

# Material Safety Data for: Aromatic 100

## 1. PRODUCT IDENTIFICATION

<b>Name</b>	light aromatic solvent naphtha (petroleum)
<b>Synonyms</b>	high flash point aromatic naphtha, "Cyclosol", "Solvesso"
<b>CAS#</b>	64742-95-6
<b>Europe EC#</b>	265-199-0
<b>Product Uses</b>	high flash point hydrocarbon solvent, diluent, in paints, coatings, inks, degreasers etc

## 2. INGREDIENTS

		%	TWAEV / TLV ppm / mg/m <sup>3</sup>	LD <sub>50</sub> ORAL	(mg/kg) SKIN	LC <sub>50</sub> ppm INHALATION
Light Aromatic Solvent Naphtha	64742-95-6	100%	not listed	>2900	>3160	2900
1,2,4-trimethylbenzene	95-63-6	10-45%	25 / 125	5000	not known	3665
cumene	98-82-8	0-6%	50 / 250	1400	2035	7950
xylene	1330-20-7	0-3%	100 / 435	2100	1700	5000

*NOTE: This is a distillation product composed of many substances. Only major ingredients are named above.*

## 3. (a) HAZARDS SUMMARY

**Hazards, Quick Guide:** flammable liquid, heavy vapour may travel, distant ignition and flashback are possible, mildly irritating to skin and eyes

### Canada – WHMIS

Key:

**B 3, D 2B** (for skin irritation only)

**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 irritate, drying
Skin Absorption	slight; no toxic effects likely by this route
Eye Contact	liquid mildly irritating; vapour irritating above 75ppm; will not damage
Inhalation	irritating above 75ppm; high concentrations may cause headache, dizziness drowsiness
Ingestion	headache, dizziness, drowsiness are possible; not a typical route of industrial exposure

### Effects, Chronic Exposure

General	prolonged exposure may cause dermatitis & skin cracking; "organic solvent syndrome" with fatigue, memory loss, tingling & numbness in limbs have been seen after long-term exposure
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 in animals without also causing maternal toxicity
Mutagen	no known effect on humans or in animals without also causing maternal toxicity
Synergistic With	not known
LD <sub>50</sub> (oral)	2900-3200mg/kg (rat), 8400mg/kg (rat)
LD <sub>50</sub> (skin)	>3160mg/kg (rabbit)
LC <sub>50</sub> (inhalation)	approx. 2900ppm (rat)

**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	clear, colourless liquid with mild aromatic hydrocarbon odour
Odour Threshold	0.07ppm
Vapour Pressure	6mmHg / 0.8kPa (20°C / 68°F)
Evaporation Rate ( <i>Butyl Acetate = 1</i> )	0.2
Vapour Density (air = 1)	4
Boiling Range	149-182°C / 300-360°F
Freezing Point	-60°C / -76°F
Specific Gravity	0.87 (20/20°C)
Water Solubility	200milligrams per litre – <i>slight</i>
Also soluble in	most organic solvents
Viscosity	0.9centipoise (25°C / 77°F)
pH	none – ( <i>does not liberate hydrogen ions when dissolved</i> )
Molecular Weight	mixture of hydrocarbons – approximately 120

#### 6. FLAMMABILITY & FIRE FIGHTING

Flash Point	41°C / 106°F (closed cup)
Autoignition Temperature	463°C / 865°F
Flammable Limits	0.6% – 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; chlorine, fluorine, strong acids (eg: nitric acid)
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	25ppm/123mg/m <sup>3</sup> ( <i>trimethylbenzene</i> ), 50ppm/245mg/m <sup>3</sup> ( <i>cumene</i> ), 100ppm / 434mg/m <sup>3</sup> ( <i>xylene</i> )
OSHA PEL	25ppm/125mg/m <sup>3</sup> ( <i>trimethylbenzene</i> ), 50ppm/245mg/m <sup>3</sup> ( <i>cumene</i> ), 100ppm / 435mg/m <sup>3</sup> ( <i>xylene</i> )
STEL	150ppm / 651mg/m <sup>3</sup> ( <i>xylene</i> )
Ventilation	mechanical ventilation may be required to control airborne titre to regulated limits
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 if normal industrial hygiene is practised

## 9. HANDLING & STORAGE

Store in a cool, dry environment, away from sources of ignition, heat and oxidising agents. The use of non-sparking bronze or aluminium hand tools, and explosion-proof electrical & mechanical equipment (including lighting, switchgear and forklift trucks) is recommended around this product.

Despite the high flash point, it is prudent to ground or electrically bond both the source container and the receiving container, and transfer pump 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 generating or breathing product vapour. Use with adequate ventilation. If dealing with a spill, and ventilation is impossible or impractical, wear a suitable respirator with organic vapour cartridge.

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.

## 10. SPILL PROCEDURES

***Summer Fire Potential: Above 40°C, blanket spill with foam as a precaution against accidental ignition. Take 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 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	<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. <i>Never cut, drill, weld or grind on or near this container, even if empty</i>

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## 12. ENVIRONMENTAL INFORMATION

Bioaccumulation	expected to be readily metabolised and not bioaccumulate
Biodegradation	expected to degrade readily and rapidly in the presence of oxygen; 72% over 20 days
<i>Natural microbe populations need several weeks of acclimatisation before they can metabolise some hydrocarbons effectively.</i>	
Abiotic Degradation	many aromatic hydrocarbons are susceptible to both direct and indirect photolysis; the rate of degradation is unknown but ½-life in air likely to be in the range of 20-40hr
Mobility in soil, water	expected to move slowly in soil and water
<b>Aquatic Toxicity</b>	
LC <sub>50</sub> (Fish, 96hr)	41 & 45mg/litre (Pimephelas promelas), 2.34mg/litre (Oncorhynchus mykiss),
EC <sub>50</sub> (Crustacea, 48hr)	0.95mg/litre (Daphnia magna)
EC <sub>50</sub> (Algae)	<1 & 2.5mg/litre (Skeletonema costatum)

**NOTE:** The above are values given for Aromatic 150. They are quite similar to the values given for unleaded gasoline. Accordingly, it is likely that the aquatic toxicity of Aromatic 100 (an intermediate substance) would be similar.

## 13. TRANSPORT REGULATIONS

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

## 14. EMERGENCY INFORMATION

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

## 15. REGULATIONS

For all components:

<b>Canada DSL</b>	<b>on inventory</b>
<b>U.S.A. TSCA</b>	<b>on inventory</b>
<b>Europe EINECS</b>	<b>on inventory</b>
<b>Japan (ENCS)</b>	<b>on inventory</b>
<b>China</b>	<b>on inventory</b>
<b>Korea</b>	<b>on inventory</b>
<b>Philippines (PICCS)</b>	<b>on inventory</b>
<b>Australia (AICS)</b>	<b>on inventory</b>

**SARA 311/312 hazardous** listed for: Fire, Acute, & Chronic

## 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: **May 2004** Revision Date: **May 2007, May 2010**

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