Camlab Limited – Material Safety Data Sheet

1. Identification

Product Code **CC/2946-EH**

Product Name **TRICHLOROETHYLENE commercial**

Molecular Formula **$CHClCCl_2$ =131.39**

CAS Number **79-01-6**

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2. Composition

Component	CAS No	EEC No	Conc w/w	Classification & Risk Phrases	Exp (See 8.1)
Trichloroethylene	79-01-6	201-167-4	> 99.5%	T : R45,R36/38,R52/53,R67 :Carc.Cat 3	WEL

3. Hazards Identification

May cause cancer. Irritating to eyes and skin. Harmful to aquatic organisms and may cause long term adverse effects in the aquatic environment. Vapours may cause drowsiness and dizziness. 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.

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. Vapour-air mixtures are explosive.

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.

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

Component	CAS No	Workplace Exposure Limits				Maximum Exposure Limits			
		Long Term		Short Term		Long Term		Short Term	
		ppm	mg m−3	ppm	mg m−3	ppm	mg m−3	ppm	mg m−3
Trichloroethylene	79-01-6	100.0	550.0	150.0	820.0	100.0	550.0	150.0	820.0

Special Hazards Can be absorbed through skin.

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.
Odour	Fresh and characteristic.
pH	Not available
Boiling point	86.7 °C
Melting point	87.0- °C
Flash point	Not available
Upper Flammable Limit	90.0 %
Lower Flammable Limit	12.5 %
Auto Ignition	420.0 °C
Explosive properties	Moderate/severe in confined spaces.
Oxidising Properties	No.
Vapour Presure	100 mmHg @ 32,C
Relative Density	1.4640
Water Solubility	0.11%

10. Stability & Reactivity

Chemical Stability	Stable under normal conditions
Conditions to Avoid	Hot surfaces and naked flames.
Materials to Avoid	Strong oxidising agents. Reacts with potassium, sodium, lithium and their alloys producing explosive atmospheres of chloroacetylene and dichloroacetylene which will ignite in air.
Hazardous Decomposition Products	Toxic phosgene fumes.

11. Toxicological Information

Eyes	Both the vapour and liquid will, cause conjunctival irritation and corneal damage.
Skin	Both the vapour and liquid are, mildly irritating to the skin. Repeated exposure may cause dermatitis.
LD50 Skin	Not available
Ingest	Ingestion causes similar effects to vapour inhalation.
LD50 Ingest	Oral Rat 4920 mg/kg
Inhalation	Exposure to vapour concentrations above the occupational exposure limits will produce central nervous system depression. High concentrations of vapour will cause narcosis. Death may follow due to respiratory failure.
Carcinogenicity	Carcinogen - category 2. Has been shown to be carcinogenic in mice but not rats. There is no evidence for increased cancer incidence in man.
Mutagenicity	May be a mutagen.
Reproductive Effects	None identified.
Other Information	200ppm causes headache, giddiness, vertigo, depression and lack of co-ordination. Exposure to 5000ppm for a few minutes leads to narcosis and death.

12. Ecological

Small amounts present no specific environmental hazard.

13. Disposal Considerations

Disposal Methods	Dispose of in a licensed incinerator for organic solvents. Do not dispose of as domestic waste.
Contaminated Packaging	Use a licensed waste disposer.

14. Transport Information

Proper Shipping Name	Trichloroethylene
UN Number	1710
UN Classification	6.1 Toxic
Subsidiary Risk	None
Flash Point	Not available
Packing Group	III
Transport Category	2
Marine pollutant	No
ADR Hazard ID	60

15. Regulatory Information

Labelling Classification	Toxic.
Label Symbols	T

15. Regulatory Information (continued)

Risk & safety Phrases	May cause cancer. Irritating to eyes and skin. Harmful to aquatic organisms and may cause long term adverse effects in the aquatic environment. Vapours may cause drowsiness and dizziness. Avoid exposure - obtain special instruction before use. In case of accident or if you feel unwell, seek medical advice immediately (show the label). Avoid release to the environment, refer to special instructions/safety data sheet. Carcinogen category: 3
EEC Number	201-167-4

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. Revision Date: 28/04/05. Data reviewed and PDF file generated: 17/03/10.