Safety Data Sheet

Ammonia Inhalant Solution (Non-Rx)

Section 1: Chemical Product and Company Identification

Product Name: Ammonia Inhalant Solution
Chemical Name(s): Not available
Synonym: Not available
CAS Number: 7664-41-7
RTECS #: Not available
Trade Name: Ammonia Inhalant Solution
Chemical Formula: Mixture

Contact Information: Emergency phone number:
X-Gen Pharmaceuticals, Inc. National Poison Control
PO Box 445, Big Flats, NY 14814 1-800-222-1222
Technical Assistance: 607-562-2700
Online Assistance: www.x-gen.us

**For information regarding recommended uses and restrictions on usage refer to the product package insert.

Section 2: Hazard Identification

Hazard pictograms (GHS-US):

Potential Acute Health Effects: Brief inhalation will cause irritation of the upper respiratory tract, although constant inhalation may also cause headaches, dizziness or breathing difficulty. Contact with skin may cause mild skin irritation and burns. Contact to liquid or vapors will cause mild to extreme irritation of the eyes. Ingestion of this product will cause severe irritation, burning and pain associated symptoms such as nausea, vomiting and diarrhea.

Potential Chronic Health Effects: Severe eye exposure may cause blindness. Severe ingestion may result in death. Severe inhalation may cause lung inflammation and pulmonary edema.

Carcinogenic Effects: Not available

Mutagenic Effects: Not available
Teratogenic Effects: Not available

Developmental Toxicity: Not available

Adverse effects: Preexisting skin, eye or respiratory disorders may become aggravated through exposure.

### Section 3: Composition and Information on Ingredients

**Principle Components:**

<table>
<thead>
<tr>
<th>Name</th>
<th>CAS #</th>
<th>% by Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonia</td>
<td>7664-41-7</td>
<td>15-20</td>
</tr>
<tr>
<td>Ethyl Alcohol</td>
<td>64-17-5</td>
<td>35-40</td>
</tr>
</tbody>
</table>

### Section 4: First Aid Measures

**General:** Remove from exposure. Remove contaminated clothing. For treatment advice, seek guidance from an occupational health physician or other licensed health-care provider familiar with workplace chemical exposure. If person is not breathing give artificial respiration. If breathing is difficult give oxygen. Persons developing serious hypersensitivity (anaphylactic) reactions must receive immediate medical attention. Obtain medical attention.

**Inhalation:** If difficulty breathing, administer oxygen. If necessary, provide artificial respiration. Seek medical attention immediately.

**Skin contact:** Wash skin with cool, soapy water for 15 minutes. Immediate flush skin with copious amounts of water while removing contaminated clothing and shoes. Do not rub or apply ointment to affected area. Wash clothing before reuse. Seek medical attention immediately.

**Eye contact:** Immediately flush eyes with copious amounts of water. Seek medical attention immediately.

**Ingestion:** Contact a Poison Control Center IMMEDIATLEY. Do not induce vomiting. If conscious, have victim swallow large amounts of water. Seek medical attention immediately.

**Notes to physician:** Seek product package insert for complete information.

**Overdose Treatment:** Treat overdose symptomatically.

### Section 5: Fire Fighting Measures

**Flammability of the product:** Very flammable

**Combustion Products:** These products are ammonia gas and oxides of nitrogen, carbon, and hydrogen.
**Unusual Fire and Explosion Hazards:** Closed containers exposed to heat may develop pressure and explode. Alcohol vapors are heavier than air and may travel a considerable distance to a source of ignition and flash back. Alcohols burn with a pale blue flame which may be extremely hard to see under normal lighting conditions. Personnel may be able to feel the heat of the fire without seeing flames. Extreme caution must be exercised in fighting alcohol fires.

**Extinguishing Media and Instruction:** Water spray, dry chemicals, alcohol-type or all-purpose foam and CO₂.

**Protective equipment & precautions for firefighters:** As with all fires, evacuate personnel to a safe area. Firefighters should wear self-contained breathing apparatus and protective clothing. Positive pressure NIOSH approved self-contained breathing apparatus.

**Special remarks on fire hazard:** Concentrated vapors may be flammable

**Special remarks on explosion hazard:** Concentrated vapors may be flammable

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**Section 6: Accidental Release Measures**

**Release to land:**

**Small spill:** Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials. Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local, state, and federal regulations.

**Large spill:** Stop leak if you can do so without risk. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Extinguish all sources of ignition. Wear self-contained breathing apparatus, chemical safety goggles and full protective clothing. Ventilate area. Use a shovel to put the material into a convenient waste disposal container. Sweep up or vacuum. Finish cleaning by spreading water on the contaminated surface and clean surface thoroughly to remove residual contamination. Collect in suitable container for disposal. For proper waste disposal, see section 13 of the SDS.

**Release to air:** Not available

**Release to water:** Stop leak if you can do so without risk. Extinguish all sources of ignition. Wear self-contained breathing apparatus, chemical safety goggles and full protective clothing. Ventilate area. Spilled liquids should be contained and not washed into sewers or ground water. Contain by diking with non-combustible absorbent materials and place residue in DOT approved waste container. Comply with all applicable local, state and federal regulations on spill reporting, handling and disposal of waste.

**Protective equipment:** Keep unnecessary personnel away. Wear approved respiratory protection, chemically compatible gloves and protective clothing such as protective coveralls and shoe covers for spills.
Section 7: Handling and Storage

Handling: As a general rule, when handling Ammonia Inhalant Solution (non Rx), avoid all contact and inhalation of mists and/or vapors associated with the material. All ignition sources should be eliminated. Remove closure carefully, internal pressure may be present. Keep closure upright to prevent leakage. When contents are being transferred, metallic containers must be bonded to the receiving container and grounded to avoid static charges. Never use pressure to empty containers. Replace closure after each opening. Use only in accordance with directions.

Storage: Protect containers from physical damage. Inside storage should be in an NFPA approved flammable liquids storage room or cabinet. Store in corrosion-proof area at temperatures below 25°C (77°F). Do not store in direct sunlight. Isolate from incompatible materials. Keep containers tightly closed. Refer to label instructions to ensure product integrity.

Incompatibilities: Acids, common metals, oxidizing agents, sun light, brass, Zinc, chlorine, copper, bronze, mercury, dimethyl sulfate, acetyl chloride.

Section 8: Exposure Controls / Personal Protection

Engineering controls: Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generates fumes or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit. Keep away from heat, flames, or any form of ignition.

Personal protection: Use rubber, latex or nitrile gloves, protective suit, face shield and overshoes when handling bulk product.

Respiratory protection: Under normal use, respirators are not required. If fumes or mist is generated, use a disposable mask (N95). Personnel wearing respirators should be fit tested and approved for respirator use, under OSHA Respiratory Protection Standard 29 CFR 1910.134.

Exposure limit: Not available

<table>
<thead>
<tr>
<th>Ammonia (7664-41-7)</th>
<th>USA ACGIH</th>
<th>ACGIH TWA (ppm)</th>
<th>25 ppm</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>USA ACGIH</td>
<td>ACGIH STEL (ppm)</td>
<td>35 ppm</td>
</tr>
<tr>
<td></td>
<td>USA OSHA</td>
<td>OSHA PEL (TWA) (mg/m³)</td>
<td>35 mg/m³</td>
</tr>
<tr>
<td></td>
<td>USA OSHA</td>
<td>OSHA PEL (TWA) (ppm)</td>
<td>50 ppm</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ethyl alcohol (64-17-5)</th>
<th>USA ACGIH</th>
<th>ACGIH STEL (ppm)</th>
<th>1000 ppm</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>USA OSHA</td>
<td>OSHA PEL (TWA) (mg/m³)</td>
<td>1900 mg/m³</td>
</tr>
<tr>
<td></td>
<td>USA OSHA</td>
<td>OSHA PEL (TWA) (ppm)</td>
<td>1000 ppm</td>
</tr>
</tbody>
</table>
Section 9: Physical and Chemical Properties

Physical appearance: Liquid
Color: Clear, pink to light red
Molecular Weight: Not available
Taste: Not available
Odor: Pungent Ammonia odor
Odor Threshold: Not available
pH: Not available
Melting Point: N/A
Boiling Point: >35°C (95°F)
Flash Point: ≥10°C (50°F)
Evaporation rate: 0.65 (water=1)
Flammability: Extremely flammable

Upper Flammable Limit: Not available
Lower Flammable Limit: Not available
Vapor Pressure: Not available
Vapor Density: Not available
Density: 0.891 (Specific Gravity @ 25 °C)
Relative density: Not available
Partition Coefficient: Not available
Auto-Ignition Temperature: Ammonia: 651°C (1204°F), Ethyl alcohol: 363°C (685°F)
Decomposition Temperature: Not available
Viscosity: Not available
Dispersion Properties: Not available
Solubility: Very soluble in water

Section 10: Stability and Reactivity

Reactivity: Not available

Chemical stability: The product is stable at room temperature

Possibility of hazardous reaction: Not available

Conditions to avoid: Flame, sources of ignition and heat

Incompatible materials: Oxidizers, acids, bleach, iodine, metals and chlorine.

Hazardous decomposition products: May emit ammonia, carbon oxides, nitrogen oxides and hydrogen

Corrosivity: Non-corrosive in presence of glass.

Polymerization: Will not occur.

Section 11: Toxicological Information

Routes of exposure: Inhalation, eye and skin contact, and ingestion.

Symptoms:
Short term: Burning pain in mouth and throat, constriction of the throat and coughing followed by nausea, vomiting or diarrhea when ingested or inhaled. Local irritation of the, dry skin and burns when
in contact with skin. Severe irritation and burns when in contact with eyes. **Long term:** Ingestion may cause death. Eye contact may cause blindness.

**Reproductive toxicity:** Not available.

**FDA Pregnancy Category:** Not documented

**Toxicity to animals:** Not available

**Measures of toxicity:** Not available

**Additional reproductive health and toxicity data is available from the National Institute for Occupational Safety and Health (NIOSH) and/or Registry of Toxic Effects of Chemical Substance (RTECS).**

**Section 12: Ecological Information**

**Ecotoxicity:** Toxic to fish and other organisms. Handle in a manner that prevents spills or releases to the environment.

**Bioaccumulation potential:** Not available

**Products of biodegradation:** Not available

**Toxicity of the products of biodegradation:** Not available

**Section 13: Disposal Information**

**Waste classification:** Hazardous

**Waste from residues/unused products:** Hazardous. Dispose of waste in accordance with all applicable federal, state and local laws.

**Waste Disposal:** Dispose of waste in accordance with all applicable federal, state and local laws.

**Section 14: Transport Information**

**DOT Classification:** Flammable Liquid Corrosive NOS 3- UN2924 (Air Shipments)

**UN Number:** 2924

**UN Shipping name:** Not available

**Transport hazard class:** 3 – Class 3 – Flammable and combustible liquid 49 CFR 173.120

**Packing Group:** PGII

**Environmental hazard:** Flammable Liquid Corrosive NOS 3- UN2924 (Air Shipments)

**Transport in bulk:** Not available

**Special precautions needed with transport:** Not available
Section 15: Regulatory Information


Other Regulations: All components are on the U.S. EPA TSCA Inventory List

Other Classifications:

DSCL (EEC): Not available

HMIS (U.S.A.):
Health Hazard: 3
Fire Hazard: 3
Reactivity: 0
Personal Protection: E

National Fire Protection Association (U.S.A.):
Health: 3
Flammability: 3
Reactivity: 1

Protective Equipment: Gloves. Lab coat. Safety glasses. Respirator. Be sure to use an approved/certified respirator or equivalent.

Section 16: Other Information

References: Not available
Created: 1/30/2015
Last Updated: 3/27/2015
Prepared & Approved by: X-GEN Pharmaceuticals, Inc., Safety Committee

The above information is believed to be accurate and represents the best information currently available to us. The use of this product should be through or under the direction of a physician. This SDS does not address therapeutic use of this material. X-GEN Pharmaceuticals, Inc. makes no warranties, express or implied with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information. In no event should X-GEN Pharmaceuticals be liable for any claim, loss, or damage of any third party, even if X-GEN Pharmaceuticals has been advised of the possibility of such damages to occur.