

MATERIAL SAFETY DATA SHEET



Chem Pack Pty Ltd

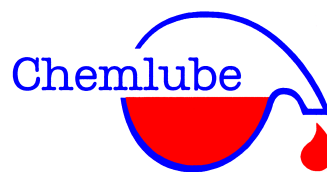
ABN 62 060 283 089

120 Fulton Drive Derrimut Vic 3030

incorporating

Citro-Clean Products & Chemlube

(Registered Business Names of Chem Pack Pty Ltd)



Citro-Clean Products
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Electro-Kleen Aerosol Spray

This product is classed as a Dangerous Goods according to criteria of NOHSC.

This product is classified as a Dangerous Goods for transport by road and rail.

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

Supplier: Chem Pack Pty Ltd
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Substance: Chemlube Electro-Kleen 400g Aerosol Spray
Product name: Electro-Kleen Aerosol Spray
Product Use: Multi-purpose cleaner for all electronic equipment
Creation Date: 01 April 2009

2. COMPOSITION/INFORMATION ON INGREDIENTS

Recommended Use: As a multi-purpose cleaner for all electronic equipment.

Appearance: Colourless, slight odour.

Chemical Entity	CAS NO.	Proportion (% weight/weight)
Propane Butane Blend	68475-59-2	25-40%
Dichloromethane	75-09-2	25-35%
Aliphatic Hydrocarbon	64742-89-8	25-35%

3. HAZARDS IDENTIFICATION

A. EMERGENCY OVERVIEW:

Physical Appearance and Odor:

Colourless liquid with sweet odour

Warning statements:

Based on available information, classified as hazardous according to health criteria of NOHSC Australia.

B. POTENTIAL HEALTH EFFECTS:

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Eye: May cause pain. May cause moderate irritation. Vapours can irritate eyes. May cause slight corneal injury.

Skin: A single prolonged exposure is not likely to result in the material being absorbed through skin in harmful amounts. May cause more severe response if confined to skin. Extensive skin contact, such as immersion, may cause an intense burning sensation, followed by a cold, numb feeling which will subside after contact.

Inhalation: Short term exposure: Irritation (possibly severe), nausea, irregular heartbeat; headache, symptoms of drunkenness, lung congestion, blood disorders. Narcotic at high vapour concentrations.

Long term exposures: Chest pain, reproductive effects, effects on the brain.

Ingestion: Short term exposure: symptoms of drunkenness, tingling sensation, blood disorders, convulsions.

Chronic Effects: Major health hazards: Respiratory tract irritation, skin irritation, eye irritation, blood damage, central nervous system depression, cancer hazard (in humans). Causes serious nerve damage by prolonged exposure resulting in sensory loss. Possible risk of impaired fertility.

Classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for transport by Road and Rail.

4. FIRST AID MEASURES

- Ingestion:** Do not induce vomiting, give nothing by mouth. If vomiting occurs, keep head lower than hips to help prevent aspiration. Seek immediate medical assistance.
- Eye contact:** Flush immediately with large amounts of water or normal saline, occasionally lifting upper and lower lids, until no evidence of chemical remains. Seek immediate medical assistance.
- Skin contact:** Remove contaminated clothing, jewellery, and shoes immediately. Wash with soap or mild detergent and large amounts of water until no evidence of chemical remains (at least 15-20 minutes). Seek medical attention if required.
- Inhalation:** Remove from exposure immediately. Use a bag valve mask or similar device to perform artificial respiration (rescue breathing) if required. If symptoms persist consult a doctor or Poisons Information Centre.

Notes to physician: Treat symptomatically. Exposure may increase "Myocardial irritability". No specific antidote; avoid epinephrine if possible. May cause eye irritation. If cornea is burned, instill antibiotic steroid preparation frequently. Increase in carboxyhaemoglobin may result. Never give adrenalin to victim of overexposure. Alcohol will increase toxic effect. Causes central nervous system depression.

5. FIRE-FIGHTING MEASURES

Flash Point: Propellant - 81°C , Product < -18°C

Flammability Limits: (% Vol): Lower: 1.4, Upper: 7.6

Suitable extinguishing media: Use carbon dioxide, dry chemical powder or regular dry foam as extinguishing media. Sand or earth may be used for small fires.

Hazards from combustion products: Could evolve carbon monoxide, toxic chlorine gas, toxic and irritating hydrogen chloride, and highly toxic and irritating phosgene on decomposition. Heat may build pressure or rupture closed containers. Poisonous and acrid smelling decomposition products may form in fire or on hot surfaces. Reacts violently with Lithium, Sodium, Potassium and potassium-tert-butoxide. Incompatible with alkaline earth metals aluminium and amines. Can form flammable vapour/air mixtures.

Precautions for Firefighters and Special Protective Equipment

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Will float and can be reignited on surface water. The vapour is heavier than air, spreads along the ground and distant ignition is possible. In case of fire, use Self Contained Breathing Apparatus and Gloves.

6. ACCIDENTAL RELEASE MEASURES

Cleanup and Disposal of Spill: Avoid contact with skin, eyes. Do not breathe vapour. Ventilate contaminated area thoroughly. Cleanup personnel should wear nitrile rubber gloves, gauntlet type, jacket and trousers – nitrile rubber, safety boots – rubber, knee length. Wear full face-piece respirator with organic vapour canister and built-in particulate filter NPF 1000 (gas only). In a confined space wear self-contained breathing apparatus open circuit type NPF 2000.

Prevent contamination of soil and water. Prevent from spreading or entering into drains, ditches or rivers by using sand, earth, or other appropriate barriers.

Absorb or contain liquid with sand, earth or spill control material. Shovel up and place in a labeled, sealable container for subsequent safe disposal. Put leaking containers in a labeled drum or overdrum. Scrub contaminated surfaces with detergent solution. Retain washings as contaminated waste.

Risk of explosion. Inform the emergency services if liquid enters surface water drains. Vapour may form an explosive mixture with air.

7. HANDLING AND STORAGE

Precautions for Safe Handling: Avoid breathing vapours, use local exhaust extraction. Avoid accidents, clean up immediately. Avoid prolonged or repeated skin contact. Wash skin thoroughly after handling. Extinguish any naked flames, remove ignition sources, avoid sparks, do not smoke. Take precautionary measures against static discharges.

Precautions for Safe Storage: Protect from physical damage. Store in a cool, dry place. Ventilation required. Avoid direct sunlight, heat, flames, sparks and other sources of ignition. Store in tightly closed containers. Store under an inert atmosphere. Keep separated from incompatible substances. Keep away from ignition sources at all times. Store aerosols in cool, dry environment below 38°C. Avoid storage with oxidizers, metals, bases and combustible materials.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

National occupational exposure limits

TWA – 25 ppm (OSHA)

TWA – 125 ppm/15 min (OSHA)

OSHA action level – 12.5 ppm

TWA – 50 ppm, 174 mg/m³ (ACGIH)

Engineering measures: Provide local exhaust or process enclosure ventilation system. Ensure compliance with applicable exposure limits.

Personal protection equipment: Use splash resistant safety goggles with a faceshield, appropriate chemical resistant clothing, chemical resistant gloves.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form / Colour / Odour: Colourless liquid with sweet odour.

Specific Gravity (15°C):	0.71	Melting Point (°C):	N App
Rel. Vapour Density (air=1):	N Av	Boiling Point (°C):	40°C to 140°C
Vapour Pressure (20°C):	N Av	Decomp. Point (°C):	N Av
Flash Point (°C):	-81(propellant) < -18°C (product)	Sublimation Point:	N App
Flammability Limits (%):	LEL 1.4%, UEL 7.6%	pH (1% aqueous soln):	N Av
Autoignition Temp (°C):	N Av	Viscosity (20°C):	N Av
% Volatile by volume:	60% below 150°C	Evaporation Rate:	Rapid
Solubility in water:	Below 0.1% mass		

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(Typical values only - consult specification sheet)
N Av = Not available N App = Not applicable

10. STABILITY AND REACTIVITY

Stability: Stable under anticipated conditions of storage and handling.

Conditions to Avoid: Heat, flames, sparks.

Incompatible materials: Strong oxidising agents, bases and combustible materials.

11. TOXICOLOGICAL INFORMATION

No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. Symptoms that may arise if the product is mishandled are:

Acute Effects

Ingestion: (rat) LD50: 1600 mg/kg.

Eye contact: (rabbit): 162 mg – moderate, 10mg – mild, 500 mg/24hr - mild

Skin contact: (rabbit): 810 mg/24hr – severe, 100 mg/24hr - moderate

Inhalation: (rat) LC50: 52 g/m³

Chronic toxicity: Carcinogen status: OSHA – carcinogen, NTP – anticipated human carcinogen, IARC – human inadequate evidence, animal sufficient evidence, Group 2B, ACGIH – A3 animal carcinogen.

12. ECOLOGICAL INFORMATION

Ecotoxicity:

LC50: 193000 ug/1/96hr (fathead minnow).

EC50: 1682000 ug/1/48hr (daphnia magna)

EC50: >662000 ug/1/96hr (diatom)

EC50: 17780 ug/1/8hr (bullfrog)

KOW: 5011.87 (log=3.70) – estimated from water solubility.

KOC: 3741.11 (log=3.57) – estimated from water solubility.

Henry's law constant: 3.4 E -3 atm-m³/mol.

Bioconcentration: 2.96 – estimated from water solubility.

Aquatic processes: 2.3908600 hrs (river mode, 1m deep, 1m/s flow, 3 m/s wind).

Harmful to aquatic life. Relatively non persistent in the environment. Not expected to leach through the soil or the sediment. Accumulates very little in the bodies of living organisms. Highly volatile from water.

13. DISPOSAL CONSIDERATIONS

Do not discharge into drains. Do not discharge into sewers.

Incinerate under supervised conditions, according to State/Territory Land Waste Management Regulations. Dispose of waste material via a licensed waste disposal contractor to a regulated land fill. Product or solvents may be collected for reclamation or disposal through licensed waste disposal contractors.

14. TRANSPORT INFORMATION

UN Number 1950

Class 2

Packing Group N/A

Road and Rail Transport

Classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for transport by Road and Rail.

Marine Transport

Classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.

Air Transport

Classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA)

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Dangerous Goods Regulations for transport by air.

15. REGULATORY INFORMATION

Based on available information, classified as dangerous goods according to health criteria of NOHSC Australia.

Poisons Schedule (Aust)/Toxic Substance (NZ): 5

16. OTHER INFORMATION

Any advice, recommendation, information, assistance or service provided by Chem Pack Pty Ltd in relation to the goods supplied by it or their use or application is given in good faith and believed to be appropriate and reliable. However, it is provided with a disclaimer for any liability or responsibility on the part of Chem Pack Pty Ltd. The customer accepts all risk and responsibility for use of the goods alone, or in combination with other products. All warranties, guarantees and conditions, other than those expressly stated, and when implied by statute, common law, custom of the trade or otherwise, are to the extent that the law permits, expressly excluded.