

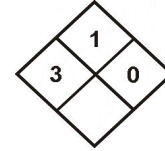
MATERIAL SAFETY DATA SHEET

PRODUCT AMMONIA, 10% AQUEOUS SOLUTION



NFPA HAZARD RATINGS*

Health	3	Extreme health hazard
Fire	1	Slightly combustible
Reactivity	0	Nonreactive



SECTION 1: PRODUCT INFORMATION

Manufacturer: ADCO, Inc., 900 W. Main, Sedalia, MO 65301 (660) 826-3300
 EMERGENCY TELEPHONE NUMBERS: CHEMTREC (800) 424-9300 24 HRS 7 DAYS A WEEK; ADCO (800) 821-7556 (8-5 M-F)
 Intended Product Use: Spotting agent for stain removal
 Synonyms: Ammonium hydroxide (aqueous ammonia)

SECTION 2: HAZARDOUS INGREDIENTS

Chemical Name	%	CAS #	OSHA PEL	LD 50
Ammonia	9-11	7664-41-7	50 ppm TWA	oral: 350 mg/kg (rat)

SECTION 3: PHYSICAL DATA

Appearance: Clear, water-white liquid
 Odor: Strong amine
 Specific Gravity (20° C): 0.982
 pH (Straight): 11.8
 Boiling Point: 196-207°F
 Solubility in Water: Complete
 Vapor Pressure (mm Hg): 475 @ 70°F
 Vapor Density: Lighter than air

SECTION 4: FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method)(°F): None (TCC)
 Extinguishing Media: If exposed to fire, use water spray, carbon dioxide or dry chemical.
 Special Fire Fighting Procedures: Evacuate personnel, wear fire fighting protective equipment and a full-faced self-contained breathing apparatus. Cool fire exposed containers with water spray from a far distance.
 Unusual Fire and Explosion Hazards: Product is not flammable, but if exposed to fire or high heat, it can produce ammonia vapors, which are flammable.
 Upper Flammable Limit: 27
 Lower Flammable Limit: 16

SECTION 5: REACTIVITY DATA

Stability: Stable
 Conditions to Avoid: High heat, open flames and sources of ignition.
 Incompatibility (materials to avoid): Strong acids. Ammonia reacts with chlorine, bromine, iodine, hypochlorites (bleach)
 Hazardous Decomposition Products: Oxides of nitrogen and ammonia gas
 Hazardous Polymerization: Will not occur.

SECTION 6: HEALTH HAZARD DATA

Toxicity (Estimated): High
 Effects of Overexposure:
 Acute: Severe irritation and burns to skin and eyes, lungs, mucous membranes and gastrointestinal tract.
 Chronic: Dermatitis, lung damage
 Carcinogenicity: None of the ingredients in this mixture have been identified as a carcinogen or probable carcinogen by ACGIH, IARC or OSHA.

*Hazard ratings and other information are based on latest available information from tests on product or ingredients of mixtures. The data and evaluations are accurate to the best of ADCO's knowledge. No guarantee or liability is expressed or implied.

EXPOSURE LIMITS 50 ppm TWA (ammonia)	IRRITANCY OF PRODUCT Severe irritation to skin, eyes, lungs, mucous membranes and GI tract	SENSITIZATION TO PRODUCT None reported	CARCINOGENICITY No components are listed by ACGIH, IARC or OSHA
TERATOGENICITY No effects reported	REPRODUCTIVE TOXICITY No effects reported	MUTAGENICITY None reported	SYNERGISTIC PRODUCTS None reported

Based on known toxicity of components. No test data available on mixture.

SECTION 7: PREVENTATIVE MEASURES

SPECIAL PROTECTION INFORMATION

Respiratory Protection: None required when used as directed with adequate ventilation. When cleaning up large spills in confined areas, a NIOSH approved self-contained breathing apparatus must be used.

Ventilation: Local exhaust at work station recommended.

Protective Gloves: Rubber or neoprene recommended. Use chemically resistant gloves when contact is prolonged or frequent.

Eye Protection: Use goggles or face mask if splashing is likely.

Other protection equipment ordinarily not needed. Availability of eye washes and adequate ventilation in work areas recommended.

STORAGE AND HANDLING: Store in cool, well ventilated area, away from all sources of ignition and out of direct sunlight. Keep containers tightly closed.

SPILL OR LEAK PROCEDURES: Evacuate area of spill. Contain liquid spill and allow to evaporate. Soak up neutralized material with an inert non-combustible absorbent (e.g. clay); place in proper container for disposal. Prevent large discharges of spilled liquid into sewers or streams. Neutralizing agent: 5% acetic acid

WASTE DISPOSAL METHOD: Flush small quantities to sewer. Large quantities - soak up on absorbent material. Dispose of material and containers in municipal landfills.

RECOMMENDED PRECAUTIONARY LABELING:

CAUTION:

Avoid contact with eyes and skin. Avoid breathing vapors.

FIRST AID:

If overcome by fumes, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Flush eyes for 15 minutes with water. Wash off of skin with soap and water. If swallowed, give water or milk to reduce irritation. Do NOT induce vomiting.

KEEP OUT OF REACH OF CHILDREN. DO NOT TAKE INTERNALLY.

This product is intended for professional use only by trained personnel.

SECTION 8: FIRST AID

Inhalation: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

Eyes: Flush with large amounts of water for at least 15 minutes. See doctor if irritation persists.

Skin: Remove contaminated clothing and shoes. Flush with large amounts of water. Seek medical attention if irritation persists.

Ingestion: Toxic. See doctor immediately. If conscious, give milk or water to dilute stomach. Do NOT induce vomiting.

IF SYMPTOMS PERSIST, SEEK MEDICAL ASSISTANCE

SECTION 9: SARA TITLE III

NOTE: This product does contain some components which are under the reporting requirements of SARA Title III, Section 313. If you are required to report discharges using Form R, SARA Title III, Section 313, information is available on amounts of reportable components.

SECTION 10: PREPARATION DATE

This information is provided for guidance only based on information we have compiled. No guarantee of accuracy or completeness is expressed or implied.

ADCO RESEARCH DEPARTMENT

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