



860, DURAGLOSS HD ALUMINUM CLEANER & BRIGHTENER

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 : 860, DURAGLOSS HD ALUMINUM CLEANER & BRIGHTENER
Product code : 860 32oz, 861 Gal, 865 5Gal, 8630 30Gal, 8655 55Gal

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)

Skin Corr. 1B H314
Full text of H-phrases: see section 16

2.2. Label elements

GHS-US labeling

Hazard pictograms (GHS-US) :



GHS05

Signal word (GHS-US) : Danger
Hazard statements (GHS-US) : H314 - Causes severe skin burns and eye damage
Precautionary statements (GHS-US) : P260 - Do not breathe vapors
P264 - Wash hands, forearms and face thoroughly after handling
P280 - Wear eye protection, protective clothing, protective gloves
P301+P330+P331 - If swallowed: rinse mouth. Do NOT induce vomiting
P303+P361+P353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P310 - Immediately call a doctor, a POISON CENTER
P321 - Specific treatment (see hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation on this label)
P363 - Wash contaminated clothing before reuse
P405 - Store locked up
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS-US)

Not applicable

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SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%	Classification (GHS-US)
phosphoric acid, conc>=25%, aqueous solutions	(CAS No) 7664-38-2	15 - 20	Skin Corr. 1B, H314
ammonium hydrogen difluoride, 0.1%<=conc<1%, aqueous solutions	(CAS No) 1341-49-7	2 - 3	Acute Tox. 3 (Oral), H301 Skin Corr. 1B, H314
butyl glycoether	(CAS No) 111-76-2	1 - 2	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 the victim into fresh air. If not breathing give artificial respiration. Get medical advice/attention. Allow victim to breathe fresh air. Allow the victim to rest.
- First-aid measures after skin contact : Remove clothing while washing. Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.
- First-aid measures after eye contact : Move victim away from exposure and into fresh air. Get medical advice/attention. Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persist.
- First-aid measures after ingestion : Do not induce vomiting. Call a physician or poison control center immediately. Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

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

- Symptoms/injuries : Not expected to present a significant hazard under anticipated conditions of normal use.

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

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Carbon dioxide. Foam. Dry chemical powder. 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

- Fire hazard : Non combustible. Not flammable.

5.3. Advice for firefighters

- Firefighting instructions : Water can be used to keep exposed containers cool, to protect. Wear normal protective equipment (full bunker gear) and positive-pressure self contained breathing apparatus. 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.

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 occurs, 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.

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6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.
Emergency procedures : Ventilate area.

6.2. Environmental precautions

Notify authorities if product enters sewers or public waters. 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 other material to containers for disposal. Close container tightly and dispose of properly.
Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : 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.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a well-ventilated place. Keep away from heat, sparks, and flames. Emptied containers may retain product residues. Precautions apply to emptied containers. Keep only in the original container in a cool, well ventilated place away from : Keep container closed when not in use.
Incompatible products : Strong bases. Strong acids.
Incompatible materials : Sources of ignition. Direct sunlight.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

860, DURAGLOSS HD ALUMINUM CLEANER & BRIGHTENER		
ACGIH	Not applicable	
OSHA	Not applicable	
butyl glycoether (111-76-2)		
ACGIH	ACGIH TWA (ppm)	20 ppm
ACGIH	ACGIH STEL (ppm)	20 ppm
OSHA	Not applicable	
phosphoric acid, conc>=25%, aqueous solutions (7664-38-2)		
ACGIH	Not applicable	
OSHA	Not applicable	
ammonium hydrogen difluoride, 0.1%<=conc<1%, aqueous solutions (1341-49-7)		
ACGIH	ACGIH TWA (mg/m ³)	2.5 mg/m ³
OSHA	Not applicable	

8.2. Exposure controls

Appropriate engineering controls : Ensure good ventilation of the work station.
Personal protective equipment : Avoid all unnecessary exposure.
Hand protection : Wear protective gloves.
Eye protection : Chemical goggles or safety glasses.
Respiratory protection : Wear appropriate mask.

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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 : Butyl
Odor threshold : No data available
pH : 1 - 2
Relative evaporation rate (butyl acetate=1) : No data available
Melting point : No Data
Freezing point : No data available
Boiling point : 212 °F
Flash point : > 200 °F
Auto-ignition temperature : No data available
Decomposition temperature : No data available
Flammability (solid, gas) : No data available
Vapor pressure : 140 @ 130.0 F
Relative vapor density at 20 °C : No data available
Relative density : 1 H2O= >1
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.

10.5. Incompatible materials

Strong acids. Strong bases.

10.6. Hazardous decomposition products

Carbon dioxide. Carbon monoxide. fume.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

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butyl glycoether (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

ammonium hydrogen difluoride, 0.1%≤conc<1%, aqueous solutions (1341-49-7)	
ATE US (oral)	100.000 mg/kg body weight
Skin corrosion/irritation	: Causes severe skin burns and eye damage. pH: 1 - 2
Serious eye damage/irritation	: Not classified pH: 1 - 2
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified

butyl glycoether (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 symptoms	: Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

12.1. Toxicity

butyl glycoether (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)

ammonium hydrogen difluoride, 0.1%≤conc<1%, aqueous solutions (1341-49-7)	
LC50 fish 1	> 2.3 mg/l (Pisces)

12.2. Persistence and degradability

860, DURAGLOSS HD ALUMINUM CLEANER & BRIGHTENER	
Persistence and degradability	Not established.

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

phosphoric acid, conc≥25%, aqueous solutions (7664-38-2)	
Persistence and degradability	Biodegradability: not applicable. No (test)data on mobility of the components available.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable

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phosphoric acid, conc \geq 25%, aqueous solutions (7664-38-2)	
ThOD	Not applicable
BOD (% of ThOD)	Not applicable

ammonium hydrogen difluoride, 0.1% \leq conc $<$ 1%, aqueous solutions (1341-49-7)	
Persistence and degradability	Biodegradability in soil: no data available.

12.3. Bioaccumulative potential

860, DURAGLOSS HD ALUMINUM CLEANER & BRIGHTENER	
Bioaccumulative potential	Not established.

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

phosphoric acid, conc \geq 25%, aqueous solutions (7664-38-2)	
Bioaccumulative potential	Not bioaccumulative.

ammonium hydrogen difluoride, 0.1% \leq conc $<$ 1%, aqueous solutions (1341-49-7)	
Bioaccumulative potential	No bioaccumulation data available.

12.4. Mobility in soil

butyl glycoether (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	: Dispose in a safe manner in accordance with local/national 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

860, DURAGLOSS HD ALUMINUM CLEANER & BRIGHTENER	
Not listed on the United States TSCA (Toxic Substances Control Act) inventory	

butyl glycoether (111-76-2)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	

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15.2. International regulations

CANADA

No additional information available

EU-Regulations

No additional information available

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

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

Not classified

15.2.2. National regulations

15.3. US State regulations

butyl glycoether (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.

Full text of H-phrases:

Acute Tox. 3 (Oral)	Acute toxicity (oral) Category 3
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 Irrit. 2A	Serious eye damage/eye irritation Category 2A
Flam. Liq. 4	Flammable liquids Category 4
Skin Corr. 1B	Skin corrosion/irritation Category 1B
Skin Irrit. 2	Skin corrosion/irritation Category 2
H227	Combustible liquid
H301	Toxic if swallowed
H302	Harmful if swallowed
H312	Harmful in contact with skin
H314	Causes severe skin burns and eye damage
H315	Causes skin irritation
H319	Causes serious eye irritation
H332	Harmful if inhaled

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