

# MATERIAL SAFETY DATA SHEET

## 1. Product and Company Identification

**Product number** 050  
**Product name** **Glass Cleaner**  
**Effective date** 26-Feb-2011  
**Company information** Hillyard Floor Care  
800 E. 48th Street North  
Sioux Falls, SD 57104 United States  
**Company phone** General Assistance 630-543-7600  
**Emergency telephone US** 800-424-9300  
**Emergency telephone outside US** 703-527-3887  
**Version #** 24  
**Supersedes date** 26-Oct-2010

## 2. Hazards Identification

**Emergency overview** Aerosol. CONTENTS UNDER PRESSURE.  
Prolonged exposure may cause chronic effects. May be ignited by heat, sparks or flames.

**Potential health effects**

**Routes of exposure** Skin contact. Ingestion.

**Eyes** Health injuries are not known or expected under normal use.

**Skin** May be harmful if absorbed through skin. Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis.

**Inhalation** Intentional misuse by concentrating and inhaling the product can be harmful or fatal.

**Ingestion** Exposure by ingestion of an aerosol is unlikely. Components of the product may be absorbed into the body by ingestion.

**Target organs** 2-Butoxy ethanol may be absorbed through the skin in toxic amounts if contact is repeated and prolonged and may cause blood damage. These effects have not been observed in humans.

**Chronic effects** Unconsciousness. Cyanosis (blue tissue condition, nails, lips, and/or skin). May be harmful if absorbed through skin. Liver injury may occur. Kidney injury may occur. Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis.

**Signs and symptoms** Cyanosis (blue tissue condition, nails, lips, and/or skin). Liver enlargement. Jaundice. Defatting of the skin. Skin irritation.

## 3. Composition / Information on Ingredients

| Components   | CAS #    | Percent |
|--|----------|---------|
| Ethyl Alcohol  | 64-17-5  | 1 - 3   |
| 2-Butoxyethanol  | 111-76-2 | 1 - 3   |
| Propane  | 74-98-6  | 1 - 3   |
| n-Butane   | 106-97-8 | 1 - 3   |
| Non-hazardous and other components below reportable levels |          | > 90    |

## 4. First Aid Measures

### First aid procedures

**Eye contact** Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops or persists.

**Skin contact** Immediately take off all contaminated clothing. Wash off with warm water and soap. Get medical attention if irritation develops and persists.

**Inhalation**

If symptoms develop move victim to fresh air. Get medical attention if symptoms occur.

**Ingestion**

If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. If ingestion of a large amount does occur, call a poison control center immediately.

**Notes to physician**

In case of shortness of breath, give oxygen. Keep victim warm. Keep victim under observation.

## 5. Fire Fighting Measures

**Flammable properties**

Heat may cause the containers to explode. Vapor or gas may spread to distant ignition sources and flash back. Runoff to sewer may cause fire or explosion hazard.

**Extinguishing media**

**Suitable extinguishing media**

Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).

**Protection of firefighters**

**Protective equipment and precautions for firefighters**

In case of fire and/or explosion do not breathe fumes. Containers should be cooled with water to prevent vapor pressure build up. Move containers from fire area if you can do so without risk. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out.

## 6. Accidental Release Measures

**Methods for containment**

ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Stop the flow of material, if this is without risk. Prevent entry into waterways, sewer, basements or confined areas.

**Methods for cleaning up**

Should not be released into the environment.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

## 7. Handling and Storage

**Handling**

Pressurized container: Do not pierce or burn, even after use. DO NOT handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Do not smoke while using or until sprayed surface is thoroughly dry. Use only in area provided with appropriate exhaust ventilation. Do not use if spray button is missing or defective. Do not re-use empty containers. Avoid breathing dust/fume/gas/mist/vapors/spray. Avoid contact with skin. Avoid contact with eyes. Wear personal protective equipment. Avoid prolonged exposure.

**Storage**

Contents under pressure. Do not puncture, incinerate or crush. The pressure in sealed containers can increase under the influence of heat. Keep away from heat and flame. Do not expose to heat or store at temperatures above 120°F/49°C as can may burst. Avoid exposure to long periods of sunlight. Store in a well-ventilated place. Keep away from food, drink and animal feedingstuffs. Level 1 Aerosol (NFPA 30B)

## 8. Exposure Controls / Personal Protection

**Exposure limits**

**ACGIH**

**Components**

**CAS #**

**TWA**

**STEL**

**Ceiling**

Ethyl Alcohol

64-17-5

1000 ppm

1000 ppm

Not established

2-Butoxyethanol

111-76-2

20 ppm

Not established

Not established

Propane

74-98-6

1000 ppm

Not established

Not established

n-Butane

106-97-8

1000 ppm

Not established

Not established

**OSHA**

**Components**

**CAS #**

**TWA**

**STEL**

**Ceiling**

Ethyl Alcohol

64-17-5

1000 ppm

Not established

Not established

2-Butoxyethanol

111-76-2

50 ppm

Not established

Not established

Propane

74-98-6

1000 ppm

Not established

Not established

**Personal protective equipment**

**Eye / face protection**

Chemical goggles are recommended.

**Skin protection**

Wear appropriate chemical resistant clothing. Chemical resistant gloves.

**Respiratory protection**

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. If permissible levels are exceeded use NIOSH mechanical filter / organic vapor cartridge or an air-supplied respirator.

**9. Physical & Chemical Properties**

|                           |                                |
|---------------------------|--------------------------------|
| <b>Appearance</b>         | Compressed liquefied gas.      |
| <b>Boiling point</b>      | 204.8 °F (96.1 °C) estimated   |
| <b>Color</b>              | Colorless.                     |
| <b>Density</b>            | 0.9604 g/cm3 estimated         |
| <b>Flammability (HOC)</b> | 3.2733 kJ/g estimated          |
| <b>Flash back</b>         | No                             |
| <b>Flash point</b>        | -156 °F (-104.4 °C) Propellant |
| <b>Form</b>               | Aerosol.                       |
| <b>Freezing point</b>     | Not available                  |
| <b>Odor</b>               | Butyl                          |
| <b>pH</b>                 | 9.5 - 10.5                     |
| <b>Physical state</b>     | Liquid.                        |
| <b>Pressure</b>           | 70 - 90 psig @ 70F             |
| <b>Solubility</b>         | Completely                     |
| <b>Specific gravity</b>   | 0.9605 estimated               |

**10. Chemical Stability & Reactivity Information**

|   |                          |
|---|--------------------------|
| <b>Conditions to avoid</b>              | Heat, flames and sparks. |
| <b>Incompatible materials</b>           | None known.              |
| <b>Hazardous decomposition products</b> | Irritants. Toxic gas.    |

**11. Toxicological Information**

**Acute effects** Acute LD50: 7571 mg/kg estimated, Rat, Dermal

**Component analysis - LD50****Toxicology Data - Selected LD50s and LC50s**

|                 |          |   |
|-----------------|----------|---|
| 2-Butoxyethanol | 111-76-2 | Inhalation LC50 Rat 2.21 mg/L 4 h; Inhalation LC50 Rat 450 ppm 4 h; Oral LD50 Rat 470 mg/kg; Dermal LD50 Rat 2270 mg/kg; Dermal LD50 Rabbit 220 mg/kg |
| Ethyl Alcohol   | 64-17-5  | Oral LD50 Rat 7060 mg/kg; Inhalation LC50 Rat 124.7 mg/L 4 h  |
| n-Butane        | 106-97-8 | Inhalation LC50 Rat 658 mg/L 4 h  |
| Propane         | 74-98-6  | Inhalation LC50 Rat 658 mg/L 4 h  |

**Sensitization** Not expected to be hazardous by OSHA criteria.

**Carcinogenicity** Hazardous by OSHA criteria.

**IARC - Group 1 (Carcinogenic to Humans)**

|               |         |  |
|---------------|---------|--|
| Ethyl Alcohol | 64-17-5 | Monograph 100E [in preparation] (in alcoholic beverages); Monograph 96 [in preparation] (in alcoholic beverages) |
|---------------|---------|--|

**Reproductive effects** Hazardous by OSHA criteria. Possible reproductive hazard.

**Teratogenicity** Not expected to be hazardous by OSHA criteria.

**12. Ecological Information**

**Ecotoxicity** Components of this product have been identified as having potential environmental concerns.

LC50 36327 mg/L, Fish, 96.00 Hours,  
EC50 26428 mg/L, Daphnia, 48.00 Hours,  
IC50 11902 mg/L, Algae, 72.00 Hours,

**13. Disposal Considerations**

**Disposal instructions** Contents under pressure. Do not puncture, incinerate or crush. Do not allow this material to drain into sewers/water supplies. This product, in its present state, when discarded or disposed of, is not a hazardous waste according to Federal regulations (40 CFR 261.4 (b)(4)). Under RCRA, it is the responsibility of the user of the product to determine, at the time of disposal, whether the product meets RCRA criteria for hazardous waste.

## 14. Transport Information

### Department of Transportation (DOT) Requirements

#### Basic shipping requirements:

|                         |                    |
|-------------------------|--------------------|
| Proper shipping name    | Consumer commodity |
| Hazard class            | ORM-D              |
| Subsidiary hazard class | None               |
| Additional information: |                    |
| Packaging exceptions    | 156, 306           |
| Packaging non bulk      | 156, 306           |
| Packaging bulk          | None               |

### IMDG

#### Basic shipping requirements:

|                         |          |
|-------------------------|----------|
| Proper shipping name    | AEROSOLS |
| Hazard class            | 2.1      |
| UN number               | 1950     |
| Additional information: |          |
| Packaging exceptions    | LTD QTY  |
| Item                    | 5F       |
| Labels required         | None     |
| Transport Category      | 2        |



### IATA

#### Basic shipping requirements:

|                         |                     |
|-------------------------|---------------------|
| Proper shipping name    | Aerosols, flammable |
| Hazard class            | 2.1                 |
| UN number               | 1950                |
| Additional information: |                     |
| Packaging exceptions    | LTD QTY             |
| Labels required         | 2.1                 |



## 15. Regulatory Information

### US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

#### U.S. - CERCLA/SARA - Section 313 - Emission Reporting

|                 |          |  |
|-----------------|----------|--|
| 2-Butoxyethanol | 111-76-2 | 1.0 % de minimis concentration (applies to R-(OCH <sub>2</sub> CH <sub>2</sub> ) <sub>n</sub> -OR', where n = 1,2, or 3, R=alkyl C7 or less, or R = phenyl or alkyl substituted phenyl, R' = H or alkyl C7 or less, or OR' consisting of carboxylic acid ester, sulfate, phosphate, nitrate, or sulfonate, Chemical Category N230) |
|-----------------|----------|--|

### Occupational Safety and Health Administration (OSHA)

|                                     |     |
|-------------------------------------|-----|
| 29 CFR 1910.1200 hazardous chemical | Yes |
|-------------------------------------|-----|

### CERCLA (Superfund) reportable quantity

None

### Superfund Amendments and Reauthorization Act of 1986 (SARA)

|   |                        |
|---|------------------------|
| Section 302 extremely hazardous substance | No                     |
| Section 311 hazardous chemical            | Yes                    |
| Hazard categories (311/312)               | Immediate Hazard - Yes |
|   | Delayed Hazard - No    |
|   | Fire Hazard - Yes      |
|   | Pressure Hazard - Yes  |
|   | Reactivity Hazard - No |

**Inventory status**

| Country(s) or region        | Inventory name   | On inventory (yes/no)* |
|-----------------------------|--|------------------------|
| China                       | Inventory of Existing Chemical Substances in China (IECSC) | No                     |
| Europe                      | European Inventory of New and Existing Chemicals (EINECS)  | No                     |
| Europe                      | European List of Notified Chemical Substances (ELINCS)     | No                     |
| Japan                       | Inventory of Existing and New Chemical Substances (ENCS)   | No                     |
| Korea                       | Existing Chemicals List (ECL)                              | No                     |
| United States & Puerto Rico | Toxic Substances Control Act (TSCA) Inventory              | Yes                    |

A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

**State regulations****U.S. - Pennsylvania - RTK (Right to Know) List**

|                 |          |         |
|-----------------|----------|---------|
| 2-Butoxyethanol | 111-76-2 | Present |
| Ethyl Alcohol   | 64-17-5  | Present |
| n-Butane        | 106-97-8 | Present |
| Propane         | 74-98-6  | Present |

**16. Other Information****Further information**

HMIS® is a registered trade and service mark of the NPCA.

**HMIS® ratings**

Health: 1  
Flammability: 2  
Physical hazard: 0

**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. The information in the sheet was written based on the best knowledge and experience currently available.

**MSDS sections updated**

Product and Company Identification: Alternate Trade Names  
Toxicological Information: Carcinogenicity  
Regulatory Information: Safety Phrases

**Prepared by**

Regulatory Compliance