

## SAFETY DATA SHEET

### SECTION 1 – IDENTIFICATION

**Chemical Name:** Ammonia  
**Chemical Formula:** NH<sub>3</sub>  
**Hazard Classification:** Ammonia, Anhydrous UN1005, Red Label  
**Product Use Description:** For general analytical/synthetic chemical uses  
**Company:** MESA Specialty Gases & Equipment  
2427 South Anne Street  
Santa Ana, California 92704 USA  
**Phone Number for Information:** Infotrac  
**Emergency Contact:** 800-535-5053 (Int'l: 352-323-3500)

### SECTION 2 – HAZARD(S) IDENTIFICATION

**SIGNAL WORD - DANGER**

**HAZARD STATEMENTS:** Flammable gas. Contains gas under pressure;  
may explode if heated.  
Acute Toxicity (inhalation)  
Skin Corrosion / Irritation  
Serious Eye Damage / Eye Irritation  
Aquatic Hazard (Acute)  
May form explosive mixtures with air.

**PRECAUTIONARY STATEMENTS:**

**General:** Use in accordance with Safety Data Sheets.  
Do not ingest or inhale. Avoid contact with skin and clothing.  
**Prevention:** Keep away from heat, hot surfaces, sparks, open flames,  
and other ignition sources. No smoking.  
**Response:** Leaking gas fire: Do not extinguish unless leak can be stopped safely.  
In case of leakage, eliminate all ignition sources.  
Do not open valve until prepared to use.  
Always use a back flow preventative device in piping.  
**Storage:** Store locked up. Protect from sunlight. Store in a well-ventilated  
place.

**OTHER HAZARDS:** High pressure gas. May cause rapid suffocation.  
May cause dizziness, nausea, drowsiness, vomiting, excess  
salivation, loss of mobility/consciousness.  
May react explosively even in absence of air at elevated  
pressure and/or temperature.  
May cause frostbite to any contaminated tissue.  
Self-contained breathing apparatus (SCBA) may be required.



## SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS

COMPONENT	CAS NO.	CONCENTRATION
Ammonia	7664-41-7	99.99%
Maximum Impurities		<0.01% (100 ppm)

## SECTION 4 – FIRST AID MEASURES

### ROUTE OF EXPOSURE:

**Inhalation:** Seek immediate medical attention. Call a doctor or poison center. Remove person to uncontaminated area. SCBA may be required to prevent asphyxiation of rescue workers. Keep warm and at rest. Lay victim face down with head and chest lower than hips to improve drainage from lungs. If breathing is labored, administer oxygen. If breathing has stopped, start artificial respiration. This practice may be dangerous for the person administering mouth-to-mouth resuscitation. Maintain an open airway. Loosen restrictive clothing.

**Eye contact:** Seek immediate medical attention. Call a doctor or poison center. Immediately flush eyes with plenty of water. Check for and remove contact lenses. Continue to rinse for 10 minutes, occasionally lifting the upper and lower eyelids. Chemical burns should be treated immediately by a physician.

**Skin contact:** Seek immediate medical attention. Call a doctor or poison center. Immediately flush skin with plenty of water. Remove any contaminated clothing and shoes. Continue to rinse skin for at least 10 minutes. Do not rub the affected area. Chemical burns should be treated immediately by a physician. Contact with liquid can result in frostbite-like burns. In this case, warm exposed area slowly with lukewarm water and seek medical attention.

**Ingestion:** Seek immediate medical attention. Call a doctor or poison center. Do not induce vomiting unless instructed to do so by medical personnel. If conscious, drink plenty of water. Never give anything by mouth to an unconscious person.



**Frostbite:** Place the frostbitten part in warm water. **DO NOT USE HOT WATER.** If warm water is not available, or is impractical to use, wrap the affected parts gently in blankets. Alternatively, if the fingers or hands are frostbitten, place the affected area in the armpit. Encourage victim to gently exercise the affected part while being warmed. Seek immediate medical attention.

**SYMPTOMS:** Exposure to high concentrations of Ammonia may cause unconsciousness and under some circumstances, death. Exposure to eyes may cause temporary blindness, leading to permanent vision impairment. Repeated overexposure to Ammonia by inhalation can cause emphysema. Contact with liquid can cause frostbite-like burns.

### SYMPTOMS ASSOCIATED WITH SPECIFIC AMMONIA CONCENTRATIONS:

CONCENTRATION:	SYMPTOM:
0.6 - 53 ppm	Odor Threshold
25 - 50 ppm	Irritation of eyes and mucous membranes. Can be tolerated for several hours.
100 - 150 ppm	Immediate irritation of throat, which may be tolerated for one hour.
400 - 700 ppm	Immediate, severe irritation of the respiratory system and eyes.
> 5000 ppm	The level of exposure may result in rapid death due to suffocation or fluid in the lungs. Exposure to concentrations in excess of 5000 ppm may cause laryngeal spasms, resulting in death.

**OTHER POTENTIAL HEALTH EFFECTS:** Ingestion is unlikely, however, it can damage the tissues of the mouth, throat, esophagus and other tissues of the digestive system. Ingestion can be fatal. Aspiration by ingestion is also possible, resulting in chemical pneumonia or death.

HAZARDOUS MATERIAL INFORMATION SYSTEM			
<b>HEALTH</b>	(BLUE)	3	
<b>FLAMMABILITY</b>	(RED)	1	
<b>REACTIVITY</b>	(YELLOW)	0	
<b>PROTECTIVE EQUIPMENT</b>			<b>H</b>
EYES	RESPIRATORY	HANDS	BODY
	See Section 8		See Section 8
For routine industrial applications			

HEALTH EFFECTS OR RISKS FROM EXPOSURE: Overexposure to Ammonia may cause the following health effects:

ACUTE: This gas is extremely corrosive and can burn and damage eyes, skin, mucous membranes and any other exposed tissue. If inhaled, irritation of the respiratory system may occur, with coughing and difficulty breathing. Overexposure to this gas may be fatal.

CHRONIC: Persistent irritation may result from repeated exposures to Ammonia. Repeated overexposures can result in emphysema.

TARGET ORGANS: Respiratory system, skin, eyes

## SECTION 5 – FIRE FIGHTING MEASURES

**EXTINGUISHING MEDIA:** Use appropriate media for surrounding fire such as CO2 foam extinguishers

**UNUSUAL FIRE AND EXPLOSION HAZARDS:** Ammonia is a toxic, corrosive gas and presents as extreme hazard to firefighters. In the event of fire, cool containers of Ammonia with water to prevent failure. Use a water spray or fog to reduce or direct vapors. Do not direct water spray at the source of a release. This gas may ignite explosively, if released near an active fire. Ammonia is lighter than air, but conditions associated with a release can cause it to accumulate in low-lying areas.

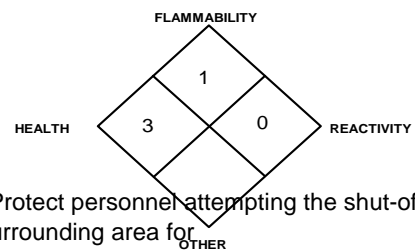
Cylinder contains flammable gas under pressure. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of subsequent explosion. Because this material is extremely toxic to aquatic life, fire water contaminated with Ammonia must be contained and prevented from being discharged to a waterway, sewer or drain.

**SPILL AND LEAK RESPONSE:** Uncontrolled releases should be responded to by trained personnel using pre planned procedures. Proper protective equipment should be used. In case of a release, clear the affected area and protect people. Adequate fire protection must be provided.

Minimum Personal Protective Equipment should be Level B: fire-retardant protective clothing, mechanically-resistant gloves and Self-Contained Breathing Apparatus. Incipient fire responders should wear eye protection. Use only non-sparking tools and equipment. Locate and seal the source of the leaking gas. Protect personnel attempting the shut-off with water-spray. Allow the gas, which is lighter than air, to dissipate. Monitor the surrounding area for combustible gas levels and oxygen. Combustible gas concentration must be below 10% of the LEL (LEL = 15.0%) prior to entry of response personnel. The atmosphere must have at least 19.5 percent oxygen before personnel can be allowed in the area without Self-Contained Breathing Apparatus. Attempt to close the main source valve prior to entering the area.

If this does not stop the release (or if it is not possible to reach the valve), allow the gas to release in-place or remove it to a safe area and allow the gas to be released there. Protection of all personnel and the area must be maintained.

### NFPA RATING-GAS & LIQUID



**SPECIAL FIRE FIGHTING PROCEDURES: RESCUERS SHOULD NOT ATTEMPT TO RETRIEVE VICTIMS OF EXPOSURE TO AMMONIA WITHOUT ADEQUATE PERSONAL PROTECTIVE EQUIPMENT. At a minimum, triple-gloves (neoprene rubber glove and nitrile gloves, over latex or N-Dex gloves), fully-encapsulating chemical resistant suit and boots, hard-hat, Self-Contained Breathing Apparatus and Fire-Retardant Personal Protective equipment should be worn. Adequate fire protection must be provided during rescue situations.** Structural fire-fighters must wear Self-Contained Breathing Apparatus and full protective equipment, including eye protection, insulated undergarments and thick textile or leather gloves. The best fire-fighting technique may be simply to let the burning gas escape from the pipeline. Stop the leak before extinguishing fire. If the fire is extinguished before the leak is sealed, the still-leaking gas could explosively re-ignite without warning and cause extensive damage, injury, or fatality. In this case, increase ventilation to prevent flammable or explosive mixture formation. Evacuation may be necessary. Refer to the North American Emergency Response Guidebook for additional information.

## SECTION 6 – ACCIDENTAL RELEASE MEASURES

**PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT, AND EMERGENCY PROCEDURES:** Structural fire-fighters must wear Self-Contained Breathing Apparatus and full protective equipment. The best fire-fighting technique may be simply to let the burning gas escape from the pipeline. Stop the leak before extinguishing fire. If the fire is extinguished before the leak is sealed, the still-leaking gas could explosively re-ignite without warning and cause extensive damage, injury, or fatality. In this case, increase ventilation to prevent flammable or explosive mixture formation. Evacuation may be necessary. Refer to the North American Emergency Response Guidebook for additional information.

Large releases of Ammonia will be evident by the cloud of ammonia hydroxide mist which is formed. Small releases of Ammonia can be detected by means of an atomizer or squeeze bottle filled with concentrated hydrochloric acid or with wet pH paper, which will turn blue. A white cloud will show the location of the leak.

**ENVIRONMENTAL PRECAUTIONS:** Prevent spreading of vapors through sewers, ventilation systems, and confined areas. Do not discharge materials into any place where their accumulation could be dangerous.

**THIS IS A CORROSIVE GAS.** Protection of all personnel and the area must be maintained. All responders must be adequately protected from exposure.

**METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP:** Stop the flow of gas or remove cylinder to outdoor location if this can be done without risk. Ventilate enclosed areas. Move leaking cylinder to fume hood or safe outdoor area. Use monitoring equipment if hazardous conditions are suspected or likely to occur.

## SECTION 7 – HANDLING AND STORAGE

**PRECAUTIONS FOR SAFE HANDLING:** Only experienced and properly instructed persons should handle compressed gases. Person is to know and understand the properties and hazards of the product before use. Do not remove or deface labels provided by the supplier for the identification of the product.

Do not ingest. Avoid contact with eyes, skin, and clothing. May cause dizziness and fatigue without warning symptoms.

Protect cylinders from physical damage to prevent valve damage or leakage. Move cylinders properly; do not drag, slide, or drop cylinders when transporting. Use adjustable strap wrench to remove tight/rusted caps. Ensure the complete gas system has been checked for leaks before use. Never insert any object into valve cap openings; doing so may damage valve causing leakage. Store in cool, dry, well-ventilated area, away from sources of heat, ignition and direct sunlight. Do not allow area where cylinders are stored to exceed 52°C (125°F). Isolate from hydrogen, acetylene, fuel gases, ether, turpentine, hydrocarbons, organic matter or finely divided metals. Use a check valve or trap in the discharge line to prevent hazardous backflow. Post "No Smoking or Open Flame" signs in storage and use areas. Cylinders should be stored upright and be firmly secured to prevent falling or being knocked over. Cylinders can be stored in the open, but in such cases, should be protected against extremes of weather and from the dampness of the ground to prevent rusting. Never tamper with pressure relief devices in valves and cylinders. Electrical equipment should be non-sparking or explosion proof. The following rules are applicable to situations in which cylinders are being used:

**Before Use:** Move cylinders with a suitable hand-truck. Do not drag, slide or roll cylinders. Do not drop cylinders or permit them to strike each other. Secure cylinders firmly. Leave the valve protection cap, if provided, in-place until cylinder is ready for use.

**During Use:** Use designated CGA fittings and other support equipment. Do not use adapters. Do not heat cylinder by any means to increase the discharge rate of the product from the cylinder. Use check valve or trap in discharge line to prevent hazardous backflow into the cylinder. Do not use oils or grease on gas-handling fittings or equipment.

**After Use:** Close main cylinder valve. Replace valve protection cap, if provided. Mark empty cylinders "EMPTY".

Gas or liquefied gas are to be used with the appropriate pressure regulating control and high pressure equipment. Suck-back into cylinder may cause rupture. Always use a back flow preventative device in piping. Never lift cylinder by its valve protection cap. Use only in ventilated areas.

Do not attempt to repair or modify cylinders containing gas mixture. Contact supplier for any operational issues.

**CONDITIONS FOR SAFE STORAGE:** Cylinders should be secured with mounting brackets away from heavily traveled areas. Use oldest cylinders in stock first to prevent full cylinders from being stored for excessive periods of time. Full and empty cylinders should be segregated. Keep cylinder in dry, cool, well ventilated area away from heat. Isolate from hydrogen, acetylene, fuel gases, ether, turpentine, hydrocarbons, organic matter or finely divided metals. Cylinders should be moved by suitable hand trucks. Close valve after each use and when empty. Cylinder valve guards or caps should be in place. Keep cylinder at room temperature (21°C/ 70°F). Store containers in location free from fire risk and away from any sources of heat and ignition. Use equipment rated for cylinder pressure.

## SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

COMPONENT	OSHA PEL	ACGIH TLV
Ammonia	50 ppm	25 ppm

**APPROPRIATE ENGINEERING CONTROLS:** Use with adequate ventilation to maintain oxygen levels above 19.5% in the workplace. Local exhaust ventilation is preferred, because it prevents Ammonia dispersion into the workplace by eliminating it at its source. If appropriate, install automatic monitoring equipment to detect the level of oxygen and the presence of potentially explosive air-gas mixtures. Monitoring devices should be installed near the ceiling.

**INDIVIDUAL PROTECTIVE MEASURES:** Safety glasses, work gloves, and safety shoes should be worn when handling high pressure cylinders or hazardous materials. Avoid skin contact with leaking liquid (danger of frostbite). Wear suitable protective equipment. Ensure adequate ventilation, especially in confined areas. Do not eat, drink, or smoke when using. Respiratory Protection (Specify Type): Maintain oxygen levels above 19.5% in the workplace. Use supplied air respiratory protection if oxygen levels are below 19.5% or during emergency response to a release of Ammonia. If respiratory protection is required, follow the requirements of the Federal OSHA Respiratory Protection Standard (29 CFR 1910.134), or equivalent State standards.

## SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Colorless	Upper/lower flammability/explosive limits: Lower: 15% Upper: 28%
Odor: Pungent	Vapor Pressure: 114.1 (PSIG)
Odor threshold: 0.6 - 53 ppm	Vapor Density (Air=1): 0.59 kg/m <sup>3</sup> (0.0052 lb/ft <sup>3</sup> )
pH: N/A	Relative Density (Water=1): Varies
Melting point/range: -77.7°C (-107.9°F)	Solubility (in water): Very slightly soluble.
Boiling point/range: -33°C (-27.4°F)	Partition coefficient (n-octanol/water): N/A
Flash Point: N/A	Auto-ignition temperature: 651°C (1203.8°F)
Evaporation Rate (Butyl Acetate=1): N/A	Decomposition temperature: No data available
Flammability (solid, gas): No data available	Viscosity: N/A

## SECTION 10 – STABILITY AND REACTIVITY DATA

<b>Reactivity:</b> No test data available.	<b>Conditions to avoid:</b> extreme heat, fire or contact with incompatible chemicals
<b>Chemical Stability:</b> Stable	<b>Incompatible materials:</b> Most metals, acids or oxidizers. Can form explosive compounds with mercury, gold or silver compounds or the elements. Reacts violently with tellurium tetra bromide and tetrachloride, chlorine, bromine, fluorine or the interhalogen compounds, and will acid halide, ethylene oxide and hypochlorites (including household bleach). Poisoning or death can occur if ammonia (or ammonia-containing products) are mixed with household bleach.
<b>Possibility of hazardous reactions:</b> Under normal storage and use conditions, hazardous reactions will not occur.	<b>Hazardous Decomposition or Byproducts:</b> No data available.

## SECTION 11 – TOXICOLOGICAL INFORMATION

### LIKELY ROUTES OF EXPOSURE:

Eye contact, inhalation, skin contact, ingestion

**SYMPTOMS:** Exposure to high concentrations of Ammonia may cause unconsciousness and under some circumstances, death. Exposure to eyes may cause temporary blindness, leading to permanent vision impairment. Repeated overexposure to Ammonia by inhalation can cause emphysema. Contact with liquid can cause frostbite-like burns.

### SYMPTOMS ASSOCIATED WITH SPECIFIC AMMONIA CONCENTRATIONS:

CONCENTRATION:	SYMPTOM:
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> 5000 ppm	The level of exposure may result in rapid death due to suffocation or fluid in the lungs. Exposure to concentrations in excess of 5000 ppm may cause laryngeal spasms, resulting in death.

**OTHER POTENTIAL HEALTH EFFECTS:** Ingestion is unlikely, however, it can damage the tissues of the mouth, throat, esophagus and other tissues of the digestive system. Ingestion can be fatal. Aspiration by ingestion is also possible, resulting in chemical pneumonia or death.

**HEALTH EFFECTS OR RISKS FROM EXPOSURE:** Overexposure to Ammonia may cause the following health effects:

**ACUTE:** This gas is extremely corrosive and can burn and damage eyes, skin, mucous membranes and any other exposed tissue. If inhaled, irritation of the respiratory system may occur, with coughing and difficulty breathing. Overexposure to this gas may be fatal.

**CHRONIC:** Persistent irritation may result from repeated exposures to Ammonia. Repeated overexposures can result in emphysema.

**TARGET ORGANS:** Respiratory system, skin, eyes

**ACUTE/CHRONIC TOXICITY:**

SUSPECTED CANCER AGENT: Ammonia is not found on the following lists: FEDERAL OSHA Z LIST, NTP, CAL/OSHA or IARC and therefore is not considered to be, nor suspected to be a cancer-causing agent by these agencies.

IRRITANCY OF PRODUCT: Ammonia is severely irritating to contaminated tissue.

SENSITIZATION OF PRODUCT: Ammonia contains no known sensitizer with repeated or prolonged contact.

REPRODUCTIVE TOXICITY INFORMATION: Listed below is information concerning the effects of Ammonia on the human reproductive system.

Mutagenicity: Ammonia has not been reported to cause mutagenic effects in humans. Ammonia has been reported to cause mutagenic effects in specific animal tissues during experimental studies with exposures at relatively high doses.

Embryotoxicity: No embryotoxic effects have been described for Ammonia.

Teratogenicity: Ammonia is not expected to cause teratogenic effects in humans.

Reproductive Toxicity: Ammonia is not expected to cause adverse reproductive effects in humans.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Condition relating to the target organs may be aggravated by overexposures to Ammonia.

RECOMMENDATIONS TO PHYSICIANS: Treat symptoms, administer lung function tests and possible chest x-rays. Reduce exposure. Delayed pulmonary edema may occur, following overexposure by inhalation.

BIOLOGICAL EXPOSURE INDICES (BEIs): Currently, Biological Exposure Indices (BEIs) are not applicable for Ammonia.

**CARCINOGENICITY:** No data is available.

**SECTION 12 – ECOLOGICAL INFORMATION**

**Ecotoxicity (aquatic and terrestrial):** Due to the corrosive nature of Ammonia, animals exposed to this product will experience tissue damage, burns and may be killed. Oxygen displacement can also be a factor in the toxicity of Ammonia. Plants contaminated may be adversely affected or destroyed. Ammonia is very soluble in water and even low concentrations of Ammonia in water are detrimental to aquatic life. If a release of Ammonia occurs near a river or other body of water, the release has the potential to kill fish and other aquatic life.

**Persistence and degradability:** No data available

**Bioaccumulative potential:** No data available

**Mobility in soil:** No data available

**Other Effects:** The mixture does not contain any class I or Class II ozone depleting chemicals.

**SECTION 13 – DISPOSAL CONSIDERATIONS**

**Disposal:** Waste disposal must be in accordance with appropriate National, Federal, State, and local regulations. Do not dispose or discharge into the environment. Do not discharge into enclosed environment. Contact supplier if additional guidance is required.



## SECTION 14 – TRANSPORTATION INFORMATION

**DOT Classification:**

Proper Shipping Name: Ammonia, Anhydrous  
Class: 2.2  
UN/ID No.: UN1005  
Label: Non-flammable Gas, Green Label

**IATA Classification:**

Proper Shipping Name: Ammonia, Anhydrous  
Class: 2.3 (8)  
UN/ID No.: UN1005  
Label: Class 2 Toxic and Class 8 Corrosive

**Environment hazard:** No

**Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code:** N/A

**SPECIAL PRECAUTIONS FOR USER:** Avoid transport on vehicles where the load space is not separated from driver's compartment. Ensure that transporter is aware of the potential hazards of the load and knows what to do in event of an emergency. Contact supplier for complete transportation information.

## SECTION 15 – REGULATORY INFORMATION

U.S. SARA REPORTING REQUIREMENTS: As follows:

### SARA 302/304

NAME	% EHS	SARA 302 TPQ (LBS)	SARA 304 RQ (LBS)
Ammonia, Anhydrous	100 Yes	500	100

**SARA 304 RQ:** 100 LBS / 45.4 kg

### SARA 311/312

Classification: Fire Hazard, sudden release of pressure, immediate (acute) health hazard

Composition / information on ingredients:

Name	%	Fire Hazard	Sudden Release of Pressure	Reactive	Acute / Delayed Health Haz.
Ammonia, Anhydrous	100	Yes	Yes	No	Yes / No

### Sara 313

	Product name	CAS number	%
Form R - Reporting Req.	Ammonia, anhydrous	7664-41-7	100
Supplier notification	Ammonia, anhydrous	7664-41-7	100

SARA 13 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed

U.S. SARA THRESHOLD PLANNING QUANTITY: Not applicable.

U.S. CERCLA REPORTABLE QUANTITY (RQ): Not applicable.

CANADIAN DSL/NDL INVENTORY STATUS: Ammonia is on the DSL Inventory.

U.S. TSCA INVENTORY STATUS: Ammonia is not listed on the TSCA Inventory.

OTHER U.S. FEDERAL REGULATIONS: Ammonia is not subject to the reporting requirements of Section 112(r) of the Clean Air Act. The Threshold Quantity for this gas is 10,000 lb. Depending on specific operations involving the use of Ammonia, the regulations of the Process Safety Management of Highly Hazardous Chemicals may be applicable (29 CFR 1910.119). Under this regulation Ammonia is not listed in Appendix A, however, any process that involves a flammable gas on-site, in one location, in quantities of 10,000 lb (4,553 kg) or greater is covered under this regulation unless it is used as a fuel.

U.S. STATE REGULATORY INFORMATION: Ammonia is covered under the following specific State regulations: Ammonia. California - Permissible Exposure Limits for Chemical Contaminants: Ammonia. Florida - Substance List: Ammonia. Illinois - Toxic Substance List: Ammonia. Kansas - Section 302/313 List: Ammonia. Massachusetts - Substance List: Ammonia. Michigan - Critical Materials Register: No. Minnesota - List of Hazardous Substances: Ammonia. Missouri - Employer Information/Toxic Substance List: Ammonia. New Jersey - Right to Know Hazardous Substance List: Ammonia. North Dakota - List of Hazardous Chemicals, Reportable Quantities: Ammonia. Pennsylvania - Hazardous Substance List: Ammonia. Rhode Island - Hazardous Substance List: Ammonia. Texas - Hazardous Substance List: Ammonia. West Virginia - Hazardous Substance List: Ammonia. Wisconsin - Toxic and Hazardous Substances: Ammonia.

CALIFORNIA SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT (PROPOSITION 65): Ammonia is not on the California Proposition 65 lists.

LABELING (For Compressed Gas):

**DANGER: EXTREMELY FLAMMABLE GAS. CONTAINS GAS UNDER PRESSURE; MAY EXPLODE IF HEATED. MAY CAUSE RAPID SUFFOCATION BY DISPLACING OXYGEN IN THE AIR. MAY FORM EXPLOSIVE MIXTURES WITH AIR.** May cause dizziness, nausea, drowsiness, vomiting, excess salivation, and loss of mobility/consciousness. May react explosively even in absence of air at elevated pressure and/or temperature. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources—No smoking. Use and store in well-ventilated areas. Leaking gas fire: Do not extinguish unless leak can be stopped safely. In case of leakage, eliminate all ignition sources. Do not open valve until prepared to use. Always use a backflow preventative device in piping. Use only with equipment rated for cylinder pressure. Close valve after each use and when empty. Cylinder temperature should not exceed 52°C (125°F). Use in accordance with Safety Data Sheet. **FIRST AID: IF INHALED,** remove to fresh air. If breathing is difficult, give Oxygen. Call a physician. **IN CASE OF FROSTBITE,** obtain immediate medical attention. **DO NOT REMOVE THIS LABEL.**

## SECTION 16 – OTHER INFORMATION

Information contained in this data sheet is offered without charge for use by technically qualified personnel at their discretion and risk. All statements, technical information and recommendations contained herein are based on tests and data which we believe to be reliable. But the accuracy and completeness thereof, is not guaranteed and no warranty of any kind, either expressed or implied, is made with respect thereto. Since MESA Specialty Gases and Equipment Division of MESA International Technologies, Inc. shall have no control over the use of the product described herein, we assume no liability for loss or damage incurred from the proper or improper use of such product.

### HISTORY:

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Date of previous issue:	12/1/2014

### DISCLAIMER

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