Following is a copy of our MSDS (Material Safety Data Sheet) for Parsons' Ammonia. This computer generated MSDS fulfills the federal OSHA Hazard Communication Standard (29 CFR 1910.1200) requirements adopted November 25, 1983. In addition, it fulfills Section 302 (Extremely Hazardous Chemicals), Sections 311 and 312 (Hazardous Chemicals), and Section 313 (Toxic Chemicals) of Title III of the Superfund Amendments & Reauthorization Act (SARA).

We hope you will continue to enjoy the many fine products manufactured by The Dial Corp. If you have comments regarding one of our products, please call our toll free number (1-800-528-0849).

Consumer Information Center
The Dial Corp
MATERIAL SAFETY DATA SHEET  
COMPLIES WITH OSHA HCS 29 CFR 1910.1200 AND OSHA 174

MSDS# A-101  Revision #: 6

PRODUCT NAME (AS USED ON LABEL): HOUSEHOLD AMMONIA

ALTERNATE PRODUCT NAME: VARIOUS BRANDED AND PRIVATE LABEL NAMES  
(Clear, Clear Blue, Lemon, Sudsy)

**EMERGENCY TELEPHONE NUMBER: (602) 253-3334**

SECTION I

MANUFACTURER/DISTRIBUTOR: THE DIAL CORP  
1850 N. CENTRAL  
PHOENIX, AZ 85077

TELEPHONE NUMBER FOR GENERAL INFORMATION: (602) 991-3000

SECTION II-HAZARDOUS INGREDIENTS

Finished Product: OSHA (PEL)-N/A  
ACGIH (TLV)-N/A

Hazardous Components:

<table>
<thead>
<tr>
<th>Chemical/Common Name</th>
<th>CAS Number</th>
<th>PEL</th>
<th>TLV</th>
<th>Other Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonia (as NH₃)</td>
<td>7664-41-7</td>
<td>35 ppm* STEL</td>
<td>25 ppm* TWA</td>
<td>NIOSH Ceiling-5 min.</td>
</tr>
<tr>
<td>*(Ammonia Gas)</td>
<td></td>
<td></td>
<td>35 ppm* STEL</td>
<td>50 ppm*</td>
</tr>
</tbody>
</table>

SECTION III PHYSICAL/ CHEMICAL CHARACTERISTICS

Boiling Point: 191-212°F  
Vapor Density (Air=1): N/A  
Specific Gravity (Water=1): 0.9890  
Vapor Pressure (mm Hg.): N/A  
Volatile by Weight (%): 98.1  
Solubility in Water: Complete  
Appearance/Odor: Clear, cloudy white or colored liquid with distinct ammonia odor.

SECTION IV-FIRE AND EXPLOSION HAZARD DATA

Flash Point (°F)/Method Used: Non-flammable  
Flammable Limits (LEL/UEL): LEL=16% AS NH₃/UEL=27% AS NH₃  
Extinguishing Media: Dry chemical, carbon dioxide, water spray or foam.  
Special Fire Fighting Procedures: If possible, move product from fire area. Cool fire-exposed containers with water spray.  
Unusual Fire and Explosion Hazards: Negligible fire and explosion hazard; however, if ammonia gas is evolved, it is flammable.
SECTION V: REACTIVITY DATA

Stability: Stable
Conditions to Avoid: Heat
Chemical Incompatibility: Chlorine, bromine, iodine, hypochlorite, mineral acids.
  Violent reactions may occur with incompatible materials, releasing irritating or
toxic gases.
Hazardous Decomposition Products: Toxic oxides of nitrogen and ammonia gas.
Hazardous Polymerization: Will Not Occur
Conditions to Avoid: None

SECTION VI: HEALTH HAZARD DATA

Route of Entry: Inhalation-Likely  Skin-Likely  Ingestion-Unlikely under normal use conditions

Health Hazards (Acute and Chronic): (Acute)-Based on the testing of this product in
animals, it is both an eye and skin irritant (rabbit) and toxic by ingestion (rat).
(Chronic)-Not determined on this product.

Carcinogenicity*: NTP  IARC Monographs  OSHA Regulated
N/A  N/A  N/A

*Not determined for finished product or Ammonia (NH₃), the hazardous component, in the product.

Effects of Overexposure: The following discussion is based primarily on the fact that
ammonia (AS NH₃) is the hazardous ingredient in the finished product. The effects
described represent the "worst case" scenario for the finished product.

Inhalation - Mild exposure to ammonia vapors may cause irritation of the nose,
  throat, coughing and sneezing. A more severe exposure may cause
respiratory irritation, dyspnea, pulmonary edema. Repeated or
prolonged exposure to vapors may cause, in addition to irritation,
bronchitis and pneumonia.

Ingestion - If ingested, may cause excessive salivation, nausea, vomiting, gastric
  irritation with chances of perforation. Ingestion of large quantities,
may produce CNS depression, shock and convulsions.

Skin - Powerful irritant, may cause severe burning pain and corrosive damage.
  Repeated or prolonged exposure may cause dermatitis.

Eyes - Powerful irritant, may cause conjunctivitis, swelling of eyelids,
chemical burns, transient corneal damage. Repeated or prolonged
exposure may cause, in addition to irritation, cataracts and retinal
atrophy.

Medical Conditions Generally Aggravated By Exposure: None known.
SECTION VII-PRECAUTIONS FOR SAFE HANDLING AND USE

Steps to be taken in case material is released or spilled:
- Eye Protection: Avoid eye contact. Wear protective safety goggles or face shield.
- Skin Protection: Avoid prolonged or repeated skin contact. Wear protective gloves.
- Respiratory Protection: Keep upwind of spill. Avoid breathing vapors. Use NIOSH approved respirator that will provide protection from ammonia gas. If ammonia vapors are greater than 300 ppm, use self-contained breathing apparatus with full face shield.
- Handling: Do not mix with other household chemicals, such as bleach, automatic toilet bowl cleaner, wall or tile cleaners.
- Storage: Store in cool, ventilated area. Keep out of direct sunlight. Avoid overheating. Plastic bottle will bulge from ammonia vapor pressure.
- Normal Clean Up: Ventilate area. Flush away spilled product with water when vapors will permit.
- Waste Disposal: Dilute with water and flush to sewer in accordance with federal, state and local environmental regulations.
- Other Precautions: None

SECTION VIII-FIRST AID & MEDICAL EMERGENCY PROCEDURES

- Eyes: Immediately flush eyes with running water for at least 15 minutes. Get prompt medical attention.
- Skin: Rinse well with running water. If irritation persists, contact physician or local poison control center.
- Inhalation: If effects occur, remove victim to fresh air. Provide symptomatic and supportive care. Contact physician or local poison control center.
- Ingestion: Immediately give large quantities of water or milk to dilute. Do not induce vomiting. Get prompt medical attention.

SECTION IX-CONTROL MEASURES-OCCUPATIONAL

- Respiratory Protection (Specify Type): See Section VII above.
- Ventilation:
  - Use local exhaust system
  - Mechanical (General)-N/A
  - Special-N/A
- Protective Gloves: See Section VII above
- Eye Protection: See Section VII above
- Other Protective Clothing or Equipment: Uniforms, coveralls or labcoats
- Work/Hygienic Practices: Provide eye bath and emergency shower. Launder work clothing when soiled.

SECTION X-ENVIRONMENTAL IMPACT

- Applicable Regulations: CPSC 16 CFR 1500
- DOT/EPA Hazard Class: N/A
- Shipping Name: See product name
HOUSEHOLD AMMONIA (A-101)

EPA - SARA Title III Section 313: Toxic chemical - no

NOTE: N/A=Not Applicable
NIF=No Information Found
ND= Not Determined
NL=Not Listed
NE= None Established

The information contained herein is provided in good faith and is believed to be correct as of the date hereof. However, The Dial Corporation makes no representation as to the comprehensiveness or accuracy of the information. It is expected that individuals receiving the information will exercise their independent judgment in determining its appropriateness for a particular purpose. Accordingly, The Dial Corporation will not be responsible for damages of any kind resulting from the use of or reliance upon such information. No representations, or warranties, either expressed or implied of merchantability, fitness for a particular purpose or of any other nature are made hereunder with respect to the information set forth herein or to the product to which the information refers.

Date Prepared: 04/24/92
Change: Reviewed and Updated MSDS.
End of MSDS
**HEALTH HAZARD RATING CHART:**

<table>
<thead>
<tr>
<th>Level</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>MINIMAL HAZARD - no significant risk to health</td>
</tr>
<tr>
<td>1</td>
<td>SLIGHT HAZARD - irritation or minor reversible injury possible</td>
</tr>
<tr>
<td>2</td>
<td>MODERATE HAZARD - temporary or minor injury may occur</td>
</tr>
<tr>
<td>3</td>
<td>SERIOUS HAZARD - major injury likely unless prompt action is taken and medical treatment is given</td>
</tr>
<tr>
<td>4</td>
<td>SEVERE HAZARD - life threatening major or permanent damage may result from single or repeated exposures</td>
</tr>
</tbody>
</table>

**FLAMMABILITY HAZARD RATING CHART:**

<table>
<thead>
<tr>
<th>Level</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>MINIMAL HAZARD - materials which are normally stable, and will not burn unless heated</td>
</tr>
<tr>
<td>1</td>
<td>SLIGHT HAZARD - materials which must be preheated before ignition will occur. Flammable liquids in this category will have I points (the lowest temperature at ignition will occur) at or above 20 (NFPA Class II and Class IIIA)</td>
</tr>
<tr>
<td>2</td>
<td>MODERATE HAZARD - material which must be moderate heated before ignition will occur, ing flammable liquids with flash point below 100°F and below 200 (NFPA Class III and Class IIIB)</td>
</tr>
<tr>
<td>3</td>
<td>SERIOUS HAZARD - materials capable of ignition under almost all normal temperature conditions, including flammable liquids flash points below 73°F and boiling points above 100°F as well as liquids with flash points between 73°F and 100°F (NFPA Classes IB and IC)</td>
</tr>
<tr>
<td>4</td>
<td>SEVERE HAZARD - very flammable gases or very volatile flammable liquids with flash points below 73°F and boiling points below 100°F (NFPA Class IA)</td>
</tr>
</tbody>
</table>