1. PRODUCT AND COMPANY IDENTIFICATION

Product Name/Use: GLASS CLEANER (Aerosol)

MANUFACTURER
The Butcher Company
67 Forest Street
Marlborough, MA 01752-3012

Butcher Telephone Number: 800-225-9475
Emergency Telephone (24 hours): 800-228-5635
CHEMTREC (U.S./Can.): 800-424-9300
CHEMTREC (Int’l): +1 703-527-3887

2. COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>INGREDIENT(S)</th>
<th>CAS NO.</th>
<th>% BY WEIGHT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isopropyl alcohol</td>
<td>67-63-0</td>
<td>5 – 7</td>
</tr>
<tr>
<td>N-Butane</td>
<td>106-97-8</td>
<td>3 – 5</td>
</tr>
<tr>
<td>Ammonium hydroxide</td>
<td>1336-21-6</td>
<td>0.25 – &lt;1.0</td>
</tr>
</tbody>
</table>

See Section 8 for Exposure Limits

OSHA REGULATORY STATUS: This product is classified as hazardous under OSHA regulations.

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

POTENTIAL HEALTH EFFECTS (See Section 11 for Toxicological Information)
PRIMARY ROUTE(s) OF EXPOSURE:  
 Eye (X)  Skin Contact (X)  Skin Absorption ( ___ ) 
 Inhalation (X)  Ingestion ( ___ )

EFFECTS OF ACUTE EXPOSURE
EYES:
May cause eye irritation. Symptoms may include redness and pain.

SKIN:
Non-irritating to the skin.

INHALATION:
High concentrations of vapor or mist may cause nose, throat and respiratory tract irritation. Symptoms may include coughing. High concentrations of vapor or mist may also cause central nervous system effects including headache, dizziness and nausea.
INGESTION:
May cause mouth, throat and stomach irritation. Symptoms may include nausea, vomiting and diarrhea. May also cause central nervous system effects including headache, dizziness and weakness.

EFFECTS OF CHRONIC EXPOSURE:
Prolonged or repeated contact can cause defatting and drying of the skin which may result in skin irritation and dermatitis (rash).

MEDICAL CONDITIONS AGGRAVATED:
May aggravate pre-existing eye, skin and respiratory conditions.

4. FIRST AID MEASURES

EYES:
Flush eyes with plenty of water while holding eyelids apart. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Do not put any medication in the victim's eyes unless instructed by a physician. Get medical attention.

SKIN:
Flush with water, then wash with soap and water. Remove saturated clothing. Get medical attention if irritation develops.

INHALATION:
Remove to fresh air. If not breathing, give respiration; if breathing is difficult, give oxygen (by trained personnel only). Get medical attention if symptoms persist.

INGESTION:
Do not induce vomiting. Drink large quantities of water. Get immediate medical attention. Never give anything by mouth to an unconscious person.

5. FIRE FIGHTING MEASURES

FLASH POINT AND METHOD: Not applicable.

FLAMMABLE LIMITS:
Not applicable.

AUTOIGNITION TEMPERATURE: Not applicable.

EXTINGUISHING MEDIA:
Use water fog, dry chemical, CO2, or foam.

HAZARDOUS COMBUSTION PRODUCTS:
Normal products of combustion (carbon monoxide and carbon dioxide).

FIRE AND EXPLOSION HAZARDS:
Container is under pressure and may explode if exposed to excessive heat. Propellant retained by released material may be ignited by heat, sparks, flames, or other ignition sources.
FIRE FIGHTING INSTRUCTIONS:
This product is not aerosol flammable per flame extension test 16 CFR 1500.45. If this product is involved in a fire, evacuate area. Cool containers exposed to fire with water. MSHA/NIOSH approved self-contained breathing apparatus (SCBA) and full protective gear should be worn.

6. ACCIDENTAL RELEASE MEASURES

See Section 8, Exposure Controls/Personal Protection and Section 3, Hazard Identification. Floors may be slippery. Use care to avoid falling. Remove ignition sources and ventilate spill area. Contain and isolate spill. Keep non-essential personnel from entering spill area. Use mop, absorbent and non-sparking tools to collect material for proper disposal. Rinse area with water.

7. HANDLING AND STORAGE

HANDLING:
Follow label use directions. Do not mix with other chemicals unless instructed by label directions. Avoid contact with eyes. Use with adequate ventilation. Avoid breathing vapor or mist. Use spark-proof tools. Do not expose to heat. Do not use near sparks, flames or pilot lights. Do not puncture or incinerate container. Wash thoroughly after handling. Remove contaminated clothing. Wash clothing and equipment before reuse.

STORAGE:
Keep container closed when not in use. Store away from incompatible materials. (See Section 10, Stability and Reactivity). Store away from direct sunlight. Keep away from heat, sparks and flame. Do not store at temperatures above 120 F (49 C).

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

PERSONAL PROTECTIVE EQUIPMENT (PPE)

EYE:
Where eye contact is possible, wear safety glasses with side shields or chemical splash goggles (ANSI Z87.1 approved).

SKIN:
Where prolonged or repeated contact is possible, chemical-resistant clothing (e.g., gloves) is recommended.

RESPIRATORY:
No respiratory protection is required if ventilation is adequate.

ENGINEERING CONTROLS:
Good general room ventilation is expected to be adequate. If user operations generate vapor or mist, ventilation should be used to keep airborne concentrations below exposure limits.
EXPOSURE LIMITS:

<table>
<thead>
<tr>
<th>INGREDIENT(S)</th>
<th>OSHA PEL/STEL</th>
<th>ACGIH TLV/STEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isopropyl alcohol</td>
<td>400 ppm (980 mg/m³)</td>
<td>400 ppm (983 mg/m³)</td>
</tr>
<tr>
<td></td>
<td>500 ppm (1225 mg/m³)</td>
<td>500 ppm (1230 mg/m³)</td>
</tr>
<tr>
<td>N-Butane</td>
<td>800 ppm (1900 mg/m³)</td>
<td>800 ppm (1900 mg/m³)</td>
</tr>
<tr>
<td>Ammonium hydroxide</td>
<td>50 ppm (35 mg/m³)</td>
<td>25 ppm (17 mg/m³)</td>
</tr>
<tr>
<td></td>
<td>35 ppm (27 mg/m³)</td>
<td>35 ppm (24 mg/m³)</td>
</tr>
</tbody>
</table>

NA - Not Available

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: Aerosol
ODOR: Mild, Ammonia
APPEARANCE: Clear to Slightly Hazy, Colorless
pH: 10.8
PERCENT VOLATILE BY WEIGHT: 98
VAPOR PRESSURE: 50-54 psig at 64°F at 18°C
VAPOR DENSITY: Not Available
BOILING POINT: Not Available
FREEZING/MELTING POINT: Not Available
SOLUBILITY IN WATER: Complete
EVAPORATION RATE: Not Available
SPECIFIC GRAVITY: Not Available
VISCOSITY: Water Thin
OCTANOL/WATER PARTITION COEFFICIENT: Not Available
ODOR THRESHOLD: Not Available

10. STABILITY AND REACTIVITY

STABILITY (CONDITIONS TO AVOID):
Stable.

POLYMERIZATION:
Will not occur.

HAZARDOUS DECOMPOSITION:
None known.

INCOMPATIBLE MATERIALS:
Oxidizers (e.g., bleach) and strong acids (e.g., hydrochloric acid).

11. TOXICOLOGICAL INFORMATION

ACUTE DATA:
This product was found to be non-irritating to skin. The following data are available for product ingredients.
GLASS CLEANER (Aerosol)

<table>
<thead>
<tr>
<th>PRODUCT/INGREDIENT</th>
<th>ORAL LD₅₀ (rat)</th>
<th>DERMAL LD₅₀ (rabbit)</th>
<th>INHALATION LC₅₀ (rat)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isopropyl alcohol</td>
<td>4710 mg/kg</td>
<td>12870 mg/kg</td>
<td>17000 ppm (4-hr)</td>
</tr>
<tr>
<td>N-Butane</td>
<td>Not Available</td>
<td>Not Available</td>
<td>658 g/m³ (4-hr)</td>
</tr>
<tr>
<td>Ammonium hydroxide</td>
<td>350 mg/kg</td>
<td>Not Available</td>
<td>3670 ppm (4-hr)</td>
</tr>
</tbody>
</table>

SENSITIZATION DATA:
No data available.

CHRONIC DATA:
Prolonged overexposure to isopropyl alcohol by ingestion and inhalation has caused central nervous system effects in humans and laboratory animals; overexposure by ingestion has also caused liver effects in animals.

REPRODUCTIVE/TERATOGENIC DATA:
Ingestion of isopropyl alcohol has caused slight fetotoxic and reproductive effects in laboratory animals.

CARCINOGENIC/MUTAGENIC DATA:
Not listed as carcinogenic by NTP, IARC, or ACGIH or regulated as a carcinogen by OSHA.

SYNERGISTIC MATERIALS:
No data available.

12. ECOLOGICAL INFORMATION

This product is made with all biodegradable detergents. No other data available.

13. DISPOSAL CONSIDERATIONS

Disposal of this material should be in accordance with local, state or provincial and federal regulations. The unused product, as manufactured, is a RCRA non-hazardous waste in accordance with 40 CFR 261. The product has not been evaluated by the Toxicity Characteristic Leachate Procedure (TCLP). According to RCRA, it is the responsibility of the waste generator to ensure proper disposal.

14. TRANSPORT INFORMATION

DOT/TDG HAZARDOUS MATERIAL DESCRIPTION: Consumer Commodity
DOT/TDG HAZARD CLASS: ORM-D

SPECIAL SHIPPING NOTES:
The ORM-D hazard class applies to U.S. transportation only.

15. REGULATORY INFORMATION

Not meant to be all-inclusive—selected regulations represented.
GLASS CLEANER (Aerosol) 

UNITED STATES 
SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT) 
311/312 HAZARD CATEGORIES: Under 40 CFR 370.2, this product meets the following hazard categories: 
Immediate, Delayed, Pressure Generating. 
313 REPORTABLE INGREDIENTS: Ingredients in this product are not currently subject to notification. 

CERCLA (COMPREHENSIVE RESPONSE, COMPENSATION, AND LIABILITY ACT) 
CERCLA REGULATORY: None of the ingredients in this product are reportable under CERCLA. 

TSCA (TOXIC SUBSTANCE CONTROL ACT) 
TSCA STATUS: This product complies with all TSCA inventory requirements. 

MASSACHUSETTS, NEW JERSEY, PENNSYLVANIA RIGHT-TO-KNOW: 

<table>
<thead>
<tr>
<th>INGREDIENT(S)</th>
<th>CAS NO.</th>
<th>STATE LISTING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>Not Listed</td>
</tr>
<tr>
<td>Isopropyl alcohol</td>
<td>67-63-0</td>
<td>MA, NJ, PA</td>
</tr>
<tr>
<td>N-Butane</td>
<td>106-97-8</td>
<td>MA, NJ, PA</td>
</tr>
</tbody>
</table>

NA - Not Applicable 

16. OTHER INFORMATION 

HMIS RATING 

| HEALTH | 1 |
| FLAMMABILITY | 3 |
| REACTIVITY    | 0 |
| PERSONAL PROTECTION | - |

NFPA RATING 

FIRE 

<table>
<thead>
<tr>
<th>HEALTH</th>
<th>REACTIVITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>HEALTH</td>
<td>1</td>
</tr>
<tr>
<td>REACTIVITY</td>
<td>0</td>
</tr>
</tbody>
</table>

MSDS STATUS 
Revision #: 1 

This MSDS replaces the December 09, 1997 MSDS. Any changes in information are as follows: 
In Section 1 
Prepared By Date Prepared [ ] Print CHEMTREC Phone Number 
In Section 9 
Appearance (Group Field) for Vapor Pressure Density Odor Threshold (Group Field) for Boiling Point (Group Field) for Freezing Point (Group Field) for Specific Gravity (Group Field) for Evaporation Rate Coeff Oil/Water 
In Section 15 
OSHA Hazard Comm. Rule
The information on this data sheet represents our current data and best opinion as to the proper use in handling of the product under normal foreseeable conditions. Any use of this product which is not in conformance with this data sheet or product label, or which involves using the product in combination with any other product or any other process is the responsibility of the user.