MATERIAL SAFETY DATA SHEET, DICHLOROMETHANE

Section 1  Product and Company Identification
City Plastics Pty Ltd
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Material Identification: Dichloromethane; Methylene dichloride, Methylene bichloride,
Methane dichloride, Methylene chloride.
Product Name: DICHLOROMETHANE
Chemical Name: METHYLENE CHLORIDE
CAS Number: 75-09-2
Product Use: Solvent for some plastics.

Section 2  Composition/Information on Ingredients
Methylene Chloride (CH2Cl2)

Section 3  Hazards Identification
Warning: Harmful if swallowed, inhaled or absorbed through skin. Affects central nervous
system, liver, cardiovascular system, and blood. Causes irritation to skin, eyes and
respiratory tract. Suspect cancer hazard. May cause cancer. Risk of cancer depends on
level and duration of exposure.
Ingestion: May cause irritation of the gastrointestinal tract with vomiting. If vomiting results
in aspiration, chemical pneumonia could follow. Absorption through gastrointestinal tract
may produce symptoms of central nervous system depression ranging from light-
headedness to unconsciousness.
Skin: Causes irritation, redness and pain. Prolonged contact can cause burns. Liquid
degreases the skin. May be absorbed through skin.
Eye: Vapours can cause eye irritation. Contact can produce pain, inflammation and
temporal eye damage.
MATERIAL SAFETY DATA SHEET, DICHLOROMETHANE

Section 3 | Hazards Identification (Continued)

**Inhalation:** Causes irritation to respiratory tract. Has a strong narcotic effect with symptoms of mental confusion, light-headedness, fatigue, nausea, vomiting and headache. Causes formation of carbon monoxide in blood, which affects cardiovascular system and central nervous system. Continued exposure may cause increased light-headedness, staggering, unconsciousness, and even death. Exposure may make the symptoms of angina (chest pains) worse.

Section 4 | First Aid Measures

**Inhalation:** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
**Ingestion:** If swallowed, do not induce vomiting. Give large quantities of water. Never give anything by mouth to an unconscious person. Get medical attention immediately.
**Skin Contact:** Immediately flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention. Wash clothing before reuse. Thoroughly clean shoes before reuse.
**Eye Contact:** Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

**Chronic effects:** Can cause headache, mental confusion, depression, liver effects, kidney effects, bronchitis, loss of appetite, nausea, lack of balance, and visual disturbances. Can cause dermatitis upon prolonged skin contact. Methylene chloride may cause cancer in humans.

**Medical conditions generally aggravated by this material:** Persons with pre-existing skin disorders, eye problems, impaired liver, kidney, respiratory or cardiovascular function may be more susceptible to the effects of this substance.

Section 5 | Fire Fighting Measures

**Flash ignition temperature:** 556°C (1033°F)
**Unusual fire, explosion hazards:** Forms flammable vapour-air mixtures above 100°C (212°F)

**Special fire fighting instructions:** Fire fighters and others exposed to products of combustion should wear full protective clothing including self-contained breathing apparatus. Fire fighting equipment should be thoroughly decontaminated after use.
**Extinguishing media:** Dry chemical, foam or carbon dioxide. Water spray may be used to keep fire-exposed containers cool.
Section 6  Accidental Release Measures

Spill or release: Ventilate area of leak or spill. Remove all sources of ignition. Wear appropriate personal protective equipment. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Contain and recover liquid when possible. Use non-sparking tools and equipment. Collect liquid in an appropriate container or absorb with an inert material (e.g., vermiculite, dry sand, earth), and place in a chemical waste container. Do not use combustible materials, such as sawdust. Do not flush to stormwater system.

Section 7  Handling and Storage

Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage. Isolate from any source of heat or ignition. Detached storage is recommended. Containers of this material may be hazardous when empty since they retain product residues (vapours, liquid), observe all warnings and precautions listed for the product. To minimize decomposition, all storage containers should be galvanized or lined with a phenolic coating. This material may corrode plastic and rubber. Wear special protective equipment where exposures may exceed established exposure levels. Wash hands, face, forearms and neck after use. Wash hands before eating and do not eat, drink, or smoke in workplace.

Section 8  Exposure Controls/Personal Protection

Eye: Use chemical safety goggles and or a full face shield where splashing is possible. Maintain an eye wash fountain or quick drench facilities in work area.

Skin: Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact. Neoprene is a recommended material for personal protective equipment. Natural rubber and polyvinyl chloride are not recommended materials for personal protective equipment.

Ventilation: Local exhaust at processing area to assure that vapour levels are kept at recommended levels.

Respirator: A respirator is recommended at all times, depending on concentration levels a supplied air, full-face piece respirator, air lined hood, or full-face piece self-contained breathing apparatus.

Section 9  Physical and Chemical Properties

Appearance: Clear, colourless liquid.

Odour: Chloroform-like odour.

Boiling Point: 39.8°C (104°F)

Melting Point: -97°C (-143°F)

Solubility in water: 1.32 gm/100 gm water @ 20°C

Volatile content %: 100

Specific gravity: 1.33
MATERIAL SAFETY DATA SHEET, DICHLOROMETHANE

Section 10  Stability and Reactivity

Stability at room temperature: Stable under ordinary conditions of use and storage.
Materials to avoid: Strong oxidizers, strong caustics, plastics, rubber, nitric acid, water, heat, and chemically active metals, such as aluminium and magnesium powder, sodium, potassium, and lithium. Avoid contact with open flames and electrical arcs. Liquid methylene chloride will attack some forms of plastics, rubber, and coatings.
Conditions to avoid: Moisture, heat, flames, ignition sources and incompatibles.

Section 11  Toxicological Information

Chronic toxicity: Investigated as a tumorigen, mutagen, and reproductive effector.
Medical conditions prone to aggravation by exposure: Dichloromethane has been linked to spontaneous abortions in humans.
Carcinogenicity: Yes

Section 12  Ecological Information

Aquatic toxicity: Toxicity to aquatic life is expected to be low.
Degradation: When released into the soil, this material may leach into groundwater. When released into the soil, this material is expected to quickly evaporate. When released into water, this material may biodegrade to a moderate extent. When released to water, this material is expected to quickly evaporate. This material is not expected to significantly bio accumulate. When released into the air, this material may be moderately degraded by reaction with photo chemically produced hydroxyl radicals. When released into the air, this material is expected to have a half-life of greater than 30 days. When released into the air, this material may be removed from the atmosphere to a moderate extent by wet deposition.

Section 13  Disposal Considerations

Spill or release: Ventilate area of leak or spill. Remove all sources of ignition. Wear appropriate personal protective equipment. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Contain and recover liquid when possible. Use non-sparking tools and equipment. Collect liquid in an appropriate container or absorb with an inert material (e.g., vermiculite, dry sand, earth), and place in a chemical waste container. Do not use combustible materials, such as sawdust. Do not flush to stormwater system.
Waste disposal: Whatever cannot be saved for recovery or recycling should be handled as hazardous waste and sent to an approved incinerator or disposed in a approved waste facility.

Section 14  Transport Information

Hazard class: Australian Hazchem Code: 2Z
Shipping name: DICHLOROMETHANE
MATERIAL SAFETY DATA SHEET, DICHLOROMETHANE

Section 15  Regulatory Information
Hazchem Code: 2Z  
Poison Schedule: S5

Section 16  Other Information
Label Hazard Warning: WARNING! HARMFUL IF SWALLOWED, INHALED OR ABSORBED THROUGH SKIN. AFFECTS CENTRAL NERVOUS SYSTEM, LIVER, CARDIOVASCULAR SYSTEM, AND BLOOD. CAUSES IRRITATION TO SKIN, EYES AND RESPIRATORY TRACT. SUSPECT CANCER HAZARD. MAY CAUSE CANCER. RISK OF CANCER DEPENDS ON LEVEL AND DURATION OF EXPOSURE.
Label Precautions: Do not breathe vapour, keep container closed, use only with adequate ventilation, wash thoroughly after handling, keep away from heat and flame, do not get in eyes, on skin, or on clothing.
Prepared by: Steven Cook  
Issued: 1 September 2009
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