

GC Electronics
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Product Name: Pen Oiler
MSDS Number: 288
Revision Date: 12/06/11
Supersedes Date: 8/8/06

MATERIAL SAFETY DATA SHEET

Complies with OSHA Hazard Communication Standard 29 CFR 1910.1200

Product Type: Petroleum Hydrocarbons and Additives
Product Name: Pen Oiler
Part Number(s): 10-985

Emergency Contact: Chemtrec
Phone (24 hours): (800) 424-9300

Section 1 - Identification of Product

Product Description: Petroleum Base Oil and Additives
Product Name: Pen Oiler
Intended Use: Circulating /Gear Oil
NFPA HMIS
Health 0 0
Flammability 1 1
Reactivity 0 0

Section 2 - Hazardous Ingredients

EXPOSURE LIMITS / STANDARDS FOR MATERIALS THAT CAN BE FORMED WHEN HANDLING THIS PRODUCT:

When mists/aerosols can occur, the following are recommended.

Chemical Names and Synonyms:	ACGIH	ACGIH	OSHA
Petroleum Hydrocarbons and Additives	TLV	STEL	PEL
	5mg/m3	10mg/m3	5mg/m3

Globally Reportable MSDS Ingredients: None

This material should not be used for any other purpose than the intended use in Section I without written expert advice. Health studies have shown that chemical exposure may cause potential human health risks which may vary from person to person.

US OSHA HAZARD COMMUNICATION STANDARD: When used for its intended purposes, this material is not classified as hazardous in accordance with OSHA 29 CFR 1910.1200.

US 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 chemical subject to the supplier notification requirements of SARA (313) toxic release program.

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, AICS, DSL, KECI, IECSC, ENCS and PICCS

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Section 3 - Physical Data

Typical physical properties are given below. Product Data Sheet available on Web.

Boiling Point:	>316°C (600°F)
Vapor Density (Air = 1):	>2 at 101 kPa
Vapor Pressure:	<0.013 kPa (0.1 mm Hg) at 20°C
Solubility in Water:	Negligible
Melting Point:	N/A
Appearance and odor:	Light Amber liquid, mild odor
Flash Point:	>174°C (345°F) (ASTM D-92)
Flammability:	NE
Auto Flammability:	N/A
Explosive Properties:	N/A
Oxidizing Properties:	N/A
Evaporation Rate (n-butyl Acetate = 1):	NE
Log Pow (n-Octanol/ Water Partition Coefficient)	>3.5
Relative Density:	15/4 C: 0.861
Partition Coefficient:	>3.5
Viscosity at 40°C, cSt:	22 cSt (22 mm ² /sec)
Viscosity at 100°C, cSt:	4 cSt (4 mm ² /sec)
Pour Point C (F):	<-21 (-6°C)
Freezing Point:	NE
DMSO Extract, IP-346 (WT%):	<3, for mineral oil only
Volatile Organic Compound:	NE

N/A=Not applicable NE- Not Established D=Decomposes

Section 4 - Fire & Explosion Hazard Data

Flash Point:	>174 (345) (ASTMD-92)
Flammable Limits (approx. % vol. in air):	LEL: 0.9% UEL: 7.0%
Extinguishing Media:	Use carbon dioxide, foam, dry chemical and water fog to extinguish flames.
<i>Inappropriate Extinguishing Media:</i>	<i>Straight Stream of Water.</i>
Special Fire Fighting Procedures:	Evacuate area. 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:	Firefighters should use standard firefighting equipment; and for fires in enclosed areas, fire fighters must use self-contained breathing apparatus.
Unusual Fire and Explosion Hazards:	Note: Pressurized mists may form a flammable mixture.
Combustion Products:	Fumes, smoke, oxides of carbon, carbon monoxide, sulfur oxides, aldehydes and other decomposition products, in the case of incomplete combustion.

Section 5 - Health Hazard Data

Under normal conditions of use, this product is not considered hazardous according to regulatory guidelines. (See section 10).

Emergency Overview:	Light amber liquid. Note: Pressurized mists may form a flammable mixture.
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. For further health effects/Toxicological data, see Section 12.
Emergency First Aid Procedures:	
Eye 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.
	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.
Inhalation:	Not expected to be a problem. Remove from further exposure. For those providing assistance, avoid exposure to yourself and others. Use adequate respiratory protection. 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 6 - Reactivity Data

Stability (Thermal, Light, etc.):	Stable under normal conditions.
Conditions to Avoid:	Excessive 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 7 - Spill or Leak Procedures

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

Handling:	High pressure injection under the skin may occur due to the rupture of pressurized lines. Always seek medical attention. No special precautions are necessary beyond normal good hygiene practices. See Section 8 for additional person protection advice when handling this product.
Static Accumulator:	This material is a static accumulator.
Storage:	Keep containers closed when not in use. The container choice, for example storage vessel, may effect static accumulation and dissipation. 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.
Procedures if Material is Released or Spilled:	<p>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. If necessary, dispose of absorbed residues as directed in Section 13.</p> <p>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 on local oil spill procedures.</p>
Large Spills:	Dike far ahead of liquid spill for later recovery and disposal. Prevent entry into waterways, sewers, basements or confined areas.
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.
Personal Precautions:	See Section 8

Section 8 - Special Protection Information

Personal Protection:	Personal protective equipment selections vary based on potential exposure conditions such as applications, handling practices, concentration and ventilation. Information on the selection of protective equipment for use with this material as provided below is based upon intended, normal usage.
Occupational Exposure Limits:	When mists/aerosols can occur, the following are recommended: 5 mg/m ³ (as oil mist)-ACGIH (TLV), 10 mg/m ³ (as oil mist)-ACGIH (STEL), 5 mg/m ³ (as oil mist)-OSHA (PEL).
Ventilation:	If mists are generated, use adequate ventilation, local exhaust or enclosures to control below exposure limits.
Respiratory Protection:	If engineering controls do not maintain airborne contaminant concentrations at a level which is adequate to protect worker health, an approved respirator may be appropriate. Respirator selection, use and maintenance must be in accordance with regulatory requirements, if applicable. Types of respirators to be considered for this material include: No special requirements under ordinary conditions of use and with adequate ventilation For high airborne concentrations, use an approved supplied-air respirator, operated in positive pressure mode. Supplied air respirators with an escape bottle may be appropriate when oxygen levels are inadequate, gas/vapor warning properties are poor or if air purifying filter capacity/rating may be exceeded.
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 be followed.
Specific Hygiene Measures:	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned. Practice good housekeeping.

Section 9 – Special Precautions

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.
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 10 - 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 Substance/Preparations Directive. EU labeling not required.

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

US 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 chemical subject to the supplier notification requirements of SARA (313) toxic release program.

The following product ingredients are cited on the lists below:

<u>Chemical Name</u>	<u>CAS#</u>	<u>List Citations</u>
DIPHENYLAMINE	122-39-4	5

---Regulatory Lists Searched---

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

Code Key: CARC=Carcinogen SUS=Suspected Carcinogen REPRO=Reproductive

Transportation Information:

LAND (DOT): Not Regulated for Land Transport
 LAND (TDG): Not Regulated for Land Transport
 SEA (IMDG): Not Regulated for Sea Transport according to IMDG-Code
 AIR (IATA): Not Regulated for Air Transport
 Static Accumulator (50 picosimens or less): Yes

Section 11 - Other Information

Use: Hydraulic oil
Note: Products are not formulated to contain PCB's
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.
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:
Skin: Wash with soap and water
Eyes: Flush with water.
Inhalation: If overcome by fumes or vapor, remove to fresh air.
Ingestion: DO NOT INDUCE VOMITING
If symptoms persist, seek medical assistance. Read and understand MSDS before using this product.

Section 12 Toxicological Data

ACUTE TOXICITY

Route of Exposure

Conclusion / Remarks

Inhalation:

Toxicity (Rat):	LC50>5000 mg/m3	Minimally toxic. Based on test data for structurally similar materials.
Irritation:	No End point data	Negligible hazard at ambient/normal handling temperatures. Based on assessment of the components.

Ingestion:

Toxicity (Rat):	LD50>5000 mg/kg	Minimally toxic. Based on test data for structurally similar materials.
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Skin:

Toxicity (Rabbit):	LD50>5000 mg/kg	Minimally toxic. Based on test data for structurally similar materials.
Irritation (Rabbit):	Data available	Negligible irritation to skin at ambient temperatures. Based on test data for structurally similar materials.

Eye:

Irritation (Rabbit):	Data available	May cause mild, short-lasting discomfort to eyes. Based on test data for structurally similar materials
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CHRONIC/OTHER EFFECTS

Contains:

Base oil severely refined: Not carcinogenic in animal studies. Representative material passes IP-346. Modified Ames test, and/or other screening tests. Dermal and inhalation studies showed minimal effects; lung non-specific infiltration of immune cells, oil deposition and minimal granuloma formation. Not sensitizing in test animals.

Additional information is available by request

The following ingredients are cited on the lists below: None

-- REGULATORY LISTS SEARCHED --

1 = NTP CARC
2 = NTP SUS

3 = IARC 1
4 = IARC 2A

5 = IARC 2B
6 = OSHA CARC

Section 13 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:	Available ectotoxicity data (LL50 >1000 mg/L) indicates that adverse effects to aquatic organisms are not expected from this product.
Mobility:	Base oil component – Low solubility and floats and is expected to migrate from water to the land. Expected to partition to sediment and wastewater solids.
Persistence and Degradability:	This product is expected to be inherently biodegradable.
Bioaccumulative Potential:	Base oil component – Has the potential to bioaccumulate; however metabolism or physical properties may reduce the bioconcentration or limit bioavailability.

Disclaimer

GC Electronics believes that the information contained herein is accurate and reliable as of the date of this material safety data sheet, but no representation guarantee or warranty, express or implied, is made as to the accuracy, reliability, or completeness of the information. Persons receiving this information are encouraged to make their own determination as to the information's suitability and completeness for their particular application. NO INFORMATION CONTAINED HEREIN CONSTITUTES A PRODUCT WARRANTY OF ANY KIND, WHETHER EXPRESS OR IMPLIED; AND ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND OF FITNESS FOR A PARTICULAR PURPOSE ARE HEREBY DISCLAIMED BY GC ELECTRONICS.