

MATERIAL SAFETY DATA SHEET

NFPA	HMIS	Personal Protective Equipment						
	<table border="1"> <tr> <td>Health Hazard</td> <td style="text-align: center;">3</td> </tr> <tr> <td>Fire Hazard</td> <td style="text-align: center;">0</td> </tr> <tr> <td>Reactivity</td> <td style="text-align: center;">0</td> </tr> </table>	Health Hazard	3	Fire Hazard	0	Reactivity	0	
Health Hazard	3							
Fire Hazard	0							
Reactivity	0							
See Section 8.								

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION	
Product code:	B2877
Product Name:	BENZYLDMETHYLTETRADECYLAMMONIUM CHLORIDE
Chemical Name:	Ammonium, benzyldimethyltetradecyl-, chloride
Synonyms:	Alkyl dimethylbenzyl ammonium chloride (100% C14) Arquad DM14B-90 Benzenemethanaminium, N,N-dimethyl-N-tetradecyl-, chloride (9Cl) Nissan cation M2-100 Quarton 14 BCL Tetradecyl-dimethyl-benzylammonium chloride MYRISTALKONIUM CHLORIDE
Recommended use:	Detergents. Surfactant. Germicide or biocide in cooling water systems, swimming pools, disinfectant cleaners, sanitisers, deodorant blocks, and for industrial plant, hospital and farm use.
CAS #:	139-08-2
Formula:	C23-H42-Cl-N
RTECS #	BO7150000
CI#:	Not available
Supplier:	Spectrum Chemicals and Laboratory Products, Inc. 14422 South San Pedro St. Gardena, CA 90248 (310) 516-8000
Emergency Telephone Number:	CHEMTREC: 1-800-424-9300
Contact Person:	Martin LaBenz (West Coast)
Contact Person:	Chris Terpak (East Coast)

2. HAZARDS IDENTIFICATION

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

DANGER CORROSIVE!. The product causes burns of eyes, skin and mucous membranes.

Odor:
No information available

Physical state:
Solid.

Appearance:
Powder. Crystalline powder.

Color:
White.

OSHA Regulatory Status

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200)

POTENTIAL HEALTH EFFECTS

Principal Routes of Exposure:

Skin. Inhalation. Ingestion.

Acute Potential Health Effects:

Skin Contact:

Causes skin burns.

Eye Contact:

Causes eye burns.

Inhalation:

Causes chemical burns to the respiratory tract.

Ingestion:

Causes burns. Can burn mouth, throat, and stomach.

Chronic Potential Health Effects:

Target Organs: No information available

Carcinogen Status: No information available

Mutagenic Effects: No information available

Teratogenic Effects: No information available

Aggravated Medical Conditions: No information available

See Section 11 for additional Toxicological Information

POTENTIAL ENVIRONMENTAL EFFECTS

No information available

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Weight %
Benzyltrimethyltetradecylammonium Chloride	139-08-2	100

4. FIRST AID MEASURES

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General Advice:	Poison information centres in each State capital city can provide additional assistance for scheduled poisons (13 1126). Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves. First aider needs to protect himself.
Skin Contact:	Wash off immediately with soap and plenty of water. Continue flushing with plenty of water for at least 15 minutes. Remove all contaminated clothes and shoes. Immediate medical attention is required. Call a physician immediately.
Eye Contact:	Flush eye with water for 15 minutes. Immediate medical attention is required. Call a physician immediately.
Inhalation:	Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. WARNING! It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled or ingested material is toxic, infectious or corrosive. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Immediate medical attention is required. Call a physician immediately.
Ingestion:	Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Immediate medical attention is required. Call a physician or Poison Control Centre immediately.
Notes to Physician:	Treat symptomatically

5. FIRE-FIGHTING MEASURES

Flammable Properties

Flashpoint (°C/°F):	No information available.
Tested according to:	Not applicable
Lower Explosion Limit (%):	No information available
Upper Explosion Limit (%):	No information available
Autoignition Temperature (°C/°F):	No information available

Suitable Extinguishing Media:	Carbon dioxide (CO ₂). Dry chemical. Water spray mist or foam. Alcohol-resistant foam.
Unsuitable Extinguishing Media:	No information available.
Hazardous Combustion Products:	Carbon oxides, Nitrogen oxides, Hydrogen chloride, Ammonia, Hydrogen cyanide
Specific hazards:	May be combustible at high temperatures. When heated to decomposition it may produce corrosive and/or toxic fumes. Fire may produce irritating, corrosive and/or toxic gases.
Special Protective Equipment for Firefighters:	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

Specific Methods:

Water mist may be used to cool closed containers. For fires involving tanks or car/trailer load, cool containers with flooding quantities of water until well after the fire is out. Dike fire-control water for later disposal; do not scatter the material.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions:

Keep people away from and upwind of spill/leak. Ensure adequate ventilation. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Use personal protective equipment. Avoid contact with skin, eyes and clothing. Remove all sources of ignition. Avoid dust formation.

Environmental Precautions:

Prevent further leakage or spillage if safe to do so. Should not be released into the environment. Do not let product enter drains. Do not flush into surface water or sanitary sewer system. Prevent entry into waterways, sewers, basements or confined areas.

Methods for Cleaning Up:

Sweep up and shovel into suitable containers for disposal. Clean contaminated surface thoroughly.

7. HANDLING AND STORAGE

Handling**Technical Measures/Precautions:**

Use only in area provided with appropriate exhaust ventilation. Keep away from incompatible materials.

Safe Handling Advice:

Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Avoid dust formation. Keep away from heat and sources of ignition. Do not ingest. Do not breathe vapours/dust. Handle in accordance with good industrial hygiene and safety practice.

Storage**Technical Measures/Storage Conditions:**

Keep container tightly closed in a dry and well-ventilated place. Store at room temperature in the original container. Store in a segregated and approved area. Store away from incompatible materials.

Incompatible Products:

Oxidizing agents.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering measures to reduce exposure:

Ensure adequate ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Personal Protective Equipment

Eye protection: Face-shield.

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Skin and body protection: Chemical resistant protective suit. Gloves.

Respiratory protection: Wear respirator with dust filter.

Hygiene measures: Avoid contact with skin, eyes and clothing. When using, do not eat, drink or smoke. Wash hands before breaks and immediately after handling the product.

National occupational exposure limits

United States

U.S Occupational Exposure Limits: Not determined

Canada

Canada Occupational Exposure Limits: Not determined

Australia and Mexico

Occupational Exposure Limits for Australia and Mexico: Not determined

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:

Solid.

Appearance:

Powder. Crystalline powder.

Color:

White.

Odor:

No information available.

Taste

No information available

Molecular weight:

368.05

Flash point (°C):

Not determined

Lower Explosion Limit (%):

No information available

Upper Explosion Limit (%):

No information available

Autoignition Temperature (°C/°F):

No information available

pH:

No information available

Boiling point/range(°C/°F):

No information available

Melting point/range(°C/°F):

56-62 °C/132.8-143.6 °F

Decomposition temperature(°C/°F):

No information available

Specific gravity:

No information available

Density (g/cm³):

No information available

Bulk density:

No information available

Vapor pressure @ 20°C (kPa):

No information available

Vapor density:

No information available

Evaporation rate:

No information available

VOC content (g/L):

No information available

Odor threshold (ppm):

No information available

**Partition coefficient
(n-octanol/water):**

1.81

Miscibility:

No information available

Solubility:

Sparingly soluble in water

Solubility in Water: >1000 mg/L

10. STABILITY AND REACTIVITY

Stability:

Stable at normal conditions

Conditions to avoid:

Heat. Avoid dust formation. Dust may form explosive mixture in air. Fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.

Materials to avoid:

Strong oxidising agents.

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Hazardous decomposition products:	When heated to decomposition it emits very toxic fumes. Carbon monoxide. Carbon dioxide. Nitrogen oxides (NOx). Hydrogen chloride gas. Ammonia. Hydrogen cyanide (hydrocyanic acid).
Possibility of Hazardous Reactions:	No information available
Polymerization:	Hazardous polymerisation does not occur
Corrosivity:	No information available
Special Remarks on Corrosivity:	No information available

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Component Information

Benzyl dimethyl tetradecyl ammonium Chloride - 139-08-2

- LD50/oral/rat** = No information available
- LD50/oral/mouse** = No information available
- LD50/dermal/rabbit** = Not determined
- LD50/dermal/rat** = No information available
- LC50/inhalation/rat** = No information available
- LC50/inhalation/mouse** = No information available

Product Information

- LC50/inhalation/rat** = No information available
- LC50/inhalation/mouse** = No information available
- LD50/dermal/rabbit** = No information available
- LD50/dermal/rat** = Not information available
- LD50/oral/rat** = No information available
- LD50/oral/mouse** = No information available

Local Effects

- | | |
|-------------------------|---|
| Skin irritation: | Severe skin irritation. Causes burns. |
| Eye irritation: | Severe eye irritation. Causes burns. |
| Inhalation: | Causes chemical burns to the respiratory tract. |
| Ingestion: | Causes digestive or gastrointestinal tract burns. |
| Sensitization: | No information available |

Chronic Toxicity

- | | |
|------------------------------|-----------------------------|
| Chronic Toxicity | No information available |
| Carcinogenic effects: | Not considered carcinogenic |
| Mutagenic Effects: | No information available |

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Reproductive Effects: No information available
Teratogenic Effects: No information available
Target Organs: No information available

12. ECOLOGICAL INFORMATION

ECOTOXICITY

Toxicity to terrestrial and aquatic plants and animals: Information given is based on data on the components and the ecotoxicology of similar products

Ecotoxicity effects: May cause long-term adverse effects in the aquatic environment.

Aquatic toxicity:

Mobility: No information available

Persistence and degradability: No information available

Bioaccumulative potential: No information available

13. DISPOSAL CONSIDERATIONS

Waste from residues / unused products:

Waste must be disposed of in accordance with Federal, State and Local regulation.

Contaminated packaging:

Empty containers should be taken for local recycling, recovery or waste disposal

Components	RCRA - F Series Wastes	RCRA - K Series Wastes	RCRA - P Series Wastes	RCRA - U Series Wastes
Benzyltrimethyltetradecylammonium Chloride	None	None	None	None

14. TRANSPORT INFORMATION

DOT

UN-No: 1759
Proper Shipping Name: Corrosive solid, n.o.s. (benzyltrimethyltetradecylammonium chloride)
Hazard Class: 8
Packing Group: None
Subsidiary Risk: Not applicable
Marine Pollutant: No data available
ERG No: 153
DOT RQ (lbs): No information available

Symbol(s): G

TDG (Canada)

Proper Shipping Name: Corrosive solid, n.o.s. (benzyltrimethyltetradecylammonium chloride)
UN-No: UN1759
Hazard Class: 8
Packing Group: III
Subsidiary Risk: No information available
Description: No information available

Product code: B2877

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ADR

Proper Shipping Name: Corrosive solid, n.o.s. (benzyltrimethyltetradecylammonium chloride)
UN-No: UN1759
Hazard Class: 8
Packing Group: III
Subsidiary Risk: No information available
Classification Code: No information available
Description: No information available
CEPIC Tremcard No: No information available

IMO / IMDG

Proper Shipping Name: Corrosive solid, n.o.s. (benzyltrimethyltetradecylammonium chloride)
UN-No: UN1759
Hazard Class: 8
Subsidiary Risk: No information available
Packing Group: III
Description: No information available
IMDG Page: No information available
Marine Pollutant: No information available
EMS: F-A
MFRG: No information available
Maximum Quantity: No information available

RID

Proper Shipping Name: Corrosive solid, n.o.s. (benzyltrimethyltetradecylammonium chloride)
UN-No: UN1759
Hazard Class: 8
Packing Group: III
Subsidiary Risk: No information available
Classification Code: No information available
Description: No information available

ICAO

UN-No: UN1759
Hazard Class: 8
Proper Shipping Name: Corrosive solid, n.o.s. (benzyltrimethyltetradecylammonium chloride)
Packing Group: III
Subsidiary Risk: No information available
Description: No information available

IATA

Proper Shipping Name: Corrosive solid, n.o.s. (benzyltrimethyltetradecylammonium chloride)
UN-No: UN1759
Hazard Class: 8
Packing Group: III
Subsidiary Risk: No information available
ERG Code: 8L
Description: No information available

15. REGULATORY INFORMATION**International Inventories**

Components	U.S. TSCA	Philippines (PICCS)	KOREA KECL	Japan ENCS	CHINA	Australia (AICS)	EINECS-No.
<i>Benzyltrimethyltetradecylammonium Chloride</i>	Present	Present	KE-11868	3-2694	Present	Present	205-352-0

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U.S. Regulations

California Prop. 65: Safe Drinking Water and Toxic Enforcement Act of 1986.

Chemicals Known to the State of California to Cause Cancer:

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Chemicals Known to the State of California to Cause Reproductive Toxicity:

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Components	Carcinogen	Developmental Toxicity	Male Reproductive Toxicity	Female Reproductive Toxicity:
Benzyltrimethyltetradecylammonium Chloride	Not Listed	Not Listed	Not Listed	Not Listed

CERCLA/SARA

Components	CERCLA - Hazardous Substances and their Reportable Quantities	Section 302 Extremely Hazardous Substances and TPQs	Section 302 Extremely Hazardous Substances and RQs	Section 313 - Chemical Category	Section 313 - Reporting <i>de minimis</i>
<i>Benzyltrimethyltetradecylammonium Chloride</i>	None	None	None	None	None

U.S. TSCA

Components	TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS)	TSCA 8(d) -Health and Safety Reporting
<i>Benzyltrimethyltetradecylammonium Chloride</i>	Not Applicable	Not Applicable

Canada

WHMIS hazard class:

E Corrosive material

Canada Controlled Products Regulation:

This product has been classified according to the hazard criteria of the CPR (Controlled Products Regulation) and the MSDS contains all of the information required by the CPR.

Inventory

Components	Canada (DSL)	Canada (NDSL)
Benzyltrimethyltetradecylammonium Chloride	Present	Not Listed

EU Classification

R -phrase(s)

R34 - Causes burns.

R53 - May cause long-term adverse effects in the aquatic environment.

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S -phrase(s)

S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

S61 - Avoid release to the environment. Refer to special instructions/safety data sheets.

S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection.

The product is classified in accordance with Annex VI to Directive 67/548/EEC

Contains: Benzyltrimethyltetradecylammonium Chloride

Indication of danger:

C - Corrosive.

**16. OTHER INFORMATION**

The MSDS format complies with ANSI Z400.1-2004 standards.

Preparation Date 28-Sep-2010

Reason for revision: Not applicable

Prepared by: Sonia Owen

Literature reference: No information available

All chemicals may pose unknown hazards and should be used with caution. This Material Safety Data Sheet (MSDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this MSDS. The physical properties reported in this MSDS are obtained from the literature and do not constitute product specifications. Information contained herein does not constitute a warranty, whether expressed or implied, as to the safety, merchantability or fitness of the goods for a particular purpose. Spectrum Chemicals & Laboratory Products, Inc. assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this MSDS is based on technical data judged to be reliable, Spectrum assumes no responsibility for the completeness or accuracy of the information contained herein.