1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT IDENTIFICATION

MANUFACTURER

2. COMPOSITION/INFORMATION ON INGREDIENTS

Brand Name ................. ............. ............. Hard Surface Cleaner
Chemical Name ................. ............. ............. Mixture
Common Name ................. ............. ............. Hard Surface Cleaner
Formula ................. ............. ............. Mixture
Molecular Weight ................. ............. ............. N/A
Product Use ................. ............. ............. ............. Hard Surface Cleaner
Product Identification Number ............. N/A

CHEMICAL NAME

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS NUMBER</th>
<th>WEIGHT %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isopropanol</td>
<td>67-63-0</td>
<td>15</td>
</tr>
<tr>
<td>2-Butoxyethanol</td>
<td>111-76-2</td>
<td>3</td>
</tr>
<tr>
<td>Proprietary Cleaning Blend</td>
<td>Mixture</td>
<td>1.1</td>
</tr>
<tr>
<td>Proprietary Antistatic Agent</td>
<td>Proprietary</td>
<td>0.5</td>
</tr>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>Balance</td>
</tr>
</tbody>
</table>

(Note: See Section 8 of this MSDS for Exposure Guidelines)

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Clear, colorless liquid with a lemon odor.

CAUTION! May cause eye or skin irritation. May be harmful if inhaled or absorbed through skin.

May flash if vapors are ignited, but product will not burn.

POTENTIAL HEALTH EFFECTS

PRIMARY ROUTE(S) OF ENTRY
Inhalation (breathing); skin absorption; eye contact.

SYMPTOMS OF EXPOSURE

Inhalation: .......... Breathing high concentrations of 2-butoxyethanol may cause respiratory irritation and may cause central nervous system effects (headache, nausea, vomiting, or unconsciousness) and may cause damage to the liver or kidney, or to the blood or lymph systems. Inhaling high concentrations of isopropyl alcohol can cause drowsiness, incoordination, or unconsciousness.

Eye Contact: ...... Direct contact with 2-butoxyethanol or exposure to its vapors may cause irritation. Redness, burning sensation.

Skin Contact: ...... May cause irritation. 2-Butoxyethanol is readily absorbed through the skin and may cause liver, kidney, blood or lymph system damage, depending on the duration and level of exposure.

Ingestion:.......... Headache, nausea, vomiting, dizziness, gastrointestinal upset.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE

Liver, kidney, and blood diseases; skin disorders.

REPORTED AS CARCINOGEN OR POTENTIAL CARCINOGEN

☐ Not Applicable .......... .......... .......... _ OSHA
☐ National Toxicology Program (NTP) .......... .......... _ International Agency for Research on Cancer (IARC)

4. FIRST AID MEASURES

INHALATION Remove from area to fresh air. Seek medical attention if respiratory irritation develops or if breathing becomes difficult.

EYE CONTACT Immediately rinse eyes with water. Remove any contact lenses, and continue flushing eyes with running water for at least 15 minutes. Hold eyelids apart to ensure rinsing of the entire surface of the eyes and lids with water. Get immediate medical attention.

SKIN CONTACT Wash affected areas with plenty of water, and soap if available, for several minutes. Remove and clean contaminated clothing and shoes. Seek medical attention if irritation develops or persists.

INGESTION Give 3-4 glasses of water, but DO NOT induce vomiting. If vomiting occurs, give fluids again. Get medical attention to determine whether vomiting or evacuation of stomach is necessary. Do not give anything by mouth to an unconscious or convulsing person.

NOTE TO PHYSICIAN

This product contains isopropanol and 2-butoxyethanol which can cause CNS effects or can cause liver, kidney, hematopoietic, or lymph system damage by inhalation or through skin absorption.

5. FIRE FIGHTING MEASURES

Flash Point and Method ... ............. <100 °F (Setaflash)

GENERAL HAZARD

May flash if vapors are ignited, but product will not continue to burn.

EXTINGUISHING MEDIA

For small fires, use water spray, CO₂, or dry chemical. For large fires, use water spray, fog, or alcohol foam.
SPECIAL FIREFIGHTING INSTRUCTIONS

Move containers from area if it can be done without risk. Cool fire-exposed containers with water from side.

FIREFIGHTING EQUIPMENT

As in any fire, wear NIOSH approved, positive-pressure self-contained breathing apparatus and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Wear appropriate protective equipment (See Section 8).

Absorb with sand or vermiculite; sweep up and place in a compatible container for later disposal. Residue can be washed with water.
### 7. HANDLING AND STORAGE

**HANDLING**

Wear appropriate protective equipment (See Section 8).

Avoid contact with eyes, skin, or clothing. Avoid breathing vapors or mist. Frequent or prolonged contact with the skin could cause defatting, leading to dry cracking. The use of an emollient cream is recommended after prolonged skin contact.

Use disposable cloths and discard when soiled. Do not put soiled cloths into pockets.

**STORAGE**

Store in a cool, dry place. Keep away from sources of ignition.

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**ENGINEERING CONTROLS**

Use local exhaust or general dilution ventilation to maintain exposures below established permissible exposure levels.

**PERSONAL PROTECTION**

Respirator: For prolonged exposures, consult an industrial hygienist or other technically qualified person to determine whether respiratory protection is required for the specific work conditions.

Eye Protection: Wear safety glasses if there is a potential for splashing or spraying this product into the eyes.

Gloves: Use rubber gloves if this product will be handled several times daily. The use of an emollient cream is recommended after skin contact.

### EXPOSURE CONTROLS

<table>
<thead>
<tr>
<th>COMPONENT</th>
<th>OSHA PEL</th>
<th>ACGIH TLV</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>TWA</td>
<td>STEL</td>
</tr>
<tr>
<td>Isopropyl Alcohol</td>
<td>400 ppm</td>
<td>N/E</td>
</tr>
<tr>
<td>2-Butoxyethanol</td>
<td>50 ppm [skin]</td>
<td>N/E</td>
</tr>
</tbody>
</table>

### 9. PHYSICAL AND CHEMICAL PROPERTIES

State: Liquid
Color: None
Odor: Lemon
Boiling Point °F: N.D.
Specific Gravity @ 20° C: 0.98
Water Solubility: Soluble
pH: ≈9.5
10. STABILITY AND REACTIVITY

REACTIVITY .... ............ ............ Stable

INCOMPATIBILITIES.... ............ Strong Oxidizers

HAZARDOUS DECOMPOSITION PRODUCTS
Thermal decomposition will produce CO, CO₂, and oxides of nitrogen.

CONDITIONS TO AVOID
None Known.

11. TOXICOLOGICAL INFORMATION

For Isopropyl Alcohol

RTECS NT8050000

- Inhalation LC₅₀ (rat) .......... 16,000 ppm/4 hr
- Inhalation LC₅₀ (mouse) .... 12,800 ppm/3 hr
- Oral LD₅₀ (rat) ................. 5,045 mg/kg
- Oral LD₅₀ (mouse) .......... 3,600 mg/kg
- Oral LD₅₀ (human) .......... 14,432 mg/kg (Difficulty in breathing; coma)
- Oral LD₅₀ (human) .......... 3,570 mg/kg (Respiratory depression)
- Oral LD₅₀ (human) .......... 5,272 mg/kg (Chronic pulmonary edema or congestion)
- Oral LD₅₀ (dog) ............... 1,537 mg/kg (Nausea or vomiting)

- Dermal LD₅₀ (rabbit) ......... 12,800 mg/kg
- Skin irritation (rabbit) ....... Mild
- Eye Irritation (rabbit) ........ Severe in one study; moderate in two other studies.

For 2-Butoxyethanol

RTECS KJ8575000

- Inhalation LC₅₀ (rat) .......... 450 ppm/4 hr.
- Inhalation LC₅₀ (mouse) ... 700 ppm/7 hr.
- Inhalation TC₅₀ (human) .... 195 ppm/8 hr. (gastrointestinal effects)
  100 ppm (Eye, smell, lungs, thorax, respiration effects)

- Oral LD₅₀ (rat) ............... 470 mg/kg
- Oral LD₅₀ (mouse) .......... 1,230 mg/kg
- Oral LD₅₀ (rabbit) .......... 300 mg/kg
- Oral LD₅₀ (woman) ........... 600 mg/kg

- Dermal LD₅₀ (rabbit) ........ 220 mg/kg
- Dermal LD₅₀ (guinea pig) ... 230 mg/kg

- Skin irritation (rabbit) ...... Mild
- Eye Irritation (rabbit) ........ Severe in one study; moderate in a second.

Hazardous Substance Data Bank
The lethal oral dose of various ethylene glycols in humans is approximately 1.4 ml/kg.

12. ECOLOGICAL INFORMATION

For 2-Butoxyethanol

LC50 (96hr) bluegill: 1490 mg/L. Cond: Static, 23 degrees C.
LC50 (24hr) goldfish: 1650-1700 mg/L.
LC50 (24hr) water flea: 1720 mg/L.

For Isopropyl Alcohol

LC50(96hr) fathead minnow (29 days old): 94900-10400 mg/L. Cond: Flow-through, 24.4-24.6 degrees C, pH 7.09, 52.5 mg/L CaCO3.
LC50(96hr) fathead minnow (31 days old): 61200-65500 mg/L. Cond: Flow-through, 24.6 degrees C, pH 7.87, 44 CaCO3.
EC50 (5 min) Photobacterium phosphoreum: 35390 ppm Microtox test.

13. DISPOSAL CONSIDERATIONS

RCRA Waste Code: ....... ....... Not Regulated - This is an aqueous liquid containing <24% alcohol.

14. TRANSPORT INFORMATION

DOT Hazard Class ........... ....... Not Regulated (49 CFR 193.150(e)(2)
TDGR Hazard Class........... ....... Not Regulated (2.6(b)

15. REGULATORY INFORMATION

OSHA HAZARD COMMUNICATION STANDARD (29 CFR 1910.1200)

☑ Hazardous  _ Non-Hazardous

SARA HAZARD CATEGORIES (40 CFR 370)

☑ Acute  ☑ Chronic  ☑ Fire  _ Pressure  _ Reactive  _ None

SARA TOXIC SUBSTANCES (40 CFR 372)

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS Number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glycol ethers, including 2-Butoxyethanol</td>
<td>111-76-2</td>
<td>3</td>
</tr>
</tbody>
</table>

WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM (CPR Section (33))

This product has been classified according to the hazard criteria of the Controlled Products Regulations, and the MSDS contains all required information.

☑ Controlled Product - Classification: D2B, B2 ............... .......... _ Not a Controlled Product

TOXIC SUBSTANCES CONTROL ACT

The chemicals in this product are either listed in, or exempt from, the US TSCA Chemical Inventory. 2-Butoxyethanol is
subject to the Preliminary Assessment Information Rule (40 CFR 712.30 (w)) and Health and Safety Data Reporting (40 CFR 716.120(a)). Isopropyl alcohol is subject to Health and Safety Data Reporting (40 CFR 716.120(a)), and to a Chemical Test Rule (40 CFR 799.2325). TSCA - Section 12(b) - Export Notification (Isopropyl alcohol).

STATE REGULATIONS

Florida Hazardous Substance List... 2-Butoxyethanol - Present
Isopropyl Alcohol - Present

Massachusetts Right To Know List 2-Butoxyethanol - Present
Isopropyl Alcohol - Present

Minnesota Hazardous Substance List........2-Butoxyethanol - Present: Skin Notation
Isopropyl Alcohol - Present

New Jersey Right To Know List ..... 2-Butoxyethanol - Substance No. 0275
Isopropyl Alcohol - Substance No. 1076

Pennsylvania Right To Know List ... 2-Butoxyethanol - Present
Isopropyl Alcohol - Present (Environmental Hazard)

16. OTHER INFORMATION

ABBREVIATIONS

C - Ceiling limit
N/A - Not applicable
N/D - Not determined
N/E - Not established
N/K - Not known
RQ - Reportable Quantity
TPQ - Threshold Planning Quantity

Date Revised: .... November 12, 1998
Replaces:............. July 27, 1995

REVISION INFORMATION

Sections 1 & 15 - Added Canadian information.
Section 5 - Revised firefighting equipment.
Section 8 - Updated ACGIH TLV for isopropanol and 2-Butoxyethanol
Section 11 & 12 - Information added.