



Base Oil HT 450

S70-705-19-10181

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SECTION 1. IDENTIFICATION

Product identifier used on the label

: **Base Oil HT 450**

Other means of identification : S70-705-19-10181

Recommended use of the chemical and restrictions on use

: Lubricant
Restriction on use: None known

Chemical family

: Petroleum hydrocarbon.

Name, address, and telephone number
of the supplier:

Terrapure Environmental

130 Forester Street
North Vancouver, BC, Canada
V7H 2M9

Supplier's Telephone # : (604) 982 2363

24 Hr. Emergency Tel # : In case of transportation emergencies: (613) 996-6666 (CANUTEC)
For other emergencies: (800) 567-7455 (Terrapure Environmental)

Name, address, and telephone number of
the manufacturer:

Refer to supplier

SECTION 2. HAZARDS IDENTIFICATION

Classification of the chemical

Clear yellow liquid. Hydrocarbon odour.

Most important hazards: Direct eye contact may cause irritation. Occupational exposure to the substance or mixture may cause adverse effects. Avoid release to the environment.

This material is not classified as hazardous under U.S. OSHA regulations (29CFR 1910.1200) (Hazcom 2012) and Canadian WHMIS regulations (Hazardous Products Regulations) (WHMIS 2015).

Label elements

Hazard pictogram(s)

None required under U.S. OSHA Hazcom 2012 and Canadian WHMIS 2015 regulations.

Signal Word

Not applicable.

Hazard statement(s)

None required under OSHA HazCom2012 and 2015 Canadian WHMIS regulations.

Precautionary statement(s)

None required under OSHA HazCom2012 and 2015 Canadian WHMIS regulations.

Other hazards

Other hazards which do not result in classification:

If product is heated, inhalation of fumes may cause irritation to the nose, throat and respiratory tract. Direct eye contact may cause slight or mild, transient irritation. Prolonged skin contact may cause skin irritation. Ingestion may cause irritation of the mouth, throat and stomach. May be an aspiration hazard. Aspiration into the lungs during swallowing or subsequent vomiting may cause chemical pneumonitis, which can be fatal.

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SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Pure substance

<u>Chemical name</u>	<u>Common name and synonyms</u>	<u>CAS #</u>	<u>Concentration (% by weight)</u>
Lubricating oils, refined	Lubricating oils (used) refined	68476-77-7	100%

SECTION 4. FIRST-AID MEASURES

Description of first aid measures

- Ingestion* : Do not induce vomiting. Never give anything by mouth to an unconscious person. If vomiting occurs spontaneously, keep victim's head lowered (forward) to reduce the risk of aspiration. If irritation or symptoms develop, seek medical attention.
- Inhalation* : First Aid is normally not required. If INHALED excessively remove to fresh air. Get medical attention if irritation develops and persists.
- Skin contact* : Wash with plenty of water and soap. Do not use solvents. Remove and wash contaminated clothing before re-use. If irritation or symptoms develop, seek medical attention.
- Eye contact* : Flush with large amounts of water for 15 minutes. If easy to do, remove contact lens, if worn. If irritation persists, seek prompt medical attention.

Most important symptoms and effects, both acute and delayed

- : Direct eye contact may cause slight or mild, transient irritation. Inhalation of mists or sprays may mildly irritate the upper respiratory tract and cause coughing or sneezing. Prolonged skin contact may cause skin irritation. Ingestion may cause irritation of the mouth, throat and stomach. May be an aspiration hazard. Aspiration into the lungs during swallowing or subsequent vomiting may cause chemical pneumonitis, which can be fatal.

Indication of any immediate medical attention and special treatment needed

- : Treat symptomatically.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing media

- Suitable extinguishing media* : Dry chemical, foam, carbon dioxide and water fog.
- Unsuitable extinguishing media* : Do not use a solid water stream as it may scatter and spread fire.

Special hazards arising from the substance or mixture / Conditions of flammability

- : None known.

Flammability classification (OSHA 29 CFR 1910.106)

- : Not flammable.

Hazardous combustion products

- : Carbon oxides and other irritating fumes and smoke.

Special protective equipment and precautions for firefighters

- Protective equipment for fire-fighters* : As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

Special fire-fighting procedures

- : Firefighters should wear proper protective equipment and self-contained breathing apparatus with full face piece operated in positive pressure mode. Move containers from fire area if safe to do so. Water spray may be useful in cooling equipment exposed to heat and flame.



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SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

- : All persons dealing with the clean-up should wear the appropriate chemically protective equipment. Keep all other personnel upwind and away from the spill/release. Restrict access to area until completion of clean-up. Refer to protective measures listed in sections 7 and 8.

Environmental precautions : Ensure spilled product does not enter drains, sewers, waterways, or confined spaces. For large spills, dike the area to prevent spreading.

Methods and material for containment and cleaning up

- : Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Small Spills: Ventilate area of release. Remove all sources of ignition. Use only non-sparking tools. Contain and absorb spilled liquid with non-combustible, inert absorbent material (e.g. sand), then place absorbent material into a container for later disposal (see Section 13).
 Large Spills: For large spills on surfaces other than pavement (e.g. soil or sand), spills may be handled by digging up and removing the affected surface and placing it in approved containers. Notify the appropriate authorities as required.

Special spill response procedures

- : If a spill/release in excess of the EPA reportable quantity is made into the environment, immediately notify the national response center in the United States (phone: 1-800-424-8802).
 US CERCLA Reportable quantity (RQ): None.

SECTION 7. HANDLING AND STORAGE

Precautions for safe handling

- : Use in a well-ventilated area. Wear suitable protective equipment during handling. Avoid breathing fumes, mists or vapors. Avoid contact with skin, eyes and clothing. Keep away from heat, sparks and open flames. Avoid contact with incompatible materials. Wash thoroughly after handling.

Conditions for safe storage : Store in a cool, dry, well-ventilated area. Storage area should be clearly identified, clear of obstruction and accessible only to trained and authorized personnel. Inspect periodically for damage or leaks. No smoking in the area.

Incompatible materials : Strong oxidizers (e.g. Chlorine, Peroxides, etc.).

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

<u>Exposure Limits:</u>					
	<u>Chemical Name</u>	<u>ACGIH TLV</u>		<u>OSHA PEL</u>	
		<u>TWA</u>	<u>STEL</u>	<u>PEL</u>	<u>STEL</u>
Lubricating oils, refined	N/Av	N/Av	N/Av	N/Av	

Exposure controls

Ventilation and engineering measures

- : Use in a well-ventilated area. General mechanical ventilation and local exhaust is recommended for use with this product.

Respiratory protection

- : Not required under normal conditions of handling. Respiratory protection is required if the concentrations exceed the TLV. NIOSH-approved respirators are recommended. Advice should be sought from respiratory protection specialists.

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- Skin protection** : Not required under normal conditions of handling. For prolonged skin exposure, gloves impervious to the material are recommended. Advice should be sought from glove suppliers.
- Eye / face protection** : Safety glasses with side shields should be used with this product. Chemical goggles are recommended when there is a potential for splashing. Do not wear contact lenses.
- Other protective equipment** : An eyewash station and safety shower should be made available in the immediate working area. Other equipment may be required depending on workplace standards.
- General hygiene considerations** : Avoid breathing mist or vapor. Avoid contact with skin, eyes and clothing. When using, do not eat, drink or smoke. Upon completion of work, wash hands before eating, drinking, smoking or use of toilet facilities. Remove soiled clothing and wash it thoroughly before reuse.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance** : Clear yellow liquid.
- Odour** : Hydrocarbon odour.
- Odour threshold** : N/Av
- pH** : N/Av
- Melting Point/Freezing point** : Pour point -9 ° C
- Initial boiling point and boiling range** : > 380°C
- Flash point** : > 240°C
- Flashpoint (Method)** : Cleveland Open Cup
- Evaporation rate (BuAe = 1)** : N/Av
- Flammability (solid, gas)** : Not applicable.
- Lower flammable limit (% by vol.)** : N/Av
- Upper flammable limit (% by vol.)** : N/Av
- Oxidizing properties** : Not known.
- Explosive properties** : Not explosive
- Vapour pressure** : N/Av
- Vapour density** : > 1
- Relative density / Specific gravity** : 0.860 @ 15.6°C
- Solubility in water** : Insoluble.
- Other solubility(ies)** : N/Av
- Partition coefficient: n-octanol/water or Coefficient of water/oil distribution** : N/Av
- Auto-ignition temperature** : N/Av
- Decomposition temperature** : N/Av
- Viscosity** : 77.2 cSt @ 40°C
- Volatiles (% by weight)** : <0.5 g/L
- Volatile organic Compounds (VOC's)** : N/Av
- Absolute pressure of container** : N/Av
- Flame projection length** : N/Av
- Other physical/chemical comments** : None known or reported by the manufacturer.

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SECTION 10. STABILITY AND REACTIVITY

- Reactivity** : Not normally reactive.
- Chemical stability** : Stable under normal conditions.
- Possibility of hazardous reactions** : Hazardous polymerization does not occur.
- Conditions to avoid** : Avoid heat and open flame. Keep away from direct sunlight. Do not use in areas without adequate ventilation. Avoid contact with incompatible materials.
- Incompatible materials** : See Section 7 (Handling and Storage) for further details.
- Hazardous decomposition products** : None known, refer to hazardous combustion products in Section 5.

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure:

- Routes of entry inhalation** : YES
- Routes of entry skin & eye** : YES
- Routes of entry Ingestion** : YES
- Routes of exposure skin absorption** : YES

Potential Health Effects:

Signs and symptoms of short-term (acute) exposure

Sign and symptoms Inhalation

- : Inhalation of fumes or mists may cause irritation to the nose, throat and upper respiratory tract.

Sign and symptoms ingestion

- : May cause irritation of mouth, throat, and stomach. May cause nausea, stomach pain and vomiting. Product may present an aspiration hazard, if ingested in large amounts, causing life-threatening lung injury.

Sign and symptoms skin

- : May cause skin irritation. Prolonged contact, such as when trapped against the skin under clothing or jewelry, may be more irritating.

Sign and symptoms eyes

- : Direct eye contact may cause slight or mild, transient irritation.

Potential Chronic Health Effects

- : Prolonged skin contact may cause dermatitis (rash), characterized by red, dry, itching skin.

Mutagenicity : Not expected to be mutagenic in humans.

Carcinogenicity : No components are listed as carcinogens by ACGIH, IARC, OSHA or NTP.

Reproductive effects & Teratogenicity

- : Not expected to have other reproductive effects.

Sensitization to material : Not expected to be a skin or respiratory sensitizer.

Specific target organ effects : This material is not classified as hazardous under U.S. OSHA regulations (29CFR 1910.1200) (Hazcom 2012) and Canadian WHMIS regulations (Hazardous Products Regulations) (WHMIS 2015).

Medical conditions aggravated by overexposure

- : Pre-existing skin, eye and respiratory disorders.

Synergistic materials : None known or reported by the manufacturer.

Toxicological data : There is no data available for this product.

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<u>Chemical name</u>	<u>LC₅₀(4hr)</u>	<u>LD₅₀</u>	
	<u>inh, rat</u>	<u>(Oral, rat)</u>	<u>(Rabbit, dermal)</u>
Lubricating oils, refined	N/Av	N/Av	N/Av

Other important toxicological hazards

: See Section 2 for additional information.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity : The product should not be allowed to enter drains or water courses, or be deposited where it can affect ground or surface waters.

Ecotoxicity data:

<u>Ingredients</u>	<u>CAS No</u>	<u>Toxicity to Fish</u>		
		<u>LC₅₀ / 96h</u>	<u>NOEC / 21 day</u>	<u>M Factor</u>
Lubricating oils, refined	68476-77-7	N/Av	N/Av	None.

<u>Ingredients</u>	<u>CAS No</u>	<u>Toxicity to Daphnia</u>		
		<u>EC₅₀ / 48h</u>	<u>NOEC / 21 day</u>	<u>M Factor</u>
Lubricating oils, refined	68476-77-7	N/Av	N/Av	None.

<u>Ingredients</u>	<u>CAS No</u>	<u>Toxicity to Algae</u>		
		<u>EC₅₀ / 96h or 72h</u>	<u>NOEC / 96h or 72h</u>	<u>M Factor</u>
Lubricating oils, refined	68476-77-7	N/Av	N/Av	None.

Persistence and degradability

: Not expected to be rapidly biodegradable.

Bioaccumulation potential

: No data is available on the product itself.

<u>Components</u>	<u>Partition coefficient n-octanol/water (log Kow)</u>	<u>Bioconcentration factor (BCF)</u>
Lubricating oils, refined (CAS 68476-77-7)	N/Av	N/Av

Mobility in soil

: No data is available on the product itself.

Other Adverse Environmental effects

: No data is available on the product itself.

SECTION 13. DISPOSAL CONSIDERATIONS

Handling for Disposal

: Handle waste according to recommendations in Section 7. Empty containers retain residue (liquid and/or vapour) and can be dangerous. Do not cut, weld, drill or grind on or near this container.

Methods of Disposal

: Dispose of in accordance with federal, provincial and local hazardous waste laws.



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RCRA : Under the RCRA, it is the responsibility of the waste generator to determine the proper waste identification and disposal method.

SECTION 14. TRANSPORT INFORMATION

Regulatory Information	UN Number	UN proper shipping name	Transport hazard class(es)	Packing Group	Label
TDG	None.	Not regulated.	Not regulated	none	
TDG Additional information	None.				
49CFR/DOT	None.	Not regulated.	not regulated	none	
49CFR/DOT Additional information	None.				
ICAO/IATA	None.	Not regulated.	not regulated	none	
ICAO/IATA Additional information	None.				
IMDG	None.	Not regulated.	not regulated	none	
IMDG Additional information	None.				

Special precautions for user : Keep away from heat, sparks and open flame - No smoking.

Environmental hazards : This product does not meet the criteria for an environmentally hazardous mixture, according to the IMDG Code. See ECOLOGICAL INFORMATION, Section 12.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

: No information available.

SECTION 15 - REGULATORY INFORMATION

US Federal Information:

Components listed below are present on the following U.S. Federal chemical lists:

Ingredients	CAS #	TSCA Inventory	CERCLA Reportable Quantity(RQ) (40 CFR 117.302):	SARA TITLE III: Sec. 302, Extremely Hazardous Substance, 40 CFR 355:	SARA TITLE III: Sec. 313, 40 CFR 372, Specific Toxic Chemical	
					Toxic Chemical	de minimus Concentration
Lubricating oils, refined	68476-77-7	Yes	N/Av	N/Av	No	No

SARA TITLE III: Sec. 311 and 312, SDS Requirements, 40 CFR 370 Hazard Classes: None.



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US State Right to Know Laws:

The following chemicals are specifically listed by individual States:

<u>Ingredients</u>	CAS #	California Proposition 65		State "Right to Know" Lists					
		Listed	Type of Toxicity	CA	MA	MN	NJ	PA	RI
Lubricating oils, refined	68476-77-7	No	N/Ap	No	No	No	No	No	No

Canadian Information:

Canadian Environmental Protection Act (CEPA) information: All ingredients listed appear on the Domestic Substances List (DSL).

International Information:

Components listed below are present on the following International Inventory list:

<u>Ingredients</u>	CAS #	European EINECS	Australia AICS	Philippines PICCS	Japan ENCS	Korea KECI/KECL	China IECSC	NewZealand IOC
Lubricating oils, refined	68476-77-7	270-697-6	Present	Not listed	Not listed	Not listed	Present	Not listed

SECTION 16. OTHER INFORMATION

Legend

- : ACGIH: American Conference of Governmental Industrial Hygienists
- CAS: Chemical Abstract Services
- CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act of 1980
- CFR: Code of Federal Regulations
- DOT: Department of Transportation
- EPA: Environmental Protection Agency
- EST: Eastern Standard Time
- HMIS: Hazardous Materials Identification System
- HSDB: Hazardous Substances Data Bank
- IARC: International Agency for Research on Cancer
- Inh: Inhalation
- LC: Lethal Concentration
- LD: Lethal Dose
- N/Ap: Not Applicable
- N/Av: Not Available
- NIOSH: National Institute of Occupational Safety and Health
- OSHA: Occupational Safety and Health Administration
- PEL: Permissible exposure limit
- RCRA: Resource Conservation and Recovery Act
- RTECS: Registry of Toxic Effects of Chemical Substances
- SARA: Superfund Amendments and Reauthorization Act
- STEL: Short Term Exposure Limit
- TLV: Threshold Limit Values
- TWA: Time Weighted Average
- WHMIS: Workplace Hazardous Materials Identification System

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- References** :
1. ACGIH, Threshold Limit Values for Chemical Substances and Physical Agents & Biological Exposure Indices for 2018.
 2. International Agency for Research on Cancer Monographs, searched 2018.
 3. Canadian Centre for Occupational Health and Safety, CCInfoWeb databases, 2018 (Chempendium, HSDB and RTECs).
 4. Material Safety Data Sheets from manufacturer.
 5. US EPA Title III List of Lists - March 2015 version.
 6. California Proposition 65 List - November 23, 2018 version.
 7. OECD - The Global Portal to Information on Chemical Substances - eChemPortal, 2018.

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Revision Information

: (M)SDS sections updated :2. HAZARDS IDENTIFICATION

Other special considerations for handling

: Provide adequate information, instruction and training for operators.

<p>Prepared for: Terrapure Environmental 130 Forster Street North Vancouver, BC V7H 2M9 Telephone: 604-982-2363 http://www.terrapureenv.com/</p>	
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