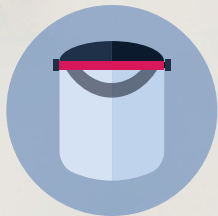


SAFE USE OF LIQUID NITROGEN

IN FOOD AND BEVERAGE SERVICE ENVIRONMENTS



WEAR APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT (PPE)



FACE SHIELD



SAFETY GLASSES OR SAFETY GOGGLES



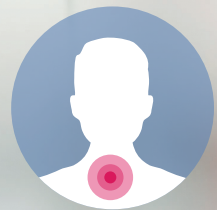
INSULATED GLOVES (TYPICALLY LEATHER)



CLOTHING THAT COVERS THE SKIN AND DOES NOT HAVE CUFFS OR FOLDS THAT COULD TRAP SPILLED CRYOGENIC LIQUID



NEVER CONSUME LIQUID NITROGEN DIRECTLY



- ⚠️ LIQUID NITROGEN IS -321 F (-196 C) AND CAN FREEZE HUMAN TISSUE ON CONTACT. IF SWALLOWED, THE LIQUID CAN CAUSE SERIOUS INJURY OR DEATH.
- ⊗ DO NOT CONSUME ANY AMOUNT OF LIQUID NITROGEN.



ONLY USE CONTAINERS & EQUIPMENT DESIGNED FOR CRYOGENIC LIQUIDS



- ⚠️ MATERIALS THAT ARE NOT DESIGNED FOR CRYOGENIC SERVICE, SUCH AS GLASS OR PLASTIC, CAN SHATTER WHEN EXPOSED TO LIQUID NITROGEN.
- ✓ ALWAYS USE APPROPRIATE CONTAINERS AND POUR LIQUID NITROGEN SLOWLY TO MINIMIZE THERMAL SHOCK AND SPLASHING.



NEVER TRAP LIQUID NITROGEN IN A CONTAINER, TUBING, OR PIPING



- ⚠️ AS THE LIQUID WARMS AND CONVERTS TO GAS, THE PRESSURE RISES, AND CONTAINERS THAT ARE NOT EQUIPPED WITH ADEQUATE VENTS CAN CATASTROPHICALLY RUPTURE.
- ⊗ NEVER PUT LIQUID NITROGEN IN A CONTAINER NOT DESIGNED FOR CRYOGENIC SERVICE.



USE LIQUID NITROGEN IN WELL-VENTILATED AREAS

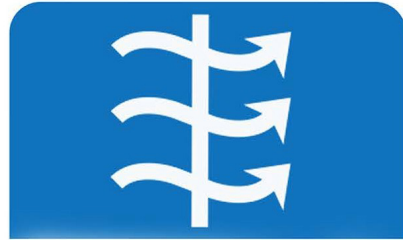


- ⚠️ WHEN LIQUID NITROGEN IS EXPOSED TO WARMER AIR, IT RAPIDLY TURNS INTO GAS AND CAN QUICKLY DISPLACE THE AIR IN THE ROOM, CREATING A RISK OF OXYGEN DEFICIENCY AND ASPHYXIATION.
- ✓ AIR MONITORING IS RECOMMENDED.

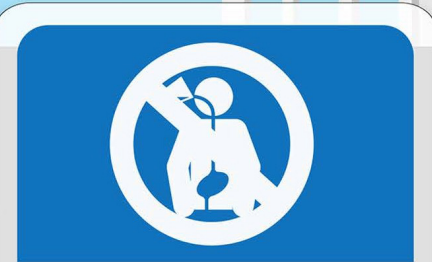


Safety Alert

The use of liquid nitrogen has grown in popularity in the food and beverage industry. Workers handling liquid nitrogen must follow safety precautions to avoid significant risks.



Never use liquid nitrogen in an enclosed or inadequately ventilated area. Liquid nitrogen turns rapidly into a gas and can quickly displace oxygen in the air, posing a risk of asphyxiation.



Never consume liquid nitrogen directly, even small amounts can cause serious injury due to cryogenic burns or rapid expansion.



Wear your Personal Protective Equipment:

**FACE SHIELD
SAFETY GLASSES/GOGGLES
INSULATED GLOVES
(TYPICALLY LEATHER)**

Clothing should cover the skin. It should not have cuffs or folds that could trap spilled cryogenic liquid.



Only use containers designed for cryogenic service. As the liquid warms and turns into gas, the pressure rises, and containers that are not equipped with venting devices can catastrophically rupture.



Only use equipment designed for cryogenic service. Materials like glass and plastic can shatter when exposed to liquid nitrogen.

For more information, please see CGA P-76, Hazards of Oxygen-Deficient Atmospheres; CGA SA-29, Safety Alert, Hazards of Liquid Nitrogen in Near Consumer Applications; and CGA TM-3, eLearning: Safe Handling of Cryogenic Liquids in Portable Containers.

