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AMMONIA CHARACTERISTICS

AMMONIA FACTS

- Ammonia element formula = NH_3
- The molecular weight of ammonia is 17.031
- Critical temperature of ammonia = 270.3°F
- Critical pressure of ammonia = 1,636 PSIA
- The boiling point of ammonia = -28.1°F
- The melting point of ammonia = -107.9°F
- Specific gravity of ammonia @ 68°F , 1 Atm. = 0.6819
- Latent heat -ammonia liquid @ -28.1°F = 589.3 Btu's/Lb.
- Ammonia is lighter than air.
- Ammonia is listed as R-717

1. Always store ammonia in A.S.M.E. certified containers.
2. Secure ammonia cylinders in an level, upright position.
3. DO NOT apply heat to cylinders to increase pressure.
4. Always wear proper PPE when handling ammonia.
5. Never use bras or copper pipe and fittings for ammonia service.
6. Never exceed the exposure limits below:

VAPOR CONCENTRATION (PPM)	LIMIT OR GENERAL EFFECTS	EXPOSURE PERIOD
5	Odor detectable by most persons.	Unlimited
25	NIOSH REL	8 hour TWA
35	ACGIH STEL	15 minute TWA
50	OSHA PEL	8 hour TWA
300	NIOSH IDLH	
400 -700	Immediate nose and throat irritaion.	30 minutes to 1 hour exposure causes serious effect.
1,700	Severe coughing; severe eye, nose and throat irritation.	Could be fatal after 30 minutes.
2,000 - 5,000	Severe coughing; severe eye, nose and throat irritation.	Could be fatal after 15 minutes.
5,000 - 10,000	Respiratory spasm; rapid asphyxias.	Fatal within minutes.

TWA = Time weighted average STEL = Short term exposure limit REL = Recommended exposure limit.
PEL = Permissible exposure limit. IDLH = Immediate danger to Life and Health.