



PRODUCT DATA SHEET

LUBRICANTS

VP HI PERFORMANCE GEAR OILS

VP Hi Performance Gear Oils are formulated using high quality base stocks and an optimized performance additive for automotive gear oils.

VP Hi Performance Gear Oils were developed to meet the key performance requirements for manual transmissions and hypoid axles.

VP Hi Performance Gear Oils meet the requirements of API GL-4¹ and/or API GL-5² in addition to API MT-2³, MIL-2105E⁴, Mack GO-J⁵ and PG-2 Limited Slip⁶.

TYPICAL PROPERTIES

| Gear Oils | | | | |
|--------------------------|---------------------|-----------------------|---|-------------|
| Product Number | TBD | 2895 (QT.) | 2885 (QT.) | Test Method |
| SAE Grade | 80W-90 ¹ | 80W-90 ²⁻⁶ | 75W-90 ²⁻⁶ Full Synthetic | N/A |
| Viscosity@40°C, cSt | 152 | 150 | 104 | ASTM D445 |
| Viscosity@100°C, cSt | 15 | 15 | 15 | ASTM D7042 |
| Viscosity Index (VI) | 97 | 98 | 151 | Calculated |
| Specific Gravity @ 60°F | 0.89 | 0.89 | 0.86 | Calculated |
| API Gravity | 28.2 | 27.7 | 32.3 | Calculated |
| Brookfield Viscosity, cP | < 72000 (-26°C) | < 68000 (-26°C) | < 80000 (-40°C) | ASTM D2983 |
| Flash Point, °C | >240 | >240 | >240 | ASTM D92 |
| Pour Point, °C | < -30 | < -30 | < -30 | ASTM D97 |
| Color | L4.0 | L4.0 | L4.0 | ASTM D1500 |
| Zinc, ppm | 0 | 0 | 0 | ASTM 5185 |
| Calcium, ppm | 0 | 0 | 0 | ASTM 5185 |
| Phosphorus, ppm | ~270 | ~530 | ~550 | ASTM 5185 |
| Sulfur, ppm | ~9000 | ~16000 | ~15500 | ASTM 5185 |

These properties are typical of the current production. Variations that do not affect product performance are to be expected depending on blending and manufacturing locations. The information above is subject to change without notice.

Health and Safety:

This product is unlikely to have any adverse health implications or safety hazards when used for its intended application. Avoid contact with skin, use resistant gloves when handling used oil. If skin comes in contact wash immediately with soap and water. For complete information on safe handling and product characteristics please refer to the Safety Data Sheet (SDS).



Safety Data Sheet

Conforms to OSHA CFR 29 1910.1200 and aligns to the United Nations Globally Harmonized System
Conforms to The United Nations Regulation Globally Harmonized System

Conforms to Regulation (EU) No 453/2010

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Section 1 - Chemical Product and Company Identification

1.1 Product Name: **VP Gear Oil 80W-90 GL4, 80W-90 GL5**

1.2 VP Racing Fuels

1.3 Recommended Use: **Gear Oil**

1.4 **RESTRICTIONS on USE Gear oil**

Section 2 - Hazards Identification

2.1 GHS HAZARD

Hazard Classes

Hazard Categories

Eye Irritation

Category 2A

Skin Irritation

Category 2

Reproductive Toxicity

Category 2

Specific Target Organs toxicity repeated exposure

Category 2

Harmful to Aquatic Life with Long Lasting Effects

Category 3

2.2 Signal Word: **Danger**



2.3 Pictograms:

Health

Irritant

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2.4 Hazard Statements

| | |
|---------------------------|--|
| PHYSICAL HAZARDS: | None |
| HEALTH HAZARDS | H315: Causes skin irritation H319: Causes serious eye irritation H361: Suspected of damaging fertility or the unborn child H373: May cause damage to organs through prolonged or repeated exposure |
| ENVIRONMENTAL HAZARDS: | H412: Harmful to aquatic life with long lasting effects |
| PRECAUTIONARY STATEMENTS: | P102: Keep out of reach of children P201: Obtain special instructions before use P202: Do not handle until all safety precautions have been read and understood P260: Do not breathe mist P264: Wash hands through after handling P270: Do not eat, drink or smoke when using this product P280: Wear protective gloves, clothing, and eye protection |
| RESPONSE STATEMENTS: | P303+P361+353: IF ON SKIN Take off immediately all contaminated clothing, rinse skin with water P305+P351: IF IN EYES rinse cautiously with water for at least 15 minutes. If present, remove contact lenses if easy to do so P308+P313: If exposed or concerned, get medical attention P313+P332: IF SKIN IRRITATION occurs, get medical advice P313+P337: If eye irritation persists get medical attention P314: Get medical attention if you feel unwell P370: In case of fire use foam, carbon dioxide, dry chemical to extinguish fire P376: Stop leaks if safe to do so |
| STORAGE STATEMENTS: | P405: Store lock up |
| DISPOSAL STATEMENTS: | P501: Dispose of content and/or container in accordance with local, regional, national or international regulations |

2.5 Hazards not otherwise classified (HNOC) or not covered by GHS Repeated exposure may cause skin dryness or cracking.

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Section 3 - Composition / Information on Ingredients

3.1

| CAS# | EC# | Chemical Names | Percent | Other Identifiers |
|------|-----|-------------------------|---------|-------------------|
| N/A | N/A | Gear Oil with Additives | 100 % | None |

3.2 Blend Contains

| Chemical Names | CAS# | EC# |
|--|----------------|----------------|
| Distillates (petroleum), solvent-dewaxed heavy paraffinic | 64742-65-0 | 265-169-7 |
| Distillates (petroleum), hydrotreated heavy paraffinic | | |
| Distillates (petroleum), solvent-dewaxed heavy paraffinic | 64742-54-7 | 265-157-1 |
| Distillates (petroleum), hydrotreated heavy paraffinic | | |
| Mineral oil | 64742-53-6 | 265-156-6 |
| Phenylmethane | 108-88-3 | 203-625-9 |
| Amines, polyethylenepoly- reaction products | 134758-95-5 | 603-861-6 |
| Reaction product of phosphoric acid mono or di-alkyl ester with alkylamine | Not determined | Not determined |

3.3 Trade Secret Provision and Chemical Concentration Disclosure: In accordance with OSHA and GHS Regulations we have withheld specific percentages of the chemicals in this mixture. The chemical concentrations have been disclosed as a blend and are applicable to the hazards as identified in this Safety Data Sheet.

Section 4 - First Aid Measures

4.1 Eye: Contact with the eyes can cause irritation. Symptoms may include discomfort or pain and redness. Severe overexposure can result in swelling of the conjunctiva along with tissue damage.

Eyes: Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

4.2 Skin: Prolonged and repeated liquid contact can cause irritation, defatting and drying of the skin.

Skin: Flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid immediately. Wash clothing before reuse.

4.3 Ingestion: Causes headache, gastrointestinal pain, nausea, and. Aspiration of liquid into the lungs must be avoided as even small quantities in the lungs can produce chemical pneumonia, pulmonary edema and even death.

Ingestion: Do NOT induce vomiting. Get medical aid immediately.

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4.4 Inhalation: Prolonged breathing of high vapor concentrations can produce headache, dizziness, nausea, and impaired vision.

Inhalation: Remove from exposure to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult and **IF TRAINED**, give oxygen. Get medical aid. Do NOT use mouth-to-mouth resuscitation without protection.

4.5 After first aid, get appropriate paramedic, or community medical support. The severity of outcome following an exposure may be more related to the time between exposure and treatment, rather than the amount of the exposure. Therefore, there is a need for rapid treatment of any exposure.

4.6 Note to Physicians: If you determine that a medical emergency exists and the specific chemical identity is necessary for emergency or first-aid treatment we will immediately disclose the specific chemical identity.

We will require a written statement of need and confidentiality agreement, in accordance with OSHA's Trade Secret Regulations as soon as circumstances permit. In non-emergency situations, we will upon written request disclose a specific chemical identity

Section 5 - Fire-Fighting Measures

5.1 General Fire Hazards

Use water to cool containers exposed to fire

5.2 Hazardous Combustion Products

Avoid fumes of burning product.

5.3 Extinguishing Media

Carbon dioxide, dry chemical, foam

5.4 Fire Fighting Equipment/Instructions

Fire fighters should wear full-face, self-contained breathing apparatus and impervious protective clothing. Fire fighters should avoid inhaling any combustion products.

Section 6 - Accidental Release Measures

6.1 Spill /Leak Procedures: Evacuate area. Only trained and properly protected personnel must be involved in clean-up operations. Keep upwind of spill. Ventilate area of leak or spill.

6.2 Spills: Avoid direct contact with material. Stop leak if without risk. Move containers from spill area. Prevent entry into sewers or waterways. Contain and collect spillage with non-combustible, absorbent material such as sand, earth, vermiculite or diatomaceous earth and place in a container for disposal.

Section 7 - Handling and Storage

7.1 Handling Precautions: Wash hands and exposed skin thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Avoid ingestion and contact with eyes, skin or clothing. Keep container tightly closed. Avoid inhalation.

7.2 Storage Requirements: Store in a tightly closed container locked up.

Section 8 - Exposure Controls / Personal Protection

8.1

Chemical Names

ACGIH- TLV

OSHA - PEL

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| | | |
|-------------------------|------------|------------|
| Gear Oil with Additives | 5mg/m3 TWA | 5mg/m3 TWA |
|-------------------------|------------|------------|

8.2

ACGIH® = American Conference of Governmental Industrial Hygienists. TLV® = Threshold Limit Value.

OSHA = US Occupational Safety and Health Administration. PEL = Permissible Exposure Limits.

NOTE: TWA Means "TWA is the employee's average airborne exposure in any 8-hour work shift of a 40-hour work week which shall not be exceeded.

8.3 Ventilation: Provide general or local exhaust ventilation systems to maintain airborne concentrations below TLV/PELs Local exhaust ventilation are preferred because it prevents contaminant dispersion into the work area by controlling it at its source.

8.4 Contaminated Equipment: Separate contaminated work clothes from street clothes and launder before reuse. Remove this material from your shoes and clean personal protective equipment.

8.5 Personal protective equipment

8.5.1 Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type AXBEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

8.5.2 Hand protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique to avoid skin contact with this product. Dispose of contaminated gloves after use. Select gloves tested to the **ANSI/ISEA 105-2011** or European EN374 Standard.

Full contact: Nitrile rubber

Splash contact: Nitrile rubber

8.5.3 Eye protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

8.5.4 Skin and body protection

Impervious clothing, flame retardant antistatic protective clothing, the type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace

8.6 Protective Clothing Pictograms



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Section 9 - Physical and Chemical Properties

9.1

Physical State: Liquid

Appearance: Amber

Odor: Aromatic Hydrocarbon

Vapor Pressure: 45 mmHg@21°C

Vapor Density (Air=1): Not Available

Specific Gravity (H₂O=1,): Not Available

Relative Density: Not Available

Odor Threshold: Not Available

Flammability (solid, gas): Not Applicable

Evaporation rate: Not Available

Partition coefficient octanol/water: Not Available

Water Solubility: Insoluble

Flash Point: 475°F, 246 °C close cup

Boiling Point: 695 °F, 368 °C

Freezing/Melting Point: Not Available

Auto ignition Temperature: Not Available

LEL: Not Applicable

UEL: Not Applicable

Viscosity: Kinematic 143 cm²/s@104°F,40°C

Auto ignition Temperature: Not Available

Decomposition temperature: Not Available

pH: None

Section 10 - Stability and Reactivity

10.1 Stability: Stable under ordinary conditions of use and storage

10.2 Polymerization: Hazardous polymerization has not been reported

10.3 Chemical Incompatibilities: Strong oxidizing agents

10.4 Hazardous Decomposition Products: Combustion produces carbon monoxide and carbon dioxide

10.5 Conditions to Avoid: Avoid heat, sparks open flames and other ignition sources

Section 11- Toxicological Information

| 11.1 Product Name | Results | Species | Dose | Exposure |
|-------------------------|-----------|---------|-------------|-------------|
| Gear Oil with Additives | Oral LD50 | Rat | >2000 mg/kg | None Listed |

11.2 Route of Entry: Ingestion, Absorption, Skin and/or Eye Contact

11.3 Aspiration Hazard: European Chemical Agency Data Base shows that no components of this product may be fatal if swallowed and enters airways.

11.4 Acute Toxicity: harmful if swallowed. OECD Guideline 401 Tests results found in the European Chemical Agency Data Base shows that no components of this product to be Harmful Oral Toxicity.

11.5 Mutagenicity: OECD Guideline 476 Tests results found in the European Chemical Agency Data Base show no components of this product to cause genetic defects.

11.6 Skin Corrosion/Irritation: OECD Guideline 404 Tests results found in the European Chemical Agency Data Base shows that components of this product to cause skin irritation. Repeated exposure may cause skin dryness or cracking.

11.7 Serious Eye Damage/Irritation: OECD Guideline 405 Tests results found in the European Chemical Agency Data Base shows that components of this product to cause serious eye irritation.

11.8 Reproductive toxicity: OECD Guideline 421 Tests results found in the European Chemical Agency Data Base show components of this product to cause damage to fertility or the unborn child.

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11.9 Specific Target Organ Toxicity (Single Exposure): None shown

11.10 Target Organ Toxicity (Repeated Exposure): Contains material which may cause damage to the following organs: Eyes, skin and respiratory system, liver and kidney.

11.11 Signs and Symptoms: Effects may include: Headache, Dizziness, Drowsiness. Symptoms may be delayed.

11.12 Carcinogenicity: OECD Guideline 453 Tests results found in the European Chemical Agency Data Base shows that components of this product to cause cancer, however contains <3% DMSO extract per IP346.

| Chemical Name | IARC | ACGIH | NTP | OSHA |
|-------------------------|------------|------------|------------|------------|
| Gear Oil with Additives | Not listed | Not listed | Not listed | Not listed |

Section 12 - Ecological Information

12.1

| Product Name | Results | Species | Exposure |
|-------------------------|---|---------|----------|
| Gear Oil with Additives | Expected to be Harmful to aquatic organisms. May cause long-term adverse effects in the environment | | |

Toxicity: OECD Guideline 204 Test results found in the European Chemical Agency Data Base show components of this product to cause long-term toxicity to fish.

12.2 Mobility: Floats on water

12.3 Persistence/degradability: No date available on the mixture

12.4 Bioaccumulation: No date available on the mixture

12.5 Other adverse effects: No date available on the mixture

Section 13 - Disposal Considerations

13.1 Disposal: DO NOT REUSE EMPTY CONTAINER! Container should be completely emptied prior to discard. Container with residues should be considered to be hazardous wastes. Contact a licensed contractor for detailed recommendations. Follow applicable federal, state, and local regulations.

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Section 14 - Transport Information

14.1 US Transport Information

Not regulated

14.2 TDG Canadian Transport Information

Not regulated

14.3 IMDG Transport Information

Not regulated

14.4 ADR/RID Transport Information

Not regulated

14.5 Australian Dangerous Goods Transport Information

Not regulated

Section 15 - Regulatory Information

15.1 US Regulations

US. Toxic Substances Control Act: All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements under 40 CFR 720.30

CERCLA Hazardous Substances and corresponding RQs: Phenylmethane 1000lbs.

SARA Community Right-to-Know Program: Phenylmethane

Clean Water Act: Phenylmethane

Clean Air Act: None

OSHA: All ingredients are regulated by 1910.1200

State Regulations

California prop. 65: Phenylmethane Reproductive

Chemicals on the following State Right to Know Lists:

Massachusetts: All components of this product are on the Massachusetts Inventory or are exempt from Inventory requirements

New Jersey All components of this product are on the New Jersey inventory or are exempt from Inventory requirements

Pennsylvania: All components of this product) are on the Pennsylvania Inventory or are exempt from Inventory requirements.

15.2 Canadian Regulation:

All substances contained in this product are listed on the Canadian Domestic Substances List (DSL) or are not required to be listed.

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15.3 Europe Regulations

All substances contained in this product are listed on the EU directives or are not required to be listed.

15.4 International Regulations:

Australian Inventory of Chemical Substance: All components of this product are on the Inventory or are exempt from Inventory requirements.

National Existing Chemical Inventory in Taiwan: All components of this product are on the Inventory or are exempt from Inventory requirements.

Philippine Inventory of Chemicals and Chemical Substances All components of this product are on the Inventory or are exempt from Inventory requirements.

China Existing Chemical Inventory: All components of this product are on the Inventory or are exempt from Inventory requirements.

Section 16 - Other Information

16.1 Disclaimer: The information presented in this Safety Data Sheet is based on data believed to be accurate as of the date this Safety Data Sheet was prepared. HOWEVER, NO responsibility is assumed for any damage or injury resulting from abnormal use or from any failure to adhere to recommended practices. The information provided above is furnished on the condition that the person receiving them shall make their own determination as to the suitability of the product for their particular purpose and on the condition that they assume the risk of their use.

16.2 References: CHEMpendium data base of Canadian Centre for Occupational Health and Safety (CCOHS), JJ Keller on Line, European Chemical Agency Data Base Chinese Data Base Classification Labeling of Hazardous Chemicals, Australia Data Base for GHS Chemical Classification and MSDS and SDS of chemicals in this mixture.