



# Safety Data Sheet

## 1. PRODUCT IDENTIFICATION

**Name** Mineral Spirits  
**Synonyms** hydrotreated light petroleum distillate; white spirits; stoddart solvent; vanishing oil; aliphatic naphtha  
**CAS#** 64742-47-8; alternates: 64742-88-7, 8052-41-3, 64475-85-0  
**Europe EC #** 265-149-8  
**Product Uses** solvent, diluent, fuel

### EMERGENCY INFORMATION

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

## 2. HAZARDS

GHS Class (Category)	flammable (3)	skin irritant (3)	aquatic acute (2)	aquatic chronic (4)
Signal Words	WARNING	WARNING no pictogram	no signal word	no signal word no pictogram
Hazard Statements	flammable liquid & vapour (H226)	causes mild skin irritation (H316)	toxic to aquatic life (H401)	may cause long-lasting harmful effects to aquatic life (H413)



### GHS Precautionary Statements for Labelling

- P210 Keep away from heat, sparks, open flames and hot surfaces. No smoking.
- P240 Ground or bond container and receiving equipment.
- P241 P242 Use explosion-proof electrical, ventilating and lighting equipment. Use only non-sparking tools.
- P243 Take precautionary measures against static discharge.
- P262 Do not get in eyes, on skin or on clothing.
- P264 Wash thoroughly after handling.
- P270 Do not eat, drink or smoke when using this product.
- P280 Wear eye protection, protective gloves and clothing of butyl or "Viton".
- P273 Avoid release to the environment.
- P391 Collect spillage.

Canada – WHMIS Key:

**B 3**  
**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, **F** – Reactive Substance



## 3. COMPOSITION

	%	TWAEV / TLV ppm / mg/m <sup>3</sup>	LD <sub>50</sub> (mg/kg) ORAL	LD <sub>50</sub> (mg/kg) SKIN	LC <sub>50</sub> ppm INHALATION
Solvent Naphtha, Medium, Aliphatic	100%	100 / 610	>5000	>2000	>3400

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



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#### **4. FIRST AID**

- SKIN: Wash with soap & plenty of water. Remove contaminated clothing and do not reuse until thoroughly 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. FIRE FIGHTING & FLAMMABILITY**

- Flash Point    above 38°C / 100°F (closed cup) *6 mineral spirits is specifically formulated to exceed this*
- Autoignition Temperature                    229°C / 444°F
- Flammable Limits                                0.9% *6* 6%
- Combustion Products                         carbon monoxide, nitrogen oxides, smoke, part oxidised hydrocarbon fragments
- Firefighting Precautions                    foam, dry chemical, water fog, water spray only to cool & dilute, product floats on water *6* water jet spreads flames; firefighters must wear SCBA
- Static Charge Accumulation                readily accumulates a static charge on agitation or pumping; however, the flash point is high enough that this presents no risk except in very hot locations

#### **6. ACCIDENTAL RELEASE MEASURES**

- 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 & pick up using plastic or aluminium shovel & store in closed containers for recycling or disposal

#### **7. HANDLING & STORAGE**

Store in a cool, dry environment, away from sources of ignition, heat and oxidising agents. Non-sparking bronze or aluminium hand tools are recommended *6* required if ambient temperature is above (38°C / 100°F). Electrical & mechanical equipment (including lighting, switchgear & forklift trucks) used with or around this product should be explosion-proof.

This product creates & retains a static charge on agitation or transfer from one container to another. It is prudent to electrically bond the source container, receiving container & transfer pump before transferring contents. (*This does apply to a transfer of over 10 litres.*) Avoid splashing. Keep product nozzle below the surface in the receiving container. Empty containers may contain a flammable / explosive vapour. Ensure that containers, whether empty or full, are tightly sealed unless in use.

Avoid breathing product vapour. Use with adequate ventilation. If dealing with a spill, and ventilation is impossible or impractical, wear a respirator with an organic vapour cartridge.

Never cut, drill, weld or grind on or near this container. Avoid contact with skin and wash work clothes frequently. An eye bath and safety shower must be available near the workplace.

**NOTE:** *Under certain circumstances, absorbent materials soaked in this product & heaped in a corner may undergo spontaneous combustion. Always dry used absorbent materials thoroughly before discarding.*

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**8. EXPOSURE CONTROL & PERSONAL PROTECTION**

Ontario TWAEV	525mg/m <sup>3</sup>	Ontario STEV	not listed
ACGIH TLV	525mg/m <sup>3</sup>	ACGIH STEL	not listed
OSHA PEL	1900mg/m <sup>3</sup>	OSHA STEL	not listed
Ventilation	mechanical ventilation is probably not required, unless product is handled hot		
Hands	nitrile or δVitonö gloves recommended ó <i>other types may also protect; consult supplier to confirm suitability</i>		
Eyes	safety glasses with side shields ó <i>always protect the eyes</i>		
Clothing	wear impermeable (above) apron, boots, & long sleeves if there is any danger of splashing,		

**9. PHYSICAL PROPERTIES**

Odour & Appearance	clear, colourless liquid with kerosene odour
Odour Threshold	~1ppm
Vapour Pressure	2.3mmHg / 0.3kPa (20°C / 68°F)
Evaporation Rate ( <i>Butyl Acetate = 1</i> )	0.1
Vapour Density (air = 1)	5
Boiling Range	155-205°C / 310-400°F
Freezing Point	-70°C / -94°F
Specific Gravity	0.78 (20/20°C)
Water Solubility	nil
Also soluble in	hydrocarbons and other non-polar solvents; nearly insoluble in methanol
Log P <sub>O/W</sub> (Octanol/H <sub>2</sub> O partition)	not known
Viscosity	1.5centistokes (25°C / 77°F)
pH	none ó ( <i>does not liberate hydrogen ions when dissolved</i> )
Conversion Factor	1ppm = 6mg/m <sup>3</sup> (estimated from average molecular weight)
Molecular Weight	150grams per mole (average mol. wt.) ó <i>The physical properties of this petroleum distillate may vary.</i>

**10. REACTIVITY**

Dangerously Reactive With	strong oxidising agents
Also Reactive With	none known
Stability	stable; will not polymerize
Decomposes in Presence of	thermal decomposition may occur above 200°C / 390°F, spontaneous combustion may occur at ambient temperature ó see Part 9, Note
Decomposition Products	none apart from Hazardous Combustion Products
Sensitive to Mechanical Impact	no

**11. TOXICITY****Effects, Acute Exposure**

Skin Contact	little immediate effect; may be mildly irritating; <i>of 14 reported tests on rabbits, 7 rated this type of hydrocarbon "not irritating", 6 "irritating", with one inconclusive<sup>1</sup></i>
Skin Absorption	slight; no toxic effects by this route
Eye Contact	liquid slightly irritating; <i>11 reported tests on rabbits all rated this type of hydrocarboin as "not irritating"<sup>1</sup>, some reports suggest that vapour irritating above 150ppm</i>
Inhalation	400ppm+ may cause burning sensation in nose & throat, intoxication dizziness, fatigue
Ingestion	may cause diarrhoea & stomach discomfort ó not a route of industrial exposure
LD <sub>50</sub> (oral)	5500-34,600mg/kg (rat)
LD <sub>50</sub> (skin)	2000-15,400mg/kg (rabbit)
LC <sub>50</sub> (inhalation)	3400-8000ppm (rat)

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**11. TOXICITY, cont'd****Effects, Chronic Exposure**

General	prolonged or repeated contact may cause dermatitis & skin cracking; chronic exposure to vapour may cause tingling, numbness, memory loss
Sensitising	not a sensitiser in humans or animals
Carcinogen/Tumorigen	not considered a tumorigen or a carcinogen in humans or animals
Reproductive Effect	no known effect in humans or animals
Mutagen	no known effect on humans or animals
Synergistic With	not known

**12. ECOLOGICAL INFORMATION**

Bioaccumulation	this product is not a bioaccumulator
Biodegradation	biodegrades slowly in the presence of oxygen (rate unknown); much faster in acclimated (polluted) water than pristine water ( <i>should be under 30 days in sewage treatment facility</i> )
Abiotic Degradation	reacts with atmospheric hydroxyl radicals; estimated ½-life in air less than one day
Mobility in soil, water	water insoluble; low soil mobility; adsorbs to soil helping it remain stationary
<b><u>Aquatic Toxicity</u></b>	
LC <sub>50</sub> (Fish, 96hr)	45mg/litre <i>emulsified</i> , 18-20mg/litre <i>water soluble</i> (Pimephelas promelas) <b>NOTE:</b> <i>Mineral spirits is essentially water insoluble. The above tests recognize this. The 1<sup>st</sup> test emulsified the product, the 2<sup>nd</sup> equilibrated it with water, then tested.</i>
LC <sub>50</sub> (Crustacea, 48hr)	1.4, 1.9, 3-10, 21 & 40-89mg/litre (Daphnia magna) <sup>1</sup>
LC <sub>50</sub> (Algae, 72hr)	1-3, 4.3, 5.0, 8.3 & 10-30mg/litre (Pseudokirchnerella subcapitata) <sup>1</sup>
LC <sub>50</sub> (Bacteria)	678mg/litre (Tetrahymena pyriformis <i>ó computer estimate</i> ) <sup>1</sup>

**13. DISPOSAL**

Waste Disposal	<b>do not flush to sewer</b> , recycle solvent if possible, may be incinerated in approved facility
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. <b><i>Never cut, drill, weld or grind on or near this container, even if empty</i></b>

**14. TRANSPORT CLASSIFICATION**

Canada TDG	PIN	UN - 1268
AND	Shipping Name	petroleum distillates N.O.S. (naphtha)
U.S.A. 49 CFR	Class & Packing Group	3 (III)
Marine Pollutant		not a marine pollutant
ERAP Required		NO

**15. REGULATIONS**

Canada DSL	on inventory
U.S.A. TSCA	on inventory
Europe EINECS	on inventory

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## **16. OTHER INFORMATION**

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

Data from **RTECS**, **HSDB** (Haz. Substance Data Base), **Cheminfo** (CCOHS), **IUCLID** Datasheets (ESIS – European Chem. Substance Info. System), & others.

Preparation Date: **June 2001**      Revision Date: **July 2002, July 2005, June 2008, June 2011, June 2014**

**(1) European Chemicals Agency (ECHA) dossier on Distillates (Petroleum), Hydrotreated, Light:**

[http://apps.echa.europa.eu/registered/data/dossiers/DISS-9fdc8d15-ad5d-3b81-e044-00144f67d031/DISS-9fdc8d15-ad5d-3b81-e044-00144f67d031\\_DISS-9fdc8d15-ad5d-3b81-e044-00144f67d031.html](http://apps.echa.europa.eu/registered/data/dossiers/DISS-9fdc8d15-ad5d-3b81-e044-00144f67d031/DISS-9fdc8d15-ad5d-3b81-e044-00144f67d031_DISS-9fdc8d15-ad5d-3b81-e044-00144f67d031.html)

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