

"QUAT"**liquid disinfectant****MSDS**

Lonza

17-17 Route 208

Fair Lawn, NJ 07410

Bardac 208M comprises:

n-alkyl (C14-50%; C12-40%; C16-10%) dimethyl benzyl ammonium chloride (CAS No. 68424-85-1)	32 %wt.
di-n-alkyl (C8/C10-50%; C10/C10-30%; C8/C8-20%;) dimethyl ammonium chloride (CAS No. 68424-95-3)	48 %wt.
ethyl alcohol (CAS No. 64-17-5)	10 %wt.
water	10 %wt.

HAZARD CLASSIFICATION corrosive material**HEALTH: 3****FLAMMABILITY: 2****REACTIVITY: 0****SHIPPING NAME** disinfectant, liquid**PHYSICAL & CHEMICAL PROPERTIES**

colorless to pale yellow liquid

soluble in water

pH (10% active solution)

6.5 to 9.0

viscosity

<100 cps @ 25°c

freezing point

-20°c

percent volatile (by weight)

20%

specific gravity

0.91 @ 25°c

FIRE & EXPLOSION INFORMATION

flash point

116° F (setaflash)

extinguishing media

dry chemical, alcohol foam, CO₂, water

SPECIAL FIRE FIGHTING PROCEDURES: Must wear MSHA/NIOSH approved self-contained breathing apparatus and protective clothing. Cool fire-exposed containers with water spray.

UNUSUAL FIRE & EXPLOSION HAZARDS: Products of combustion are toxic. Heated solvent vapors can travel to an ignition source and flash back.

CONTACT & INGESTION

Inhalation: Solvent vapors or mists of product can cause irritation to mucous membranes. Exposure to ethyl alcohol concentrations of over 1,000 ppm may cause headache, irritation of the eyes, nose and throat, and, if long continued, drowsiness and lassitude, loss of appetite and inability to concentrate.

Eye contact: Direct contact can cause severe eye damage. Corrosive.

Skin contact: Direct or prolonged contact can cause severe irritation. Harmful if absorbed through skin. Corrosive.

Ingestion: Immediate burning pain in the mouth, throat, abdomen and severe swelling of the larynx, skeletal muscle paralysis, affecting the ability to breathe, circulatory shock, convulsions. May be fatal.

EMERGENCY & FIRST AID PROCEDURES

Eyes: Flush eyes with large amounts of running water for at least 15 minutes. Hold eyelids apart to ensure rinsing of the entire surface of the eye and lids with water. If physician not available, flush for additional 15 minutes. Get immediate medical attention.

Skin: Wash with large amounts of running water, and soap if available, for 15 minutes. Remove contaminated clothing and shoes. Get immediate medical attention. Wash clothing and decontaminate shoes before reuse.

Ingestion: If swallowed, immediately give 3-4 glasses of milk (if unavailable, give water). DO NOT induce vomiting. If vomiting occurs, give fluids again. Have physician determine if patient's condition allows for induction of vomiting or evacuation of the stomach. Do not give anything by mouth to a convulsing or unconscious person. Get immediate medical attention. (See "Note to Physician" below).

Inhalation: Remove from area to fresh air. If not breathing, clear airway and start mouth-to-mouth artificial respiration or use a bag-mask respirator. Get immediate medical attention. If victim is having trouble breathing, transport to medical care and, if available, give supplemental oxygen.

STABILITY: Unstable**HAZARDOUS DECOMPOSITION PRODUCTS**

Thermal decomposition may produce toxic fumes of organic chlorides, amines, hydrogen chloride, ammonia and oxides of carbon and nitrogen.

INCOMPATIBILITY (MATERIALS TO AVOID)

Strong oxidizing or reducing agents.

SPILL & DISPOSAL INFORMATION

Danger Corrosive material. Product is combustible. Remove all sources of ignition and ground all equipment before use. Floors may become slippery. Wear appropriate protective equipment and MSHA/NIOSH approved respirator where mist 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 METHODS

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

CONTAINER DISPOSAL

Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

VENTILATION TYPE

In processes where TLV for ethyl alcohol may be exceeded, or mists and/or vapors may be generated, proper ventilation must be provided in accordance with good ventilation practices.

RESPIRATORY PROTECTION

A NIOSH/MSHA jointly approved respirator is advised in the absence of proper environmental controls or if TLV for ethyl alcohol is exceeded.

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.

OTHER PROTECTIVE EQUIPMENT

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

PRECAUTIONS FOR STORAGE AND HANDLING:

Store containers in compliance with the most recent National Fire Protection Association's "Flammable and Combustible Liquids Code" (NFPA 30). Ground all containers prior to pouring. Keep containers closed until used. Maximum storage temperature: 140°F. Do not contaminate drinking water, food or feed by storage or disposal.

TOXICOLOGY INFORMATION

For mixture: :

- oral LD50 (rat): 366 mg/kg (80% active)
- dermal LD50 (rabbit): 421 mg/kg (80% active)
- skin irritation (rabbit): 0.5 ml applied to the intact and abraded skin produced severe skin irritation that was not reversed by 72 hours, post-dose (primary irritation score = 7.0)
- corrosive via DOT test for skin corrosivity in rabbits
- eye irritation (rabbit): 0.1 ml applied to the eye without washing produced severe eye irritation that was not reversed by day 7, post-dose
- a 0.2% active solution was not a skin sensitizer in guinea pigs via Buehler test for sensitization

For n-alkyl dimethyl benzyl ammonium chloride component:

- not teratogenic in rats administered 10 to 50 mg/kg on days 6 to 15 gestation
- not mutagenic in mouse micronucleus assay

For di-n-alkyl dimethyl ammonium chloride component:

- not teratogenic in rats administered 10 to 50 mg/kg on days 6 to 15 gestation

NOTE TO PHYSICIAN

Probable mucosal damage may contraindicate the use of gastric lavage. Measures against circulatory shock, as well as oxygen and measures to support breathing manually or mechanically may be needed. If persistent, convulsions may be controlled by the cautious intravenous injection of a short-acting barbiturate drug.