



Power HD

Power HD is an API CK-4 heavy-duty motor oil that meets and exceeds the service requirements of virtually all diesel engine manufacturers. Power HD provides outstanding engine protection for 2007 and 2010 exhaust particulate emissions equipped on-highway diesel engines using Ultra Low Sulfur Diesel (ULSD). It is also recommended for older and off-highway diesel engines.

Power HD is formulated with premium base oils and additive systems to provide superior wear and deposit protection during cold engine start-up through maximum operating temperatures. Ultimate protection is delivered in all climates and driving conditions, from stop-and-go city driving to long-distance hauling. It provides superior soot control and an exclusive detergent system for outstanding engine cleanliness, extending the life and optimizing service intervals for 2007 Exhaust Gas Recirculation (EGR) systems with Diesel Particulate Filters (DPF) and 2010 Selective Catalytic Reduction (SCR) with DPF low emission engines.

APPLICATIONS

Power HD is a motor oil recommended for use in four-stroke engines calling for an API CK-4 service category and SAE 15W-40 viscosity grade.

- Engines recommending API CK-4, CJ-4, CI-4 Plus, CI-4,
- Recommended for use in naturally aspirated and turbocharged four-stroke diesel engines
- 2007 and 2010 emission compliant engines utilizing EGR & SCR with DPF
- Older engines in on-highway and off-highway service
- Exceptional performance with on- and off-highway diesel fuels

FEATURES AND BENEFITS

- Meets and exceeds requirements of high performance low emission diesel engines while providing excellent performance in older engines allowing operators the use of one oil for a mix of engine brands
- Diesel Particulate Filter (DPF) and After Treatment Exhaust (ATD) compatible
- Improved wear protection, deposit and viscosity control and oxidation resistance
- Viscosity index improver provides exceptional low temperature flow properties for cold starts
- Provides superior soot control and an exclusive detergent system for outstanding engine cleanliness, helps avoid filter plugging, cylinder head sludge, abrasive polishing wear and oil gelling
- Excellent protection against valve train, piston ring and liner wear to help prolong engine life
- Outstanding shear stability for viscosity control
- Maximizes vehicle utilization and minimizes downtime

RECOMMENDED PERFORMANCE SPECIFICATIONS

- API Service Categories: CK-4, CJ-4, CI-4 Plus, CI-4
- Caterpillar ECF-3, ECF-2, ECF-1a
- Cummins CES 20086, CES 20081
- Daimler MB 228.31
- DDC 93K222, 93K218
- Ford WSS-M2C171-F1
- Mack EOS-4.5
- Renault RLD-4, RLD-3
- Volvo VDS-4.5, VDS 4



Power HD (continued)

Power HD	TYPICAL CHARACTERISTICS
	Viscosity Grade SAE 15W-40
API Gravity	31.1
Flash Point, °C/°F	235/455
Pour Point, °C/°F	-33/-27.4
Low Temp Viscosity cP @-20	5500
VISCOSITY	
cSt @ 40°C	117
cSt @ 100°C	15.1
Viscosity Index	145
Sulfated Ash wt%	1.0 max
TBN	10.0

Minor variations in test data are to be expected in normal manufacturing

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Power HD

SDS# 1002, Version 1.0

Effective Date 01/09/2018

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

SECTION 1. PRODUCT IDENTIFIER

Product Name	Power HD SAE 15W-40-API CK-4
Product Grades	SAE 15W-40
Synonyms	Engine Oil
Intended Use of the Product	Diesel Engine Oil
Company Identification	Valley Pacific - Headquarters 152 Frank West Circle, Suite 100 Stockton, CA 95206-4098 1-800-266-3782 www.vpps.net
Emergency Contact	CHEMTREC: 1-800-424-9300 or 703-527-3887

SECTION 2. HAZARDS IDENTIFICATION

Classification of the Substance or Mixture	Classification (GHS-US) Not Classified Full text of H-phrases: see section 16
Label Elements	GHS-US Labeling Hazard Pictograms (GHS-US): None Required Signal Word (GHS-US) : Not Hazardous Hazard Statements (GHS-US) : None Required
Precautionary Statements (GHS-US)	P273 - Avoid release to the environment. P501 - Dispose of contents/container in accordance with local, regional, national, and international regulations.
Other Hazards	The mixture consists of substances capable of producing an aspiration hazard. Aspiration may result in chemical pneumonia (fluid in the lungs), severe lung damage, respiratory failure, and even death.
Unknown Acute Toxicity (GHS-US)	20.73 percent of the mixture consists of ingredient(s) of unknown acute toxicity.



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SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances Not applicable
Mixture

Name	Product Identifier	% (w/w)	Classification (GHS-US)
Petroleum distillates, solvent dewaxed	(CAS No) 64742-65-0	75.75 – 95, 64 - 85	Not Classified
heavy paraffinic, Distillates, petroleum, hydrotreated heavy paraffinic	(CAS No) 64742-54-7	0 – 11, 10 - 17	Not Classified
Paraffin oils*	(CAS No) 8012-95-1	0 - 0.1, 0.1- 1, 1 - 5	Not Classified
Phenol, 4-dodecyl-	(CAS No) 104-43-8	0.1 - 1	Aquatic Chronic 3, H402
Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts	(CAS No) 68649-42-3	2.7 - 11.75	Aquatic Chronic 3, H402

* The specific chemical identity and/or exact percentage of composition have been withheld as a trade secret within the meaning of the OSHA Hazard Communication Standard [29 CFR 1910.1200].

* More than one of the ranges of concentration prescribed by Controlled Products Regulations has been used where necessary, due to varying composition.

Full text of H-phrases: see section 16

SECTION 4. FIRST AID MEASURES

Description of First Aid Measures

General: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label if possible). Inhalation: Remove to fresh air and keep at rest in a position comfortable for breathing. Obtain medical attention if breathing difficulty persists.

Skin Contact: Remove contaminated clothing. Drench affected area with water or soap and water for at least 15 minutes. Wash contaminated clothing before reuse. Obtain medical attention if irritation develops or persists.

Eye Contact: Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention.

Ingestion: Do NOT induce vomiting. Rinse mouth. Immediately call a POISON CENTER or doctor/physician.

Most important symptoms and effects, both acute and delayed

General: No known significant effects or critical hazards.

Inhalation: Overexposure may be irritating to the respiratory system.

Skin Contact: Repeated or prolonged skin contact may cause irritation.

Eye Contact: Direct contact with the eyes is likely irritating.

Ingestion: Ingestion is likely to be harmful or have adverse effects.

Chronic Symptoms: No known significant effects or critical hazards.

Indication of Any Immediate Medical Attention and Special Treatment Needed

If you feel unwell, seek medical advice (show the label where possible).



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SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media	Use extinguishing media appropriate for surrounding fire.
Unsuitable extinguishing media	Do not use a heavy water stream. Use of heavy stream of water may spread fire.
Fire Hazard	Not flammable but will support combustion.
Explosion Hazard	Product is not explosive.
Reactivity	Hazardous reactions will not occur under normal conditions.
Precautionary Measures Fire	Exercise caution when fighting any chemical fire. Under fire conditions, hazardous fumes will be present.
Firefighting Instructions	Use water spray or fog for cooling exposed containers.
Protection During Firefighting	Do not enter fire area without proper protective equipment, including respiratory protection.
Hazardous Combustion Products	Under fire conditions, may produce fumes, smoke, oxides of carbon and hydrocarbons.
Other Information	Refer to Section 9 for flammability properties.
Reference to Other Sections	Refer to section 9 for flammability properties.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	Avoid all contact with skin, eyes, or clothing. Avoid breathing (vapor, mist, spray).
For Non-Emergency Personnel	Protective Equipment: Use appropriate personal protection equipment (PPE). Emergency Procedures: Evacuate unnecessary personnel.
For Emergency Personnel	Protective Equipment: Equip cleanup crew with proper protection. Emergency Procedures: Stop leak if safe to do so. Eliminate ignition sources. Ventilate area.
Environmental precautions	Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.
Methods and materials for containment and cleaning up	For Containment: Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Methods for Cleaning Up: Clean up spills immediately and dispose of waste safely. Spills should be contained with mechanical barriers. Transfer spilled material to a suitable container for disposal. Contact competent authorities after a spill.
Reference to Other Sections	See Heading 8. Exposure controls and personal protection. For further information refer to section 13.

**Power HD**

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SECTION 7. HANDLING AND STORAGE**Precautions for Safe Handling**

Additional Hazards When Processed: Any proposed use of this product in elevated-temperature processes should be thoroughly evaluated to assure that safe operating conditions are established and maintained. Practice good housekeeping - spillage can be slippery on smooth surface either wet or dry.

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

Conditions for safe storage, including any incompatibilities

Technical Measures: Comply with applicable regulations.

Storage Conditions: Store in a dry, cool and well-ventilated place. Keep container closed when not in use. Keep/Store away from direct sunlight, extremely high or low temperatures and incompatible materials.

Incompatible Materials: Strong acids, strong bases, strong oxidizers.

Specific End Use(s)

Engine Oil

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION**Control Parameters**

For substances listed in section 3 that are not listed here, there are no established Exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), NIOSH (REL), OSHA (PEL), Canadian provincial governments, or the Mexican government.

Appropriate Engineering Controls

Ensure adequate ventilation, especially in confined areas. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure all national/local regulations are observed.

Personal Protective Equipment

Protective goggles. Gloves. Insufficient ventilation: wear respiratory protection.

Materials for Protective Clothing

Chemically resistant materials and fabrics.

Hand Protection

Wear chemically resistant protective gloves.

Eye Protection

Chemical goggles or safety glasses.

Skin and Body Protection

Wear suitable protective clothing.

Respiratory Protection

Use a NIOSH-approved respirator or self-contained breathing apparatus whenever exposure may exceed established Occupational Exposure Limits.

Environmental Exposure Controls

Do not allow the product to be released into the environment.

Consumer Exposure Controls

Do not eat, drink or smoke during use.

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Information on Basic Physical and Chemical Properties

Physical State	Liquid
Appearance	Amber
Odor	Slight Hydrocarbon
Odor Threshold	Not available
pH	Not available
Evaporation Rate	Not available
Melting Point	Not available
Boiling Point	> 291 °C (555 °F)
Flash Point	> 204 °C (COC) (400 °F)
Auto-ignition Temperature	> 320 °C (COC) (608 °F)
Decomposition Temperature	Not available
Flammability (solid, gas)	Not available
Lower Flammable Limit	Not available
Upper Flammable Limit	Not available
Vapor Pressure	Not available
Relative Vapor Density at 20 °C	Not available
Relative Density	Not available
Specific Gravity	0.85
Solubility	Negligible
Partition Coefficient: N-Octanol/Water	Not available
Viscosity	Not available
Viscosity, Kinematic	Not available
Explosive Properties	Product is not explosive
Explosion Data – Sensitivity to Mechanical Impact	Not expected to present an explosion hazard due to mechanical impact
Explosion Data – Sensitivity to Static Discharge	Not expected to present an explosion hazard due to static discharge

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SECTION 10. STABILITY AND REACTIVITY

Reactivity	Hazardous reactions will not occur under normal conditions.
Chemical Stability	Stable under recommended handling and storage conditions (see section 7).
Possibility of Hazardous Reactions	Hazardous polymerization will not occur.
Conditions to Avoid	Direct sunlight, extremely high or low temperatures, heat, hot surfaces, sparks, open flames, incompatible materials, and other ignition sources.
Incompatible Materials	Strong acids, strong bases, strong oxidizers.
Hazardous Decomposition Products	Thermal decomposition generates : carbon oxides (CO, CO ₂). Hydrocarbons.

SECTION 11. TOXICOLOGICAL INFORMATION**Information on Toxicological Effects - Product**

Acute Toxicity	Not classified
LD50 and LC50 Data	Not available
Skin Corrosion/Irritation	Not classified
Eye Damage/Irritation	Not classified
Respiratory or Skin Sensitization	Not classified
Germ Cell Mutagenicity	Not classified
Teratogenicity	Not classified
Carcinogenicity	Not classified
Specific Target Organ Toxicity (Repeated Exposure)	Not classified
Reproductive Toxicity	Not classified
Specific Target Organ Toxicity (Single Exposure)	Not classified
Aspiration Hazard	Not classified
Symptoms/Injuries After Inhalation	Overexposure may be irritating to the respiratory system.
Symptoms/Injuries After Skin Contact	Repeated or prolonged skin contact may cause irritation.
Symptoms/Injuries After Eye Contact	Direct contact with the eyes is likely irritating.
Symptoms/Injuries After Ingestion	Ingestion is likely to be harmful or have adverse effects.
Chronic Symptoms	Not classified



Power HD

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Information on Toxicological Effects - Ingredient(s)

LD50 and LC50 Data:

Heavy paraffinic, Distillates, petroleum, hydrotreated heavy paraffinic (64742-54-7)	
LD50 Oral Rat	> 2000 mg/kg
LD50 Dermal Rabbit	> 2 g/kg
Petroleum distillates, solvent dewaxed (64742-65-0)	
LD50 Oral Rat	> 5000 mg/kg
LD50 Dermal Rabbit	> 5 g/kg

SECTION 12. ECOLOGICAL INFORMATION

TOXICITY

Ecology - General: Toxic to aquatic life.

Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts (68649-42-3)	
LC50 Fish 1	1.0 - 5.0 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])
EC50 Daphnia 1	1 - 1.5 mg/l (Exposure time: 48 h - Species: Daphnia magna)
LC 50 Fish 2	10.0 - 35.0 mg/l (Exposure time: 96 h - Species: Pimephales promelas [semi-static])
Petroleum distillates, solvent dewaxed (64742-65-0)	
EC50 Daphnia 1	> 1000 mg/L (Exposure time: 48 h - Species: Daphnia magna)
LC50 Fish 1	> 5000 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss)
Distillates, petroleum, hydrotreated heavy paraffinic (64742-54-7)	
LC50 Fish 1	> 5000 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss)
EC50 Daphnia 1	> 1000 mg/l (Exposure time: 48 h - Species: Daphnia magna)

Persistence and Degradability Not available

Bioaccumulative Potential Not available

Mobility in Soil Not available

Other Adverse Effects Other Information: Avoid release to the environment.

SECTION 13. DISPOSAL CONSIDERATIONS

Waste treatment methods **Sewage Disposal Recommendations:** Do not empty into drains; dispose of this material and its container in a safe way. Do not empty into drains. Do not dispose of waste into sewer.

Waste Disposal Recommendations: Dispose of waste material in accordance with all local, regional, national, provincial, territorial and international regulations.



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SECTION 14. TRANSPORT INFORMATION

In Accordance with DOT Not regulated for transport

In Accordance with IMDG Not regulated for transport

In Accordance with IATA Not regulated for transport

In Accordance with TDG Not regulated for transport

SECTION 15. REGULATORY INFORMATION

US Federal Regulations

SARA Section 311/312 Hazard Classes	Not Classified
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US State Regulations

Paraffin oils (8012-95-1) U.S. - California - Right To Know List – Warning: This material may contain chemicals known to the State of California to cause cancer, birth defects or other reproductive harm, and which may be subject to the warning requirements of California Proposition 65 (CA Health & Safety Code Section 25249.5)
 U.S. - Massachusetts - Right To Know List
 U.S. - New Jersey - Right to Know Hazardous Substance List
 U.S. - Pennsylvania - RTK (Right to Know) List

Canadian Regulations

WHMIS Classification	Not Classified
Phosphorodithioic acid, O,O-di-C1-14-alkyl esters, zinc salts (68649-42-3)	
Listed on the Canadian DSL (Domestic Substances List)	
WHMIS Classification	Class D Division 2 Subdivision B - Toxic material causing other toxic effects
Petroleum distillates, solvent dewaxed (64742-65-0)	
Listed on the Canadian DSL (Domestic Substances List)	
WHMIS Classification	Uncontrolled product according to WHMIS classification criteria
Petroleum distillates, solvent dewaxed (64742-65-0)	
Listed on the Canadian DSL (Domestic Substances List)	
WHMIS Classification	Uncontrolled product according to WHMIS classification criteria
Distillates, petroleum, hydrotreated heavy paraffinic (64742-54-7)	
Listed on the Canadian DSL (Domestic Substances List)	
WHMIS Classification	Uncontrolled product according to WHMIS classification criteria

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all of the information required by CPR.



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SECTION 16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

Revision Date 05/16/2015

Other Information This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

GHS Full Text Phrases

P273	Avoid release into the environment
P501	Dispose of contents/container in accordance with local, regional, national, and international regulations.

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