

**BioShield Hard Oil #9**

Material Safety Data Sheet in accordance with 91/155/EEC

Issued: 01.10.05

**1 Section****Chemical Product and Company Identification**

MSDS Name: **Hard Oil**

Product Group : Surface Treatment inside

Catalog Numbers : **9**

Synonyms :

Company Identification : Eco Design Co.  
3215 Rufina Street  
Santa Fe, NM 87507  
Phone : +1-(505) 438-3448  
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**2 Section****Composition, Information on Ingredients**

Solution of linseed oil in aliphatic hydrocarbons (C11/13) and C 10 Terpenes with small additives of Zn-, Zr-, Mn-, and Co-fatty acids-soap (siccative)

CAS	Chemical Name	EC#	EINECS#	%	Lab.	R-Phrases
8001-26-1	linseed fatty acids triglycerides			69	Xi	10, 38
93685-81-5	Mix. Aliph. Hydrocarbons	649-429-00	297-854-1	28.5	F, Xn	10/65
138-86-3	p-Menthadien-1,8(9)	601-029-00-7	205-341-0	1.5	F, Xi	10/36/38

**3 Section****Hazards Possibilities**

Does not require a hazard warning label, but the normal safety precautions for handling of chemicals must be observed

**Appearance:** White viscous, flammable liquid.

**Labelling:** R 10, flammable

**Eye:** Irritating to eyes, respiratory system and skin.

**Skin:** May cause skin irritation

**Ingestion:** May cause gastrointestinal irritation with nausea, vomiting, and diarrhoea.

**Inhalation:** May cause respiratory tract irritation. Aspiration may lead to pulmonary edema. Vapors may cause dizziness or suffocation. Can produce delayed pulmonary edema. May cause burning sensation in the chests.

**Chronic:** Effects may be delayed.

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**4 Section****First Aid Measures****General Information:** When continuous complaints consult a physician.**Eye :** Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.**Skin:** Flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.**Ingestion:** Never give anything by mouth to an unconscious person. Get medical aid. Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water..**Inhalation:** Remove from exposure to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.**Notes to Physician:** Treat symptomatically and supportively.**5 Section****Fire Fighting Measures****General Information:**

As in any fire, wear self-contained breathing apparatus in pressure-demand, MSHA / NIOSH (approved or equivalent), and full protective gear. Fumes may form an explosive mixture with air.

**Extinguishing Media:**

For small fires, use dry chemical, carbon dioxide, water spray or alcohol-resistant foam. For large fires, use water spray, fog, or alcohol-resistant foam. Use water spray to cool fire exposed containers. Water may be ineffective. Use agent most appropriate to extinguish fire. Do NOT use straight streams of water.

**6 Section****Accidental Release Measures****General Remarks:** Use proper personal protective equipment as indicated in Section 8.**Methods for Cleaning up / Taking up :**

Absorb spill with inert material (e.g., dry sand or earth), then place into a chemical waste container. Avoid runoff into storm sewers and ditches which lead to waterways. Clean up spills immediately, observing precautions in the *Protective Equipment section 12*. Remove all sources of ignition. Use a spark-proof tool. Provide ventilation. A fume suppressing foam may be used to reduce fumes.

**Environmental Precautions:**

Do not allow to enter drains or waterways Do not allow spilled product to enter soil or waterways

**Additional Remarks :** Product may be identified by a faint smell of orange.

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**7 Section****Handling and Storage**

**Hints on safe handling :** Use with adequate ventilation. Ground and bond containers when transferring material. Use spark-proof tools and explosion proof equipment. Avoid contact with eyes, skin, and clothing. Empty containers retain product residue, (liquid and/or fumes), and can be dangerous. Keep container tightly closed. Avoid contact with heat, sparks and flame. Avoid ingestion and inhalation. Wash clothing before reuse. Do not pressurise, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames.

**Storage Conditions:** Keep away from heat, sparks, and flame. Keep away from sources of ignition. Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances. Store above 0°C (32° F)

**8 Section****Exposure Controls, Personal Protection**

Facilities storing or utilising this material should be equipped with an eyewash facility and safety shower. Use adequate general or local explosion-proof ventilation to keep airborne levels to acceptable levels.

**Exposure Limits**

<u>Chemical Name</u>	<u>ACGIH</u>	<u>NIOSH</u>	<u>OSHA – Final PELs</u>	<u>OSHA Vacated PELs</u>
p-Menthadien-1,8(9)	none listed	none listed	none listed	none listed

**Personal Protective Equipment:**

**Eye:** Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN 166.

**Skin:** Wear appropriate protective gloves to prevent skin exposure.

**Clothing:** Wear appropriate protective clothing to prevent skin exposure.

**Respirators:** A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant a respirator's use.

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**9 Section****Physical and Chemical Properties**

<b>Appearance:</b>	Amber liquid	
<b>Physical State:</b>	Liquid	
<b>Odor:</b>	Citrus-like odor	
<b>pH:</b>	n.a.	
<b>Vapor Pressure:</b>	n.a.	DIN 51 562
<b>Vapor Density:</b>	> 1.0	
<b>Evaporation Rate:</b>	n.a.	
<b>Viscosity:</b>	<= 15" 4mm / 20°C	DIN 52 211
<b>Boiling Point/Range:</b>	150-180 °C / 760 mm Hg	DIN 51 751/51, DIN 52 211
<b>Freezing / Melting Point:</b>	< 25°C	
<b>Autoignition Temperature:</b>	n.a.	
<b>Flash Point:</b>	32° C (76° F)	DIN 51 755/51 758
<b>NFPA Rating:</b>	not published	
<b>Exposure Limits, Lower:</b>	n.a.	
<b>Upper:</b>	n.a.	
<b>Decomposition Temperature:</b>	n.a.	
<b>Solubility:</b>	in water < 0,1%	
<b>Specific Gravity/Density:</b>	~ 0,788 g/cm <sub>3</sub> , 20°C	DIN 51 757

**10 Section****Stability and Reactivity**

Stable at room temperature in closed containers under normal storage and handling conditions.

**Conditions to avoid:** Incompatible materials, ignition sources, excess heat.

**Incompatibilities with Other Material:**

Oxidizing Agents

**Hazardous Decomposition Products:**

Carbon Monoxide, irritating and toxic fumes and gases, carbon dioxide.

**Hazardous Polymerization:**

Has not been reported

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**11 Section****Toxicological Information**

- Acute Toxicity:** not reported
- Carcinogenity:** Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA
- Sensitization:** not reported
- Other Studies:** See actual entry in RTECS for complete information.
- Experiences made in Practice:** No negative results reported

**12 Section****Ecological Information**

- WGK (Water Danger/Protection):** 1
- General Remarks:** Product must not contaminate ground water or environmental water.

**13 Section****Disposal Considerations**

- Product:** For recycling, consult waste disposal centres  
In accordance with local authority regulations, take to chemical/physical treatment plant
- Packagings:** Completely emptied packagings can be given for recycling.
- RCRA P-Series:** none listed
- RCRA U-Series:** none listed

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**14 Section****Transport Information****Labeling:** Paint, Lacquer, Coating Composition, Enamel, Varnish**US DOT****UN-No. :** 1263**Hazard Class:** 3**Packing Group:** III**Canadian TDG:** no information available**German Regulations:****ADR/GGVS, RID/GGVE:****Kemmler-No.:** 30**EMAC** 3**GGSV:** 30 / 1263**15 Section****Regulatory Information****European / international regulations**

European Labeling in Accordance with EC Directives:

<b>Risk Phrases:</b>	R 10	Flammable
	R 38	Irritating to skin
	R 21	Harmful in contact with skin

<b>Safety Phrases:</b>	S 2	Keep out of the reach of children
	S 16	Keep away from sources of ignition, No smoking
	S 33	Take precautionary measures against static discharges.

WGK (Water/Danger Protection): 1

**Exposure Limits:**

<u>CAS-No.</u>	<u>Chem. Name</u>	<u>%</u>	<u>Regulation</u>	<u>Value</u>	<u>Unit</u>
93685-81-5	Mix. Aliph. Hydrocarbons	55	TRGS 404	350	ml/m <sub>3</sub>
8006-64-2	Oil of Turpentine	1	MAK-List	560	ml/m <sub>3</sub>
138-86-3	p-Menthadien-1,8 (9)	20	MAK-List	n.a.	

**16 Section****Additional Information**

This Information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no way shall the company be liable for any claims, losses, or damage of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if the company has been advised of the possibility of such damages.