



Section 1: Identification of the Material and Supplier

Product Name: Carbo Kleen

Other Names: Solution of phenols in dichloromethane.

Proper shipping name (ADG Code): Toxic liquid, organic, n.o.s.
(dichloromethane, phenol, cresol mixed isomers)

Recommended use: To remove grease, oil, carbon and paint from all kinds of metals.
Use strictly as directed on the product label.

Supplier: Hunters Products (TAS) Pty. Ltd.,
A.C.N. 004 601 263

HEAD OFFICE

60 Gleadow Street,
INVERMAY TAS 7248
Tel: 03 6331 4755
Fax: 03 6334 1065

HOBART OFFICE

105 Albert Road,
MOONAH TAS 7009
Tel: 03 6228 7955
Fax: 03 6228 7988

BURNIE OFFICE

22 Pearl Street,
WIVENHOE TAS 7320
Tel: 03 6431 9627
Fax: 03 6432 2083

Emergency Phone Numbers:

Transport/Fire Emergency: **000** (Emergency services)
Medical Emergency: **131126** (Poisons Information Centre)

Section 2: Hazards Identification

**Classified as hazardous according to criteria of Worksafe Australia.
Dangerous goods.**

Risk Phrases:

R: 24/25	Toxic in contact with skin and if swallowed.
R: 34	Causes burns.
R: 40	Limited evidence of a carcinogenic effect.

Safety Phrases:

S: 1/2	Keep locked up and out of the reach of children.
S: 23	Do not breathe vapour.
S: 24/25	Avoid contact with skin and eyes.
S: 28	After contact with skin wash immediately with plenty of glycerin, polyethylene glycol or methylated spirit.
S: 36/37/39	Wear suitable protective clothing, gloves and eye/face protection.
S: 45	In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

Section 3: Composition/Information on Ingredients

Ingredients:

Dichloromethane	[75-09-2]	30 - 60 %
Phenol	[108-95-2]	10 - 30 %
Cresylic acid (cresols)	[1319-77-3]	< 10 %
Other ingredients deemed not to be hazardous		< 10 %
Water	[7732-18-5]	to 100 %

Section 4: First Aid Measures

For advice, contact a Poisons Information Centre (Phone 131126) or a doctor.

Swallowed: If swallowed, do NOT induce vomiting.
Avoid giving milk or oils.

Skin: If on skin, remove any contaminated clothing, wash skin thoroughly with soap and water, then methylated spirit if available. Contact the Poisons Information Centre or a doctor.

Eyes: If in eyes, hold eyelids apart and flush the eye continuously with running water. Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes.

Inhaled: If inhaled, remove from contaminated area. Apply artificial respiration if not breathing. Seek medical advice.

First Aid facilities:

Mandatory: Eye wash. Hand wash basin.

Recommended: Emergency shower, stock of methylated spirit.

Advice to Doctor:

Product is a solution of phenol and cresol isomers, and a soft soap, in dichloromethane. Toxic by skin contact and if swallowed. Causes burns by all routes. Skin burns may not be immediately painful, owing to the anaesthetising effect of phenol. Contact Poisons Information Centre.

Aggravated medical conditions:

Persons with liver, kidney or respiratory disfunction may be more susceptible to the harmful effects of this product. Inhalation of dichloromethane vapours may enhance symptoms of angina.

Section 5: Fire Fighting Measures

HAZCHEM Code:	UN 2810
Evacuate:	No.
Extinguishant:	Water fog or fine water spray.
Risk of violent reaction or explosion:	No.
Products of combustion:	Oxides of carbon, noxious fumes including phosgene.
Protective Equipment:	Full protective clothing including breathing apparatus and protective gloves.

Section 6: Accidental Release Measures

Emergency Procedures:

Contain.
Shut off all sources of ignition.
Increase ventilation.

For large spills:

Contain spillages with sand or earth. Transfer both liquid and solids to suitable closed container(s). Treat residues as for small spills.

For small spills:

Absorb on inert absorbent and transfer to suitable closed container. Wash site of spillage thoroughly with water and detergent. Ventilate area to dispel any residual vapours.

Section 7: Handling and Storage

Precautions for safe handling:

Avoid contact with skin and eyes. Avoid breathing vapours. Keep away from hot surfaces, naked flames and other sources of ignition. Do not weld or smoke near this material.

Conditions for safe storage:

Store in a cool, well ventilated place, out of reach of children. Large quantities should be stored in a banded dangerous goods store. Store in original container. Keep container tightly closed and out of direct sunlight. Keep away from naked flames and other sources of ignition. Prevent vapours from collecting in enclosed or low lying spaces. Keep away from oxidising agents, alkalis. Protect from physical damage. Clean up all spills and splashes promptly; avoid secondary accidents.

Incompatibles:

Oxidising agents, alkalis.

Section 8: Exposure Controls/Personal Protection

National Exposure Standards:

ES-TWA:	Dichloromethane	50 ppm, 174 mg/m ³
	Phenol	1 ppm, 4 mg/m ³
	Cresol, all isomers	5 ppm, 22 mg/m ³
ES-STEL:	None assigned by NOHSC, but see:	
	Dichloromethane	70 ppm, 250 mg/m ³ [Sweden]
	Phenol	2 ppm, 8 mg/m ³ [Sweden]
	Cresol, all isomers	10 ppm, 44 mg/m ³ [Finland, Switzerland]
ES-PEAK:	None assigned.	
Notations:	Dichloromethane	Skin. Carcinogen, category 3.
	Phenol	Skin.
	Cresol, all isomers	Skin.

[Skin] indicates that this material may be absorbed via unbroken skin, and any such contact may invalidate the TLV.

Biological Limit Values: No data found.

Engineering Controls:

Use flame proof equipment where available.
Ensure adequate ventilation (same as outdoors) when using.
If handling industrial quantities, or if vapour risk exists, consider local mechanical exhaust/extraction to keep airborne contamination as low as possible and at least below the TLV.

Personal Protective Equipment:

Avoid contact with skin and eyes. Avoid breathing vapours.
Personal protection to be selected from those recommended below, as appropriate to mode of use, quantity handled and degree of hazard:-

Normal Use:

Eye/face protection
Gloves, rubber or plastic
Impervious overalls.

Industrial Quantities:

Positive pressure air hood
Face shield or safety glasses
Gloves, rubber or plastic
Plastic apron, sleeves and boots
Impervious overalls.

Section 9: Physical and Chemical Properties

Appearance:	Clear, dark brown, mobile liquid.	
Odour:	Strong, characteristic smell of phenols and dichloromethane.	
Odour Thresholds:	300 ppm	[dichloromethane]
	0.04 ppm	[phenol]
pH:	No data.	
Vapour Pressure:	47.4 kPa @ 20 °C	[dichloromethane]
Vapour Density:	2.9 (Air = 1)	[dichloromethane]
Boiling Point:	From about 40 °C	[dichloromethane]
Melting Point:	No data.	
Volatiles:	About 65 %	
Volatile Organic Compounds (VOC):	60 %	[dichloromethane]
Evaporation Rate:	No data.	
Solubilities:	Soluble in a large excess of water.	
Specific Gravity/Density:	1.3 g/mL @ 20 °C	
Flash Point:	None.	
Flammable Limits:	12 - 25 % under very exceptional conditions: [dichloromethane]	
Dust Explosion:	Not applicable.	
Auto-ignition Temperature:	640 °C	[dichloromethane]

Other Information:

Phenols content may partially dissolve in the water seal on the top of a soak tank. On prolonged contact with water, dichloromethane will produce a small quantity of hydrochloric acid. Incompatible with aluminium and magnesium. Will darken in colour on exposure to air, light and contamination. Incompatible with oxidising agents and alkalis. May attack some forms of plastic, rubber and paint/coatings. May form phosgene if dichloromethane vapours come into contact with hot metal surfaces, naked flames, lighted cigarettes, or UV light.

Section 10: Stability and Reactivity

Chemical Stability:	Stable under normal conditions.
Conditions to Avoid:	Incompatible materials, UV light, air, heat.
Incompatible Materials:	Oxidising agents, alkalis, metals.
Hazardous Decomposition Products:	Noxious fumes including phosgene.
Hazardous Reactions:	Exposure to hot metal surfaces, naked flames or UV light may generate phosgene, a toxic gas.

Section 11: Toxicological Information

Health Effects:

No data available for the mixture. Information presented relates to individual ingredients. *Use of alcoholic beverages may enhance the harmful effects of this product.*

- Acute:**
- Swallowed:** May be fatal.
Ingestion of dichloromethane may cause symptoms of central nervous system depression including excitement, dizziness, drowsiness, headache, abdominal pain, weakness, nausea, loss of consciousness and death from respiratory failure. Dichloromethane is metabolised to carbon monoxide in the blood, and may cause cyanosis and death.
Ingestion of phenols may cause severe and permanent damage to the digestive tract, including perforation. May cause burns to the mouth, lips, throat and stomach, but with a local anaesthetic effect. Other symptoms may include hallucinations and distorted perception, sore throat, abdominal pain, diarrhoea, smoky dark-green urine, convulsions, shock and collapse.
- Skin:** Will cause skin burns. Skin damage may not be immediately noticed because of the anaesthetic effect of phenol on the skin. Considerable damage may have occurred before such burns become painful. Contact over a large area of skin may result in symptoms similar to when swallowed, including death. Dichloromethane, phenol and cresols may all be absorbed through the skin.
- Eyes:** Risk of serious damage to the eyes. May cause severe, deep burns with risk of permanent loss of vision. Vapours may cause redness, pain, chemical conjunctivitis, corneal damage, blurred vision and deep burns.
- Inhaled:** Irritating to the respiratory system. Inhalation of dichloromethane vapours may cause dizziness, drowsiness, headache, nausea, weakness, loss of consciousness and death. May have narcotic effects including symptoms of mental confusion, light headedness, fatigue, staggering, loss of balance. Will be absorbed through the lungs and may lead to difficulty breathing due to an increase of carboxyhaemoglobin levels in the blood. Odour of dichloromethane is insufficient warning of unsafe exposures. Inhalation of phenol and cresol vapours may cause a burning sensation, cough, dizziness,

headache, nausea, vomiting, shortness of breath and unconsciousness. Other symptoms may include pallor, loss of appetite, weakness, sweating, fatigue and cyanosis. Over-exposure to phenol vapours may cause delayed onset pulmonary oedema (fluid build-up in the lungs) which may become a medical emergency.

Chronic: Repeated exposure may cause dermatitis and a darkening of the skin.
Chronic exposure may affect the liver, kidneys, central nervous system, lungs and pancreas.
Dichloromethane is classified by NOHSC as a carcinogen, category 3 - substances that should be regarded as if they are carcinogenic to man.
Dichloromethane is classified by IARC as Group 2B; possibly carcinogenic to humans. (1)
Dichloromethane is classified as carcinogenic and neoplastic by RTECS criteria. (2)(3)(4)
Phenol is classified by IARC as Group 3; unclassifiable as to carcinogenicity to humans. (5)
Phenol is classified as carcinogenic and neoplastic by RTECS criteria. (6)

LD₅₀ :	Dichloromethane	985 mg/kg oral, rat. 873 mg/kg oral, mouse.
	Phenol	512 mg/kg oral, rat. 669 mg/kg skin, rat.
LC₅₀ :	Dichloromethane	52,000 mg/m ³ /6 hours, rat.
	Phenol	316 mg/m ³ /4 hours, rat.
LDLo:	Dichloromethane	357 mg/kg oral, human.
	Phenol	140 mg/kg oral, human. 10 mg/kg oral, infant.
TCLo:	Dichloromethane	500 ppm/8 hours, human - euphoria.

Section 12: Ecological Information

Ecotoxicity:	Harmful to aquatic organisms.
Persistence and degradability:	No data.
Mobility:	Readily transported by water. Dichloromethane will readily evaporate to atmosphere.
Environmental Fate:	No data.
Bioaccumulative potential:	No data.

Other adverse environmental effects: No data.

Section 13: Disposal Considerations

The generator of any wastes from this product is responsible for its proper classification, transport and disposal.

Consult appropriate local and State regulations.

Disposal methods and containers:

Avoid disposal to sewer, natural waters or the environment.
Do not use aluminium containers.

Special precautions for landfill or incineration:

Unsuitable for incineration.
May be unsuitable for some landfill sites.

Section 14: Transport Information

UN Number: UN 2810

UN Proper shipping name: Toxic liquid, organic, n.o.s.
(dichloromethane, phenol, cresols)

Class and subsidiary risk: 6 Toxic

Packaging group: II

Special precautions for user: Do not store or transport with dangerous goods of classes 1, 5.1, 5.2, 8 (alkalis), nitromethane, foodstuff and foodstuff empties. Contain spillages.

HAZCHEM Code: 2 X

Material for export: Regulated.
Refer to **IMO/IMDG** and **IATA/ICAO**.

Section 15: Regulatory Information

Poisons (SUSDP): Schedule 6
Phenol and its homologues > 3 %.

Dangerous Goods: Yes. UN 2810 6/II 2 X.

Carcinogen:	Australia	IARC	NTP	RTECS
	Yes.	Yes.	Yes.	Yes.

Agricultural and Veterinary Chemicals Act: Not applicable.

Australian Inventory of Chemical Substances (AICS): Listed.

Other National/International Regulations: No data.

Section 16: Other information

Date of MSDS update: October 2007
Complete review and re-write of all sections.

Abbreviations:

NOHSC - National Occupational Health and Safety Commission.
ACGIH - American Conference of Governmental Industrial Hygienists.
MAK - Maximum workplace concentration - Germany,
(*maximale Arbeitsplatzkonzentration*)
IARC - International Agency for Research on Cancer (France).
NPT - National Toxicology Program (USA).
RTECS - Registry of Toxic Effects of Chemical Substances.

Literature references:

- (1) *IARC Monographs on the Evaluation of Carcinogenic Risks to Man.* v.71, p.251, 1999.
- (2) *Fundamental and Applied Toxicology.*
(Academic Press, Inc., 1 E First St., Duluth,
MN 55802) v.4, p.30, 1984.
- (3) *National Toxicology Program Technical Report Series.*
(Research Triangle Park, NC 27709) NTP-TR-306, 1986.
- (4) *National Technical Information Service.*
(Springfield, VA 22161) PB86-187903/AS.
- (5) *IARC Monographs on the Evaluation of Carcinogenic Risks to Man.* v.71, p.749, 1999.
- (6) *Cancer Research.*
(Public Ledger Building, Suite 816, 6th & Chestnut
Sts., Philadelphia, PA 19106) v.19, p.413, 1959.

Other Available Sources of Data:

National Code of Practice for the Preparation of Material Safety Data Sheets 2nd Edition [2011(2003)] - NOHSC.
Australian Dangerous Goods Code.
Standard for the Uniform Scheduling of Drugs and Poisons - AHMAC.
Exposure Standards for Atmospheric Contaminants in the Occupational Environment [1003]- NOHSC.
List of Designated Hazardous Substances [10005] - NOHSC.
Merck Index - Merck Inc.
Sax's Dangerous Properties of Industrial Materials - Lewis.
Handbook of Toxic and Hazardous Chemicals and Carcinogens - Sittig.
Handbook of Reactive Chemical Hazards - Bretherick.
Hawley's Condensed Chemical Dictionary - Wiley Interscience.
AUSREG's Chemical Data Package for PCs - AUSREG Consultancy.