

Material Safety Data for: Odourless Mineral Spirits

1. PRODUCT IDENTIFICATION

Name	isoparaffinic hydrocarbon
Synonyms	hydrotreated aliphatic petroleum naphtha
CAS#	64742-48-9 or 64742-47-8 & others
Europe EC#	265-150-3 or 265-149-8
Product Uses	odourless hydrocarbon solvent, light lubricant, “vanishing” oil

2. INGREDIENTS

	%	TWAEV / TLV ppm / mg/m ³	LD ₅₀ ORAL	(mg/kg) SKIN	LC ₅₀ mg/m ³ INHALATION
Odourless Mineral Spirits	100%	175 / 1200	>5000	>2000	>5200

3. (a) HAZARDS SUMMARY

Hazards, Quick Guide: combustible liquid, heavy vapour may travel, distant ignition and flashback are possible

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

U.S.A. – HMIS

Key:

Health – 1, Fire – 2, Reactivity – 0

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

3. (b) HAZARDS – TOXICITY

Effects, Acute Exposure

Skin Contact	may be slightly irritating on long exposure
Skin Absorption	slight; no toxic effects likely by this route
Eye Contact	may be slightly irritating
Inhalation	may irritate but low vapour pressure makes this action unlikely; high vapour concentrations (caused by heating product) may cause central nervous depression
Ingestion	ingestion of 100+ml may cause transient diarrhoea – not a route of industrial exposure

Effects, Chronic Exposure

General	prolonged exposure may exacerbate existing dermatitis; in rodent tests, ingestion of 2500-5000mg/kg/day for 13 weeks caused changes in blood, liver, kidneys & adrenal gland; <i>this high continuous intake is not relevant to industrial exposure</i>
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
LD ₅₀ (oral)	>5000 & >15,000mg/kg (rat)
LD ₅₀ (skin)	>2000 & >3160mg/kg (rabbit)
LC ₅₀ (inhalation)	>5200mg/m ³ (rat), >12,000mg/m ³ (rat)

NOTE: Data for CAS# 64742-48-9 & 64742-47-8 have been combined above. The two CAS numbers are interchangeable.

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

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	clear, colourless liquid with almost no odour
Odour Threshold	not known – <i>odour is no guide to the presence of spilled product</i>
Vapour Pressure	0.8mmHg / 0.1kPa (20°C / 68°F)
Evaporation Rate (<i>Butyl Acetate = 1</i>)	0.1
Vapour Density (air = 1)	~5
Boiling Range	170-205°C / 338-401°F
Freezing Point	-60°C / -76°F
Specific Gravity	0.76 (20/20°C)
Water Solubility	~1 milligram per litre 20°C / 68°F
Also soluble in	most organic solvents, low solubility in glycols, methanol, ethanol
Viscosity	1.84centistokes (25°C / 77°F)
pH	none – (<i>does not liberate hydrogen ions when dissolved</i>)
Molecular Weight	150grams per mole (<i>approximately</i>)
Conversion Factor	1ppm = 6.85mg/m ³ (<i>approximately</i>)

NOTE: *The above physical properties are adapted from actual sales specifications, and not from the general specifications of CAS# 64742-48-9 & CAS# 64742-47-8.*

6. FLAMMABILITY & FIRE FIGHTING

Flash Point	above 50°C / 122°F (closed cup)
Autoignition Temperature	350°C / 660°F
Flammable Limits	1.2% – 9.3%
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 – water jet spreads flames; firefighters must wear SCBA
Static Charge Accumulation	readily accumulates a static charge on agitation or pumping

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	not listed
OSHA PEL	not listed
STEL	not listed
Ventilation	mechanical ventilation is probably not required; engineering procedures should be in place to prevent the development of visible product mist; if necessary, install local point source exhaust ventilation to control mist
Hands	no special protective gloves required; "Viton" gloves may be worn
Eyes	safety glasses with side shields – <i>always protect the eyes</i>
Clothing	no special protective clothing required

9. HANDLING & STORAGE

Store in a cool, dry environment, away from sources of ignition, heat and oxidising agents.

Although this product is a static accumulator, its flash point is high enough to make accidental ignition unlikely. Nevertheless, grounding or electrically bonding of the source container, the receiving container, and the transfer pump are recommended before transferring contents. Avoid splashing by ensuring that the product nozzle is below the surface in the receiving container. Empty containers may contain a flammable / explosive vapour. Always ensure that containers, whether empty or full, or part full, are tightly sealed unless in use.

Avoid breathing product vapour. Use with adequate ventilation.

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.

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

11. DISPOSAL

Waste Disposal	do not flush to sewer , recycle solvent if possible, if local regulations permit, may be put in sanitary landfill, may be incinerated in approved facility
Containers	Drums should be reused. Recondition and pressure test by a licensed reconditioner prior to re-use. Pails must be vented and thoroughly dried prior to crushing and recycling. IBCs (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 poorly absorbed and not a bioaccumulator
Biodegradation	this product degrades readily in the presence of oxygen; rate of biodegradation varies - 30% in 3days, 42% in 21days, 99% in 28days; testing of similar products have also shown lower rates 12% in 28 days
Abiotic Degradation	not known – will not photolyse directly; attacked by airborne hydroxyl radicals
Mobility in soil, water	this product is water insoluble and cannot move readily in soil and water
Aquatic Toxicity	<i>(Data for CAS# 64742-48-9 & 64742-47-8 are combined below.)</i>
LC ₅₀ (Fish, 96hr)	45 & 2200mg/litre (Pimephelas promelas), 1740mg/litre (Lepomis macrochirus), & others
EC ₅₀ (Crustacea, 48hr)	4720mg/litre (Dendronereides heteropoda), 4.3mg/litre (Crangon crangon) & others

The aquatic toxicity data vary widely. This may be due to the products' low solubility & the methods used to mix the product with water.

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13. TRANSPORT REGULATIONS

<i>Canada TDG</i>	PIN	UN-1268
AND	Shipping Name	PETROLEUM PRODUCTS N.O.S. (naphtha)
	OR	PETROLEUM DISTILLATES N.O.S. (naphtha)
<i>U.S.A. 49 CFR</i>	Class	3
	Packing Group	III
Marine Pollutant		not a marine pollutant

14. EMERGENCY INFORMATION

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

15. REGULATIONS

<i>Canada DSL</i>	on inventory
<i>U.S.A. TSCA</i>	on inventory
<i>Europe EINECS</i>	on inventory

16. PREPARATION INFORMATION

Prepared for Megaloid Laboratories by Peter Bursztyn, (705) 734-1577
With data from RTECS, Haz. Substance Data Base, Cheminfo (CCOHS), IUCLID Datasheets (European Chem. Substance Info. System), & others, as available
*Preparation Date: **March 2004** Revision Date: **April 2007, April 2010***

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