



MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Product number 100000059
Material name 19 OZ CANADIAN SW GLASS CLEANER LT 12PK
Company information Sprayway, Inc.
1005 S. Westgate Drive
Addison, IL 60101 United States
Company phone General Assistance 1-630-628-3000
Emergency telephone US 1-866-836-8855
Emergency telephone outside US 1-952-852-4646
Version # 01
Expiry Date 16-Jun-2017
Product use Glass Cleaner

2. Hazards Identification

Emergency overview CONTENTS UNDER PRESSURE.
Aerosol. Pressurized container may explode when exposed to heat or flame. Harmful if inhaled.

Potential health effects

Routes of exposure Inhalation. Ingestion. Skin contact. Eye contact.
Eyes Contact with eyes may cause irritation. Health injuries are not known or expected under normal use.
Skin May be harmful if absorbed through skin.
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.

Chronic effects May be harmful if absorbed through skin.

Potential environmental effects May cause long-term adverse effects in the environment.

3. Composition / Information on Ingredients

| Components | CAS # | Percent |
|--|----------|----------|
| Butane | 106-97-8 | 1 - 5 |
| Ethanol | 64-17-5 | 1 - 5 |
| Ethylene Glycol Monobutyl Ether | 111-76-2 | 1 - 5 |
| Propane | 74-98-6 | 1 - 5 |
| Other components below reportable levels | | 60 - 100 |

4. First Aid Measures

First aid procedures

Eye contact Immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention immediately.
Skin contact Remove and isolate contaminated clothing and shoes. Immediately flush skin with plenty of water. Get medical attention immediately. For minor skin contact, avoid spreading material on unaffected skin. Wash clothing separately before reuse.
Inhalation Move to fresh air. Oxygen or artificial respiration if needed. Do not use mouth-to-mouth method if victim inhaled the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Call a physician or poison control center immediately.

| | |
|---------------------------|--|
| Ingestion | IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Rinse mouth thoroughly. Do not induce vomiting without advice from poison control center. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Do not use mouth-to-mouth method if victim ingested the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. |
| Notes to physician | Treat symptomatically. Symptoms may be delayed. |
| General advice | Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. |

5. Fire Fighting Measures

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| Flammable properties | Heat may cause the containers to explode. Ruptured cylinders may rocket. |
| Extinguishing media | |
| Suitable extinguishing media | Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2). |
| Unsuitable extinguishing media | Do not use water jet as an extinguisher, as this will spread the fire. |
| Protection of firefighters | |
| Specific hazards arising from the chemical | Contents under pressure. Pressurized container may explode when exposed to heat or flame. During fire, gases hazardous to health may be formed. |
| Protective equipment for firefighters | Firefighters should wear full protective clothing including self contained breathing apparatus. Structural firefighters protective clothing will only provide limited protection. Self-contained breathing apparatus and full protective clothing must be worn in case of fire. |
| Fire fighting equipment/instructions | Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. Cool containers exposed to heat with water spray and remove container, if no risk is involved. Do not direct water at source of leak or safety devices as icing may occur. Containers should be cooled with water to prevent vapor pressure build up. Some of these materials, if spilled, may evaporate leaving a flammable residue. |
| Explosion data | |
| Sensitivity to static discharge | Not available. |
| Sensitivity to mechanical impact | Not available. |

6. Accidental Release Measures

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| Personal precautions | Consider initial downwind evacuation for at least 500 meters (1/3 mile). Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Many gases are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks). Fully encapsulating, vapor protective clothing should be worn for spills and leaks with no fire. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. See Section 8 of the MSDS for Personal Protective Equipment. For personal protection, see section 8 of the MSDS. |
| Environmental precautions | Prevent further leakage or spillage if safe to do so. Do not contaminate water. Avoid discharge into drains, water courses or onto the ground. |
| Methods for containment | Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Stop leak if you can do so without risk. If possible, turn leaking containers so that gas escapes rather than liquid. Move the cylinder to a safe and open area if the leak is irreparable. Prevent entry into waterways, sewer, basements or confined areas. |
| Methods for cleaning up | Ventilate the area. Should not be released into the environment. Stop the flow of material, if this is without risk. Isolate area until gas has dispersed. Following product recovery, flush area with water. Clean up in accordance with all applicable regulations. For waste disposal, see section 13 of the MSDS. |
| Other information | Clean up in accordance with all applicable regulations. |

7. Handling and Storage

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| Handling | Pressurized container: Do not pierce or burn, even after use. Do not use if spray button is missing or defective. Do not spray on a naked flame or any other incandescent material. Do not smoke while using or until sprayed surface is thoroughly dry. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. All equipment used when handling the product must be grounded. Do not re-use empty containers. Do not breathe dust/fume/gas/mist/vapors/spray. Do not get this material in contact with eyes. Do not get this material in contact with skin. Do not get this material on clothing. Do not use in areas without adequate ventilation. Observe good industrial hygiene practices. Wash thoroughly after handling. |
|-----------------|---|

Storage

Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50°C/122 °F. Do not puncture, incinerate or crush. Do not handle or store near an open flame, heat or other sources of ignition. This material can accumulate static charge which may cause spark and become an ignition source. Store in a well-ventilated place. Keep container dry. Keep in an area equipped with sprinklers. Store away from incompatible materials (see Section 10 of the MSDS). Level 1 Aerosol (NFPA 30B)

8. Exposure Controls / Personal Protection**Occupational exposure limits****ACGIH Biological Exposure Indices**

| Components | Type | Value |
|--------------------------------|------|----------|
| 2-Butoxyethanol (CAS 111-76-2) | BEI | 200 mg/g |

US. ACGIH Threshold Limit Values

| Components | Type | Value |
|--------------------------------|------|----------|
| Ethyl Alcohol (CAS 64-17-5) | STEL | 1000 ppm |
| 2-Butoxyethanol (CAS 111-76-2) | TWA | 20 ppm |

Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2)

| Components | Type | Value |
|--------------------------------|------|------------|
| Butane (CAS 106-97-8) | TWA | 1000 ppm |
| Ethyl Alcohol (CAS 64-17-5) | TWA | 1880 mg/m3 |
| | | 1000 ppm |
| 2-Butoxyethanol (CAS 111-76-2) | TWA | 97 mg/m3 |
| | | 20 ppm |
| Propane (CAS 74-98-6) | TWA | 1000 ppm |

Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)

| Components | Type | Value |
|--------------------------------|------|----------|
| Butane (CAS 106-97-8) | STEL | 750 ppm |
| | TWA | 600 ppm |
| Ethyl Alcohol (CAS 64-17-5) | STEL | 1000 ppm |
| 2-Butoxyethanol (CAS 111-76-2) | TWA | 20 ppm |

Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)

| Components | Type | Value |
|--------------------------------|------|----------|
| Butane (CAS 106-97-8) | TWA | 800 ppm |
| Ethyl Alcohol (CAS 64-17-5) | STEL | 1000 ppm |
| 2-Butoxyethanol (CAS 111-76-2) | TWA | 20 ppm |

Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment)

| Components | Type | Value |
|--------------------------------|------|------------|
| Butane (CAS 106-97-8) | TWA | 1900 mg/m3 |
| | | 800 ppm |
| Ethyl Alcohol (CAS 64-17-5) | TWA | 1880 mg/m3 |
| | | 1000 ppm |
| 2-Butoxyethanol (CAS 111-76-2) | TWA | 97 mg/m3 |
| | | 20 ppm |
| Propane (CAS 74-98-6) | TWA | 1800 mg/m3 |
| | | 1000 ppm |

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

| Components | Type | Value |
|--------------------------------|------|------------|
| Ethyl Alcohol (CAS 64-17-5) | PEL | 1900 mg/m3 |
| | | 1000 ppm |
| 2-Butoxyethanol (CAS 111-76-2) | PEL | 240 mg/m3 |

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

| Components | Type | Value |
|--------------------------------------|---|--|
| Propane (CAS 74-98-6) | PEL | 50 ppm 1800 mg/m ³ 1000 ppm |
| Engineering controls | Ensure adequate ventilation, especially in confined areas. | |
| Personal protective equipment | | |
| Eye / face protection | Face-shield. | |
| Skin protection | Wear chemical protective equipment that is specifically recommended by the manufacturer. | |
| Respiratory protection | If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. If permissible levels are exceeded use NIOSH mechanical filter / organic vapor cartridge or an air-supplied respirator. | |

9. Physical & Chemical Properties

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|---|--|
| Appearance | Clear. |
| Boiling point | 212 °F (100 °C) estimated |
| Color | Colorless. Pale yellow |
| Flash point | -156.00 °F (-104.44 °C) Propellant estimated |
| Form | Aerosol. |
| Melting point/Freezing point | Not available. |
| Odor | Butyl |
| Odor threshold | Not available. |
| pH | 9.5 - 10.5 estimated |
| Physical state | Gas. |
| Vapor pressure | 80 - 100 psig @70F estimated |
| Solubility (water) | Not available. |
| Specific gravity | 0.97 estimated |
| Flammability limits in air, upper, % by volume | Not available. |
| Flammability limits in air, lower, % by volume | Not available. |
| Other data | |
| Aerosol spray enclosed space | |
| Deflagration density | > 2.52 g/cm ³ Tested |
| Aerosol spray ignition distance | < 15 cm Tested estimated |
| Heat of combustion | 3.34 kJ/g estimated |

10. Chemical Stability & Reactivity Information

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| Chemical stability | Risk of ignition. |
| Conditions to avoid | Aerosol containers are unstable at temperatures above 49°C. Avoid temperatures exceeding the flash point. Contact with incompatible materials. Fire or intense heat may cause violent rupture of packages. |
| Hazardous decomposition products | No hazardous decomposition products are known. |
| Possibility of hazardous reactions | No dangerous reaction known under conditions of normal use. Hazardous polymerization does not occur. |

11. Toxicological Information

Toxicological data

| Product | Species | Test Results |
|---|------------|--|
| 19 OZ CANADIAN SW GLASS CLEANER LT 12PK (CAS Mixture) | | |
| Acute | | |
| <i>Dermal</i> | | |
| LD50 | Rabbit | 7674.2803 mg/kg, estimated |
| <i>Inhalation</i> | | |
| LC50 | Mouse | 41337.3867 mg/l, 2 Hours, estimated 24423.8574 mg/l, 7 Hours, estimated 1166.5366 mg/l, 4 Hours, estimated |
| | Rat | 77781.5078 mg/l, 15 Minutes, estimated 15701.0518 mg/l, 4 Hours, estimated 75.2338 mg/l/4h, estimated |
| <i>Oral</i> | | |
| LD50 | Dog | 164.5116 g/kg, estimated |
| | Guinea pig | 33.457 g/kg, estimated |
| | Mouse | 41.8347 g/kg, estimated |
| | Rabbit | 11.1535 g/kg, estimated |
| | Rat | 16398.877 mg/kg, estimated |
| <i>Other</i> | | |
| LD50 | Mouse | 16262.7314 mg/kg, estimated |
| | Rabbit | 9769.543 mg/kg, estimated |
| | Rat | 9292.3105 mg/kg, estimated |
| Components | Species | Test Results |
| Butane (CAS 106-97-8) | | |
| Acute | | |
| <i>Inhalation</i> | | |
| LC50 | Mouse | 680 mg/l, 2 Hours |
| | Rat | 658 mg/l, 4 Hours |
| Ethanol (CAS 64-17-5) | | |
| Acute | | |
| <i>Inhalation</i> | | |
| LC50 | Mouse | 39 mg/l, 4 Hours |
| | Rat | 20000 mg/l, 10 Hours |
| <i>Oral</i> | | |
| LD50 | Dog | 5.5 g/kg |
| | Guinea pig | 5.6 g/kg |
| | Mouse | 3450 mg/kg |
| | Rat | 6.2 g/kg |
| <i>Other</i> | | |
| LD50 | Mouse | 933 mg/kg |
| | Rat | 1440 mg/kg |
| Ethylene Glycol Monobutyl Ether (CAS 111-76-2) | | |
| Acute | | |
| <i>Dermal</i> | | |
| LD50 | Rabbit | 220 mg/kg |
| <i>Inhalation</i> | | |
| LC50 | Mouse | 700 mg/l, 7 Hours |

| Components | Species | Test Results |
|-----------------------|------------|--|
| | Rat | 450 mg/l, 4 Hours 2.21 mg/l/4h |
| <i>Oral</i> | | |
| LD50 | Guinea pig | 1.2 g/kg |
| | Mouse | 1.2 g/kg |
| | Rabbit | 0.32 g/kg |
| | Rat | 470 mg/kg |
| <i>Other</i> | | |
| LD50 | Mouse | 1130 mg/kg |
| | Rabbit | 280 mg/kg |
| | Rat | 340 mg/kg |
| Propane (CAS 74-98-6) | | |
| Acute | | |
| <i>Inhalation</i> | | |
| LC50 | Rat | > 1442.847 mg/l, 15 Minutes 658 mg/l/4h |

* Estimates for product may be based on additional component data not shown.

Acute effects Expected to be a low hazard for usual industrial or commercial handling by trained personnel.

Local effects Harmful by inhalation.

Chronic effects May be harmful if absorbed through skin.

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

Carcinogenicity

ACGIH Carcinogens

Ethanol (CAS 64-17-5) A3 Confirmed animal carcinogen with unknown relevance to humans.

Ethylene Glycol Monobutyl Ether (CAS 111-76-2) A3 Confirmed animal carcinogen with unknown relevance to humans.

IARC Monographs. Overall Evaluation of Carcinogenicity

Ethylene Glycol Monobutyl Ether (CAS 111-76-2) 3 Not classifiable as to carcinogenicity to humans.

Mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Reproductive effects This product is not expected to cause reproductive or developmental effects.

Symptoms and target organs Direct contact with eyes may cause temporary irritation.

12. Ecological Information

Ecotoxicological data

| Product | Species | Test Results |
|---|---|--------------------------------------|
| 19 OZ CANADIAN SW GLASS CLEANER LT 12PK (CAS Mixture) | | |
| Crustacea | EC50 Daphnia | 53501.5 mg/L, 48 Hours, estimated |
| Fish | LC50 Fish | 42462.0469 mg/l, 96 hours, estimated |
| Components | Species | Test Results |
| Ethanol (CAS 64-17-5) | | |
| Aquatic | | |
| Crustacea | EC50 Water flea (Daphnia magna) | 7700 - 11200 mg/l, 48 hours |
| Fish | LC50 Fathead minnow (Pimephales promelas) | > 100.1 mg/l, 96 hours |

| Components | Species | Test Results |
|--|---------|---------------------------------------|
| Ethylene Glycol Monobutyl Ether (CAS 111-76-2) | | |
| Crustacea | EC50 | Daphnia |
| Aquatic | | |
| Fish | LC50 | Inland silverside (Menidia beryllina) |

* Estimates for product may be based on additional component data not shown.

| | |
|---------------------------------------|---|
| Ecotoxicity | Harmful to aquatic life with long lasting effects. |
| Environmental effects | An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Harmful to aquatic life with long lasting effects. |
| Persistence and degradability | No data is available on the degradability of this product. |
| Bioaccumulation / Accumulation | No data available. |
| Partition coefficient | |
| Butane | 2.89 |
| Ethanol | -0.31 |
| Ethylene Glycol Monobutyl Ether | 0.83 |
| Propane | 2.36 |

13. Disposal Considerations

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| Disposal instructions | Contents under pressure. Do not puncture, incinerate or crush. Do not allow this material to drain into sewers/water supplies. Dispose in accordance with all applicable regulations. |
| Waste from residues / unused products | Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions). |
| Contaminated packaging | Since emptied containers may retain product residue, follow label warnings even after container is emptied. |

14. Transport Information

TDG

| | |
|--------------------------------|--------------------------|
| UN number | UN1950 |
| UN proper shipping name | AEROSOLS, non-flammable |
| Hazard class | 2.2 |
| Packing group | If <1L: Limited Quantity |
| Marine pollutant | D |
| Special provisions | 80 |

IATA

| | |
|-------------------------------------|--|
| UN number | UN1950 |
| UN proper shipping name | Aerosols, non-flammable |
| Transport hazard class(es) | 2.2 |
| Labels required | 2.2 |
| ERG code | 2L |
| Special precautions for user | Read safety instructions, MSDS and emergency procedures before handling. |
| Packaging Exceptions | LTD QTY |

IMDG

| | |
|---|--|
| UN number | UN1950 |
| UN proper shipping name | AEROSOLS |
| Transport hazard class(es) | 2.2 |
| Labels required | None |
| Special precautions for user | Read safety instructions, MSDS and emergency procedures before handling. |
| Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code | Not applicable. |
| Packaging Exceptions | LTD QTY |



15. Regulatory Information

Canadian regulations

This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.

WHMIS status

Controlled

WHMIS classification

A - Compressed Gas
D2B - Other Toxic Effects-TOXIC

WHMIS labeling



Inventory status

| Country(s) or region | Inventory name | On inventory (yes/no)* |
|-----------------------------|--|------------------------|
| Australia | Australian Inventory of Chemical Substances (AICS) | Yes |
| Canada | Domestic Substances List (DSL) | Yes |
| Canada | Non-Domestic Substances List (NDSL) | No |
| China | Inventory of Existing Chemical Substances in China (IECSC) | Yes |
| Europe | European Inventory of Existing Commercial Chemical Substances (EINECS) | Yes |
| 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 |
| New Zealand | New Zealand Inventory | No |
| Philippines | Philippine Inventory of Chemicals and Chemical Substances (PICCS) | No |
| United States & Puerto Rico | Toxic Substances Control Act (TSCA) Inventory | Yes |

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other Information

Disclaimer

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

This data sheet contains changes from the previous version in section(s):

Product and Company Identification: Product Review
Composition / Information on Ingredients: Ingredients
Physical & Chemical Properties: Multiple Properties
Ecological Information: Environmental effects
Transport Information: Product Shipping Name/Packing Group
Regulatory Information: Canada
GHS: Classification