

# Material Safety Data Sheet

Doosan Infracore Portable Power  
 1293 Glenway Drive  
 Statesville, NC 28625

## Doosan Engine Oil

**Product Description:** A multi-grade diesel engine oil formulated to meet requirements of modern low-emission diesel engines as well as older models operating on low or high-sulfur fuels. Meets the latest API specs for gasoline engines used in mixed fleets. Is recommended for use in a wide range of heavy-duty applications and operating environments.

### Transportation Emergency Response

CHEMTREC: (800) 424-9300 or  
 Doosan Portable Power: (800) 633-5206

### SECTION 1 COMPOSITION / INFORMATION ON INGREDIENTS

COMPONENTS	CAS NUMBER	AMOUNT
Zinc C1-C14 Alkyldithiophosphate	68649-42-3	1 – 5% weight

### SECTION 2 FIRST AID MEASURES

**Eye:** Flush thoroughly with water. If irritation occurs, call a physician.  
**Skin:** Wash contact areas with soap and water. Remove and clean oil soaked clothing daily and wash affected area.  
**Ingestion:** Not expected to be a problem. Seek medical attention if discomfort occurs. Do not induce vomiting.  
**Inhalation:** not expected to be a problem. However, if respiratory irritation, dizziness, nausea, or unconsciousness occurs due to excessive vapor or mist exposure, seek immediate medical assistance. If breathing has stopped, assist ventilation with a mechanical device or mouth-to-mouth resuscitation.

### SECTION 3 FIRE FIGHTING MEASURES

**Fire Classifications:** OSHA Classification (29 CFR 1910.1200): not classified by OSHA as hazardous or flammable.  
**NFPA Ratings:** Health: 0 Flammability: 1 Reactivity: 1  
 (0- Least, 1- Slight, 2- Moderate, 3- high, 4- Extreme)  
**FLAMMABLE PROPERTIES:**  
**Flashpoint:** C(f): 230 (446) (ASTM D92)  
**Auto Ignition:** NDA  
**Flammability (Explosive) Limits (% by volume in air):** LEL: 0.9% UEL: 7.0%  
**Extinguishing Media:** Carbon dioxide, foam, dry chemical and water fog.  
**PROTECTION OF FIRE FIGHTERS:**  
**Fire Fighting Instructions:** Water or foam may cause frothing. Use water to keep fire exposed containers cool. Water spray may be used to flush spills away from exposure. Prevent run off from fire control or dilution from entering streams, sewers, or drinking water supply. For fires in enclosed areas, fire fighters must use self-contained breathing apparatus.

## SECTION 4 ACCIDENTAL RELEASE MEASURES

**Waste Disposal Method:** Dispose in accordance with local, state, or federal regulations.

**Steps to be taken in Case of Spills:**

**Land Spill:** Shut off source taking normal safety precautions. Take measures to minimize the effects on ground water. Recover by pumping or contain spilled material with sand or other suitable absorbent and remove mechanically into containers.

**Water Spill:** Confine the spill immediately with booms. Warn other ships in the vicinity. Notify port and other relevant authorities. Remove from the surface by skimming or with suitable absorbents. If permitted by regulatory authorities the use of suitable dispersants should be considered where recommended in local oil spill procedures.

**Environmental Precautions:** Prevent material from entering sewers, water sources of low lying areas. Advise the relevant authorities if it has, or if it contaminates soil/vegetation.

**Notification Procedures:** Report spills/releases as required to appropriate authorities. U.S. Coast Guard and EPA regulations require immediate reporting of spills/releases that could reach any waterway including intermittent dry creeks. Report spill/release to Coast Guard national Response Center toll free number (800) 424- 8802. In case of accident or road spill notify CHEMTREC (800) 424-9300.

## SECTION 5 EXPOSURE CONTROLS / PERSONAL PROTECTION

**General considerations:**

**Occupational Exposure Limits:**

When mists/aerosols can occur, the following are recommended: 5 mg/m<sup>3</sup> (as oil mist)- ACGIH Threshold Limit Value (TLV), 10 mg/m<sup>3</sup> (as oil mist)- OSHA Permissible Exposure Limit (PEL)

**Ventilation:** If mists are generated use adequate ventilation.

**Respiratory Protection:** If mists are generated, and/or when ventilation is not adequate, wear approved respirator.

**Eye Protection:** If eye contact is likely, safety glasses with side shields or chemical type goggles should be worn.

**Skin Protection:** Not normally required. Good personal hygiene practices should always be followed.

## SECTION 6 PHYSICAL AND CHEMICAL PROPERTIES

**Attention: The data below are typical values and do not constitute a specification.**

<b>Color</b>	Dark Amber
<b>Physical State:</b>	Liquid
<b>Order:</b>	Mild
<b>pH:</b>	NA
<b>Vapor Pressure -mmHg 20 C:</b>	NE
<b>Vapor Density (Air = 1):</b>	NE
<b>Boiling Point:</b>	NE
<b>Solubility in water:</b>	Negligible
<b>Freezing Point:</b>	NE
<b>Viscosity:</b>	117.0 cSt @ 40 °C

## SECTION 7 STABILITY AND REACTIVITY

**Chemical Stability:** This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

**Incompatibility With Other Materials:** May react with strong oxidizing agents, such as chlorates, nitrates, peroxides, ect.

**Hazardous Decomposition Products:** None known (None expected).

**Hazardous Polymerization:** Hazardous polymerization will not occur.

## SECTION 8 ECOLOGICAL INFORMATION

### ECOTOXICITY

Available ecotoxicity data (LL50 > 1000 mg/L) indicates that adverse effects to aquatic organisms are not expected from this product.

### ENVIRONMENTAL FATE

In the absence of specific environmental data for this product, this assessment is based on information for representative products. This product is expected to be inherently biodegradable.

## SECTION 9 TRANSPORT INFORMATION

**DOT Shipping Name:** NOT REGULATED BY USA DOT.

**DOT Hazard Class:** NOT HAZARDOUS BY U.S. DOT. ADR/RID HAZARD CLASS NOT APPLICABLE.

**IMO/IMDG Shipping Name:** NOT REGULATED AS DANGEROUS GOODS UNDER THE IMO CODE.

## SECTION 10 REGULATORY INFORMATION

### SARA 311/312 CATEGORIES:

1) Immediate (Acute) Health Effects:	NO
2) Delayed (Chronic) Health Effects:	NO
3) Fire Hazard:	NO
4) Sudden Release of Pressure Hazard:	NO

## SECTION 11 OTHER INFORMATION

### USE COMMERCIAL ENGINE OIL

**NOTE: PRODUCTS OF EXXON MOBIL CORPORATION AND ITS AFFILIATED COMPANIES ARE NOT FORMULATED TO CONTAIN PCBS.**

Health studies have shown that many hydrocarbons pose potential human health risks, which may vary from person to person. Information provided on this MSDS reflects intended use. This product should not be used for other applications. In any case, the following advice should be considered:

**INJECTION INJURY WARNING:** If product is injected into or under the skin, or into any part of the body, regardless of the appearance of the wound or its size, the individual should be evaluated immediately by a physician as a surgical emergency. Even though initial symptoms from high-pressure injection may be minimal or absent, early surgical treatment within the first few hours may significantly reduce the ultimate extent of injury.

**INDUSTRIAL LABEL:** Under normal conditions of intended use, this product does not pose a risk to health. Excessive exposure may result in eye, skin or respiratory irritation. Always observe good hygiene measures.

**First Aid:** Wash skin with soap and water. Flush eyes with water. If overcome by fumes or vapor, remove to fresh air. If ingested do not induce vomiting. If symptoms persist seek medical assistance. Read and understand the MSDS before using this product.

**The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.**