1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Material Identity
Product Name: MAXLIFE 20W50 12/1 QT
General or Generic ID: LUBRICATING OIL

Company                             Telephone Numbers
The Valvoline Company               Emergency:     1-800-274-5263
P.O. Box 14000                      Information:   1-859-357-7206
Lexington, KY  40512

2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient(s)                                CAS Number    % (by weight)
-------------------------------------------- ------------- -------------
ALIPHATIC PETROLEUM DISTILLATES                 64742-65-0   64.0- 74.0
SYNTHETIC LUBRICATING OIL                       68037-01-4   12.0- 22.0
DETERGENT/DISPERSANT ENGINE OIL PACKAGE
ZINC COMPOUNDS

3. HAZARDS IDENTIFICATION

Potential Health Effects

Eye
Can cause severe eye irritation and injure eye tissue.

Skin
May cause mild skin irritation. Prolonged or repeated contact may dry and crack the skin. Additional symptoms of skin contact may 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.

Swallowing
Swallowing this material is not likely to 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. Symptoms usually occur at air concentrations higher than the recommended exposure limits (See Section 8).

Symptoms of Exposure
Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include: stomach or intestinal upset (nausea, vomiting, diarrhea) irritation (nose, throat, airways).

Target Organ Effects
Overexposure to this material (or its components) has been suggested as a cause of the following effects in laboratory animals, and may aggravate preexisting disorders of these organs in humans: testis damage.

Developmental Information
There are no data available for assessing risk to the fetus from maternal exposure to this material.

Cancer Information
There is no information available. The chance of this material causing cancer is unknown. This material is not listed as a carcinogen by the International Agency for Research on Cancer, the National Toxicology Program, or the Occupational Safety and Health Administration.

Other Health Effects
No data

Primary Route(s) of Entry
Inhalation, Skin contact, Eye contact, Ingestion.

4. FIRST AID MEASURES

Eyes
If symptoms develop, immediately move individual away from exposure and into fresh air. Flush eyes gently with water for at least 15 minutes while holding eyelids apart; seek immediate medical attention.

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

Swallowing
First aid is not normally required. If symptoms develop, seek medical attention.

Inhalation
If symptoms develop, move individual away from exposure and into fresh air. If symptoms persist, seek medical attention. If breathing is difficult, administer oxygen. Keep person warm and quiet; seek immediate medical attention.

Note to Physicians
Acute aspiration of large amounts of oil-laden material may produce a serious aspiration pneumonia. Patients who aspirate these oils should be followed for the development of long-term sequelae. Repeated aspiration of small quantities 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, lung (for example, asthma-like conditions), male reproductive system.
5. **FIRE FIGHTING MEASURES**

*Flash Point*
\[ > 200.0 \, \text{F} \quad (93.3 \, \text{C}) \]

*Explosive Limit*
No data

*Autoignition Temperature*
No data

**Hazardous Products of Combustion**
May form: alcohols, carbon dioxide and carbon monoxide, nitrogen oxides, sulfur oxides, various hydrocarbons.

**Fire and Explosion Hazards**
Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can ignite explosively. Dense smoke may be generated while burning.

**Extinguishing Media**
regular foam, carbon dioxide, dry chemical.

**Fire Fighting Instructions**
Water or foam may cause frothing which can be violent and possibly endanger the life of the firefighter. Water may be used to keep fire-exposed containers cool until fire is out. Wear a self-contained breathing apparatus with a full facepiece operated in the positive pressure demand mode with appropriate turn-out gear and chemical resistant personal protective equipment. Refer to the personal protective equipment section of this MSDS.

**NFPA Rating**
Health - 2, Flammability - 1, Reactivity - 0

6. **ACCIDENTAL RELEASE MEASURES**

**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.

**Large Spill**
Prevent run-off to sewers, streams or other bodies of water. If run-off occurs, notify proper authorities as required, that a spill has occurred. Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed.

7. **HANDLING AND STORAGE**

**Handling**
Containers of this material may be hazardous when emptied. Since emptied containers retain product residues (vapor, liquid, and/or solid), all hazard precautions given in the data sheet must be observed. All five gallon pails and larger metal containers
including tank cars and tank trucks should be grounded and/or bonded when material is transferred. Precautions during use: avoid prolonged or frequently repeated skin contact with this material. Skin contact can be minimized by wearing impervious protective gloves. As with all products of this nature, good personal hygiene is essential. Hands and other exposed areas should be washed thoroughly with soap and water after contact, especially before eating and/or smoking. Regular laundering of contaminated clothing is essential to reduce indirect skin contact with this material.

Storage
Do not store near extreme heat, open flame, or sources of ignition.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Eye Protection
Chemical splash goggles in compliance with OSHA regulations are advised; however, OSHA regulations also permit other type safety glasses. Consult your safety representative.

Skin Protection
Wear impervious gloves (consult your safety equipment supplier). To prevent repeated or prolonged skin contact, wear impervious clothing and boots.

Respiratory Protections
If workplace exposure limit(s) of product or any component is exceeded (See Exposure Guidelines), a NIOSH/MSHA approved air supplied respirator is advised in absence of proper environmental control. OSHA regulations also permit other NIOSH/MSHA respirators (negative pressure type) under specified conditions (consult your industrial hygienist). Engineering or administrative controls should be implemented to reduce exposure.

Engineering Controls
Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below TLV(s).

Exposure Guidelines
Component
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ALIPHATIC PETROLEUM DISTILLATES (64742-65-0)
OSHA VPEL 5.000 mg/m³ - TWA
ACGIH TLV 5.000 mg/m³ - TWA

SYNTHETIC LUBRICATING OIL (68037-01-4)
OSHA VPEL 5.000 mg/m³ - TWA as Oil Mist - CASN 8012-95-1
ACGIH TLV 5.000 mg/m³ - TWA as Oil Mist - CASN 8012-95-1
ACGIH TLV 10.000 mg/m³ - STEL as Oil Mist - CASN 8012-95-1

DETERGENT/DISPERSANT ENGINE OIL PACKAGE
No exposure limits established

ZINC COMPOUNDS
No exposure limits established
9. PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point
(for component) > 425.0 F (218.3 C) @ 760.00 mmHg

Vapor Pressure
(for component) < 1.000 mmHg @ 68.00 F

Specific Vapor Density
No data

Specific Gravity
.880 @ 77.00 F

Liquid Density
7.300 lbs/gal @ 77.00 F
.880 kg/l @ 25.00 C

Percent Volatiles (Including Water)
No data

Evaporation Rate
No data

Appearance
No data

State
LIQUID

Physical Form
No data

Color
No data

Odor
No data

pH
No data

Viscosity
18.0 – 19.0 cst @ 100 C

10. STABILITY AND REACTIVITY

Hazardous Polymerization
Product will not undergo hazardous polymerization.

Hazardous Decomposition
May form: alcohols, aldehydes, carbon dioxide and carbon monoxide
hydrogen sulfide, various hydrocarbons.

Chemical Stability
Stable.

Incompatibility
Avoid contact with: acids, alkalies, chlorine, halogens, strong
oxidizing agents.
11. TOXICOLOGICAL INFORMATION
   No data

12. ECOLOGICAL INFORMATION
   No data

13. DISPOSAL CONSIDERATION
   Waste Management Information
   Dispose of in accordance with all applicable local, state and federal regulations.

14. TRANSPORT INFORMATION
   DOT Information - 49 CFR 172.101
   DOT Description:
       Not Regulated

   Container/Mode:
       CASES/SURFACE - NO EXCEPTIONS

   NOS Component:
       None

   RQ (Reportable Quantity) - 49 CFR 172.101
       Not applicable

15. REGULATORY INFORMATION
   US Federal Regulations
   CERCLA RQ - 40 CFR 302.4
       None

   SARA 302 Components - 40 CFR 355 Appendix A
       None

   SARA 311/312 Hazard Class - 40 CFR 370.2
       Immediate(X)   Delayed(X)   Fire( )   Reactive( )   Sudden Release of Pressure( )

   SARA 313 Components - 40 CFR 372.65
   Section 313 Component(s)                   CAS Number
   ----------------------------------------- --------------
   ZINC C1-C14 ALKYLDITHIOPHOSPHATE           68649-42-3

   International Regulations
   Inventory Status
       Not determined

   State and Local Regulations
   California Proposition 65
16. OTHER INFORMATION

The information accumulated herein is believed to be accurate but is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances.

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