

AMCVA 23-3

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OPR: LGSF

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Distribution F

## RECOMMENDED SAFETY INSTRUCTIONS FOR LIQUID NITROGEN

### HAZARDS

1. Skin contact causes frostbite.
2. Liquid nitrogen is nontoxic and does not produce irritating fumes, but skin or eye contact with liquid nitrogen will freeze the tissues. The injury is similar to a burn.
3. Although nitrogen gas is odorless, nonflammable, inert and nontoxic, it may replace oxygen in the atmosphere and thus cause suffocation. Under no conditions should persons without a self-contained or supplied-air breathing apparatus enter a tank or a closed space filled with nitrogen until normal oxygen concentration has been reestablished and until all connections to the tank have been blanked or positively closed off. The atmosphere must be checked frequently, and an observer must be stationed outside to check the operator's reactions.

### FIRST AID

1. Remove from exposure and transport to hospital/clinic immediately.
2. Keep dry and warm with blankets enroute to emergency room.

NOTE: Do not attempt to rewarm frozen body parts until under proper medical care.

### SAFETY PRECAUTIONS

1. All personnel shall be familiar with the nature and characteristics of liquid nitrogen.
2. Persons engaged in operations involving handling or transfer of liquid nitrogen shall wear the approved goggles or face shields, protective clothing, gloves and shoes.
3. Operations involving the handling of liquid nitrogen shall be performed by two or more persons, especially if performed in a confined and/or below ground facility.
4. Care shall be taken to prevent the accumulation of moisture in lines, valves, traps, etc., to avoid freezing and plugging and the possibility of subsequent pressure ruptures. Care shall also be taken to prevent liquid nitrogen from being trapped in unvented sections of the system.
5. The storage, use and disposal of liquid nitrogen shall be Carried on only in well-ventilated areas.