SAFETY DATA SHEET
CETRIMONIUM CHLORIDE 50%
Revision 1, 02/12/2023

1. IDENTIFICATION

Product Name	**Cetrimonium Chloride 50%**
Other Names	Cetyltrimethylammonium chloride
Uses	Surfactant.
Chemical Family	No Data Available
Chemical Formula	Unspecified
Chemical Name	Hexadecyltrimethylammonium chloride
Product Description	No Data Available

Contact Details of the Supplier of this Safety Data Sheet

Organisation	Location	Telephone
Aurora Cleaning Supplies	F1 / 5 Bungaleen Court Dandenong South VIC 3175	03 9768 2669

Emergency Contact Details

For emergencies only; DO NOT contact these companies for general product advice.

Organisation	Location	Telephone
Poisons Information Centre	Westmead NSW	131126
Chemcall	Australia	1800-127406 +64-4-9179888
Chemcall	Malaysia	+64-4-9179888
Chemcall	New Zealand	0800-243622 +64-4-9179888
National Poisons Centre	New Zealand	0800-764766
CHEMTREC	USA & Canada	1-800-424-9300 CN723420 +1-703-527-3887

2. HAZARD IDENTIFICATION

Poisons Schedule (Aust)	Schedule 6

Globally Harmonised System

Hazard Classification			Hazardous according to the criteria of the Globally Harmonised System of Classification and Labelling of Chemicals (GHS)
Hazard Categories			Acute Toxicity (Oral) - Category 4 Skin Corrosion/Irritation - Category 1C Serious Eye Damage/Irritation - Category 1 Acute Hazard To The Aquatic Environment - Category 1 Long-term Hazard To The Aquatic Environment - Category 1
Pictograms			
Signal Word			Danger
Hazard Statements		**H302**	Harmful if swallowed.
		H314	Causes severe skin burns and eye damage.
		H410	Very toxic to aquatic life with long lasting effects.
Precautionary Statements	Prevention	**P260**	Do not breathe mist/vapour/spray.
		P273	Avoid release to the environment.
		P270	Do not eat, drink or smoke when using this product.
		P280	Wear protective gloves/protective clothing/eye protection/face protection and suitable respirator.
	Response	**P303 + P361 + P353**	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
		P310	Immediately call a POISON CENTER or doctor.
		P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
		P301 + P330 + P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
		P363	Wash contaminated clothing before reuse.
		P391	Collect spillage.
		P304 + P340	IF INHALED: Remove victim to fresh air and keep comfortable for breathing.
	Storage	**P405**	Store locked up.
	Disposal	**P501**	Dispose of contents/container in accordance with local / regional / national / international regulations.

National Transport Commission (Australia)

Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

Dangerous Goods Classification	Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

Safe Work Australia

National Guide for Classifying Hazardous Chemicals under the Model WHS Regulations

Hazard Classification	Hazardous according to the criteria of Safe Work Australia under Model WHS Regulations

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients

Chemical Entity	Formula	CAS Number	Proportion
Cetyltrimethylammonium chloride	Unspecified	112-02-7	48 - 52 %
Water	H2O	7732-18-5	48 - 52 %

4. FIRST AID MEASURES

Description of necessary measures according to routes of exposure

Swallowed IF SWALLOWED: Rinse mouth with water. Do NOT induce vomiting. Immediately call a Poison Centre or doctor/physician for advice. Never give anything by mouth to an unconscious person.

Eye IF IN EYES: Immediately flush eyes with running water for several minutes, holding eyelids open and occasionally lifting the upper and lower lids. Remove contact lenses if present and easy to do. Continue flushing until advised to stop by a Poisons Information Centre (e.g. phone Australia 13 11 26; New Zealand 0800 764 766) or a doctor, or for at least 15 minutes.

Skin IF ON SKIN (or hair): Remove and isolate contaminated clothing and shoes. Immediately wash skin and hair with plenty of soap and running water for at least 15 minutes. Immediate call a Poison Centre or doctor/physician for advice. Wash contaminated clothing and shoes before reuse.
*For minor skin contact, avoid spreading material on unaffected skin.

Inhaled IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a Poison Centre or doctor/physician for advice. Give artificial respiration if victim is not breathing. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Administer oxygen if breathing is difficult.

Advice to Doctor For advice, contact a Poisons Information Centre (e.g. phone Australia 13 11 26; New Zealand 0800 764 766) or a doctor. Keep victim calm and warm. Effects of exposure (inhalation, ingestion or skin contact) to substance may be delayed. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.
*Most important symptoms and effects, both acute and delayed: Harmful if swallowed. Causes severe skin burns and eye damage.

Medical Conditions Aggravated by Exposure No information available.

5. FIRE FIGHTING MEASURES

General Measures Move containers from fire area if you can do it without risk. Cool containers with water spray until well after fire is out. Dike fire-control water for later disposal; do not scatter the material.

Flammability Conditions Non-combustible, substance itself does not burn but may decompose upon heating to produce corrosive and/or toxic fumes.

Extinguishing Media If material is involved in a fire, use dry chemical, Carbon dioxide (CO2), alcohol-resistant foam or water spray for extinction.

Fire and Explosion Hazard Contact with metals may evolve flammable hydrogen gas. Containers may explode when heated.

Hazardous Products of Combustion Fire may produce irritating, corrosive and/or toxic gases, including Carbon oxides, Nitrogen oxides (NOx), Hydrogen Chloride gas.

Special Fire Fighting Instructions Contain runoff from fire control or dilution water - Runoff may be corrosive and/or toxic and cause pollution.

Personal Protective Equipment Wear positive pressure self-contained breathing apparatus (SCBA). Wear chemical protective clothing - It may provide little or no thermal protection. Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations where direct contact with the substance is possible.

Flash Point No Data Available

Lower Explosion Limit	No	Data	Available
Upper Explosion Limit	No	Data	Available
Auto Ignition Temperature	No	Data	Available
Hazchem Code	2X		

6. ACCIDENTAL RELEASE MEASURES

General Response Procedure	Ensure adequate ventilation - Ventilate enclosed areas before entering. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Do not breathe mist/vapours and prevent contact with eyes, skin and clothing.
Clean Up Procedures	Absorb or cover with dry earth, sand or other non-combustible material and transfer to suitable, closed containers for disposal (see SECTION 13).
Containment	Stop leak if you can do it without risk. Prevent entry into waterways, sewers, basements or confined areas. *Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.
Decontamination	No information available.
Environmental Precautionary Measures	Spillages and decontamination runoff should be prevented from entering drains and watercourses.
Evacuation Criteria	Immediately isolate spill or leak area. Evacuate personnel to safe areas. Keep unauthorised personnel away. Stay upwind and/or uphill.
Personal Precautionary Measures	Do not touch damaged containers or spilled material unless wearing appropriate protective clothing (see SECTION 8). *Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations where direct contact with the substance is possible.

7. HANDLING AND STORAGE

Handling	Safety showers and eyewash facilities should be provided within the immediate work area for emergency use. Ensure adequate ventilation. Handle in accordance with good industrial hygiene and safety practice. Do not breathe mist/vapours and prevent contact with eyes, skin and clothing. Do not ingest. Wear protective gloves/protective clothing/eye protection/face protection and suitable respirator (see SECTION 8). Keep away from heat and sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge. Avoid release to the environment - Collect spillage (see SECTION 6).
Storage	Store in a cool, dry and well-ventilated place. Avoid extremes of temperature and direct sunlight. Keep container tightly closed. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Keep away from heat and sources of ignition - No smoking. Keep away from incompatible materials (see SECTION 10). Store locked up.
Container	Keep in the original container.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

General	No specific exposure standards are available for this product.
Exposure Limits	No Data Available
Biological Limits	No information available.
Engineering Measures	A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area.
Personal Protection Equipment	- Respiratory protection: Wear suitable respirator. Recommended: Use a full-face supplied air respirator (refer to AS/NZS 1715 & 1716). - Eye/face protection: Wear appropriate eye protection to prevent eye contact. Recommended: Wear chemical goggles. - Hand protection: Wear protective gloves. Recommended: Wear impervious chemical-resistant gloves. - Skin/body protection: Wear appropriate personal protective clothing to prevent skin contact. Recommended: Protective

	work clothing.
Special Hazards Precaustions	No information available.
Work Hygienic Practices	Do not eat, drink or smoke when using this product. Wash hands before breaks and at the end of workday. Take off immediately all contaminated clothing. Wash contaminated clothing before reuse.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid
Appearance	Transparent liquid
Odour	No information available.
Colour	Colourless to light yellow
pH	4.0 - 9.0 (10% water solution)
Vapour Pressure	No Data Available
Relative Vapour Density	No Data Available
Boiling Point	No Data Available
Melting Point	No Data Available
Freezing Point	No Data Available
Solubility	No Data Available
Specific Gravity	No Data Available
Flash Point	No Data Available
Auto Ignition Temp	No Data Available
Evaporation Rate	No Data Available
Bulk Density	No Data Available
Corrosion Rate	No Data Available
Decomposition Temperature	No Data Available
Density	No Data Available
Specific Heat	No Data Available
Molecular Weight	No Data Available
Net Propellant Weight	No Data Available
Octanol Water Coefficient	No Data Available
Particle Size	No Data Available
Partition Coefficient	No Data Available
Saturated Vapour Concentration	No Data Available
Vapour Temperature	No Data Available
Viscosity	No Data Available
Volatile Percent	No Data Available
VOC Volume	No Data Available
Additional Characteristics	No information available.
Potential for Dust Explosion	Not applicable.
Fast or Intensely Burning Characteristics	No information available.
Flame Propagation or Burning Rate of Solid Materials	No information available.
Non-Flammables That Could Contribute Unusual Hazards to a Fire	No information available.

Properties That May Initiate or Contribute to Fire Intensity	Non-combustible, substance itself does not burn but may decompose upon heating to produce corrosive and/or toxic fumes.
Reactions That Release Gases or Vapours	Fire/decomposition may produce irritating, corrosive and/or toxic gases, including Carbon oxides, Nitrogen oxides (NOx), Hydrogen Chloride gas.
Release of Invisible Flammable Vapours and Gases	Contact with metals may evolve flammable hydrogen gas.

10. STABILITY AND REACTIVITY

General Information	No information available.
Chemical Stability	Stable under normal conditions.
Conditions to Avoid	Avoid extremes of temperature and direct sunlight.
Materials to Avoid	Incompatible/reactive with alkali metals, ammonia, oxidising agents, peroxides.
Hazardous Decomposition Products	Fire/decomposition may produce irritating, corrosive and/or toxic gases, including Carbon oxides, Nitrogen oxides (NOx), Hydrogen Chloride gas.
Hazardous Polymerisation	No information available.

11. TOXICOLOGICAL INFORMATION

General Information

Toxicological information:
- Acute toxicity: Harmful if swallowed.
- Skin corrosion/irritation: Causes severe skin burns and eye damage.
- Serious eye damage/irritation: Causes serious eye damage.
- Respiratory/skin sensitisation: Not considered to be skin sensitising.
- Germ cell mutagenicity: Not considered to have mutagenic or genotoxic potential.
- Carcinogenicity: No information available.
- Reproductive toxicity: Not considered to have specific reproductive or developmental toxicity. Any reproductive and developmental effects were only observed secondary to maternal toxicity.
- STOT (single exposure): No information available.
- STOT (repeated exposure): Not considered to cause serious damage to health from repeated oral exposure at doses below acutely toxic doses.
- Aspiration toxicity: No information available.

Information on likely routes of exposure:
- Ingestion: Corrosive! Harmful if swallowed. Signs of poisoning may include nausea, vomiting, abdominal pain, anxiety, restlessness, coma, convulsions, hypotension, cyanosis, and apnoea due to respiratory muscle paralysis. Death can occur within one or three hours after ingestion of concentrated solutions.
- Eye contact: Corrosive! Causes serious eye damage.
- Skin contact: Corrosive! Causes severe skin burns.
- Inhalation: Corrosive! Inhalation exposure may result in respiratory irritation/burning, irritation to the mouth/throat/nose, coughing/choking, chest pain, disorientation, dizziness, and shortness of breath.

Chronic effects: No information available.

Acute

Ingestion

Acute toxicity (Oral):
COMPONENT: Cetyltrimethylammonium chloride (CAS No. 112-02-7):
- LD50, Rat: 400 mg/kg [Supplier's SDS].

Other

Acute toxicity (Dermal):
COMPONENT: Cetyltrimethylammonium chloride (CAS No. 112-02-7):
- LD50, Rat: 4,300 mg/kg [Supplier's SDS].

Carcinogen Category

None

12. ECOLOGICAL INFORMATION

Ecotoxicity	Aquatic toxicity: COMPONENT: Cetyltrimethylammonium chloride (CAS No. 112-02-7): - LC50, Fish (Bluegill): 60.0 ~ 150.0 mg/L (96 h) [Supplier's SDS].
Persistence/Degradability	No information available.
Mobility	No information available.
Environmental Fate	Very toxic to aquatic life with long lasting effects - Avoid release to the environment.
Bioaccumulation Potential	No information available.
Environmental Impact	No Data Available

13. DISPOSAL CONSIDERATIONS

General Information	Dispose of contents/container in accordance with local/regional/national regulations.
Special Precautions for Land Fill	Incineration in recommended.

14. TRANSPORT INFORMATION

Land Transport (Australia)
ADG Code

Proper Shipping Name	CORROSIVE LIQUID, N.O.S. (Contains: Cetrimonium chloride)
Class	8 Corrosive Substances
Subsidiary Risk(s)	No Data Available
EPG	37 Toxic And/Or Corrosive Substances Non-Combustible
UN Number	1760
Hazchem	2X
Pack Group	III
Special Provision	No Data Available

Land Transport (Malaysia)
ADR Code

Proper Shipping Name	CORROSIVE LIQUID, N.O.S. (Contains: Cetrimonium chloride)
Class	8 Corrosive Substances
Subsidiary Risk(s)	No Data Available
EPG	37 Toxic And/Or Corrosive Substances Non-Combustible
UN Number	1760
Hazchem	2X
Pack Group	III
Special Provision	No Data Available

Land Transport (New Zealand)
NZS5433

Proper Shipping Name	CORROSIVE LIQUID, N.O.S. (Contains: Cetrimonium chloride)

Class	8 Corrosive Substances
Subsidiary Risk(s)	No Data Available
EPG	37 Toxic And/Or Corrosive Substances Non-Combustible
UN Number	1760
Hazchem	2X
Pack Group	III
Special Provision	No Data Available

Land Transport (United States of America)
US DOT

Proper Shipping Name	CORROSIVE LIQUID, N.O.S. (Contains: Cetrimonium chloride)
Class	8 Corrosive Substances
Subsidiary Risk(s)	No Data Available
ERG	154 Substances - Toxic and/or Corrosive (Non-Combustible)
UN Number	1760
Hazchem	2X
Pack Group	III
Special Provision	No Data Available

Sea Transport
IMDG Code

Proper Shipping Name	CORROSIVE LIQUID, N.O.S. (Contains: Cetrimonium chloride)
Class	8 Corrosive Substances
Subsidiary Risk(s)	No Data Available
UN Number	1760
Hazchem	2X
Pack Group	III
Special Provision	No Data Available
EMS	F-A, S-B
Marine Pollutant	Yes

Air Transport
IATA DGR

Proper Shipping Name	CORROSIVE LIQUID, N.O.S. (Contains: Cetrimonium chloride)
Class	8 Corrosive Substances
Subsidiary Risk(s)	No Data Available
UN Number	1760
Hazchem	2X
Pack Group	III
Special Provision	No Data Available

National Transport Commission (Australia)
Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

Dangerous Goods Classification	Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

15. REGULATORY INFORMATION

General Information	QUATERNARY AMMONIUM COMPOUNDS
Poisons Schedule (Aust)	Schedule 6

Environmental Protection Authority (New Zealand)
Hazardous Substances and New Organisms Amendment Act 2015

Approval Code	HSR002491 - Additives Process Chemicals and Raw Materials (Corrosive) Group Standard 2020

National/Regional Inventories

Australia (AIIC)	Listed
Canada (DSL)	Not Determined
Canada (NDSL)	Not Determined
China (IECSC)	Not Determined
Europe (EINECS)	203-928-6
Europe (REACh)	Not Determined
Japan (ENCS/METI)	Not Determined
Korea (KECI)	Not Determined
Malaysia (EHS Register)	Not Determined
New Zealand (NZIoC)	Listed
Philippines (PICCS)	Not Determined
Switzerland (Giftliste 1)	Not Determined
Switzerland (Inventory of Notified Substances)	Not Determined
Taiwan (NCSR)	Not Determined
USA (TSCA)	Not Determined

16. OTHER INFORMATION

Related Product Codes	CECHLO5050
Revision	1
Revision Date	01 Oct 2022
Key/Legend	< Less Than > Greater Than **AICS** Australian Inventory of Chemical Substances **atm** Atmosphere **CAS** Chemical Abstracts Service (Registry Number) **cm^2** Square Centimetres

CO2 Carbon Dioxide
COD Chemical Oxygen Demand
deg C (°C) Degrees Celcius
EPA (New Zealand) Environmental Protection Authority of New Zealand
deg F (°F) Degrees Farenheit
g Grams
g/cm^3 Grams per Cubic Centimetre
g/l Grams per Litre
HSNO Hazardous Substance and New Organism
IDLH Immediately Dangerous to Life and Health
immiscible Liquids are insoluable in each other.
inHg Inch of Mercury
inH2O Inch of Water
K Kelvin
kg Kilogram
kg/m^3 Kilograms per Cubic Metre
lb Pound
LC50 LC stands for lethal concentration. LC50 is the concentration of a material in air which causes the death of 50% (one half) of a group of test animals. The material is inhaled over a set period of time, usually 1 or 4 hours.
LD50 LD stands for Lethal Dose. LD50 is the amount of a material, given all at once, which causes the death of 50% (one half) of a group of test animals.
ltr or **L** Litre
m^3 Cubic Metre
mbar Millibar
mg Milligram
mg/24H Milligrams per 24 Hours
mg/kg Milligrams per Kilogram
mg/m^3 Milligrams per Cubic Metre
Misc or **Miscible** Liquids form one homogeneous liquid phase regardless of the amount of either component present.
mm Millimetre
mmH2O Millimetres of Water
mPa.s Millipascals per Second
N/A Not Applicable
NIOSH National Institute for Occupational Safety and Health
NOHSC National Occupational Heath and Safety Commission
OECD Organisation for Economic Co-operation and Development
Oz Ounce
PEL Permissible Exposure Limit
Pa Pascal
ppb Parts per Billion
ppm Parts per Million
ppm/2h Parts per Million per 2 Hours
ppm/6h Parts per Million per 6 Hours
psi Pounds per Square Inch
R Rankine
RCP Reciprocal Calculation Procedure
STEL Short Term Exposure Limit
TLV Threshold Limit Value
tne Tonne
TWA Time Weighted Average
ug/24H Micrograms per 24 Hours
UN United Nations
wt Weight