

Material Safety Data for: V M & P Naphtha

1. PRODUCT IDENTIFICATION

Name	aliphatic naphtha
Synonyms	light aliphatic solvent naphtha, hydrotreated light naphtha, light ligroin & others
CAS#	64742-49-0; alternative CAS # - 8032-32-4 & 8030-30-6
Product Uses	solvent or diluent for paints

2. INGREDIENTS

	%	TWAEV / TLV mg/m ³	LD ₅₀ ORAL	(mg/kg) SKIN	LC ₅₀ ppm INHALATION
Aliphatic Naphtha	100%	300 / 1200*	>5000	>3000	3400

* See Part 8

3. (a) HAZARDS SUMMARY

Hazards, Quick Guide: flammable liquid, heavy vapour may travel, distant ignition & flashback are possible, static accumulator

Canada – WHMIS

Key:

B 2

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 – 3, Reactivity – 0

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

3. (b) HAZARDS – TOXICITY

Effects, Acute Exposure

Skin Contact	drying, slightly irritating if contact is prolonged
Skin Absorption	slight; no toxic effects likely by this route
Eye Contact	slightly irritating
Inhalation	irritating above 800ppm; higher levels may produce incoordination & dizziness
Ingestion	poorly absorbed; little to no effect beyond possible temporary diarrhoea

Effects, Chronic Exposure

General	prolonged exposure may cause dermatitis & skin cracking in people with sensitive skin; cardiovascular, brain, liver & kidney damage possible following chronic abuse (“sniffing”)
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)	>5000mg/kg (rat)
LD ₅₀ (skin)	>3000mg/kg (rabbit)
LC ₅₀ (inhalation)	3400ppm (rat)

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 pleasant gasoline odour
Odour Threshold	not known – various values given from 10 – 200ppm
Vapour Pressure	9mmHg / 1.2kPa (20°C / 68°F)
Evaporation Rate (<i>Butyl Acetate = 1</i>)	1.2
Vapour Density (air = 1)	4
Boiling Range	120°C–150°C / 248°F–300°F
Freezing Point	below -50°C / -58°F
Specific Gravity	0.75 (20/20°C)
Water Solubility	nil
Also soluble in	most organic solvents, limited solubility in glycols
Viscosity	0.8centipoise (25°C / 77°F)
pH	none – (<i>does not liberate hydrogen ions when dissolved</i>)
Conversion Factor	1ppm = 4mg/m ³ – <i>mixture, approximate value</i>
Molecular Weight	120grams per mole – <i>mixture, approximate value</i>

This is a petroleum distillate whose properties may vary.

6. FLAMMABILITY & FIRE FIGHTING

Flash Point	above 10°C / 50°F (closed cup)
Autoignition Temperature	above 245°C / 473°F
Flammable Limits	1% – 7%
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	readily accumulates a static charge on agitation or pumping

7. STABILITY / REACTIVITY

Dangerously Reactive With	strong oxidising agents; halogens (chlorine, fluorine and bromine)
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

TWAEV / TLV	300-400ppm / 1200-1400mg/m ³ (ACGIH & OSHA)
STEL	400ppm / 1600mg/m ³ (OSHA)
Ventilation	mechanical ventilation may be required to maintain airborne titre below TWAEV; the generally low respiratory toxicity of this product suggests it should not be a problem unless a substantial spill begins to vaporize
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	no special protective clothing required

9. HANDLING & STORAGE

Store in a cool, dry environment, away from sources of ignition, heat and oxidising agents. Use non-sparking bronze or aluminium hand tools. All electrical and mechanical equipment (including lighting, switchgear and forklift trucks) used with or around this product must be explosion-proof.

This product accumulates a static charge on agitation or transfer from one container to another. Ground or electrically bond both the source container and the receiving container, and transfer pump before transferring contents. ***Never transfer this product with pressurized air.*** *Pressurised nitrogen may be used.* 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.

It is not advisable to use this product for manual “wipe-down” or cleaning. Wiping generates a static charge which can lead to ignition, fire and even explosion.

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

WHEN FILLING STORAGE TANKS WITH THIS PRODUCT, IN ADDITION TO NORMAL GROUNDING PROCEDURES, READ THE FOLLOWING:

This product may form an explosive mixture inside a bulk storage tank. Prior to filling a bulk storage tank with this product, consider ventilating the headspace with nitrogen. In addition, consider asking the supplier to put an anti-static additive in the product when you order. If the bulk tank has a floating product level indicator, this should be inspected regularly. The float must have a firmly fixed ground wire connecting it to its support cable. This connection must be free of corrosion.

Consult NFPA 77, 2007: “Recommended Practice on Static Electricity”

10. SPILL PROCEDURES

Serious Fire Potential: blanket spill with foam as a precaution against accidental ignition. Take extreme care to avoid sparks – do not operate (turn on OR off) electrical appliances near spill, unless explosion proof.

Leak Precaution	dyke to control spillage and prevent environmental contamination
Handling Spill	ventilate contaminated area; recover free liquid with explosion-proof 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, 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>

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12. ENVIRONMENTAL INFORMATION

Bioaccumulation	this product is a moderate bioaccumulator in marine creatures; rapid volatilisation may reduce this
Biodegradation	this product degrades rapidly in the presence of oxygen; >90% biodegradation in 2 days in sewage
Abiotic Degradation	this product reacts with atmospheric hydroxyl radicals; its estimated half-life in air is 3-4 days
Mobility in soil, water	despite being water insoluble, this product is expected to move quite readily in soil and water; rapid volatilisation may limit mobility

13. TRANSPORT REGULATIONS

Canada TDG	PIN	UN-1268
	Shipping Name	PETROLEUM DISTILLATES N.O.S. (naphtha)
	Class	3
	Packing Group	II
U.S.A. 49 CFR	PIN	UN-1268
	Shipping Name	PETROLEUM DISTILLATES N.O.S. (naphtha)
	Class	3
	Packing Group	II
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
Australia AICS	on inventory
Korea KICS	on inventory
Philippines PICCS	on inventory

16. PREPARATION INFORMATION

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

File Name: VM&P

Data from RTECS, Haz. Substance Data Base, Cheminfo, manufacturer data, and other source, as available

Preparation Date: **August 2003** Revision Date: **June 2006, July 2008**

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