LIQUID NITROGEN
(To be posted at operations site)

Hazards

1. Skin contact causes frostbite and "burns."
2. Liquid nitrogen is nontoxic and does not produce irritating fumes. Skin or eye contact with liquid nitrogen, however, will result in freezing of the tissues. The injury is similar to that of a burn, and the effect is usually called a burn.
3. Nitrogen gas is odorless, nonflammable, inert and nontoxic; however, it may replace oxygen in the atmosphere and thus cause asphyxiation. Under no condition should personnel enter a tank or a closed space 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 stationed outside to check operator's reactions.

First Aid

If liquid nitrogen is spilled on the skin, the preferred action is immersion of the affected area in nonflowing, tepid (100°-112° F) water. Use of high-pressure showers or jets is not the primary emergency action due to inability to control temperature and/or flow rate. If a person loses consciousness, remove to open space immediately, then dial 42222 for medical attention, apply artificial respiration.

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 working in groups.
4. Care shall be taken to prevent accumulation of moisture in lines, valves, traps, and so forth, to avoid freezing, plugging, and subsequent possibility of pressure ruptures. Care shall also be taken to prevent entrapment of liquid nitrogen in unvented sections of the system.
5. Immersion tanks or safety showers shall be inspected periodically and prior to any operation involving liquid nitrogen, and if outside, shall be protected from freezing.
6. The storage, use, and disposal of liquid nitrogen shall be in well-ventilated areas.
7. Do not expose liquid nitrogen that is to be used to the air for any length of time.