SDS 6714-25 Dichloromethane **Expiry 19.01.2024**

Date of Issue: 19.01.2019

User declaration:- I have read and understood this Safety Data Sheet

Name:-_____Signature_____Date_____

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Company Name **ECP LTD**

Address: 39 Woodside Ave, Northcote, Auckland , New Zealand

Emergency Tel: NZ 0800154666	**Tel** +64 9 480 4386	**FAX** +64 9 480 4385

Product	**Dichloromethane**		**Code**	**6714-25**
CAS#	**HSNO#**	**UN #**	**DG Class/es**	**Packing group #**
75-09-2	HSR001540	1593	6.1	III

Recommended use: Laboratory Investigations

2. Hazards Identification

2.1 GHS Classification

Acute toxicity, Oral (Category D)
Skin irritation (Category A)
Eye irritation (Category A)
Carcinogenicity (Category B)

2.2 GHS Label elements, including precautionary statements

Pictogram 

Signal word Warning

Hazard statement(s)
H302 Harmful if swallowed.
H315 Causes skin irritation.
H320 Causes eye irritation.
H351 Suspected of causing cancer.
Precautionary statement(s)
Prevention
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P264 Wash skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P280 Wear protective gloves.

Response
P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell.
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + P313 IF exposed or concerned: Get medical advice/ attention.
P330 Rinse mouth.
P332 + P313 If skin irritation occurs: Get medical advice/ attention.
P337 + P313 If eye irritation persists: Get medical advice/ attention.
P362 Take off contaminated clothing and wash before reuse.
Storage
P405 Store locked up.
Disposal
P501 Dispose of contents/ container to an approved waste disposal plant.
2.3 Other hazards - none

Hazard Classification

Australia:
Classified as Hazardous according to criteria of National Occupational Health & Safety Commission (NOHSC), Australia.
Classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail.

New Zealand:
Classified as Hazardous according to the New Zealand Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001.
Classified as Dangerous Goods for transport, according to the New Zealand Standard NZS 5433:1999 Transport of Dangerous Goods on Land.
HSNO Classification:
6.1D - Substance that is moderately toxic.
6.3A - Substance that is irritating to the skin.
6.4A - Substance that is irritating to the eye.
6.7B - Substance that is a suspected human carcinogen.
6.9B - Substance that is harmful to human target organs or systems.
9.3C - Substance that is harmful to terrestrial vertebrates.

Hazard statement code:
H302 Harmful if swallowed.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H351 Suspected of causing cancer.
H371 May cause damage to organs.
H433 Harmful to terrestrial vertebrates.

Precautionary statement codes- prevention:
P102 Keep out of reach of children.
P103* Read label before use. - This statement applies only where the substance is available to the general public.
P104 Read Safety Data Sheet before use.
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P260 Do not breathe mist/vapours/spray.

P264 Wash thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P273 Avoid release to the environment. - This statement does not apply where this is the intended use.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P281 Use personal protective equipment as required.

Precautionary statement codes- Response:
P101* If medical advice is needed, have product container or label at hand. - This statement applies only where the substance is available to the general public.
P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P302+P352 IF ON SKIN: Wash with plenty of soap and water.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313 IF exposed or concerned: Get medical advice/ attention.
P309+P311 IF exposed or if you feel unwell: Call a POISON CENTER or doctor/physician.
P330 Rinse mouth.
P331 Do NOT induce vomiting.
P332+P313 If skin irritation occurs: Get medical advice/ attention.
P337+P313 If eye irritation persists: Get medical advice/attention.
P362 Take off contaminated clothing and wash before re-use.

Precautionary statement codes - Storage:
P405 Store locked up.

Precautionary statement codes - Disposal:
P501 *In the case of a substance that is in compliance with a HSNO approval other than a Part 6A (Group Standards) approval, a label must provide a description of one or more appropriate and achievable methods for the disposal of a substance in accordance with the Hazardous Substances (Disposal) Regulations 2001. This may also include any method of disposal that must be avoided.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	Name	CAS	Proportion
	Dichloromethane	75-09-2	100 %

4. FIRST AID MEASURES

Inhalation If inhaled, remove from contaminated area. Apply artificial respiration if not breathing. If symptoms develop seek medical attention.

Ingestion If swallowed, do NOT induce vomiting. Wash out mouth with water. If symptoms develop seek medical attention.

Skin If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. If symptoms develop seek medical attention.

Eye If contact with the eye(s) occurs, wash with copious amounts of water holding eyelid(s) open. Take care not to rinse contaminated water into the non-affected eye. If symptoms

	persist seek medical attention.
First Aid Facilities	Eye wash and normal washroom facilities.
Advice to Doctor	Treat symptomatically.
Other Information	For advice, contact a Poisons Information Centre (Phone eg Australia 131 126; New Zealand 0800 764 766) or a doctor (at once).

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media	Use water fog, foam or dry agent.
Hazards from Combustion Products	Non combustible.
Specific Hazards	No flash point in conventional closed tester, but forms flammable vapour-air mixtures in larger volumes and may be an explosion hazard in a confined space.
Hazchem Code	2Z
Precautions in connection with Fire	Fire-fighters should wear full protective clothing and self contained breathing apparatus (SCBA) operated in positive pressure mode. Water spray may be used to keep fire exposed containers cool.

6. ACCIDENTAL RELEASE MEASURES

Emergency Procedures	Wear appropriate personal protective equipment and clothing to minimise exposure. Extinguish or remove all sources of ignition and stop leak if safe to do so. Increase ventilation. Evacuate all unnecessary personnel. If possible contain the spill. Place inert absorbent material onto spillage. Collect the material and place into a suitable labelled container. Do not dilute material but contain. Dispose of waste according to federal, Environmental Protection Authority and state regulations. If the spillage enters the waterways contact the Environmental Protection Authority, or your local Waste Management Authority.

7. HANDLING AND STORAGE

Precautions for Safe Handling	Use in a well ventilated area. DO NOT store or use in confined spaces. Build up of mists or vapours in the atmosphere must be prevented. Avoid breathing in spray or mists or vapours. Wear appropriate protection. It is essential that all who come into contact with this material maintain high standards of personal hygiene ie. washing hands prior to eating, drinking, smoking or using toilet facilities.
Conditions for Safe Storage	Store in a cool, dry well-ventilated area away from heat, sources of ignition, oxidising agents, foodstuffs, and clothing and out of direct sunlight. Keep containers closed when not in use and securely sealed and protected against physical damage. Inspect regularly for deficiencies such as damage or leaks.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

National Exposure Standards

Australian National Occupational Health And Safety Commission (NOHSC) Exposure Standards:

Substance	TWA		STEL	
	ppm	mg/m³	ppm	mg/m³
Dichloromethane	50	174	-	-

New Zealand Occupational Safety and Health Service (OSH) Workplace Exposure Standards:

Substance	TWA		STEL	
	ppm	mg/m³	ppm	mg/m³
Dichloromethane	50	174	-	-

Biological Limit Values

No Biological limit available.

Other Exposure Information

As published by the National Occupational Health and Safety Commission (NOHSC) and the New Zealand Occupational Safety and Health Service (OSH):
TWA - the Time-Weighted Average airborne concentration over an eight-hour working day, for a five-day working week over an entire working life.
STEL (Short Term Exposure Limit) - the average airborne concentration over a 15 minute period which should not be exceeded at any time during a normal eight-hour workday.

Engineering Controls

Provide sufficient ventilation to keep airborne levels below the exposure limits. Where natural ventilation is inadequate, a local exhaust ventilation system, drawing vapours/mists away from workers' breathing zone, is required.

Respiratory Protection

If engineering controls are not effective in controlling airborne exposure then respiratory protective equipment should be used suitable for protecting against airborne contaminants. Type of breathing protection required will vary according to individual circumstances. Expert advice may be required to make this decision. Reference should be made to Australian Standards AS/NZS 1715, Selection, Use and maintenance of Respiratory Protective Devices; and AS/NZS 1716, Respiratory Protective Devices.

Eye Protection

Safety glasses with side shields, goggles or full-face shield as appropriate recommended. Final choice of appropriate eye/face protection will vary according to individual circumstances i.e. methods of handling or engineering controls and according to risk assessments undertaken. Eye protection should conform with Australian/New Zealand Standard AS/NZS 1337 - Eye Protectors for Industrial Applications.

Hand Protection

Impervious gloves recommended. Final choice of appropriate gloves will vary according to individual. Reference should be made to AS/NZS 2161 Occupational protective gloves-Selection, use and maintenance.

Body Protection

Suitable work wear should be worn to protect personal clothing, eg cotton overalls buttoned at neck and wrist. When large quantities are handled the use of plastic aprons and rubber boots is recommended. Industrial clothing should conform to the specifications detailed in AS/NZS 2919: Industrial clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Clear colourless liquid.

Odour	Slight sweet ethereal odour
Melting Point	-96°C
Boiling Point	40°C @100 kPa
Solubility in Water	20 g/L @ 25°C
Specific Gravity	1.33 @20°C
pH Value	Not available.
Vapour Pressure	10 kPa @ -12°C
Vapour Density (Air=1)	2.93 (Air = 1)
Evaporation Rate	Not available
Volatile Component	Completely volatile @100°C
Flash Point	Not available
Auto-Ignition Temperature	556°C
Flammable Limits - Lower	13 %
Flammable Limits - Upper	23 %
Other Information	Refractive index: 1.4242 @20°C

10. STABILITY AND REACTIVITY

Chemical Stability	Stable under normal conditions.
Conditions to Avoid	Heat, flames and other ignition sources.
Incompatible Materials	Contact with strong oxidisers, strong caustics and chemically active metals such as aluminum or magnesium powder, sodium and potassium may cause fires and explosions. Avoid concentrated nitric acid and bases. Mixtures in air with methanol vapour are flammable. Reacts violently with potassium hydroxide + N-methyl-N-nitrosourea. Mixtures of /dinitrogen/ tetraoxide with dichloromethane are explosive when subjected to shock of 25 g TNT equiv or less. Mixtures of lithium shavings with several halocarbon derivatives are impact sensitive and will explode, sometimes violently. Such materials include this product. Dichloromethane dissolves endothermically in concentrated nitric acid to give a detonable soln. Contact of 1.5 g portions of the solid /potassium tert-butoxide/ with drops of dichloromethane caused ignition after 2 min. Prolonged heating with water at 180°C results in formation of formic acid, methyl chloride, methanol, hydrochloric acid and some carbon monoxide. Dichloromethane will form explosive mixtures in an atmosphere having a high oxygen content, in liquid oxygen and nitrogen tetroxide.

Hazardous Decomposition Products	Thermal decomposition may result in the release of toxic and/or irritating fumes including carbon monoxide, carbon dioxide, hydrogen chloride gas, other compounds of chlorine,
Hazardous Polymerization	Will not occur.

11. TOXICOLOGICAL INFORMATION

Toxicology Information	LD50 (Oral, Rat): 2388 mg/kg LC50 (Inhalation, Rat): 16,100 mg/l/6h
Inhalation	Inhalation of product vapours may cause irritation of the nose, throat and respiratory system.
Ingestion	Ingestion of this product may irritate the gastric tract causing nausea and vomiting. Ingestion of large quantities may depress the central nervous system.
Skin	May cause irritation in contact with skin. Symptoms may include redness and itchiness. Repeated or prolonged skin contact may lead to dermatitis.
Eye	May cause irritation to eyes. Symptoms may include redness, tearing, stinging and blurred vision.
Chronic Effects	Repeated exposure may cause skin dryness and cracking. Evidence from animal tests indicate that repeated or prolonged exposure to this chemical could result in reproductive system disorders. Chronic exposure to methylene chloride has produced headaches, dizziness, nausea, loss of memory, tingling in the hands and feet, and loss of consciousness. Many of these effects can be correlated with carboxyhemoglobin levels. Chronic methylene chloride exposure has been reported to result in kidney damage. Chronic methylene chloride exposure at airborne levels of 300 to 1,000 ppm has been associated with loss of memory and balance disturbances. Nervous system disorders were reported in 30 percent of workers chronically exposed to airborne levels of 6.3 to 33.9 mg/m (maximum of only 9 ppm). A Czech study reported neurological complaints in workers exposed to methylene chloride airborne levels of 500 ppm or less.
Carcinogenicity	It is important to recognise that this product is classified as a Category 3 Carcinogen according to the National Occupational Health And Safety Commission (NOHSC). That is, there is some evidence from appropriate animal studies that human exposure can result in the development of cancer, but this evidence is insufficient to place the substance in Category 2.

12. ECOLOGICAL INFORMATION

Ecotoxicity	Not available.
Persistence / Degradability	Not available.
Mobility	Not available.
Environment	Avoid contaminating waterways.

Protection

13. DISPOSAL CONSIDERATIONS

Disposal Considerations Dispose of waste according to federal, EPA and state regulations.

14. TRANSPORT INFORMATION

Transport Information Australia:
This material is classified as a Class 6.1 Toxic Dangerous Good according to the Australian Code for the Transport of Dangerous Goods. Class 6.1 Toxic substances are incompatible in a placard load with any of the following:
- Class 1, Explosives.
- Class 3, if the Class 3 dangerous goods are nitromethane.
- Class 5.1, if the Class 6 dangerous goods are fire risk substances.
- Class 5.2, if the Class 6 dangerous goods are fire risk substances.
- Class 8, if the Class 6 dangerous goods are cyanides and the Class 8 dangerous goods are acids;

And are incompatible with food and food packaging in any quantity.

New Zealand:
This material is classified as a Class 6.1 - Toxic substance according to NZS 5433:1999 Transport of Dangerous Goods on Land.
Must not be loaded in the same freight container or on the same vehicle with:
- Class 1, Explosives

And are incompatible with food and food packaging in any quantity.
Note 1: Cyanides (Class 6.1) must not be loaded in the same freight container or on the same vehicle with acids (Class 8).
Must not be loaded with in the same freight container; and on the same vehicle must be separated horizontally by at least 3 metres unless all but one are packed in separate freight containers with:
- Class 5.1, Oxidizing substances
- Class 5.2, Organic peroxides

Goods of packing group II or III may be loaded in the same freight container or on the same vehicle if transported in segregation devices with:
- Class 5.1, Oxidizing substances
- Class 5.2, Organic peroxides

And are incompatible with food and food packaging in any quantity.

U.N. Number 1593

Proper Shipping Name DICHLOROMETHANE

DG Class 6.1

Hazchem Code 2Z

Packaging Method 3.8.6.1

Packing Group III

EPG Number	6B7
IERG Number	37

15. REGULATORY INFORMATION

Regulatory Information	Australia: Classified as hazardous according to criteria of National Occupational Health & Safety Commission (NOHSC). Poison Schedule: Schedule 5
Poisons Schedule	S5
National and or International Regulatory Information	New Zealand: Classified as Hazardous according to the New Zealand Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001. ERMA Approval Code: HSR001540
Hazard Category	Harmful
AICS (Australia)	All components in this product are listed on AICS (Australian Inventory of Chemical Substances).

16. Disclaimer

The information above is believed to be accurate and represents the best information currently available to us. However, the information is not a guarantee expressed or implied, with respect to such information, and we assume no liability resulting from its use. Anyone using the chemical described here should ensure that he or she has the appropriate training and has the expertise and any equipment required for safe handling. If clarification or further information is required, please contact ECP Ltd or refer to the official handler of dangerous goods within your own company. The user should also make their own investigations to determine the suitability of the product for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.

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