



TIPS & TOOLS: Ammonia Clean Up

Follow these Steps when Cleaning After an Ammonia Leak:

A. SAFETY – OSHA Guidelines

1. Test room ammonia concentration BEFORE certified personnel enter; use a test tube with a MSA Quick Draw tester.
2. 300 ppm and over requires SCBA and 2 men entering and 2 standby. Certified Personnel Only.
3. 50 ppm requires approved respirator (ammonia gas mask). Certified Personnel Only.
4. Test room air for ammonia ppm – 35 ppm is ok – by NIOSH & OSHA for workers over 8 hr. duration.

B. Ventilate Room

1. Ammonia is lighter than air, therefore the fastest way to remove ammonia from a cold storage room is to ventilate from the roof.
 - a. Leave a ground level door open
 - b. Blow air with fans into the door way
2. Fan ventilation through open doors is an alternate way to ventilate the room.

C. Remove Saturated Product

1. Remove product that got saturated with ammonia (dripped on), this product may not be salvageable.
2. Remove all cardboard from product.
 - a. Perform this work in a well-ventilated area.
3. Cardboard holds residual ammonia, the best method to remove it is to remove products from the freezer and air it out in an open space, and then place it back into cold room.

D. Residual Odor

1. Residual odor clean up (35 ppm or less) can be expedited with the use of CO₂ and water (boric acid). The warm water helps it vaporize.

Preferred Way: Use CO₂ bottle with regulator set low (5 psig) and hose, bubble CO₂ thru the Bbls. of water

CAUTION: Don Personnel Protective Equipment PPE

You can use several bottle of CO₂ with several Bbls of water located in different areas of the cooler/freezer.

CAUTION: 19 ½% is OSHA low level oxygen

Always check for low oxygen levels using an O₂ meter/alarm. The CO₂ gas can deplete oxygen levels to less than 19.5%.

2. Continue CO₂/water bubbling until room air/ammonia ppm drops to near zero.

NOTE: The CO₂ method can leave a small quantity of white powder (ammonia carbonate) in the room and on top of product. This white powder needs to be removed because it will slowly “out gas” and release ammonia odor when it gets warm/moist, (like when transferring into a truck). This powder may create more work, however the CO₂ method is very effective in removing the residual odor from packaging and the room.

