1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier
Product name GLASS CLEANER

Other means of identification
Product code 0623354
Synonyms None

Recommended use of the chemical and restrictions on use
Recommended Use Cleaning agent. Glass Cleaner.
Uses advised against No information available

Details of the supplier of the safety data sheet
Manufacturer Address See Distributor information.
Distributor Fastenal Company
2001 Theurer Blvd
Winona, MN 55987
Information Telephone #: 507-454-5374

Emergency telephone number
EMERGENCY TELEPHONE Chemtrec 1-800-424-9300

2. HAZARDS IDENTIFICATION

Classification
Regulatory Status This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.122)
This chemical is not considered hazardous by the WHMIS 2015 Hazardous Products Regulation.

Not a dangerous substance or mixture according to the Globally Harmonized System (GHS)

Label elements

Emergency Overview

The product contains no substances which at their given concentration, are considered to be hazardous to health

Appearance Clear Blue Physical state Liquid Odor Glycol Ether-like odor

Hazards not otherwise classified (HNOC)
No information available
Other Information
• Causes mild skin irritation

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>PRODUCT COMPOSITION</th>
<th>CAS No.</th>
<th>%</th>
<th>TRADE SECRET</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol</td>
<td>111-76-2</td>
<td>1 - 5</td>
<td></td>
</tr>
</tbody>
</table>
The product contains no substances which at their given concentration, are considered to be hazardous to health.

### 4. FIRST AID MEASURES

#### First aid measures

**General advice**
No hazards which require special first aid measures.

**Eye contact**
IF IN EYES: Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.

**Skin contact**
IF ON SKIN: Wash with soap and water.

**Inhalation**
IF INHALED: Remove to fresh air.

**Ingestion**
IF SWALLOWED: Clean mouth with water and drink afterwards plenty of water.

#### Most important symptoms and effects, both acute and delayed

**Symptoms**
No information available.

**Indication of any immediate medical attention and special treatment needed**

**Note to physicians**
Treat symptomatically.

### 5. FIRE-FIGHTING MEASURES

#### Suitable extinguishing media
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Unsuitable extinguishing media**
Caution: Use of water spray when fighting fire may be inefficient.

#### Specific hazards arising from the chemical
No information available.

**Explosion data**
- Sensitivity to Mechanical Impact: None.
- Sensitivity to Static Discharge: None.

#### Protective equipment and precautions for firefighters
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

### 6. ACCIDENTAL RELEASE MEASURES

#### Personal precautions, protective equipment and emergency procedures

**Personal precautions**
Ensure adequate ventilation, especially in confined areas.

**Environmental precautions**
See Section 12 for additional ecological information.

**Methods and material for containment and cleaning up**

**Methods for containment**
Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up**
Pick up and transfer to properly labeled containers.

### 7. HANDLING AND STORAGE

**Precautions for safe handling**
Advice on safe handling
Avoid contact with eyes. Use only with adequate ventilation. Do not breathe mist or vapors.
Avoid prolonged contact. Keep out of reach of children.

Conditions for safe storage, including any incompatibilities
Storage Conditions
Keep containers tightly closed in a dry, cool and well-ventilated place.

Incompatible materials
None known based on information supplied.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

<table>
<thead>
<tr>
<th>PRODUCT COMPOSITION</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>NIOSH IDLH</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol</td>
<td>TWA: 20 ppm</td>
<td>S* (vacated)</td>
<td>700 ppm</td>
</tr>
<tr>
<td>111-76-2</td>
<td>TWA: 25 ppm</td>
<td>TWA: 120 mg/m³</td>
<td></td>
</tr>
<tr>
<td></td>
<td>TWA: 50 ppm</td>
<td>TWA: 240 mg/m³</td>
<td></td>
</tr>
</tbody>
</table>

Appropriate engineering controls

ENGINEERING CONTROLS
General mechanical and/or local exhaust as needed to meet exposure limits if mist in air.
Showers. Eyewash stations.

Individual protection measures, such as personal protective equipment

Eye/face protection
Safety glasses are recommended to minimize eye contact.

Skin and body protection
Chemical resistant gloves are recommended to minimize skin contact. Appropriate protective clothing as needed to prevent skin contact. It is the responsibility of the end user of this product to determine level of PPE required that is consistent with safe use of this product.

RESPIRATORY PROTECTION
None normally required. Use NIOSH approved acid respirator with dust/mist filter if spray mist in air exceeds exposure limits.

General Hygiene Considerations
Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Values</th>
<th>Remarks • Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Liquid</td>
<td></td>
</tr>
<tr>
<td>Appearance</td>
<td>Clear Blue</td>
<td></td>
</tr>
<tr>
<td>Color</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Odor</td>
<td>Glycol Ether-like odor,</td>
<td></td>
</tr>
<tr>
<td>Odor threshold</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>pH</td>
<td>7.0</td>
<td></td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Boiling point / boiling range</td>
<td>100 °C / 212 °F</td>
<td></td>
</tr>
<tr>
<td>Flash point</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>1.26</td>
<td>None to boiling.</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Flammability Limit in Air</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Upper flammability limit:</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Lower flammability limit:</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>15.7 mm Hg @ 22.2 °C</td>
<td></td>
</tr>
<tr>
<td>Vapor density</td>
<td>0.625</td>
<td></td>
</tr>
<tr>
<td>Specific gravity</td>
<td>0.99 - 1.00</td>
<td></td>
</tr>
<tr>
<td>Water solubility</td>
<td>No information available</td>
<td></td>
</tr>
</tbody>
</table>
Solubility in other solvents
Partition coefficient
Autoignition temperature
Decomposition temperature
Kinematic viscosity
Dynamic viscosity
Explosive properties
Oxidizing properties

Other Information
Softening point
VOC (EPA METH.24) (G/L):
Density
Bulk density

10. STABILITY AND REACTIVITY

REACTIVITY
No data available

Chemical stability
Stable under recommended storage conditions.

Possibility of Hazardous Reactions
None under normal processing.

CONDITIONS TO AVOID
Extremes of temperature and direct sunlight.

Incompatible materials
None known based on information supplied.

Hazardous Decomposition Products

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure
Product Information
No data available.

Inhalation
May cause irritation of respiratory tract.

Eye contact
May cause slight irritation.

Skin contact
Causes mild skin irritation.

Ingestion
Large amounts may cause irritation, nausea, diarrhea.

<table>
<thead>
<tr>
<th>PRODUCT COMPOSITION</th>
<th>Oral LD50</th>
<th>Dermal LD50</th>
<th>Inhalation LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol</td>
<td>470 mg/kg</td>
<td>220 mg/kg</td>
<td>450 ppm (4 h)</td>
</tr>
<tr>
<td>111-76-2</td>
<td>(Rat)</td>
<td>(Rabbit)</td>
<td></td>
</tr>
</tbody>
</table>

Information on toxicological effects

Symptoms
No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization
No information available.

Germ cell mutagenicity
No information available.
The table below indicates whether each agency has listed any ingredient as a carcinogen.

<table>
<thead>
<tr>
<th>PRODUCT COMPOSITION</th>
<th>ACGIH</th>
<th>IARC</th>
<th>NTP</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol 111-76-2</td>
<td>A3</td>
<td>Group 3</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Reproductive Toxicity
No information available.

STOT - single exposure
No information available.

STOT - repeated exposure
No information available.

Aspiration hazard
No information available.

Numerical measures of toxicity - Product Information

The following values are calculated based on chapter 3.1 of the GHS document.

- ATEmix (oral) 15667 mg/kg
- ATEmix (dermal) 36667 mg/kg
- ATEmix (inhalation-dust/mist) 50 mg/l

**12. ECOLOGICAL INFORMATION**

Ecotoxicity

0.116% of the mixture consists of components(s) of unknown hazards to the aquatic environment.

<table>
<thead>
<tr>
<th>PRODUCT COMPOSITION</th>
<th>Algae/aquatic plants</th>
<th>Fish</th>
<th>Crustacea</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol 111-76-2</td>
<td>-</td>
<td>2950: 96 h Lepomis macrochirus mg/L LC50 1490: 96 h Lepomis macrochirus mg/L LC50 static</td>
<td>1000: 48 h Daphnia magna mg/L EC50</td>
</tr>
</tbody>
</table>

Persistence and degradability
No information available.

Bioaccumulation

<table>
<thead>
<tr>
<th>PRODUCT COMPOSITION</th>
<th>Partition coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol 111-76-2</td>
<td>0.81</td>
</tr>
</tbody>
</table>

Other adverse effects
No information available.

**13. DISPOSAL CONSIDERATIONS**

Waste treatment methods

Disposal of wastes
Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging
Do not reuse container.

**14. TRANSPORT INFORMATION**

DEPT. OF TRANSPORTATION
Proper shipping name
Not Regulated by DOT

TDG
Not Regulated
15. REGULATORY INFORMATION

International Inventories

TSCA  Complies
DSL/NDSL  Complies
EINECS/ELINCS  Complies
ENCS  Complies
IECS  Complies
KECL  Complies
PICCS  Complies
AICS  Complies

Legend:
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

US Federal Regulations

SARA 313
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

PRODUCT COMPOSITION

<table>
<thead>
<tr>
<th>2-Butoxyethanol - 111-76-2</th>
<th>SARA 313 - Threshold Values %</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1.0</td>
</tr>
</tbody>
</table>

SARA 311/312 Hazard Categories

<table>
<thead>
<tr>
<th></th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACUTE HEALTH HAZARD</td>
<td></td>
</tr>
<tr>
<td>CHRONIC HEALTH HAZARD</td>
<td></td>
</tr>
<tr>
<td>FIRE HAZARD</td>
<td></td>
</tr>
<tr>
<td>Sudden release of pressure hazard</td>
<td>No</td>
</tr>
<tr>
<td>REACTIVE HAZARD</td>
<td></td>
</tr>
</tbody>
</table>

CWA (Clean Water Act)
This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA
This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

US State Regulations

California Proposition 65
This product does not contain any Proposition 65 chemicals

U.S. State Right-to-Know Regulations

<table>
<thead>
<tr>
<th>PRODUCT COMPOSITION</th>
<th>NJRTK:</th>
<th>MARTK:</th>
<th>PARTK:</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Butoxyethanol</td>
<td>Listed</td>
<td>Listed</td>
<td>Listed</td>
</tr>
<tr>
<td>111-76-2</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
16. OTHER INFORMATION

NFPA
Health hazards  1
Flammability  0
Instability  0
Physical and Chemical Properties -
HMIS
Health hazards  1
Flammability  0
Physical hazards  0
Personal protection  B

Prepared By  EH&S DEPARTMENT
Revision Date  11/14/2017
Revision Note
Disclaimer
The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the
date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage,
transportation, disposal and release and is not to be considered a warranty or quality specification. The information
relates only to the specific material designated and may not be valid for such material used in combination with any other
materials or in any process, unless specified in the text.

*** END OF SDS ***