

MATERIAL SAFETY DATA SHEET

Lonza

EMERGENCY TELEPHONE 800-424-9300 (Chemtrec)

Lonza Inc.90 Boroline Road Allendale NJ 07401

800-777-1875 (9am - 5pm) 309-697-7200 (After 5pm)

Health : 3

Flammability : 1

Reactivity : 0

95310 Barquat 4280

PAGE 1 OF 7

MATERIAL	DATE ISSUED	DOT HAZARD CLASSIFICATION
Barquat 4280	10/26/2004 - Revision	8, PG II
CAS NO. Mixture	SUPERSEDES	DOT SHIPPING NAME
	09/08/1995	Disinfectant liquid, corrosive n.o.s.
FORMULA Mixture		DOT LABEL Class 8
		IMDG Classification
		Corrosive liquid, flammable n.o.s.
		Marine pollutant

CHEMICAL NAME (Active): Mixture of Alkyl (C12-18)dimethylbenzylammonium chloride

***** I - INGREDIENTS *****

	APPROXIMATE WEIGHT %	TWA/TLV
N-alkyl (C ₁₂₋₁₈)-N,N-dimethyl-N-Benzylammonium Chloride (CAS No. 68391-01-5)	40	None established
N-Alkyl-N,N_dimethyl-N-ethylbenzylammonium chloride (CAS No. 68956-79-6)	40	None established
Ethyl alcohol	10	OSHA-PEL 1000 ppm ACGIH-TLV 1000 ppm
Water (CAS No. 7732-18-5)	10	None established

***** II - PHYSICAL AND CHEMICAL PROPERTIES *****

APPEARANCE pale yellow liquid	pH 6.5 - 8.3 at 10%
VISCOSITY <100 cPs @ 25°C	ODOR Benzaldehyde-like
BOILING POINT 101°C	MELTING OR FREEZING POINT -5 °C
VAPOR DENSITY (Air=1) Not applicable	VAPOR PRESSURE (mm Hg) Not known
PERCENT VOLATILE (by weight) 50 %	DENSITY 0.94 @ 25°C
EVAPORATION RATE (Butyl Acetate=1) <1	SOLUBILITY IN WATER Soluble

***** III - FIRE AND EXPLOSION INFORMATION *****

FLASH POINT >108°F (Setaflash Closed Tester)	AUTO IGNITION TEMPERATURE Not known		
LOWER EXPLOSION LIMIT (%) Not applicable	UPPER EXPLOSION LIMIT (%) Not applicable		
EXTINGUISHING MEDIA FOAM X	ALCOHOL FOAM X	CO₂ X	
	DRY CHEMICAL X	WATER X	OTHER

SPECIAL FIRE FIGHTING PROCEDURES:

Must wear NIOSH approved self-contained breathing apparatus and protective clothing. Cool fire-exposed containers with water spray.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

Products of combustion are toxic.

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95310 Barquat 4280

PAGE 3 OF 7

***** V - REACTIVITY INFORMATION *****

STABILITY: STABLE X CONDITIONS TO AVOID None known

UNSTABLE

HAZARDOUS DECOMPOSITION PRODUCTS

Thermal decomposition may produce toxic organic and amine vapors/fumes, hydrogen chloride and oxides of carbon and nitrogen.

HAZARDOUS POLYMERIZATION

CONDITIONS TO AVOID

MAY WILL NOT X
OCCUR OCCUR

None known

INCOMPATIBILITY (MATERIALS TO AVOID)

WATER OTHER X Strong oxidizing or reducing agents

***** VI - SPILL AND DISPOSAL INFORMATION *****

STEPS TO BE TAKEN IN CASE OF MATERIAL SPILL OR RELEASE

DANGER! Corrosive, flammable liquid. Floors may become slippery. Wear appropriate protective equipment and NIOSH approved respirator where mists or vapors of unknown concentrations may be generated (self-contained breathing apparatus preferred).

Dike and contain spill with inert material (sand, earth, etc.) and transfer the liquid and solid separately to containers for recovery or disposal. Keep spill out of sewers and open bodies of water.

WASTE DISPOSAL METHOD

Dispose of in compliance with all Federal, state and local laws and regulations. Incineration is the preferred method. If incinerated avoid smoke.

PACKAGING DISPOSAL METHOD

Triple rinse (or equivalent). Then offer for recycle or reconditioning, or puncture and dispose of in a sanitary landfill or by incineration, if permitted by state and local authorities. If incinerated avoid smoke.

***** VII - PERSONAL PROTECTION INFORMATION *****

ENGINEERING CONTROLS

In processes where mists or vapors may be generated, proper ventilation must be provided in accordance with good ventilation practices.

RESPIRATORY PROTECTION

In processes where mists or vapors may be generated, a NIOSH approved respirator is advised in the absence of proper environmental controls.

PROTECTIVE GLOVES

Rubber or neoprene, when needed, to prevent skin contact.

EYE PROTECTION

Wear chemical splash goggles where there is a potential for eye contact. Use safety glasses with side shields under normal use conditions.

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95310 Barquat 4280

PAGE 4 OF 7

***** VII - PERSONAL PROTECTION INFORMATION (CONTINUED)*****

OTHER PROTECTIVE EQUIPMENT

Eye wash; safety shower; protective clothing (long sleeves, coveralls or other, as appropriate), when needed, to prevent skin contact.

***** VIII - STORAGE AND HANDLING *****

PRECAUTIONS FOR STORAGE AND HANDLING:

Store at or near room temperature. Keep containers tightly closed when not in use. Do not store above 140 °C.

***** IX - TOXICOLOGY & ECOTOXICOLOGY INFORMATION *****

TOXICITY

The toxicity information provided below is for this material and component(s) of this material.

ACUTE

- Oral LD₅₀ (rat): 620 mg/kg
- Dermal LD₅₀ (rabbit): 2800 mg/kg
- Inhalation LC₅₀: 95 mg/L
- Eye irritation (rabbit): Severe irritant.
- Dermal irritation (rabbit): Severe irritant.
- Dermal corrosivity (rabbit - DOT): Corrosive.
- Sensitization (guinea pig) not sensitizing

rat: non-irritant N-Alkyl-N,N-dimethyl-N-benzylammonium chloride component repeat exposure at 0.01% for two weeks

rat: mild to moderate N-Alkyl-N,N-dimethyl-N-benzylammonium chloride component repeat exposure at 3% for two weeks

rat: not teratogenic Doses 10 to 50 mg/kg on days 6 to 15 of gestation

rat: no neonatal effects for N-Alkyl-N,N-dimethyl-N-benzylammonium chloride component at 1000 ppm, observed at 2000 ppm

For N-Alkyl (C₁₂₋₁₈)-N,N-dimethyl-N-benzylammonium chloride:

- Photosensitization (guinea pig): Not a contact sensitizer or photosensitizer.

Sub-chronic

Rat dermal: 20 mg/kg/day for 90 days

Mild irritation for N-Alkyl-N,N-dimethyl-N-benzylammonium chloride component no systemic toxic effects.

Rabbit dermal: 20 days 1:500, 1:1000, 1:4000 of 100% active produced mild redness and swelling for N-Alkyl-N,N-dimethyl-N-benzylammonium chloride component.

Rat dietary: 90 days

Definitive effects at 4000 ppm, possible 1000 ppm and none at 500 ppm for N-Alkyl-N,N-dimethyl-N-benzylammonium chloride component.

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95310 Barquat 4280-Z

PAGE 5 OF 7

***** X - MISCELLANEOUS AND REGULATORY INFORMATION (continued) *****

U.S. FEDERAL LEVEL REGULATIONS:

TOXIC SUBSTANCES CONTROL ACT (TSCA INVENTORY) STATUS:

The components in this product are currently listed on the EPA TSCA 8(b) inventory.

TSCA Section 12(b) Export Notification

Components present in this product which, if exported, could require either annual or one-time reporting under this regulation are as follows:

<u>Chemical Name</u>	<u>CAS Number</u>	<u>Typical Maximum Concentration</u>
None known		

U.S. FEDERAL LEVEL REGULATIONS: (continued)

EPA REGULATION ON PESTICIDES

This product is an EPA FIFRA registered pesticide, EPA Registration No. 6836-24. It can only be used commercially in the United States for EPA registered application(s) listed on the product label.

CERCLA (Comprehensive Environmental Response, Compensation and Liability Act of 1980 requires notification of the National Response Center (Telephone 800-424-8802) in the event of a release of quantities of the following hazardous materials contained in this product, if the release is equal to or greater than the Reportable Quantities (RQs) listed in 40 CFR 302.4:

<u>Chemical Name</u>	<u>CAS Number</u>	<u>Typical Maximum Concentration</u>
None known		

SARA Title III, Sections 302/304 (Superfund Amendments and Reauthorization act of 1986) - This act requires emergency planning, including agency notification, for possible release of the following components of this material, based upon the Threshold Planning Quantities (TPQs) and release Reportable Quantities (RQs) listed for the Components in 40 CFR 355:

<u>Chemical Name</u>	<u>CAS Number</u>	<u>Typical Maximum Concentration</u>
None known		

SARA Title III Sections 311/312 - This act requires reporting under the Community Right-to-Know provisions due to the inclusion of the following components of this material in one or more of the five hazard categories listed in 40 CFR 370:

<u>Chemical Name</u>	<u>CAS Number</u>	<u>Hazard *) Categories</u>
N-alkyl (C ₁₂₋₁₈)-N,N-dimethyl-N-Benzylammonium chloride	68391-01-5	A
N-Alkyl-N,N_dimethyl-N-ethylbenzylammonium chloride	68956-79-6	A

*) The five hazard categories are as follows: F=FIRE HAZARD; S= SUDDEN RELEASE OF PRESSURE; R=REACTIVE; A=IMMEDIATE (ACUTE) HEALTH HAZARD; C=DELAYED (CHRONIC) HEALTH HAZARD

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PAGE 6 OF 7

***** X - MISCELLANEOUS AND REGULATORY INFORMATION (continued) *****

SARA Title III Section 313 - This act requires submission of annual reports of the releases of the following components of this material if the threshold reporting quantities as listed in 40 CFR 372, are met or exceeded:

<u>Chemical Name</u>	<u>CAS Number</u>	<u>Typical Maximum Concentration</u>
None known		

STATE RIGHT-TO-KNOW REGULATIONS:

CALIFORNIA PROPOSITION 65 - Components present in this material which the State of California has found to cause cancer, birth defects or other reproductive harm are as follows:

AS A CANCER HAZARD

<u>Chemical Name</u>	<u>CAS Number</u>	<u>Typical Maximum Concentration</u>
Benzene	71-43-2	100 ppm
Benzyl chloride	100-44-7	100 ppm
N-Nitrosodimethylamine	62-75-9	1 ppm
Propylene oxide	75-56-9	10 ppm

AS A REPRODUCTIVE HAZARD

<u>Chemical Name</u>	<u>CAS Number</u>	<u>Typical Maximum Concentration</u>
Benzene	71-43-2	100 ppm
Toluene	108-88-3	200 ppm

MASSACHUSETTS Right-to-Know - The following components of this material are included in the Massachusetts Substance List and are present at or above reportable levels:

<u>Chemical Name</u>	<u>CAS Number</u>	<u>Typical Maximum Concentration</u>
Benzene	71-43-2	100 ppm
Benzyl chloride	100-44-7	100 ppm
N-Nitrosodimethylamine	62-75-9	1 ppm
Propylene oxide	75-56-9	10 ppm

MICHIGAN Critical Materials - The following components of this material are included in the Michigan Critical Materials List:

<u>Chemical Name</u>	<u>CAS Number</u>	<u>Typical Maximum Concentration</u>
None known		

NEW JERSEY Right-to-Know - The following components of this material are included in the New Jersey Hazardous Substance List and are present at or above reportable levels:

<u>Chemical Name</u>	<u>CAS Number</u>	<u>Typical Maximum Concentration</u>
Quaternary ammonium compounds, benzyl-C12-18-alkyldimethyl, chlorides	68391-01-5	25 %
N-Alkyl-N,N_dimethyl-N-ethylbenzylammonium chloride	68956-79-6	25 %

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95310 Barquat 4280

PAGE 7 OF 7

***** X - MISCELLANEOUS AND REGULATORY INFORMATION (continued) *****

PENNSYLVANIA Right-to-Know - The following components of this material are included in the Pennsylvania Hazardous Substance List and are present at or above reportable levels:

<u>Chemical Name</u>	<u>CAS Number</u>	<u>Typical Maximum Concentration</u>
Benzene	71-43-2	200 ppm