



5515 North Service Rd. #306
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megaloid.ca



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1. PRODUCT IDENTIFICATION

Name: *VM&P Naphtha*

Synonyms: *light aliphatic solvent naphtha, hydrotreated light naphtha, light ligroin & others*

CAS# 64742-49-0 (alternative CAS # - 8032-32-4 (ligroine), plus 64742-89-8)

Product Uses: *Solvent or diluent for paints.*

Supplier *Megaloid Laboratories Limited*
Identifier: *5515 North Service Road, Suite 306
Burlington, Ontario, Canada
L7L 6G4
Phone: 905-337-7411 / Fax: 905-337-1686*

EMERGENCY INFORMATION *Call CHEMTREC - (800) 424-9300 (CCN # 693764)*

2. HAZARDS

GHS Class <i>(category)</i>	Flammable <i>(2)</i>	STOT <i>(3)</i>	Aspiration <i>(1)</i>	Skin irritation <i>(2)</i>	Aquatic acute <i>(2)</i>	Aquatic long term <i>(1)</i>
Signal Word	DANGER					
Hazard Statements	<i>highly flammable liquid & vapour (H225)</i>	<i>May cause dizziness or drowsiness (H336)</i>	<i>May be fatal if swallowed & enters airways (H304)</i>	<i>Causes skin irritation (315)</i>	<i>Toxic to aquatic life (410)</i>	<i>Toxic to aquatic life, long lasting effects. (411)</i>



Label Pictograms

GHS Precautionary Statements for Labelling

Prevention

P210 Keep away from heat, sparks, open flames and hot surfaces. No smoking.

P240 Ground or bond container and receiving equipment.

P241	Use explosion-proof electrical, ventilating and lighting equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P260	Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
P264	Wash hands thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release to the environment.
P280	Wear eye protection, protective gloves and clothing of butyl rubber
Response	
P370, P378	IN CASE OF FIRE: use appropriate media to extinguish.
P304, P340	IF INHALED: remove person to fresh air and keep comfortable for breathing.
P303, P361, P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P301, P310	IF SWALLOWED: Immediately call a POISON CENTER/doctor.
P331	Do NOT induce vomiting.
P302, P351	IF ON SKIN: Wash with plenty of water and soap.
P332, P313	If skin irritation occurs: Get medical advice/ attention.
P362, P364	Take off contaminated clothing and wash it before reuse.
P312	Call a POISON CENTER/doctor if you feel unwell.
P308, P313	IF exposed or concerned: Get medical advice/ attention.
P391	Collect spillage.
Storage	
P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
Disposal	
P501	Dispose of contents and container in accordance with local, regional, national and international regulations.

3. COMPOSITION

Chemical Name:	CAS No.	%	Other Identifiers
VM&P Naphtha	64742-49-0	100	EC # 265-151-9

4. FIRST AID

Inhalation

Remove from contaminated area promptly. CAUTION: Rescuer must not endanger himself! If breathing stops, administer artificial respiration and seek medical aid promptly.

Skin Contact

Wash with soap & plenty of water. Remove contaminated clothing and do not reuse until thoroughly laundered.

Eye Contact

Wash eyes with plenty of water, holding eyelids open. Seek medical assistance if there is any irritation.

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.

First-aid Comments

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

Extinguishing Media

Suitable Extinguishing Media

Foam, dry chemical, water fog, water spray only to cool & dilute, product floats on water - water jet spreads flames

Combustion Products

carbon monoxide, nitrogen oxides, smoke, part oxidized hydrocarbon fragments.

Special Protective Equipment and Precautions for Fire-fighters

Firefighters must wear SCBA. Fire-fighters may enter the area if positive pressure SCBA and full Bunker Gear is worn.

Static Charge Accumulation

accumulates a static charge on agitation or pumping

readily

6. ACCIDENTAL RELEASE MEASURES

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.

Personal Precautions, Protective Equipment, and Emergency Procedures

Evacuate the area immediately. Isolate the hazard area. Keep out unnecessary and unprotected personnel. Eliminate all ignition sources. Use grounded, explosion-proof equipment. Increase ventilation to area or move leaking container to a well-ventilated and secure area.

Environmental Precautions

If the spill is inside a building, prevent product from entering drains, harmful to the environment if released in large quantities. Ventilation systems and confined areas.

Methods and Materials for Containment and Cleaning Up

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.

Other Information

Report spills to local health, safety and environmental authorities, as required.

7. HANDLING & STORAGE

Precautions for Safe Handling

Take care to avoid sparks – use non-sparking bronze or aluminum hand tools. All electrical & mechanical equipment (lighting, switchgear, forklift trucks, etc.) used with or around this product must be explosion-proof. This product readily accumulates a static charge.

Always ground or electrically bond the source container, receiving container & pump before transferring contents. **Never transfer this product with compressed air. Pressurised nitrogen may be used.**

Avoid splashing by ensuring that the product nozzle is below the surface in the receiving container. Avoid creating or breathing product vapour. If vapour is created in use, install adequate exhaust ventilation. If dealing with a spill, and ventilation is impossible or impractical, wear a suitable respirator with organic vapour cartridge. Avoid prolonged contact with skin & wash work clothes frequently.

Empty containers may contain a flammable / explosive vapour. Always ensure that containers, whether empty or full, are tightly sealed unless in use.

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

Do not use this product for manual “wipe-down” or cleaning with a cloth. The wiping action may generate a static charge which can lead to ignition, fire & even explosion.

Conditions for Safe Storage

Store & use in a cool, dry environment, away from sources of ignition & oxidizing agents.

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 flushing 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”

8. EXPOSURE CONTROL & PERSONAL PROTECTION

Ontario TWA EV	1350mg/m ³	Ontario STEV	not listed
ACGIH TLV	300ppm, 400ppm (for methylcyclohexane)	ACGIH STEL	not listed
OSHA PEL	not listed	OSHA STEL	not listed
CAL/OSHA TWA	300ppm / 1350mg/m ³	CAL/OSHA STEL	400ppm / 1800mg/m ³

Ventilation	mechanical ventilation may be required to control airborne titre to regulated limits; the low inhalation toxicity of this product suggests it is should not be a problem unless a substantial spill begins to vapourise
Hands	wear nitrile or “Viton” gloves – other types also protect; consult supplier to confirm suitability
Eyes	Safety glasses with side shields – always protect the eyes
Clothing	No special protective clothing required

Appropriate Engineering Controls

Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Environmental Exposure Controls

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, vapor controls, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

9. PHYSICAL PROPERTIES

Appearance	<i>Clear colourless liquid.</i>
Odour	<i>pleasant gasoline odour</i>
Odour threshold	<i>not known – various values given from 10 – 200ppm</i>
pH	<i>none – (does not liberate hydrogen ions when dissolved)</i>
Melting Point/Freezing Point	<i>below -50°C / -58°F</i>
Initial Boiling Point/Range	<i>125°C–150°C / 248°F–300°F</i>
Flash Point	<i>above 10°C / 50°F (closed cup), 20.5°C / 69°F (Tag closed cup – manufacturer's data)</i>
Evaporation Rate	<i>1.2 (Butyl Acetate =1)</i>
Flammability (Solid, Gas)	<i>Not Available</i>
Upper/Lower Flammability or Explosive Limit	<i>0.9% – 6.7%</i>
Vapour Pressure	<i>9-11mmHg / 1.20-1.45kPa (20°C / 68°F)</i>
Vapour Density (air = 1)	<i>approx. 4 – mixture, components evaporate at different rates</i>
Relative Density (water = 1)	<i>0.75 at 20 °C (68 °F)</i>
Solubility	<i>1mg/litre (20°C/68°F) – nearly insoluble. Also soluble in most organic solvents, limited solubility in glycols</i>
Partition Coefficient, n-Octanol/Water (Log Pow)	<i>2.8 to 5.2 – values for various component hydrocarbons</i>
Auto-ignition Temperature	<i>above 245oC / 473oF, 246oC / 475oF (manufacturer's data)</i>
Conversion Factor	<i>1ppm = 4mg/m³ – mixture, approximate value</i>
Viscosity	<i>0.8centipoise (25oC / 77oF) – thin, mobile liquid</i>
Physical State	<i>Liquid</i>
Molecular Weight	<i>120grams per mole – mixture, approximate value</i>

Note: This is a petroleum distillate whose properties may vary.

10. REACTIVITY

Dangerously Reactive with strong oxidising agents; halogens (chlorine, fluorine and bromine), alkaline earth metals.

Also Reactive with none known

Chemical Stability

Stable; will not polymerize

Possibility of Hazardous Reactions

Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to Avoid

Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapour to accumulate in low or confined areas. Do not store with strong oxidizing agents.

Hazardous Decomposition Products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Mechanical Impact

Not sensitive

11. TOXICITY

Acute Toxicity	
LD₅₀ (oral)	>5000mg/kg (rat) – several reports with no deaths, 5035, 5310, 5600 & 6005 (rat)
LD₅₀ (skin)	>3000 & >6000mg/kg (rabbit) >2000mg/kg (rabbit) – no deaths in 20 reports
LC₅₀ (inhalation)	>4980 to >5740mg/m ³ (rat) – no mortality observed in 18 reports

Skin Corrosion/Irritation

slightly irritating on prolonged contact due to removal of protective skin oils.

Serious Eye Damage/Irritation

slightly irritating.

STOT (Specific Target Organ Toxicity) - Single Exposure

Inhalation

irritating above 800ppm; higher levels may produce incoordination & dizziness.

Skin Absorption

slight; no toxic effects likely by this route.

Ingestion

poorly absorbed; little to no effect beyond possible temporary diarrhoea.

STOT (Specific Target Organ Toxicity) - Repeated Exposure

prolonged exposure may cause dermatitis & skin cracking in people with sensitive skin; cardiovascular, brain, liver & kidney damage may occur following chronic abuse (“sniffing”); Not a route of industrial exposure if good industrial hygiene (ventilation) is practiced.

Respiratory and/or Skin Sensitization

Not a sensitiser in humans or animals.

Carcinogenicity

Not considered a tumorigen or a carcinogen in humans; in animals: 12 of 12 studies found no carcinogenic activity with CAS# 64742-49-0 or with CAS# 8032-32-4 – both references seem to quote the same studies.

Reproductive Toxicity

Development of Offspring

Mutagen - no known effect on humans or animals.

Sexual Function and Fertility

No known effect on humans; fetotoxic in animals at high doses also causing maternal toxicity – not relevant to industrial exposure.

Germ Cell Mutagenicity

Not known to be a mutagen.

NOAEL (reproduction)

7200, >20,000 & 24,690mg/m³ (rat, inhalation) 35,900mg/ m³ (rat, inhalation) – NOAEL for parental toxicity in this study was 11,950mg/m³

NOAEL (development)

7550, 7800, 23,900mg/litre (rat, inhalation)

NOAEL (development)

>1000mg/litre (rat, dermal – 3 studies), >500mg/litre (rat, dermal – 1 study)

12. ECOLOGICAL INFORMATION

Bioaccumulation	<i>moderate bioaccumulator in marine creatures; rapid volatilisation reduces the likelihood of accumulation</i>
Persistence and Degradability	Biodegradation - <i>biodegrades rapidly in the presence of oxygen; 28 day degradation: 74%, 77% 89%, 91%, 94% & 96%</i> Abiotic Degradation - <i>reacts with atmospheric hydroxyl radicals; component hydrocarbons have estimated ½-lives 0.35 – 6 days</i>
Mobility in soil, water	<i>despite being water insoluble, expected to move quite readily in soil & water; rapid volatilisation may mitigate its spread</i>
Aquatic Toxicity	
LC50 (Fish, 96hr)	<i>4.1, 8.2, 11 & 15mg/litre (Pimephelas promelas), 10, 11, 12, 15, 16 & 18mg/litre (Oncorhynchus mykiss) 27mg/litre (Menidia beryllina)</i>
EC50 (Crustacea, 96hr)	<i>4.3mg/litre (Crangon crangon), 2.6mg/litre (Chaetogammarus marinus), 4.5, 7.6, & 10 to 32mg/litre (Daphnia magna)</i>
EC50 (Algae)	<i>4700mg/litre (Selenastrum capricornutum), 3.1 to 8.5, 45 to 880, & >1000mg/litre (Pseudokiorchnerella subcapitata)</i>
EC50 (Bacteria)	<i>15.4mg/litre (Tetrahymena pyriformis)</i>
	NOTE: <i>Low water solubility makes testing for aquatic toxicity hard to carry out & to interpret.</i>

13. DISPOSAL

Water Disposal

Do not flush to sewer, recycle solvent if possible, local regulations may permit disposal in sanitary landfill, may be incinerated in approved facility after mixing with a suitable flammable waste

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.

**Never cut, drill, weld or grind on or near this container,
even if empty**

14. TRANSPORT CLASSIFICATION

Canada TDG	PIN	UN1268	
AND	Shipping Name	Petroleum Distillates, n.o.s. (naphtha)	
U.S.A. 49 CFR	Class & Packing Group	3, PG II	
Marine Pollutant ERAP Required Reportable Quantity	Not a Marine Pollutant NO None 128		
E R G No.			
NOTE:	Some shippers in the U.S. may classify material as a Marine Pollutant		

15. REGULATIONS

Canada DSL	On Inventory
U.S.A. TSCA	On Inventory
Europe EINECS	On Inventory

Canadian Regulations

CEPA - National Pollutant Release Inventory (NPRI)

Part 1A, Part 5.

U.S.A. Regulations

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 Hazards:

Flammable (gases, aerosols, liquids, or solids)

Aspiration hazard

Specific target organ toxicity (single or repeated exposure)

Reproductive toxicity

Skin corrosion or irritation SARA 313:

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Clean Water Act

This product does not contain any Hazardous Chemicals listed under the U.S. Clean Water Act, Section 311, Table 117.3.

US State Regulations

Pennsylvania Right To Know

Solvent naphtha (petroleum), light aliph. 64742-89-8
n-octane 111-65-9
Heptane 142-82-5

California Prop. 65

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

California List of Hazardous Substances

n-octane 111-65-9
Heptane 142-82-5

Other regulations:

The regulatory information is not intended to be comprehensive. Other regulations may apply to this material.

The components of this product are reported in the following inventories:

AICS: Listed on inventory
DSL: Listed on inventory
IECSC: Listed on inventory
KECI: Listed on inventory
PICCS: Listed on inventory

15. OTHER INFORMATION

NFPA RATING	Health 1	Flammability 3	Instability 0
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Prepared for Megaloid Laboratories Limited by Richard Koscher
Preparation Date: August 2003
Revision Dates: June 2006, July 2008, July 2011, July 2014, July 2017, Feb 2019

Key to Abbreviations	ACGIH® = American Conference of Governmental Industrial Hygienists AIHA® = AIHA® Guideline Foundation HSDB® = Hazardous Substances Data Bank IARC = International Agency for Research on Cancer NFPA = National Fire Protection Association NIOSH = National Institute for Occupational Safety and Health NTP = National Toxicology Program OSHA = US Occupational Safety and Health Administration RTECS® = Registry of Toxic Effects of Chemical Substances
References	CHEMINFO database. Canadian Centre for Occupational Health and Safety (CCOHS). HSDB® database. US National Library of Medicine. Available from Canadian Centre for Occupational Health and Safety (CCOHS). NIOSH Pocket Guide database. National Institute for Occupational Safety and Health. Available from Canadian Centre for Occupational Health and Safety (CCOHS). Registry of Toxic Effects of Chemical Substances (RTECS®) database. Dassault Systèmes/BIOVIA ("BIOVIA"). Available from Canadian Centre for Occupational Health and Safety (CCOHS).
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