

# SAFE USE OF REFRIGERATED & CRYOGENIC LIQUIDS



## WEAR ALL APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT (PPE)



FACE SHIELD



INSULATED GLOVES  
(TYPICALLY LEATHER)



SAFETY GLASSES OR  
SAFETY GOGGLES



CLOTHING AND SHOES THAT COVER THE  
SKIN AND DO NOT HAVE CUFFS OR FOLDS  
THAT COULD TRAP SPILLED COLD LIQUID



## READ AND UNDERSTAND THE SPECIFIC HAZARDS OF THE GAS PRODUCT IN USE



IN ADDITION TO THE HAZARDS PRESENTED BY THE EXTREMELY COLD TEMPERATURES OF REFRIGERATED AND CRYOGENIC LIQUIDS, EACH GAS PRODUCT HAS UNIQUE PROPERTIES AND HAZARDS.



READ THE SAFETY DATA SHEET (SDS) PROVIDED BY THE GAS SUPPLIER FOR THE SPECIFIC GAS PRODUCT IN USE AND FOLLOW ALL SAFETY REQUIREMENTS.



## NEVER CONSUME OR DIRECTLY TOUCH REFRIGERATED OR CRYOGENIC LIQUIDS



IF SWALLOWED, THE LIQUID CAN CAUSE SERIOUS INJURY, BURNS, OR DEATH.



REFRIGERATED AND CRYOGENIC LIQUIDS ARE EXTREMELY COLD AND CAN FREEZE TISSUE & ORGANS ON CONTACT.



ALWAYS USE APPROPRIATE PPE TO HANDLE THESE LIQUIDS.



## ONLY USE CONTAINERS & EQUIPMENT DESIGNED FOR REFRIGERATED OR CRYOGENIC LIQUIDS



MATERIALS THAT ARE NOT DESIGNED FOR CRYOGENIC SERVICE, SUCH AS GLASS OR PLASTIC, CAN SHATTER WHEN EXPOSED TO REFRIGERATED OR CRYOGENIC LIQUIDS.



ALWAYS TRANSFER LIQUIDS SLOWLY INTO APPROPRIATE CONTAINERS TO MINIMIZE THERMAL SHOCK AND SPLASHING.



## NEVER PLACE REFRIGERATED OR CRYOGENIC LIQUIDS IN SEALED, NON-VENTED CONTAINERS



AS THE LIQUID WARMS AND CONVERTS TO GAS, THE PRESSURE INCREASES. CONTAINERS THAT ARE NOT EQUIPPED WITH ADEQUATE VENTS CAN CATASTROPHICALLY RUPTURE.



ALWAYS USE VENTED CONTAINERS DESIGNED FOR REFRIGERATED OR CRYOGENIC LIQUID STORAGE.



## FOLLOW LOCAL REQUIREMENTS FOR VENTILATION & MONITORING



REFRIGERATED AND CRYOGENIC LIQUIDS EXPAND WHEN CONVERTED TO GAS AND CAN CREATE A HAZARDOUS ATMOSPHERE.



ATMOSPHERIC MONITORING AND MECHANICAL VENTILATION MAY BE REQUIRED TO ENSURE PERSONNEL SAFETY.

