1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT IDENTIFICATION
Brand Name ............................................. Fellowes Screen Cleaner (non-alcoholic)
Chemical Name ....................................... Mixture
Common Name ....................................... Screen Cleaner
Formula ..................................................... Mixture
Molecular Weight ................................... N/A
Product Use .............................................. Screen Cleaner
Product Identification Number ............. N/A

MANUFACTURER
Fellowes (Manufacturing) Inc.
1789 Norwood Avenue
Itasca, IL 60143-1095

EMERGENCY TELEPHONE NUMBER
(630) 893-1600 or (800) 893-7661

2. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>CHEMICAL NAME</th>
<th>CAS NUMBER</th>
<th>WEIGHT %</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol</td>
<td>111-76-2</td>
<td>1 - 5</td>
</tr>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>Balance</td>
</tr>
</tbody>
</table>

See Section 15 of this MSDS for OSHA Regulatory Status.

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW
Clear, colorless liquid with a sweet 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.

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, blood disease and 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 2-butoxyethanol which can cause CNS effects; and can cause liver, kidney, or lymph system damage by inhalation or through skin absorption.

### 5. FIRE FIGHTING MEASURES

**Flash Point and Method:** \( >60 \, ^\circ\mathrm{C} \) (2-Butoxyethanol).

**GENERAL HAZARD**

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

**EXTINGUISHING MEDIA**

This product is not flammable. If involved in a fire, use media suitable for the material that is burning.

**SPECIAL FIREFIGHTING INSTRUCTIONS**

Move containers from area if it can be done without risk.

**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
Wear appropriate protective equipment (See Section 8).

HANDLING
Avoid contact with eyes, skin, or clothing. Avoid breathing vapors or mist. Frequent or prolonged contact with the skin could cause defatting, leading to dryness and 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.

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 this product in the eyes.

Gloves: Wear rubber gloves. The use of an emollient cream is recommended after skin contact.

Clothing: Normal work clothing.

Other: Eye wash.

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>2-Butoxyethanol</td>
<td>50 ppm [skin]</td>
<td>N/E</td>
</tr>
</tbody>
</table>

9. PHYSICAL AND CHEMICAL PROPERTIES

State.................................Slightly opaque liquid
Color.................................Clear
Odor....................................Sweet
PH.......................................NA
Boiling Point........................NA
Specific Gravity @ 20 °C........0.99-1.00

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 2-Butoxyethanol

RTECS KJ8575000

Inhalation LC_{50} (rat) .........................450 ppm/4 hr.
Inhalation LC_{50} (mouse) ....................700 ppm/7 hr.
Inhalation TC_{Lo} (human) ...............195 ppm/8 hr. (gastrointestinal effects)
                                  100 ppm (Eye, smell, lungs, thorax, respiration effects)

Oral LD_{50} (rat) .........................470 mg/kg
Oral LD_{50} (mouse) .......................1,230 mg/kg
Oral LD_{50} (rabbit) .......................300 mg/kg
Oral TD_{Lo} (woman) .....................600 mg/kg
Dermal LD_{50} (rabbit) .....................220 mg/kg
Dermal LD_{50} (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

LC_{50} (96hr) bluegill: .........................1,490 mg/L. Cond: Static, 23º C.
LC_{50} (24hr) goldfish: .......................1,650-1,700 mg/L.
LC_{50} (24hr) water flea: ....................1,720 mg/L.

13. DISPOSAL CONSIDERATIONS


Observe all applicable federal, state, and local regulations.

14. TRANSPORT INFORMATION

DOT Hazard Class: .........................Not regulated.
TDG Hazard Class: .........................Not regulated.

15. REGULATORY INFORMATION

OSHA HAZARD COMMUNICATION STANDARD (29 CFR 1910.1200)

3 Hazardous  _ Non-Hazardous

SARA HAZARD CATEGORIES (40 CFR 370)

3 Acute     3 Chronic     3 Fire     _ Pressure     _ Reactive     _ None
SARA TOXIC CHEMICALS (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>1-5</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
- Not a Controlled Product

INVENTORY STATUS

This chemicals in this product are either listed on, or exempt from, the US TSCA Chemical Substance Inventory and the Canadian Domestic Substances List.

TOXIC SUBSTANCES CONTROL ACT

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)).

STATE REGULATIONS

Rhode Island Hazardous Substance List........2-Butoxyethanol
Florida Hazardous Substance List...............2-Butoxyethanol
Massachusetts Right to Know List...............2-Butoxyethanol
Minnesota Hazardous Substance List............2-Butoxyethanol
New Jersey Right to Know List................2-Butoxyethanol
Pennsylvania Right to Know List..............2-Butoxyethanol

16. OTHER INFORMATION

ABBREVIATIONS

C - Ceiling limit
LC_{10} - The lowest concentration of a substance in air that will kill a test animal within a certain exposure period.
LC_{50} - The concentration of a substance in air that will kill 50% of test animals within a certain exposure period.
LD_{50} - The dose that causes death in 50% of test animals.
N/A - Not applicable
N/D - Not determined
N/E - Not established
N/K - Not known
NAERG - North American Emergency Response Guidebook
RQ - Reportable Quantity
TPQ - Threshold Planning Quantity

PREPARATION INFORMATION

Date Prepared: January 5, 2000