



Doosan Infracore
Portable Power
1293 Glenway Drive,
Statesville, NC 28625

Material Safety Data Sheet

Doosan Infracore Portable Power
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Doosan XHP1001

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

Doosan Part #
35612738 5 Gal.
35300516 55 Gal.

SECTION 1 COMPOSITION/INFORMATION ON INGREDIENTS

COMPONENTS	CAS NUMBER	AMOUNT
NAPHTHALENE (COMPONENT ANALYSIS)	91-20-3	16

SECTION 2 HAZARDS IDENTIFICATION

Under normal conditions of use, this product is not considered hazardous according to regulatory guidelines.

EMERGENCY OVERVIEW: Orange liquid. DOT ERG No.: A

Potential Health Effects: 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.

SECTION 3 FIRST AID MEASURES

Eyes Contact: Flush thoroughly with water. If irritation occurs, call a physician.

Skin Contact: Wash contact areas with soap and water. Remove and clean oil soaked clothing daily and wash affected area.

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.

Ingestion: Not expected to be a problem. Seek medical attention if discomfort occurs. Do not induce vomiting.

SECTION 4 FIRE-FIGHTING MEASURES

Extinguishing Media: Carbon dioxide, foam, dry chemical and water fog.

Special Fire Fighting Procedures: 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 runoff from fire control or dilution from entering streams, sewers, or drinking water supply.

Special Protective Equipment: For tires in enclosed areas, fire fighters must use self-contained breathing apparatus.

Unusual Fire and Explosion Hazards: None.

Combustion Products: Fumes, smoke, carbon monoxide, sulfur oxides, aldehydes and other decomposition products, in the case of incomplete combustion.



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Flash Point C (F): >210 (410) (ASTM D-93).
Flammable Limits (Approx % Vol. In Air):
NFPA Hazard ID: Health: 0

LEL: 0.9%
Flammability: 1

UEL: 7.0%
Reactivity: 0

SECTION 5 ACCIDENTAL RELEASE MEASURES

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.

Procedures if Material is Released or Spilled:

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 or low lying areas. Advise the relevant authorities if it has, or if it contaminates soil/vegetation.

SECTION 6 HANDLING AND STORAGE

Handling: No special precautions are necessary beyond normal good hygiene practices.

Storage: Keep containers closed when not in use. Do not store in open or unlabelled containers. Store away from strong oxidizing agents and combustible materials. Do not store near heat, sparks, flame or strong oxidants.

Special Precautions: Prevent small spills and leakages to avoid slip hazard.

Empty Container Warning: Empty containers retain residue (liquid and/or vapor) and can be dangerous.

DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION; THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.

Do not attempt to refill or clean container since residue is difficult to remove. Empty drums should be completely drained, properly bunged and promptly returned to a drum reconditioner. All containers should be disposed of in an environmentally safe manner and in accordance with governmental regulations.

SECTION 7 EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Limits: When mists/aerosols can occur, the following are recommended:

ACGIH Threshold Limit Value (TLV): 5 mg/m ³ (as oil mist)	ACGIH Short Term Exposure Limit (STEL): 10 mg/m ³ (as oil mist)	OSHA Permissible Exposure Limit (PEL): 5 mg/m ³ (as oil mist)
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Ventilation: If mists are generated, use adequate ventilation, local exhaust or enclosures to control below exposure limits.

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. When splashing or liquid contact can occur frequently, wear oil resistant gloves and/or other protective clothing. Good personal hygiene practices should always be followed.



SECTION 8 PHYSICAL AND CHEMICAL PROPERTIES

Typical physical properties are given below. Consult Product Data Sheet for specific details.

Appearance:	Liquid	
Color:	Orange	
Odor:	Mild	
Odor Threshold:	-ppm: NE	
pH:	NA	
Boiling Point C (F):	> 316 (600)	
Melting Point C (F):	NA	
Flash Point C (F):	> 210 (410) (ASTM D-93)	
Flammability(Solids):	NE	
Auto Flammability C (F):	NA	
Explosive Properties:	NA	
Oxidizing Properties:	NA	
Vapor Pressure –mmHg 20 C:	< 0.1	
Vapor Density:	> 2.0	
Evaporation Rate:	NE	
Relative Density, 15/4 C:	0.86-1	
Solubility in Water:	Negligible	
Partition Coefficient:	> 3.5	
Viscosity at 40 C, cSt:	> 20.0	
Viscosity at 100 C, cSt:	NE	
Pour Point C (F):	< -39 (-39)	
Freezing Point C (F):	NE	
Volatile Organic Compound:	NE	
DMSO Extract IP-346 (WT. %):	< 3, for mineral oil only	
NA: Not Applicable	NE: Not Established	D: Decomposes

SECTION 9 STABILITY AND REACTIVITY

Stability (THERMAL, LIGHT, ETC.): Stable

Conditions to Avoid: Extreme heat and high energy sources of ignition

Incompatibility (Materials to Avoid): Strong Oxidizers

Hazardous Decomposition Products: Product does not decompose at ambient temperatures

Hazardous Polymerization: Will not occur

SECTION 10 TOXICOLOGICAL DATA

ACUTE TOXICOLOGY

Oral Toxicity (RATS): Practically non-toxic (LD50: greater than 2000 mg/kg). Based on testing of similar products and/or the components.

Dermal Toxicity (RABBITS): Practically non-toxic (LD50: greater than 2000 mg/kg). Based on testing of similar products and/or the components.

Inhalation Toxicity (RATS): Practically non-toxic (LC50: greater than 5 mg/l). Based on testing of similar products and/or components.

Eye Irritation (RABBITS): Practically non-irritating. (Draize score: greater than 6 but 15 or less) Based on similar testing of products and/or components.

Skin Irritation (RABBITS): Practically non-irritating. (Primary Irritation Index: greater than 0.5 but less than 3). Based on testing of similar products and/or the components

Other Acute Toxicity Data: Although an acute inhalation study was not performed with this product, a variety of mineral and synthetic oils, such as those in this product, have been tested. These samples had



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virtually no effect other than a nonspecific inflammatory response in the lung to the aerosolized mineral oil. The presence of additives in other tested formulations (in approximately the same amounts as in the present formulation) did not alter the observed effects.

SubChronic Toxicology (Summary): No significant adverse effects were found in studies using repeated dermal applications of similar formulations to the skin of laboratory animals for 13 weeks at doses significantly higher than those expected during normal industrial exposure (hematology, serum chemistry, urinalysis, organ weights, microscopic examination of tissues etc.).

Reproductive Toxicology (Summary): No teratogenic effects would be expected from dermal exposure, based on laboratory developmental toxicity studies of major components in this formulation and/or materials of similar composition.

Chronic Toxicology (Summary): Repeated and/or prolonged exposure may cause irritation to the skin eyes or respiratory tract. Overexposure to oil mist may result in oil droplet deposition and/or granuloma formation. For mineral based oils: Base oils in this product are severely solvent refined and/or severely hydrotreated. Chronic mouse skin painting studies of severely treated oils showed no evidence of carcinogenic effects. These results are confirmed on a continuing basis using various screening methods such as Modified Ames Test, IP-346, and/or other analytical methods. For synthetic base oils: These base oils in this product have been tested in the Ames assay and other tests of mutagenicity with negative results. These base oils are not expected to be carcinogenic with chronic dermal exposures.

Sensitization (Summary): Not expected to be sensitizing based on tests of this product, components, or similar products.

SECTION 11 ECOLOGICAL INFORMATION

Environmental Fate and Effects: In the absence of specific environmental data for this product, this assessment is based on information for representative products.

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

Mobility: When released into the environment, absorption to sediment and soil will be the predominant behavior.

Persistence and Degradability: this product is expected to be inherently biodegradable.

Bioaccumulative Potential: Bioaccumulation is unlikely due to the very low water solubility of this product; therefore bioavailability to aquatic organisms is minimal.

SECTION 12 DISPOSAL CONSIDERATIONS

Waste Disposal: Product is suitable for burning in an enclosed, controlled burner for fuel value. Such burning may be limited pursuant to the Resource Conservation and Recovery Act. In addition, the product is suitable for processing by an approved recycling facility or can be disposed of at an appropriate government waste disposal facility. Use of these methods is subject to user compliance with applicable laws and regulations and consideration of product characteristics at time of disposal.

RCRA Information: The unused product, in our opinion, is not specifically listed by the EPA as a hazardous waste (40 CFR, Part 261D), nor is it formulated to contain materials which are listed hazardous wastes. It does not exhibit the hazardous characteristics of ignitability, corrosivity, or reactivity. The unused product is not formulated with substances covered by the Toxicity Characteristic Leaching Procedure (TCLP). However, used product may be regulated.

SECTION 13 TRANSPORT INFORMATION

USA Not regulated by USA DOT

DOT:

RID/ADR: Not regulated by RID/ADR

IMO: Not regulated by IMO

IATA: Not regulated by IATA

Static Accumulator (50 picosiemens or less): Yes



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SECTION 14 REGULATORY INFORMATION

US OSHA Hazard Communication Standard: when used for its intended purposes, this product is not classified as hazardous in accordance with OSHA 29 CFR 1910.1200.

EU Labeling: product is not dangerous as defined by the European union Dangerous Substances/Preparations Directives. EU labeling not required.

Governmental Inventory Status: All components comply with TSCA, EINECS/ELINCS, and DSL.

U.S. Superfund Amendments and Reauthorization Act (SARA) Title III: This product contains no "Extremely Hazardous substances". SARA (311/312)

Reportable Hazard Categories: None

This product contains no chemicals subject to the supplier notification requirements of SRA (313) toxic release program.

This product has been authorized by USDA for use under the following category: this product is acceptable as a lubricant where there is no possibility of food contact (complies with earlier USDA guidelines for H-2 lubricant use).

REGULATORY LISTS SEARCHED

1= ACGIH ALL	8= IARC 2B	15= TSCA 12b	22= MI 293
2= ACGIH A1	9= OSHA CARC	16= CA P65 CARC	23= MN RTK
3= ACGIH A2	10= OSHA Z	17= CA P65 REPRO	24= NJ RTK
4= NTP CARC	11= TSCA 4	18= CA RTK	25= PA RTK
5= NTP SUS	12= TSCA 5a2	19= FL RTK	26= RI RTK
6= IARC 1	13= TSCA 5e	20= IL RTK	
7= IARC	14= TSCA 6	21= LA RTK	

*EPA recently added new chemical substances to its TSCA Section 4 test rules. Please contact the supplier to confirm whether the ingredients in this product currently appear on a TSCA 4 or TSCA 12b list.

Code Key:

CARC= Carcinogen

SUS= Suspected Carcinogen

REPRO= Reproductive

SECTION 15 OTHER INFORMATION

USE: LUBRICANT

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.



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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.