

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision date: 05/28/2015

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Mixture

Product name : 761, DURAGLOSS GLASS CLEANER

Product code : Part 761 22oz, 762 Gal

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.3. Details of the supplier of the safety data sheet

Brothers Research Corporation 2245 Airpark Drive Burlington, NC 27216 T 336-229-6480

1.4. Emergency telephone number

Emergency number : 800-424-9300

Chemtrec

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (GHS-US)

Eye Irrit. 2A H319

Full text of H-phrases: see section 16

2.2. Label elements

GHS-US labeling

Hazard pictograms (GHS-US)



GHS07

Signal word (GHS-US) : Warning

Hazard statements (GHS-US) : H319 - Causes serious eye irritation

Precautionary statements (GHS-US) : P264 - Wash ... thoroughly after handling

P280 - Wear protective clothing

P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact

lenses, if present and easy to do. Continue rinsing

P337+P313 - If eye irritation persists: Get medical advice/attention

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS-US)

Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

05/10/2016 EN (English US) Page 1

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

| Name | Product identifier | % | Classification (GHS-US) |
|-------------------|--------------------|---------|--|
| 1-propanol | (CAS No) 71-23-8 | 1 - 2 | Flam. Liq. 2, H225 Eye Dam. 1, H318 STOT SE 3, H336 |
| butyl glycolether | (CAS No) 111-76-2 | 0.5 - 1 | Flam. Liq. 4, H227 Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation:dust,mist), H332 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 |

Full text of H-phrases: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general

: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

First-aid measures after inhalation

: Remove person to fresh air and keep comfortable for breathing. Remove the victim into fresh air. If not breathing give artificial respiration. Get immediate medical advice/attention. Allow victim to breathe fresh air. Allow the victim to rest.

First-aid measures after skin contact

: If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse. Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Wash skin with plenty of water.

First-aid measures after eye contact

Move victim away from exposure and into fresh air. Rinse immediately with plenty of water for 15 minutes. If eye irritation persists: Get medical advice/attention. Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Immediately call a poison center or doctor/physician.

First-aid measures after ingestion

Do not induce vomiting. Immediately call a poison center or doctor/physician. Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention. Call a poison

center/doctor/physician if you feel unwell.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries after eye contact

: Causes serious eye damage.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

: Carbon dioxide. Dry chemical powder. Foam. Dry powder. Carbon dioxide. Water spray. Sand.

Unsuitable extinguishing media

: Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

No additional information available

5.3. Advice for firefighters

Firefighting instructions

: Wear normal protective equipment (full bunker gear) and possitive-pressure self contained breathing appartus. Water can be used to keep exposed containers cool, to protect;. Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.

Protection during firefighting

: Do not enter fire area without proper protective equipment, including respiratory protection. Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures

: Absorb spill on vermiculite floor absorbent or other absorbent material.

6.1.1. For non-emergency personnel

Protective equipment

: Protective clothing. Protective goggles.

Emergency procedures

: If runoff ocurrs, notify authorities as required. Pump or vacuum transfer spilled product to clean containers for recovery. Absorb unrecoverable product. Transfer contaminated absorbent, material to containers for disposal. Close container tightly and dispose of properly. Evacuate unnecessary personnel.

05/10/2016 EN (English US) 2/8

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. Use personal protective

equipment as required. Self-contained breathing apparatus. Equip cleanup crew with proper protection. For further information refer to section 8: "Exposure controls/personal protection".

Emergency procedures : Stop leak if safe to do so. Ventilate area.

Environmental precautions

Avoid release to the environment. Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

For containment : Transfer contaminated absorbent, soil and othe material to containers for disposal. Close

container tightly and dispose of properly.

Take up liquid spill into absorbent material. Soak up spills with inert solids, such as clay or Methods for cleaning up

diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

: Dispose of materials or solid residues at an authorized site. Other information

Reference to other sections

See Heading 8. Exposure controls and personal protection. For further information refer to section 13.

SECTION 7: Handling and storage

Precautions for safe handling

Additional hazards when processed : Containers of this material may be hazardous when empited. All hazard precautions give

Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment. Containers

may be hazardous when emptied. Since emptied containers retain product residues, all hazard precautions given in the data sheet should be observed. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide

good ventilation in process area to prevent formation of vapor.

Wash ... thoroughly after handling. Do not eat, drink or smoke when using this product. Always Hygiene measures

wash hands after handling the product.

Conditions for safe storage, including any incompatibilities

: Keep away from heat, sparks, and flames. Keep only in the original container in a cool, well Storage conditions ventilated place away from : Keep container closed when not in use. Store in a well-ventilated

place. Keep cool.

Incompatible products : Strong bases. Strong acids.

Incompatible materials Sources of ignition. Direct sunlight.

Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

Control parameters

| 761, DURAGLOSS GLASS CLEANER | | |
|------------------------------|----------------|----|
| ACGIH | Not applicable | |
| OSHA | Not applicable | |
| DNEL | DNEL | >= |

| 1-propanol (71-23-8) | | |
|----------------------|------------------------|---------------|
| ACGIH | ACGIH TWA (ppm) | 100 ppm |
| ACGIH | ACGIH STEL (ppm) | 100 ppm |
| ACGIH | Remark (ACGIH) | Eye & URT irr |
| OSHA | OSHA PEL (TWA) (mg/m³) | 500 mg/m³ |
| OSHA | OSHA PEL (TWA) (ppm) | 200 ppm |

| butyl glycolether (111-76-2) | | |
|------------------------------|------------------|--------|
| ACGIH | ACGIH TWA (ppm) | 20 ppm |
| ACGIH | ACGIH STEL (ppm) | 20 ppm |
| OSHA | Not applicable | |

05/10/2016 EN (English US) 3/8

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

8.2. Exposure controls

Appropriate engineering controls : Ensure good ventilation of the work station.

Personal protective equipment : Avoid all unnecessary exposure.

Hand protection : Gloves. Wear protective gloves.

Eye protection : Chemical goggles or safety glasses. Safety glasses.

Skin and body protection : Protective clothing.

Respiratory protection : Respiratory protection not required in normal conditions. Wear appropriate mask.

Environmental exposure controls : Avoid release to the environment.

Other information : Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid
Appearance : Clear Liquid.
Color : Clear Liquid
Odor : Solvent

Odor threshold : No data available

pH : 3-4

Relative evaporation rate (butyl acetate=1) : No data available Melting point : < 196.6 °F Freezing point : No data available

Boiling point : $206 \,^{\circ}\text{F}$ Flash point : $> 160 \,^{\circ}\text{F}$

Auto-ignition temperature : No data available

Decomposition temperature : No data available

Flammability (solid, gas) : No data available

Vapor pressure : 68 .0 F @19.29 MBAR (14.5 mmHg)

Relative vapor density at 20 °C : No data available Relative density : 0.99 @ 68.0 F Solubility : Soluble in water.

Water: Solubility in water of component(s) of the mixture :

•: •:

Log Pow : No data available
Log Kow : No data available
Viscosity, kinematic : No data available
Viscosity, dynamic : No data available
Explosive properties : No data available
Oxidizing properties : No data available
Explosive limits : No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Stable under normal conditions. Not established.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

05/10/2016 EN (English US) 4/8

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

10.5. Incompatible materials

Strong acids. Strong bases.

10.6. Hazardous decomposition products

fume. Carbon monoxide. Carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

| 1-propanol (71-23-8) | |
|----------------------------|----------------------------|
| LD50 oral rat | > 2000 mg/kg (Rat) |
| LD50 dermal rabbit | 4049 mg/kg (Rabbit) |
| LC50 inhalation rat (mg/l) | 9.8 mg/l/4h (Rat) |
| ATE US (dermal) | 4049.000 mg/kg body weight |
| ATE US (vapors) | 9.800 mg/l/4h |
| ATE US (dust, mist) | 9.800 mg/l/4h |

| butyl glycolether (111-76-2) | |
|------------------------------|---|
| LD50 oral rat | 1746 mg/kg body weight (Rat; Equivalent or similar to OECD 401; Experimental value) |
| LD50 dermal rat | > 2000 mg/kg body weight (Rat; Experimental value; OECD 402: Acute Dermal Toxicity) |
| LC50 inhalation rat (mg/l) | 2.2 mg/l/4h (Rat; Experimental value) |
| LC50 inhalation rat (ppm) | 450 ppm/4h (Rat; Experimental value) |
| ATE US (oral) | 1746.000 mg/kg body weight |
| ATE US (dermal) | 1100.000 mg/kg body weight |
| ATE US (gases) | 450.000 ppmV/4h |
| ATE US (vapors) | 2.200 mg/l/4h |
| ATE US (dust, mist) | 2.200 mg/l/4h |

Skin corrosion/irritation : Not classified

pH: 3 - 4

Serious eye damage/irritation : Causes serious eye irritation.

pH: 3 - 4

Respiratory or skin sensitization : Not classified Germ cell mutagenicity : Not classified Carcinogenicity : Not classified

| butyl glycolether (111-76-2) |
|------------------------------|
|------------------------------|

 IARC group
 3 - Not classifiable

 Reproductive toxicity
 : Not classified

 Specific target organ toxicity (single exposure)
 : Not classified

Specific target organ toxicity (repeated

exposure)

: Not classified

Aspiration hazard : Not classified

Potential Adverse human health effects and : B

symptoms

: Based on available data, the classification criteria are not met.

Symptoms/injuries after eye contact : Causes serious eye damage.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms or to cause long-term adverse

effects in the environment.

| 1-propanol (71-23-8) | |
|----------------------|---|
| LC50 fish 1 | 3200 mg/l 48 h; Salmo gairdneri (Oncorhynchus mykiss) |
| EC50 Daphnia 1 | 4415 mg/l (24 h; Daphnia magna) |

05/10/2016 EN (English US) 5/8

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

| 1-propanol (71-23-8) | | |
|--------------------------------|--|--|
| EC50 other aquatic organisms 1 | 4168 mg/l (48 h; Protozoa) | |
| LC50 fish 2 | 4480 mg/l (96 h; Pimephales promelas) | |
| EC50 Daphnia 2 | 3644 mg/l (48 h; Daphnia magna) | |
| TLM fish 1 | 200 - 500,Gobio gobio | |
| TLM other aquatic organisms 1 | 100 - 1000,96 h | |
| Threshold limit algae 1 | 2000 mg/l (Selenastrum capricornutum) | |
| Threshold limit algae 2 | 3100 mg/l (168 h; Scenedesmus quadricauda) | |

| butyl glycolether (111-76-2) | |
|------------------------------|--|
| LC50 fish 1 | 1474 ppm (96 h; Oncorhynchus mykiss) |
| EC50 Daphnia 1 | 1550 mg/l (48 h; Daphnia magna) |
| Threshold limit algae 1 | 911 mg/l (72 h; Pseudokirchneriella subcapitata) |
| Threshold limit algae 2 | 88 mg/l (72 h; Pseudokirchneriella subcapitata) |

12.2. Persistence and degradability

| 761, DURAGLOSS GLASS CLEANER | |
|-------------------------------|------------------|
| Persistence and degradability | Not established. |

| 1-propanol (71-23-8) | |
|---------------------------------|--|
| Persistence and degradability | Readily biodegradable in water. Biodegradable in the soil. Biodegradable in the soil under anaerobic conditions. |
| Biochemical oxygen demand (BOD) | 0.47 - 1.63 g O₂/g substance |
| Chemical oxygen demand (COD) | 2.23 g O₂/g substance |
| ThOD | 2.4 g O₂/g substance |
| BOD (% of ThOD) | 0.20 - 0.44 % ThOD |

| butyl glycolether (111-76-2) | |
|-------------------------------|--|
| Persistence and degradability | Readily biodegradable in water. Low potential for adsorption in soil. Photooxidation in the air. |

12.3. Bioaccumulative potential

| 761, DURAGLOSS GLASS CLEANER | |
|------------------------------|------------------|
| Bioaccumulative potential | Not established. |
| | |

| 1-propanol (71-23-8) | | |
|----------------------|-------------------|--|
| Log Pow | | 0.25 (Experimental value) |
| Bioaccum | ulative potential | Low potential for bioaccumulation (Log Kow < 4). |

| butyl glycolether (111-76-2) | |
|------------------------------|--|
| Log Pow | 0.81 (Test data; 20 °C) |
| Bioaccumulative potential | Low potential for bioaccumulation (Log Kow < 4). |

12.4. Mobility in soil

| 1-propanol (71-23-8) | | |
|------------------------------|------------------------|--|
| Surface tension | 0.024 N/m (20 °C) | |
| butyl glycolether (111-76-2) | | |
| Surface tension | 0.065 N/m (20 °C; 003) | |

12.5. Other adverse effects

Effect on ozone layer

Effect on the global warming : No known ecological damage caused by this product.

Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Remove waste in accordance with local and/or national regulations. Dispose in a safe manner in accordance with local/national regulations.

05/10/2016 EN (English US) 6/8

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

In accordance with DOT

Not regulated for transport

Additional information

Other information : No supplementary information available.

ADR

No additional information available

Transport by sea

No additional information available

Air transport

No additional information available

SECTION 15: Regulatory information

15.1. US Federal regulations

761, DURAGLOSS GLASS CLEANER

Not listed on the United States TSCA (Toxic Substances Control Act) inventory

1-propanol (71-23-8)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

butyl glycolether (111-76-2)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. International regulations

CANADA

No additional information available

EU-Regulations

No additional information available

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

15.2.2. National regulations

.

15.3. US State regulations

1-propanol (71-23-8)

U.S. - New Jersey - Right to Know Hazardous Substance List

butyl glycolether (111-76-2)

U.S. - New Jersey - Right to Know Hazardous Substance List

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

SECTION 16: Other information

Revision date : 05/28/2015 Other information : None.

05/10/2016 EN (English US) 7/8

Safety Data Sheet according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Full text of H-phrases:

| kt of 11 philaded. | |
|-------------------------------------|---|
| Acute Tox. 4 (Dermal) | Acute toxicity (dermal) Category 4 |
| Acute Tox. 4 (Inhalation:dust,mist) | Acute toxicity (inhalation:dust,mist) Category 4 |
| Acute Tox. 4 (Oral) | Acute toxicity (oral) Category 4 |
| Eye Dam. 1 | Serious eye damage/eye irritation Category 1 |
| Eye Irrit. 2A | Serious eye damage/eye irritation Category 2A |
| Flam. Liq. 2 | Flammable liquids Category 2 |
| Flam. Liq. 4 | Flammable liquids Category 4 |
| Skin Irrit. 2 | Skin corrosion/irritation Category 2 |
| STOT SE 3 | Specific target organ toxicity (single exposure) Category 3 |
| H225 | Highly flammable liquid and vapor |
| H227 | Combustible liquid |
| H302 | Harmful if swallowed |
| H312 | Harmful in contact with skin |
| H315 | Causes skin irritation |
| H318 | Causes serious eye damage |
| H319 | Causes serious eye irritation |
| H332 | Harmful if inhaled |
| H336 | May cause drowsiness or dizziness |
| | |

SDS US (GHS HazCom 2012)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product

05/10/2016 EN (English US) 8/8