Product Name: 013 Household Ammonia Date Issued: April 20, 2007

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product Name: 013 Household Ammonia Chemical Synonym: c013
Formula: Multi-component mixture Chemical Family: Ammonia water

Supplier: Vasco Brands 511 Budd St. Elmira, NY 14904

Emergency Telephone: (607)733-5566

SECTION 2: COMPOSITION / INFORMATION ON INGREDIENTS

ACGIH TLV

Hazardous Ingredient(s) CAS # % (w/w) TWA STEL
Ammonia 7664-41-7 < 10.0 25ppm 35ppm

Unlisted components are considered non-hazardous as per 29CFR1910.1200g2C. See section 15 for specific state right-to-know information if applicable.

SECTION 3: HAZARD IDENTIFICATION

Emergency Overview: Ammonia is very alkaline and reacts corrosively with all body tissues. Primary route (s) of entry include: inhalation, skin contact, eye contact. Read the entire MSDS for a more thorough evaluation of the hazards.

POTENTIAL HEALTH EFFECTS:

Eye Contact: Can cause permanent eye injury. Symptoms include stinging, tearing, redness, and swelling of eyes. Can injure the cornea and cause blindness. Additional symptoms of eye exposure may include: Blurred vision.

Skin Contact: Can cause severe skin irritation. Symptoms may include redness and burning of skin, and other skin damage. Additional symptoms of skin contact may include: skin blistering.

Ingestion: Swallowing this material may be harmful or fatal. Symptoms may include severe stomach and intestional irritation (nausea, vomiting, diarrhea), abdominal pain, and vomiting of blood. Swallowing this material may cause burns and destroy tissue in the mouth, throat, and digestive tract. Low blood pressure and shock may occur as a result of severe tissue injury.

Inhalation: Breathing of vapor or mist is possible. Breathing this material may be harmful. Symptoms usually occur at air concentrations higher than the recommended exposure limits (see section 2). Signs and symptomsof exposure to this material may include irritation (nose, throat, airways), cough, shortness of breath, difficult breathing, lung edema (fluid buildup in the lung tissue).

SECTION 4 : FIRST AID MEASURES

Eye Contact: Flush with large amounts of water for at least 15 minutes. Seek medical aid.)

Skin Contact: Immediately flush with large quantities of water while removing contaminated clothing.

Inhalation: Remove from exposure. If breathing has stopped or is difficult, administer artificial

respiration or oxygen as needed. Seek medical aid.

Ingestion: DO NOT INDUCE VOMITING! Rinse mouth with water and give plenty of milk or water to

drink. Immediately seek medical aid!)

SECTION 5 : FIRE FIGHTING MEASURES

Flash Point: None Method Used: N/A Flammable Limits: LEL = 16% UEL = 25%

Extinguishing Media: Water fog or spray for escaping ammonia gas.

Hazardous Products of Combustion: May form: ammonia, nitrogen compounds.

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Fire Fighting Procedures: The mixture will not burn, but escaping ammonia gas can burn in the range of 16 - 25% in air. Wear full protective clothing and self-contained breathing apparatus in the pressure demand mode. Use caution when fighting any fire.

Unusual Fire and Explosion Hazards: See Fire Fighting Procedures above.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Steps to be taken in case material is released or spilled: Releases will liberate irritating vapors. Small Spill: Spilled liquids should be contained and not washed into sewers or ground water. Prevent large quantities from contact with vegetation or waterways. Aqua ammonia is a regulated material, and reporting of any release may be required.

Large Spill: Release of 1,000 lbs. or more of aqua ammonia (NH4OH) within 24 hours must be reported to the National Response Center at (800)424-8802, as well as appropriate local and state agencies. Immediate (within minutes) reporting is required.

Deactivating Chemicals: None listed.

SECTION 7: HANDLING AND STORAGE

Handling: Handle with caution. Wash thoroughly after handling. For industrial use only! An eye/face and body deluge shower should be available in the immediate work area.

Storage Requirements: Store in vented containers or pressure vessels away from heat. Open containers cautiously in case of pressure build up. Zinc, copper, and copper alloys such as brass are rapidly corroded by aqua ammonia. Keep container sealed when not in use.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

Respiratory Protection: Respiratory protection approved by NIOSH/MSHA for ammonia must be used when exposure limits are exceeded. Appropriate protection depends on the type and magnitude of exposure.

Ventilation / Local Exhaust: Local exhaust ventilation should be used to control release of air contaminants in the work place. General dilution ventilation may assist with the reduction of air contaminant concentrations.

Ventilation / Mechanical Recommendations: Inlet near surface.

Skin Protection: Rubber gloves and rubber or PVC/Nylon/PVC laminate protective clothing should be used to prevent contact with splashed liquid.

Eye Protection: Employees should be required to wear chemical safety goggles to prevent eye contact.

Other Protective Equipment: An eye/face and body deluge shower should be available in the immediate work area.

Exposure Guidelines: See section 2 for ACGIH recommendations for each hazardous ingredient.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance / Odor: Clear water-white liquid, ammoniacal odor.

Water Solubility: Complete pH (1%): 13.6

Specific Gravity: 0.897 Boiling Point (°F): 80 - 85 Evaporation Rate: slower than ether

% volatile: 100 Vapor Density(air=1): 0.6 Vapor Pressure(mmHg): 755

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SECTION 10: STABILITY AND REACTIVITY

Hazardous Decomposition Products: May form ammonia, nitrogen compounds.

Chemical Stability: Stable

Conditions to Avoid: Hydrogen gas evolves upon contact with some metals.

Incompatibility with other Substances: Avoid contact with alkali metals, brass, copper, hypochlorites, iron, metallic mercury, silver, strong acids, strong alkalis, strong mineral acids.

Hazardous Polymerization: will not occur.

SECTION 11: TOXICOLOGICAL INFORMATION

Toxicological Data (as Ammonia):

Acute oral: LD50(rat) = 350 mg/kg: TC Lo (human) = 43 mg/kg

Acute inhalation (LC50): TC Lo (man) = 408ppm

Acute Dermal = no data available

significant effects = skin, eye, mucus membrane irritation.

Carcinogenicity: The ingredients of this product are not classified as carcinogenic by ACGIH, IARC, OSHA, or NTP.

SECTION 12: ECOLOGICAL INFORMATION

Ecological Data: No data found as Ammonia.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal Method: Spent solutions cannot be sent to sewer without neutralization. If waste treatment facility is available, neutralize with diluted HCl to an acceptable pH. If not, contact a permitted waste hauler to dispose of in accordance with local, state, and federal regulations.

Is the unused product a RCRA hazardous waste (40CFR261.33) if discarded? No If yes, the RCRA ID number is : N/A

SECTION 14: TRANSPORTATION INFORMATION

DOT Proper Shipping Name: Ammonia Solution (containing 10-35% ammonia)
DOT Hazard Class / Product Identification Number / Packing Group / DOT Label: 8 / UN2672 / PGIII / Corrosive

SECTION 15: REGULATORY INFORMATION

FEDERAL REGULATIONS (USA):

TSCA (Toxic Substances Control Act) Status : TSCA (United States) The intentional ingredients of this product are listed.

CERCLA RQ - 40CFR302.4(a) Reportable Quantity (Ammonia) = 100 lbs.

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SARA 302 Components - 40 CFR 355 Appendix A

Section 302 Component(s) TPQ (lbs) RQ (lbs)
Ammonia 100 100

SARA 311/312 Classification - 40 CFR 370.2 : Immediate (as Ammonia)

SARA 313 Components - 40 CFR 372.65:

 Section
 313
 Component(s)
 CAS #
 %

 Ammonia
 7664-41-7
 < 10.0</td>

OSHA Process Safety Management 29CFR 1910 :

ComponentConditionTQ (lbs)Ammonia> 44 %15,000

EPA Accidental Release Prevention 40 CFR 68:

RMP Component (s)ConditionTQ (lbs)Ammonia> = 20%20,000

INTERNATIONAL REGULATIONS:

Ammonia is listed on the following inventories: CEPA - Domestic Substances List (DSL).

STATE AND LOCAL REGULATIONS:

California Safe Drinking Water Act (Prop. 65) Listing: None listed.

New Jersey RTK Label Information:

Ammonia 7664-41-7

Pennsylvania RTK Label Information:

Ammonia 7664-41-7

SECTION 16: OTHER INFORMATION

NFPA Rating: HEALTH: 2 FLAMMABILITY: 0 REACTIVITY: 0

NFPA hazard degree designation 704: 4 = extreme, 3 = high, 2 = moderate, 1 = slight, 0 = none.

Information and data compiled to compose this MSDS is correct to the best of our knowledge as of the printed date, and is offered solely for your consideration, investigation, and verification.