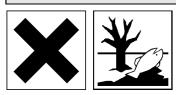
Camlab Limited – Material Safety Data Sheet

1. Identification 1110713 Product Code TETRACHLOROETHYLENE pure Product Name CCl₂CCl₂ =165.83 Molecular Formula 127-18-4 CAS Number CAMLAB LIMITED Supplier: 0 Norman Way Industrial Estate Over Cambridge England CB4 5WE 01954 233110 Phone 01954 233101 Fax 08:00-17:00 01954 233110 Emergency Telephone 24hr 112

(Have this document to hand)

2. Composition				
Component	CAS No	EEC No	Conc w/w	Classification & Risk Phrases

3. Hazards Identification



Limited evidence of carcinogenic effect. Toxic to aquatic organisms and may cause long term adverse effects in the aquatic environment. Carcinogen category: 3

4. First Aid Measures		
Eyes	Irrigate thoroughly with plenty of water for at least 10 minutes, holding the eye open. OBTAIN MEDICAL ATTENTION.	
Skin	Thoroughly wash off skin with soap and water. Remove contaminated clothing immediately and wash before re-use. Unless contact has been slight OBTAIN MEDICAL ATTENTION	
Inhalation	Remove from exposure. Keep warm and at rest. If there is difficulty in breathing give oxygen if available. If breathing stops or shows signs of failing, apply artificial resuscitation. If unconscious place in the recovery position. OBTAIN MEDICAL ATTENTION URGENTLY.	
Ingestion	If conscious give plenty of water to drink. Induce vomiting. If there is difficulty in breathing give oxygen if available. If breathing stops or shows signs of failing, apply artificial resuscitation. If unconscious place in the recovery position. OBTAIN MEDICAL ATTENTION URGENTLY.	

5. Fire Fighting Measures

Hazards	Evacuate area immediately. Keep up wind. Avoid exposure to toxic vapours and fumes. Fire- fighters should wear protective clothing and breathing apparatus. May evolve toxic fumes if involved in a fire.
Extinguishing Media	Consider what other flammable materials are present and act accordingly. Use water spray to keep fire exposed containers cool.
Unsuitable Media	Do not use water jet.

Exp (See 8.1)

WEL

6. Accidental Release Measures		
Personal Protection	Avoid breathing vapour. Use approved personal protective equipment. Evacuate area immediately. Do not allow general use of area until it is safe to do so. Beware : vapour is heavier than air and will tend to accumulate at low spots.	
Enviromental	Keep material out of sewers, storm drains, surface waters and soil. Notify the Environmental Agency and local Environmental Health Officer if major spillage occurs.	
Major Spillage	Contain and absorb on inert material. Transfer absorbent to salvage container for removal. Wash area down with detergent and copious amounts of water.	
Minor Spillage	Contain and absorb on inert material. Transfer absorbent to container for removal. Allow solvent to evaporate in remote area, then dispose of absorbent as solid chemical waste. Wash area down with detergent and copious amounts of water.	

7. Storage & Handling

Handling Precautions	Avoid contact with skin and eyes. Do not breath vapours. Do not allow to contaminate clothing.
	Ensure Local Exhaust Ventilation maintains vapour concentrations below the recommended limits.
Storage Conditions	Well ventilated, cool, dry storage . Protect from direct sunlight. Protect against moisture to prevent decomposition and corrosion.

8.1 Workplace Exposure Limits Workplace Exposure Limits Long Term (8hr TWA): 50.00 ppm 345.0 mg m-3 Short Term (15min Period): 100.0 ppm 689.0 mg m-3

8.2 Personal Protection

Respiratory	Use L.E.V. or natural ventilation to maintain vapour concentrations below exposure limits. If not, use a well maintained chemical cartridge organic vapour respirator, or use self contained breathing apparatus.
Hands	Use solvent resistant gloves.
Eyes	Use chemical splash proof glasses or goggles.
Skin	Avoid contact with skin. If skin contact or contamination of clothing is likely, protective clothing must be worn.

9. Physical & Chemical Properties

Appearance	Clear colourless liquid.
11	-
Odour	Ethereal.
рH	Not available
Boiling point	122.2 °C
Melting point	23.3- °C
Flash point	Not available
Upper Flammable Limit	Not available
Lower Flammable Limit	Not available
Auto Ignition	Not available
Explosive properties	No.
Oxidising Properties	No.
Vapour Presure	10mmHg @ 20,C
Relative Density	1.5960 °C
Water Solubility	0.01%

10. Stability & Reactivity

Chemical Stability	Stable under normal conditions
Conditions to Avoid	Hot surfaces and naked flames.
Materials to Avoid	Reacts with potassium, sodium, lithium and their alloys producing explosive atmospheres of chloroacetylene and dichloroacetylene which will ignite in air. Reacts with potassium hydroxide, bromoform and nitrogen tetroxide to form explosive compounds.

10. Stability & Reactivity (continued)

Hazardous Decomposition Products Will evolve very toxic fumes of cyanide if involved in a fire or heated to decomposition.

11. Toxicological Information		
Eyes	Both the vapour and liquid are, irritating to the eyes but unlikely to cause serious injury.	
Skin	It is an irritant to the skin producing dermatitis. Skin absorbtion may be an important exposure route producing toxic effects similar to inhalation.	
LD50 Skin	Not available	
Ingest	Ingestion will produce gastric disturbances, vomiting, narcosis, paralysis and	
LD50 Ingest	Oral Rat 2629 mg/kg	
Inhalation	Exposure to vapour concentrations above the occupational exposure limits will produce irritation of the eyes, nose, throat and respiratory tract. High concentrations of vapour will result in headaches, dizziness, exhaustion mental instability, drowsiness and paralysis. Fatal cases of inhalation exposure have occurred.	
Carcinogenicity	Carcinogen - category 3. There is limited evidence to suggest that tetrachloroethylene is carcinogenic in animals.	
Mutagenicity	A mutagen.	
Reproductive Effects	It is considerably embryotoxic, but only weakly teratogenic with a low incidence of malformations.	

12. Ecological

Toxic to aquatic organisms and may cause long term adverse effects in the aquatic environment.

13. Disposal Considerations

Disposal Methods	Dispose of in a licensed incinerator for organic solvents. Do not dispose of as domestic waste. Never dispose of into water courses or sewerage systems.
Contaminated Packaging	Use a licensed waste disposer.

14. Transport Information

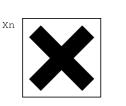
Proper Shipping Name UN Number UN Classification Subsidiary Risk Flash Point Packing Group Transport Category Marine pollutant ADR Hazard ID Tetrachloroethylene 1897 6.1 Toxic None Not available III 2 Yes 60



15. Regulatory Information

Labelling Classification Harmful, Dangerous for the Environment.

Label Symbols





15. Regulatory Information (continued)

Risk & safety Phrases Limit adver vapou

Limited evidence of carcinogenic effect. Toxic to aquatic organisms and may cause long term adverse effects in the aquatic environment. Keep out of reach of children. Do not breath vapour. Wear suitable protective clothing and gloves. Avoid release to the environment, refer to special instructions/safety data sheet. Carcinogen category: 3

EEC Number 204-825-9

16. Other Information

Document Information This document has been prepared in accordance with directive 88/379/EEC.

The information contained in this document only covers the hazards presented by this material, it DOES NOT constitute a workplace risk assessment.

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