



SAFETY DATA SHEET

1. Product Identification

Champion Brands, LLC
 1001 Golden Drive
 Clinton, MO 64093
 (660) 885-8151

Product line: PALADIN® Blue Flame HD Engine Oils
Products: 6358, 6373
CAS: Not applicable (Mixture)
Synonyms: Heavy Duty Diesel Engine Oil
Recommended use: Engine Crankcase Oil
Restrictions: None determined
Created: 29 May 2012
Revised: 1 June 2012
Emergency phone: CHEMTREC: (+1) 800-424-9300

2. Hazards Identification

Appearance: Amber liquid
Odor: Mild Petroleum
Classification: Skin Sensitizer, Cat 1
Target organs: Not Determined



Symbol(s):
Signal Word: Warning
Hazard Statement(s): May cause allergic skin reaction.
Other hazard(s): Product will burn, though difficult to ignite. This product produces oil sheen on bodies of water. Mists of sprays of this product may be harmful if inhaled. Product contains components which are harmful to environment and may cause skin or eye irritation, but at concentrations below GHS classification criteria. Used crankcase oil may contain carcinogenic combustion by-products.

Precaution(s): Avoid breathing vapors/mist/spray. Wear protective gloves/protective clothing/eye protection. Contaminated work clothing should not be allowed out of the workplace. If skin

irritation occurs: Get medical advice. Avoid release to the environment.

Disposal: Keep out of waterways. Check local, national, and international regulations for proper disposal

3. Composition/Information on Ingredients

Hazardous Ingredients:

<i>Component</i>	<i>CAS No.</i>	<i>Conc (wt%)</i>
Mineral Oil	Mixture	90 – 100
Zinc Dialkyldithiophosphate	68649-42-3	0 – 2
01154100-5284P	Trade Secret	0 – 2
01154100-5301P	Trade Secret	< 1

4. First Aid Measures

Eyes	Flush eyes with running water for at least 15 minutes. Get medical attention if irritation persists
Skin	Flush exposed area with running water for at least 15 minutes. Remove contaminated clothing and launder before reuse. To remove material from skin, use waterless hand cleaner, mineral oil, or petroleum jelly. Get medical attention if irritation persists or if signs of an allergic reaction appear.
Inhalation	Move to fresh air. If nausea or other symptoms persist, get medical attention. If not breathing, give artificial respiration. If breathing is difficult, give oxygen and get medical attention immediately.
Ingestion	DO NOT INDUCE VOMITING. If vomiting occurs spontaneously, lower head below hips to reduce risk of aspiration. If conscious, give one glass of water. Get immediate medical attention
Additional Info	Note to physician: Treat symptomatically. Contact poison control for more information.

5. Fire Fighting Measures

Flash Point	> 180°C / 356°F (based on flammability of components)		
NFPA	Health: 0	Fire: 1	Reactivity: 0
Extinguishing Media	Use water spray, fog, foam, dry chemical or CO ₂		

Unsuitable Media Water jet may cause fire to spread

Firefighting Procedures: Fire-fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear

Unusual Hazards See section 10 for additional information

6. Accidental Release Measures

Personal precautions, protective equipment, and emergency procedures: Keep unnecessary personnel away. Wear appropriate personal protective equipment for emergency. Ventilate if released in a confined area. Eliminate sources of ignition if it is safe to do so. Wear suitable personal protective equipment and stop the spread of material with adsorbent or socks if safe to do so.

Environmental precautions: Avoid release to the environment. Prevent from entering into soil, ditches, sewers, waterways or groundwater. Produces oil sheen on waterways. Toxic to aquatic organisms

Methods for removal: Use a pump or bucket to recover free liquid. Residual liquid can be absorbed on inert material. Use non-sparking tools.

7. Handling and Storage

Max. Handling Temp: 70°C / 158°F

Procedures: Open container in a cool, well ventilated area. Avoid breathing vapors. Keep containers closed when not in use. Use appropriate containment to avoid environmental contamination. Avoid use in confined areas without adequate ventilation. Areas of inadequate ventilation could contain concentrations high enough to cause eye irritation, headaches, respiratory discomfort or nausea. Avoid breathing dust, fume, gas, mist, vapors, or spray. Wash thoroughly after handling. Launder contaminated clothing before reuse. Empty container contains product residue which may exhibit hazards of the product. Dispose of packaging or containers in accordance with local, regional, national, and international regulations. Store away from strong oxidizers

Max Store Temp: 40°C / 104°F

8. Exposure Controls/Personal Protection

Exposure Limits

Guidelines by component

Mineral Oil (mists)

OSHA TWA:	5 mg/m ³
ACGIH TWA:	5 mg/m ³
TWA (Canada)	5 mg/m ³
STEL (Canada)	10 mg/m ³
EH40-MEL	5 mg/m ³ , 8 hours
NOHSC	5 mg/m ³ , 8 hours

Other Exposure Limits: None known

Engineering Controls: Use in a well ventilated area. Where possible, cover sources of oil sprays and mists with adsorbent cloth to minimize exposure to mineral oil mists. Keep concentrations of mist below exposure limits

Personal Protective Equipment

Respiratory: Where mineral oil mists are generated – use full face respirator with organic vapor cartridge.

Eye: Wear safety glasses where splashing or splattering may occur

Gloves: Use nitrile or neoprene gloves. If material is hot, use appropriately insulated gloves.

Clothing: Use neoprene or nitrile gloves. When handling at elevated temperatures, use insulated apron or coat. Launder contaminated clothing before reuse

Hygiene: Wash thoroughly after handling this product.

9. Physical and Chemical Properties

Appearance	Amber liquid
Odor	Mild Petroleum
Odor threshold	Not determined
pH	Not determined
Melting Point	Not determined
Initial Boiling Pt/Rng	Not determined

Flash Point	> 180°C / 356°F (estimated based on components)
Evaporation Rate	Nil (where nBuAc = 1)
Upper Flammable Lm	Not determined
Lower Flammable Lm	Not determined
Explosive Data	Not determined
Vapor Pressure	Not determined
Vapor Density	Not determined
Volatile Organics	Not determined
Density	0.9 mg/cu. cm @15.6°C
Solubility	Insoluble in water, alcohols; soluble in organics
K_{ow}	Not determined
Viscosity	Varies with SAE viscosity grade
Autoignition Point	Not determined
Decomposition Temp	Not determined

10. Stability and Reactivity

Stability	Material is normally stable at normal temperatures and pressures
Decomposition Temp	Not determined
Incompatibility	Oxidizers and reducers
Polymerization	Will not occur
Thermal Decomposition	Smoke, oxides of carbon, nitrogen, phosphorous, boron, sulfur, and metals. May also generate hydrogen sulfide and alkyl mercaptans if stored for extended periods of time at elevated temperatures
Conditions to Avoid	Keep away from heat, flames, strong oxidizers and strong reducing agents

11. Toxicological Information

- Acute Exposure -

Eye Irritation	Repeated exposure may cause mild irritation based on data from components. Symptoms may include redness, itchiness, or increased watering of the eyes. Vapors may cause irritation at elevated temperatures
Skin Irritation	Repeated or prolonged exposure cause skin sensitization or allergic dermatitis based on data from components. Symptoms may include redness, drying, and cracking of the skin.
Respiratory Irritation	May cause nose, throat and lung irritation based on data from components. These effects may be more prevalent with mists at elevated temperatures.
Dermal Toxicity	Not expected to present a danger of dermal toxicity under normal conditions of use.

Inhalation Toxicity	Inhalation of this product is not expected to be toxic. Exposure to mineral oil mists may be harmful. Symptoms of over-exposure to mineral oil mists may be similar to that of pneumonia.
Oral Toxicity	Not expected to be harmful. LD50 in rats exceeds 5g/Kg.
Aspiration Hazard	This product does not present a classifiable hazard of aspiration due to viscosity – however, this product may be fatal if swallowed and enters airways, particularly in those with weakened respiratory systems.
- Chronic Exposure –	
Chronic Toxicity	No data available to indicate product or components present at greater than 0.2% are chronic health hazards
Carcinogenicity	This product contains mineral oils which are considered to be severely refined and not considered to be carcinogenic under IARC. All of the oils in this product have been demonstrated to contain less than 3% extractables by the IP 346 test.
Mutagenicity	No data available to indicate product or any components at greater than 0.1% are mutagenic or genotoxic.
Reproductive Toxicity	No data available to indicate product or any components at greater than 0.1% may cause reproductive toxicity.
Teratogenicity	No data available to indicate product or any components at greater than 0.1% may cause teratogenic effects.

12. Ecological Information

- Environmental Toxicity –	
Miscellaneous	No LD/LC/EC50 data was collected for this product. Some components of this product are considered chronic toxicants to aquatic life, though at concentration that is not sufficient to require classification as a marine pollutant or aquatic toxicant.
- Environmental Fate –	
Biodegradation	The petroleum oil in this product is not readily biodegradable, but can be broken down by microorganisms and is therefore considered to be inherently biodegradable. Some components of this product may persist in the environment
Bioaccumulation	The petroleum oil in this product has a K_{ow} greater than 5.3 and is regarded as having the potential to bioaccumulate. In practice, metabolic processes may reduce this potential.
Soil Mobility	This product is expected to have low soil mobility due to very low water solubility and low vapor pressure. Petroleum oils adsorb to soil and sediment. Once adsorbed, the product is expected to adhere to soil until it is slowly biodegraded.
Other Effects	Product will produce oil sheen and float on the surface of bodies of water. The product will spread across the surface

as a function of viscosity and velocities of water and surface wind.

13. Disposal Considerations

Disposal Considerations

All disposal practices must be in accordance with local, regional, national, and international regulations. Do not dispose in a landfill. Wherever possible, recycle product to used oil collection facilities in accordance with applicable regulations.

Contaminated Containers or Packaging

Dispose of packaging or containers in accordance with local, regional, national, and international regulations

14. Transportation Information

Description shown may not apply to all shipping situations. Consult applicable shipping codes to determine any additional shipping requirements

US DOT Not Regulated

*If shipped by land in a packaging having a capacity of 3,500 gallons or more, the provisions of 49 CFR, Part 130 apply. (Contains oil)

UN No Not applicable

UN Proper Name Not applicable

UN Class Not applicable

Packing Group Not applicable

Marine Pollutant *Yes

*Product contains petroleum oil which may be classified as a marine pollutant under MARPOL Annex I under certain shipping conditions

IMDG Not Regulated

*U.S. DOT compliance requirements may apply. See 49 CFR 171.22, 23 & 25. If transported in bulk by marine vessel in international waters, product is being carried under the scope of MARPOL Annex I.

ICAO/IATA Not Regulated

*U.S. DOT compliance requirements may apply. See 49 CFR 171.22, 23, & 24.

15. Regulatory Information

- Global Chemical Inventories -

USA All components of this material are on the US TSCA or are exempt

Other TSCA Reg. None known

EU Components of this product comply with EU 7th Amendment and are approved for EU sales. Records must be maintained and reported to EU only registrants if product is imported to

**New Zealand
Canada**

the EU. Third party importers are asked to report every EU import to Champion Brands, LLC.

All components are listed or exempted

All components are in compliance with the Canadian Environmental Protection Act and are present on the Domestic Substances List

- Other U.S. Federal Regulations -

SARA Ext. Haz. Subst. This product does not contain greater than 1.0% of any chemical on the SARA Extremely Hazardous Substances list.

SARA Sect. 311/312

<i>Acute Hazard</i>	- YES
<i>Chronic Hazard</i>	- NO
<i>Fire Hazard</i>	- NO
<i>Reactivity Hazard</i>	- NO

CERCLA None known

EPCRA Zinc dialkyldithiophosphate (CAS # 68649-42-3)
Diphenylamine (CAS # 122-39-4)

- State Regulations -

CA Prop 65 This product contains no ingredients known to the State of California to cause cancer and/or birth defects

<i>Right to Know Component</i>	<i>Right to Know States</i>
Zinc dialkyldithiophosphate (CAS # 68649-42-3)	NJ
Diphenylamine (CAS # 122-39-4)	NJ, PA, MA

1. Other Information

Revision updates may be in many sections and the MSDS should be read in its entirety.
Prepared according to the UN Globally Harmonized System for the Classification and Labeling of Chemicals (GHS) by Champion LLC, 1001 Golden Drive, Clinton, Missouri 64735.

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