

# Material Safety Data for: Mineral Seal Oil

## 1. PRODUCT IDENTIFICATION

<b>Name</b>	<b>Mineral Seal Oil</b>
<b>Synonyms</b>	<b>petroleum distillates, hydrotreated middle</b>
<b>CAS#</b>	<b>64742-46-7</b>
<b>EC#</b>	<b>265-148-2</b>
<b>Product Uses</b>	<b>base oil (for lubricants)</b>

## 2. INGREDIENTS

	%	TWAEV / TLV mg/m <sup>3</sup>	LD <sub>50</sub> ORAL	(mg/kg) SKIN	LC <sub>50</sub> ppm INHALATION
petroleum distillates, hydrotreated middle	100%	5	>5000	>5000	not known

## 3. (a) HAZARDS SUMMARY

### Hazards, Quick Guide:

#### Canada – WHMIS

Key:

#### not controlled under WHMIS

**B 2** – Flash Point <38°C, **B 3** – Flash Point >38°C & <93°C  
**D 1** – Immediately Toxic, **D 2** – Chronic Toxicity  
**C** – Oxidising Substance, **E** – Corrosive

#### U.S.A. – HMIS

Key:

#### Health – 0/1, Fire – 1, Reactivity – 0

0=minimal, 1=slight, 2=moderate, 3=serious, 4=severe

## 3. (b) HAZARDS – TOXICITY

### Effects, Acute Exposure

Skin Contact	little to no effect
Skin Absorption	toxic effects highly unlikely by this route
Eye Contact	little to no effect – <i>oil in the eye may cause temporarily blurred vision</i>
Inhalation	mist inhalation likely to cause breathing difficulty – <i>as would any oily substance</i>
Ingestion	ingestion unlikely for a viscous liquid; poorly or not absorbed; ingestion of 100ml+ may cause transient nausea & diarrhoea

### Effects, Chronic Exposure

General	prolonged or repeated exposure may cause dermatitis & “oil acne”* – <i>as would any other oily substance handled similarly</i>
Sensitising	not a sensitiser in animals or humans
Carcinogen/Tumorigen	not known to be a tumorigen or a carcinogen in humans or animals**
Reproductive Effect	no known effect on humans or animals**
Mutagen	not known as a mutagen or teratogen in animals or humans**
Synergistic With	not known
LD <sub>50</sub> (oral)	over 5000mg/kg (rat) – <i>tested on similar hydrocarbon, values to 20,000mg/kg reported</i>
LD <sub>50</sub> (skin)	over 2000 & 4100mg/kg (rabbit) – <i>tested on similar hydrocarbon</i>
LC <sub>50</sub> (inhalation)	4600 & 7640mg/m <sup>3</sup> (rat)

\* *Oil Acne is caused by oils in the skin sebaceous glands stimulating the production of keratin. The combination forms a dark coloured plug which may become inflamed.*

\*\* *Hydrocarbons are hydrotreated, as is this product, to ensure that these effects are minimised or nonexistent.*

**Please ensure that this MSDS is given to, and explained to people using this product.**

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**4. FIRST AID**

- SKIN:** Wash with soap and plenty of water. Remove contaminated clothing and do not reuse until thoroughly cleaned or laundered.
- EYES:** Wash eyes with plenty of water, holding eyelids open. Seek medical assistance promptly if there is irritation.
- INHALATION:** Remove from contaminated area promptly. **CAUTION: Rescuer must not endanger himself!** If breathing stops, administer artificial respiration and seek medical aid promptly.
- INGESTION:** Give plenty of water to dilute product. Do not induce vomiting (NOTE below). Keep victim quiet. If vomiting occurs, lower victim's head below hips to prevent inhalation of vomited material. Seek medical help promptly.

*Inadvertent inhalation of vomited material may seriously damage the lungs. The danger of this is greater than the risk of poisoning through absorption of this relatively low-toxicity substance. The stomach should only be emptied under medical supervision, and after the installation of an airway to protect the lungs.*

**5. PHYSICAL PROPERTIES**

Odour & Appearance	pale yellow, viscous liquid with slight kerosene (petroleum) odour
Odour Threshold	not known
Vapour Pressure	0.5mmHg / 0.067kPa (20°C / 68°F)
Evaporation Rate ( <i>Butyl Acetate = 1</i> )	~0.09 – <i>not considered volatile</i>
Vapour Density (air = 1)	~6
Boiling Range	256-295°C / 492-563°F
Freezing Point	-18°C / 0°F
Specific Gravity	0.82 (20/20°C)
Water Solubility	nil
Also soluble in	hydrocarbons, ethers, ketones
Viscosity	4centipoise (40°C / 104°F)
pH	none – ( <i>does not liberate hydrogen ions when dissolved</i> )
Molecular Weight	not known – <i>mixture of molecular species</i>

**6. FLAMMABILITY & FIRE FIGHTING**

Flash Point	129°C / 264°F (Pensky-Martens closed cup)
Autoignition Temperature	343-371°C / 650-700°F
Flammable Limits	0.7% – 5%
Combustion Products	carbon monoxide, nitrogen oxides, smoke, part oxidised hydrocarbon fragments
Fire Fighting Precautions	foam, dry chemical, water fog, water spray only to cool & dilute, product floats on water – water jet spreads flames; fire fighters must wear SCBA
Static Charge Accumulation	may accumulate a static charge on agitation or pumping, but high flash point makes ignition highly unlikely

**7. STABILITY / REACTIVITY**

Dangerously Reactive With	strong oxidising agents
Also Reactive With	none known
Stability	stable; will not polymerize
Decomposes in Presence of	not known
Decomposition Products	none apart from Hazardous Combustion Products
Sensitive to Mechanical Impact	no

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## 8. PROTECTIVE EQUIPMENT / EXPOSURE CONTROL

ACGIH TLV	5mg/m <sup>3</sup> – oily mists
OSHA PEL	5mg/m <sup>3</sup> – oily mists
STEL	not listed
Ventilation	mechanical ventilation may be required to control airborne titre; depending on handling procedures
Hands	“Viton” gloves recommended – <i>other types may also protect; consult supplier to confirm suitability</i>
Eyes	safety glasses with side shields – <i>always protect the eyes</i>
Clothing	wear impermeable (above) apron, boots, & long sleeves if there is any danger of splashing

## 9. HANDLING & STORAGE

Store product away from open flame and oxidising agents. Empty containers may contain a flammable or explosive vapour. Always ensure that containers, whether empty or full, or part full, are tightly sealed unless in use.

Avoid breathing product vapour. If product mists are created during handling or use, install adequate exhaust ventilation.

Never cut, drill, weld or grind on or near this container. Avoid prolonged contact with skin and wash work clothes frequently. An eye bath and safety shower must be available near the workplace. Wash all exposed body parts thoroughly after exposure to this product to help prevent the occurrence of “oil acne” (*see Note at end of Part 3*).

## 10. SPILL PROCEDURES

Leak Precaution	dyke to control spillage and prevent environmental contamination
Handling Spill	ventilate contaminated area; recover free liquid with suitable pumps; absorb residue on an inert sorbent, sweep, shovel & store in closed containers for recycling or disposal

## 11. DISPOSAL

Waste Disposal	<b>do not flush to sewer</b> , recycle if possible, may be incinerated in an approved facility after mixing with a suitable flammable waste
Containers	<b>Drums</b> should be reused. Recondition and pressure test by a licensed reconditioner prior to re-use. <b>Pails</b> must be vented and thoroughly dried prior to crushing and recycling. <b>IBCs</b> (intermediate bulk containers): polyethylene bottle must be pressure tested & recertified at 30 months. Replace at 60 months (5yrs). Steel containers must be inspected, pressure tested & recertified every 5 years. <i>Never cut, drill, weld or grind on or near this container, even if empty</i>

## 12. ENVIRONMENTAL INFORMATION

Bioaccumulation	this product is not a bioaccumulator
Biodegradation	this product degrades readily in the presence of oxygen once emulsified into water with the help of a suitable surfactant; rate of biodegradation not known – <i>varies widely depending on location, local ecology &amp; temperature</i> ; related hydrocarbon – 30% biodegradation in 28 days
Abiotic Degradation	data for related hydrocarbon – 1/2-life approximately one day
Mobility in soil, water	this product is water insoluble and cannot move in soil and water
<b>Aquatic Toxicity</b>	
LC <sub>50</sub> (Fish, 96hr)	54mg/litre (Jordanella floridae), 35mg/litre (Pimephelas promelas) ( <i>mechanically emulsified</i> )
LC <sub>50</sub> (Crustacea, 48hr)	36% (Artemia salina), 16% (Daphnia magna) – the percentages are of “water soluble fraction”, prepared by agitating the hydrocarbon vigorously with water for 3 days

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**13. TRANSPORT REGULATIONS**

Canada TDG	PIN	UN-not regulated for transport
AND	Shipping Name	not regulated for transport
U.S.A. 49 CFR	Class	not regulated for transport
	Packing Group	not regulated for transport
Marine Pollutant		not a marine pollutant

**14. EMERGENCY INFORMATION**

Canada	Call CANUTEC (collect)	(613) 996-6666
U.S.A.	Call CHEMTREC	(800) 424-9300

**15. REGULATIONS**

Canada DSL	on inventory
U.S.A. TSCA	on inventory
Europe EINECS	on inventory
<i>This product is probably on the chemical inventories of most countries.</i>	
SARA 302/304	no components identified
SARA 311/312	not hazardous
SARA 313	not hazardous
CERCLA	no reporting requirements
Clean Water Act	spills producing visible sheen on water must be reported to the EPA (800) 4248802
California Proposition 65	may contain substances causing reproductive harm

**16. PREPARATION INFORMATION**

Prepared for Megaloid Laboratories by Peter Bursztyn, (705) 734-1577

File Name: mineral seal

With data from RTECS, Haz. Substance Data Base, Cheminfo (CCOHS), IUCLID Datasheets (European Chem. Substance Info. System), & others, as available

Preparation Date: **December 2003** Revision Date: **December 2006, December 2009**

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