



MATERIAL SAFETY DATA SHEET

Magnus® "A" KV Oil

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Synonyms: Magnus® "A" KV Multivis Hydraulic Oil SAE 5W-20
Formula: Mixture
Chemical Family: Hydrocarbon
CAS Number: Mixture
SAP Code: 1012856; 1012857; 1012858
Product Code: 81390
MSDS Number: 717110
NFPA Ratings: Health 2, Flammability 1, Reactivity 0
HMIS Ratings: Health 2, Flammability 1, Reactivity 0
Intended Use(s): Industrial Hydraulic Oil

The intended use of this product is indicated above, if any additional use is known please contact us at the Technical Information number listed below.

Manufactured By: Phillips 66 Company
 A Division of Phillips Petroleum Company
 Bartlesville, Oklahoma 74004

Phone Numbers

Emergency: (918) 661-8118
Technical Information: (800) 766-0050
For Additional MSDSs: (918) 661-5974

2. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Specification and CAS #	Weight % In Product*	ACGIH TLV (TWA)	ACGIH Short Term Exposure Limit	ACGIH Ceiling Limits	ACGIH Skin Designation	OSHA Final PEL (TWA)	OSHA - Final PELs - Ceiling Limits	OSHA - Final PELs - Skin Notation
Base stock 64741-88-4	50% to 95%	NE	NE	NE	NE	NE	NE	NE
Petroleum based lubricants 64742-54-7	20% to 40%	NE	NE	NE	NE	NE	NE	NE
Ethylene-propylene copolymer 9010-79-1	0% to 2%	NE	NE	NE	NE	NE	NE	NE
Zinc dialkyl dithiophosphate 68457-79-4	0.3% to 1%	NE	NE	NE	NE	NE	NE	NE
Ethylhexanol 104-76-7	<= 0.5%	NE	NE	NE	NE	NE	NE	NE
2,6-Di-tert-butylphenol 128-39-2	<= 0.5%	NE	NE	NE	NE	NE	NE	NE
Calcium Sulfonate 31110-95-9	<= 0.5%	NE	NE	NE	NE	NE	NE	NE
Calcium alkylphenate 68784-26-9	<= 0.5%	NE	NE	NE	NE	NE	NE	NE

* 1% = 10,000 ppm.

See Section 8 for additional Exposure Limits.

3. HAZARDS IDENTIFICATION

Emergency Overview

Skin Irritant. Pressure Injection.

Potential Acute Health Effects

- Eye Contact:** May cause mild irritation.
- Skin Contact:** Skin Irritant. May cause severe irritation.
- Inhalation:** No acute effects expected due to low vapor pressure.
- Ingestion:** Practically non-toxic (LD50 > 15 gm/kg).
- Aggravated Medical Conditions:** Skin Disorders.

4. FIRST AID MEASURES

- Eye Contact:** Flush eyes with running water. If irritation or adverse symptoms develop, seek medical attention.
- Skin Contact:** Immediately wash skin with soap and water for at least 15 minutes. If irritation or adverse symptoms develop, seek medical attention.
- Inhalation:** Remove from exposure. If illness or adverse symptoms develop, seek medical attention.
- Ingestion:** If illness or adverse symptoms develop, seek medical attention.
- Notes To Physician:** For injection injuries, immediate medical treatment is required. Physicians may call the emergency number (918) 661-8118.

5. FIRE FIGHTING MEASURES

- Flash Point:** 380F (193C)
FP Method: COC
Ignition Temperature: 700F (371C) estimated

Flammable Limits (% by Volume in Air)

- Lower Explosive Limit -** Not Established
Upper Explosive Limit - Not Established

Fire Extinguishing Media: Carbon Dioxide, Dry Chemicals, Foam

Fire Fighting Procedures: Evacuate area and fight fire from a safe distance. Shut off source, if possible. Use NIOSH approved self-contained breathing apparatus and other protective equipment and/or garments described in Section 8 if conditions warrant. Use water spray to cool nearby containers and structures exposed to fire.

Fire and explosion hazards: Carbon oxides formed when burned.

6. ACCIDENTAL RELEASE MEASURES

Sweep or gather up material and place in proper container for disposal or recovery.

7. HANDLING AND STORAGE

DO NOT get in eyes, on skin, or on clothing. Avoid breathing vapors, mist, fume or dust. Use with adequate ventilation. Wear protective equipment and/or garments described in Section 8 if exposure conditions warrant. Immediately remove and launder contaminated clothing before reuse.

If pressure injected under the skin, can cause gangrene if not treated.

Store in closed container. Store in well-ventilated area.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Eye Protection: Wear safety glasses.

Respiratory Protection: For concentrations exceeding an applicable exposure limit, use NIOSH approved air purifying respirator equipped with P95 filters, for particulate with time weighted average exposure limit not less than 0.05 mg/M3.

Skin Protection: Use gloves resistant to the material(s) contained in this product. (Nitrile, Viton or Neoprene)

Ventilation: Use adequate ventilation to control concentrations below applicable exposure limits.

Other Personal Protection: Personal protection information shown in Section 8 is based upon general information as to normal uses and conditions. Where special or unusual uses or conditions exist, it is suggested that the expert assistance of an industrial hygienist or other qualified professional be sought.

Exposure Limits: OSHA PEL and ACGIH TLV for oil mists is 5 mg/m3.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Liquid
Appearance:	Colorless
Odor:	Slight
Odor Threshold (ppm):	Unknown
Boiling Point:	Not Established
Melting/Freeze Point:	Not Established
Vapor Pressure:	<0.0001
Vapor Density (Air=1):	Not Established
Specific Gravity @ 20 C (Water=1):	0.86 @ 60F (16C)
Percent Volatile by Volume:	Nil
Evaporation Rate (Butyl Acetate=1):	Not Established
Water Solubility:	Negligible
Viscosity:	44.9 cSt @104F (40C)

10. STABILITY AND REACTIVITY

Stability:	Stable
Hazardous Polymerization:	Will Not Occur
Incompatibility (Materials to Avoid):	Strong oxidizers
Hazardous Decomposition Products:	Combustion will produce carbon monoxide and asphyxiants.

11. TOXICOLOGICAL INFORMATION

Subchronic and Chronic Effects:

Prolonged and repeated exposure to oil mist poses a risk of pulmonary disease such as lung inflammation. This condition usually causes no symptoms.

Other Health Effects:

Pressurized injection of product under the skin can lead to seriously inflamed tissue. If left untreated injury can become gangrenous.

Continuous skin contact with used motor oils has caused skin cancer in laboratory animals. Avoid prolonged skin contact with used motor oil.

These products contain petroleum base oils which may be refined by various processes including severe solvent extraction, severe hydrocracking or severe hydrotreating. None of the oils require a cancer warning under the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Acute Data:

No data available.

12. ECOLOGICAL INFORMATION

No data at this time.

13. DISPOSAL CONSIDERATIONS

Disposal should be made in accordance with federal, state and local regulations.

14. TRANSPORT INFORMATION

Ground Transportation

DOT Shipping Description: Not Regulated

Water Transportation

IMDG Shipping Description: Not Regulated

Air Transportation

ICAO/IATA Proper Shipping Name: Not Regulated

15. REGULATORY INFORMATION

Base stock 50% to 95% **64741-88-4**
Regulated Substance on TSCA Inventory: Listed
Canada - Domestic Substances List: Listed

Petroleum based lubricants 20% to 40% **64742-54-7**
Regulated Substance on TSCA Inventory: Listed
Canada - Domestic Substances List: Listed

Ethylene-propylene copolymer 0% to 2% **9010-79-1**

Regulated Substance on TSCA Inventory: Listed
Canada - Domestic Substances List: Listed

Zinc dialkyl dithiophosphate 0.3% to 1% **68457-79-4**
Regulated Substance on TSCA Inventory: Listed
Canada - Domestic Substances List: Listed

Ethylhexanol <= 0.5% **104-76-7**
Regulated Substance on TSCA Inventory: Listed
Pennsylvania Right to Know List: Listed
Massachusetts Right To Know List: Listed
Florida Toxic Substances List: Listed
Canada - Domestic Substances List: Listed

2,6-Di-tert-butylphenol <= 0.5% **128-39-2**
Regulated Substance on TSCA Inventory: Listed
Canada - Domestic Substances List: Listed

Calcium alkylphenate <= 0.5% **68784-26-9**
Regulated Substance on TSCA Inventory: Listed
Canada - Domestic Substances List: Listed

EPA SARA 311/312 (Title III Hazard Categories)

Acute Health:	Yes
Chronic Health:	No
Fire Hazard:	No
Pressure Hazard:	No
Reactivity Hazard:	No

16. OTHER INFORMATION

Revision Summary:

This Material Safety Data Sheet (MSDS) has been revised to conform with the American National Standards Institute (ANSI) 16 Section Format.

Preparer: Health, Environment and Safety Department
Date Prepared: 09/07/2001
Supersedes: 6/30/1993

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