hess 5W30 Motor Oil

INGESTION
Swallowing small amounts of this material during normal handling is not likely to cause harmful effects. Swallowing large amounts may be harmful.

INHALATION
It is possible to breathe this material under certain conditions of handling and use (for example, during heating, spraying, or stirring). Breathing small amounts of this material during normal handling is not likely to cause harmful effects. Breathing large amounts may be harmful. Symptoms usually occur at air concentrations higher than the recommended exposure limits.

CHRONIC EFFECTS and CARCINOGENICITY
This material is not listed as a carcinogen by IARC, NTP, or OSHA. Used motor oil has been shown to cause skin cancer in laboratory animal continually exposed by repeated applications. Avoid prolonged or repeated skin contact.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE
Irritation from skin exposure may aggravate existing open wounds, skin disorders, and dermatitis (rash).

4. FIRST AID MEASURES

EYES
If symptoms develop, move individual away from exposure and into fresh air. Flush eyes gently with water while holding eyelids apart. If symptoms persist or there is visual difficulty, seek medical attention.

SKIN
Remove contaminated clothing. Wash exposed area with soap and water. If symptoms persist, seek medical attention. Launder clothing before reuse.

INGESTION
Seek medical attention. If individual is drowsy or unconscious, do not give anything by mouth; place individual on the left side with the head down. Contact a physician, medical facility, or poison control center for advice about whether to induce vomiting. If possible, do not leave individual unattended.

INHALATION
Remove person to fresh air. If person is not breathing provide artificial respiration. If necessary, provide additional oxygen once breathing is restored if trained to do so. Seek medical attention immediately.

Note to Physicians
Acute aspiration of large amounts of oil-laden material may produce a serious aspiration hazard. Patients who aspirate these oils should be followed for the development of long-term sequelae. Repeated aspiration of mineral oil can produce chronic inflammation of the lungs (i.e. lipoid pneumonia) that may progress to pulmonary fibrosis. Symptoms are often subtle and radiological changes appear worse than clinical abnormalities. Occasionally, persistent cough, irritation of the upper respiratory tract, shortness of breath with exertion, fever, and bloody sputum occur. Inhalation exposure to oil mists below current workplace exposure limits is unlikely to cause pulmonary abnormalities. Preexisting disorders of the following organs (or organ systems) may be aggravated by exposure to this material: skin.

5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES:
FLASH POINT: 410.0 °F (210.0 °C) COC
AUTOIGNITION POINT: No data
EXPLOSIVE LIMITS (%): No data

Revision Date: 7/1/2006
FIRE AND EXPLOSION HAZARDS
Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can ignite explosively. No special fire hazards are known to be associated with this product. Dense smoke may be generated while burning.

HAZARDOUS PRODUCTS OF COMBUSTION
May form: carbon dioxide and carbon monoxide, oxides of sulfur, nitrogen and phosphorous, various hydrocarbons.

EXTINGUISHING MEDIA
SMALL FIRES: Any extinguisher suitable for Class B fires, dry chemical, CO2, water spray, fire fighting foam, or Halon.
LARGE FIRES: Water spray, fog or fire fighting foam. Water may be ineffective for fighting the fire, but may be used to cool fire-exposed containers.

FIRE FIGHTING INSTRUCTIONS
Small fires in the incipient (beginning) stage may typically be extinguished using handheld portable fire extinguishers and other fire fighting equipment.

Firefighting activities that may result in potential exposure to high heat, smoke or toxic by-products of combustion should require NIOSH/MSHA- approved pressure-demand self-contained breathing apparatus with full facepiece and full protective clothing.

Isolate area around container involved in fire. Cool tanks, shells, and containers exposed to fire and excessive heat with water. For massive fires the use of unmanned hose holders or monitor nozzles may be advantageous to further minimize personnel exposure. Major fires may require withdrawal, allowing the tank to burn. Large storage tank fires typically require specially trained personnel and equipment to extinguish the fire, often including the need for properly applied fire fighting foam.

See Section 16 for the NFPA 704 Hazard Rating.

6. ACCIDENTAL RELEASE MEASURES

ACTIVATE FACILITY’S SPILL CONTINGENCY OR EMERGENCY RESPONSE PLAN.
Evacuate nonessential personnel and remove or secure all ignition sources. Consider wind direction; stay upwind and uphill, if possible. Evaluate the direction of product travel, diking, sewers, etc. to confirm spill areas. Spills may infiltrate subsurface soil and groundwater; professional assistance may be necessary to determine the extent of subsurface impact.

Carefully contain and stop the source of the spill, if safe to do so. Protect bodies of water by diking, absorbents, or absorbent boom, if possible. Do not flush down sewer or drainage systems, unless system is designed and permitted to handle such material. The use of fire fighting foam may be useful in certain situations to reduce vapors. The proper use of water spray may effectively disperse product vapors or the liquid itself, preventing contact with ignition sources or areas/equipment that require protection.

Take up with sand or other oil absorbing materials. Carefully shovel, scoop or sweep up into a waste container for reclamation or disposal - caution, flammable vapors may accumulate in closed containers. Response and clean-up crews must be properly trained and must utilize proper protective equipment (see Section 8).

SMALL SPILL: Absorb liquid on vermiculite, floor absorbent or other absorbent material. Persons not wearing proper personal protective equipment should be excluded from area of spill.
7. HANDLING and STORAGE

HANDLING PRECAUTIONS
Handle as a combustible liquid. Keep away from heat, sparks, and open flame! Electrical equipment should be approved for classified area. Bond and ground containers during product transfer to reduce the possibility of static-initiated fire or explosion.

Special slow load procedures for "switch loading" must be followed to avoid the static ignition hazard that can exist when higher flash point material (such as fuel oil) is loaded into tanks previously containing low flash point products (such as this product) - see API Publication 2003, "Protection Against Ignitions Arising Out Of Static, Lightning and Stray Currents.

STORAGE PRECAUTIONS
Keep away from flame, sparks, excessive temperatures and open flame. Use approved vented containers. Keep containers closed and clearly labeled. Empty product containers or vessels may contain explosive vapors. Do not pressurize, cut, heat, weld or expose such containers to sources of ignition.

Store in a well-ventilated area. This storage area should comply with NFPA 30 "Flammable and Combustible Liquid Code". Avoid storage near incompatible materials. The cleaning of tanks previously containing this product should follow API Recommended Practice (RP) 2013 "Cleaning Mobile Tanks In Flammable and Combustible Liquid Service" and API RP 2015 "Cleaning Petroleum Storage Tanks".

WORK/HYGIENIC PRACTICES
Emergency eye wash capability should be available in the near proximity to operations presenting a potential splash exposure. Use good personal hygiene practices. Avoid repeated and/or prolonged skin exposure. Wash hands before eating, drinking, smoking, or using toilet facilities. Do not use as a cleaning solvent on the skin. Do not use solvents or harsh abrasive skin cleaners for washing this product from exposed skin areas. Waterless hand cleaners are effective. Promptly remove contaminated clothing and launder before reuse. Use care when laundering to prevent the formation of flammable vapors which could ignite via washer or dryer. Consider the need to discard contaminated leather shoes and gloves.

8. EXPOSURE CONTROLS and PERSONAL PROTECTION

EXPOSURE LIMITS

<table>
<thead>
<tr>
<th>Components (CAS No.)</th>
<th>Source</th>
<th>Exposure Limits</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aliphatic Petroleum Distillates (64742-65-0)</td>
<td>OSHA</td>
<td>5 mg/m, as mineral oil mist</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ACGIH</td>
<td>5 mg/m, as mineral oil mist</td>
<td></td>
</tr>
</tbody>
</table>

ENGINEERING CONTROLS
Use adequate ventilation to keep vapor concentrations of this product below occupational exposure and flammability limits, particularly in confined spaces.

EYE/FACE PROTECTION
Safety glasses or goggles are recommended where there is a possibility of splashing or spraying.
SKIN PROTECTION
Not normally required. However, wear resistant gloves such as nitrile rubber to prevent irritation which may result from prolonged or repeated skin contact with product. To prevent repeated or prolonged skin contact, wear impervious clothing and boots. Wear normal work clothing covering arms and legs.

RESPIRATORY PROTECTION
A NIOSH/MSHA-approved air-purifying respirator with organic vapor cartridges or canister may be permissible under certain circumstances where airborne concentrations are or may be expected to exceed exposure limits or for odor or irritation. Protection provided by air-purifying respirators is limited. Refer to OSHA 29 CFR 1910.134, NIOSH Respirator Decision Logic, and the manufacturer for additional guidance on respiratory protection selection.

Use a positive pressure, air-supplied respirator if there is a potential for uncontrolled release, exposure levels are not known, in oxygen-deficient atmospheres, or any other circumstance where an air-purifying respirator may not provide adequate protection.

9. PHYSICAL and CHEMICAL PROPERTIES

APPEARANCE
Dry, clear, and bright liquid

ODOR
No data

BASIC PHYSICAL PROPERTIES

BOILING RANGE: (for component) > 425.0 F (218.3 C) @ 760.00 mmHg
VAPOR PRESSURE: No data
VAPOR DENSITY (air = 1): No data
LIQUID DENSITY: 7.300 lbs/gal @ 60.00 F (.876 kg/l @ 15.60 C )
SPECIFIC GRAVITY (H_2O = 1): 0.876 @ 60F
PERCENT VOLATILES: No data
EVAPORATION RATE: Slower than ethyl ether
pH: No data
VISCOSITY: <= 3300.0 cps @ -25 C; 10.5 - 11.2 cst @ 100 C

10. STABILITY and REACTIVITY

STABILITY: Stable. Hazardous polymerization will not occur.

CONDITIONS TO AVOID and INCOMPATIBLE MATERIALS
Avoid contact with: acids, halogens, strong oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS
May form: aldehydes, carbon dioxide and carbon monoxide, hydrogen sulfide, oxides of sulfur, nitrogen and phosphorus, toxic fumes, various hydrocarbons.

11. TOXICOLOGICAL PROPERTIES
No data

12. ECOLOGICAL INFORMATION
Keep out of sewers, drainage areas, and waterways. Report spills and releases, as applicable, under Federal and State regulations.

13. DISPOSAL CONSIDERATIONS
Consult federal, state and local waste regulations to determine appropriate disposal options.

Revision Date: 7/1/2006
14. TRANSPORTATION INFORMATION

<table>
<thead>
<tr>
<th>PROPER SHIPPING NAME:</th>
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</thead>
<tbody>
<tr>
<td>HAZARD CLASS and PACKING GROUP:</td>
<td>None</td>
</tr>
<tr>
<td>DOT IDENTIFICATION NUMBER:</td>
<td>None</td>
</tr>
<tr>
<td>DOT SHIPPING LABEL:</td>
<td>None</td>
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</table>

15. REGULATORY INFORMATION

U.S. FEDERAL, STATE, and LOCAL REGULATORY INFORMATION
This product and its constituents listed herein are on the EPA TSCA Inventory. Any spill or uncontrolled release of this product, including any substantial threat of release, may be subject to federal, state and/or local reporting requirements. This product and/or its constituents may also be subject to other regulations at the state and/or local level. Consult those regulations applicable to your facility/operation.

CLEAN WATER ACT (OIL SPILLS)
Any spill or release of this product to “navigable waters” (essentially any surface water, including certain wetlands) or adjoining shorelines sufficient to cause a visible sheen or deposit of a sludge or emulsion must be reported immediately to the National Response Center (1-800-424-8802) as required by U.S. Federal Law. Also contact appropriate state and local regulatory agencies as required.

CERCLA SECTION 103 and SARA SECTION 304 (RELEASE TO THE ENVIRONMENT)
The CERCLA definition of hazardous substances contains a “petroleum exclusion” clause which exempts crude oil, refined, and unrefined petroleum products and any indigenous components of such. However, other federal reporting requirements (e.g., SARA Section 304 as well as the Clean Water Act if the spill occurs on navigable waters) may still apply.

SARA SECTION 311/312 - HAZARD CLASSES

<table>
<thead>
<tr>
<th>ACUTE HEALTH</th>
<th>CHRONIC HEALTH</th>
<th>FIRE</th>
<th>SUDDEN RELEASE OF PRESSURE</th>
<th>REACTIVE</th>
</tr>
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<tbody>
<tr>
<td>X</td>
<td>X</td>
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</table>

SARA SECTION 313 - SUPPLIER NOTIFICATION
ZINC C1-C14 ALKYLDITHIOPHOSPHATE (CAS No. 68649-42-3)

CALIFORNIA PROPOSITION 65 LIST OF CHEMICALS
This product and its components are not listed on the Proposition 65 “List of Chemicals” required by the California Safe Drinking Water and Toxic Enforcement Act of 1986:

CANADIAN REGULATORY INFORMATION (WHMIS)
Not controlled

16. OTHER INFORMATION

**NFPA® HAZARD RATING**

<table>
<thead>
<tr>
<th>HEALTH:</th>
<th>FIRE:</th>
<th>REACTIVITY:</th>
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<tbody>
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Refer to NJPA 704 “Identification of the Fire Hazards of Materials” for further information

**HMIS® HAZARD RATING**

<table>
<thead>
<tr>
<th>HEALTH:</th>
<th>FIRE:</th>
<th>PHYSICAL:</th>
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<tbody>
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<td>1 *</td>
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</tr>
<tr>
<td>1</td>
<td>Slight</td>
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</tr>
<tr>
<td>0</td>
<td>Negligible</td>
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</tbody>
</table>
MATERIAL SAFETY DATA SHEET

Hess 5W30 Motor Oil

MSDS No. 9683

* Chronic

SUPERSEDES MSDS DATED: 05/11/1999

ABBREVIATIONS:

AP = Approximately    < = Less than    > = Greater than
N/A = Not Applicable  N/D = Not Determined  ppm = parts per million

ACRONYMS:

ACGIH  American Conference of Governmental Industrial Hygienists
       NTP   National Toxicology Program
       OPA   Oil Pollution Act of 1990
AIHA  American Industrial Hygiene Association
       OSHA  U.S. Occupational Safety & Health Administration
ANSI  American National Standards Institute
       PEL   Permissible Exposure Limit (OSHA)
       (212) 642-4900
       RCRA  Resource Conservation and Recovery Act
API   American Petroleum Institute
       (202) 682-8000
       REL   Recommended Exposure Limit (NIOSH)
       SARA  Superfund Amendments and Reauthorization Act of 1986 Title III
CERCLA Comprehensive Emergency Response, Compensation, and Liability Act
       SCBA  Self-Contained Breathing Apparatus
       TEL   Short-Term Exposure Limit (generally 15 minutes)
       TWA   Time Weighted Average (8 hr.)
DOT   U.S. Department of Transportation
       [General info: (800) 467-4922]
       TLV   Threshold Limit Value (ACGIH)
       TSCA  Toxic Substances Control Act
EPA   U.S. Environmental Protection Agency
       (617) 770-3000
       WEEL  Workplace Environmental Exposure Level (AIHA)
HMIS  Hazardous Materials Information System
       NIOSH National Institute of Occupational Safety and Health
       NFPA  National Fire Protection Association
       NOIC  Notice of Intended Change (proposed change to ACGIH TLV)
       WHMIS Canadian Workplace Hazardous Materials Information System

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