



# 831, DURAGLOSS METAL CLEANER & BRIGHTNER

## 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 : 831, DURAGLOSS METAL CLEANER & BRIGHTNER  
Product code : Part# 831 22oz, 832 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)

Not classified

#### 2.2. Label elements

##### GHS-US labeling

No labeling applicable

#### 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

Name	Product identifier	%	Classification (GHS-US)
oxalic acid	(CAS No) 144-62-7	1 - 3	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Skin Corr. 1A, H314
2-(2-butoxyethoxy)ethanol	(CAS No) 112-34-5	1 - 2	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 immediate medical advice/attention. Allow victim to breathe fresh air. Allow the victim to rest.

First-aid measures after skin contact : Take off immediately all contaminated clothing and wash it before reuse. Wash with plenty of soap and water. If skin irritation 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. Rinse immediately with plenty of water for 15 minutes. If eye irritation persists: Get medical advice/attention. Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persist.

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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. 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 : 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 : Complete protective clothing. Wear respiratory protection. 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 goggles. Protective clothing.  
Emergency procedures : Evacuate unnecessary personnel.

#### 6.1.2. For emergency responders

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

### 6.2. 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

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

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### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

831, DURAGLOSS METAL CLEANER & BRIGHTNER		
ACGIH	Not applicable	
OSHA	Not applicable	
2-(2-butoxyethoxy)ethanol (112-34-5)		
ACGIH	ACGIH TWA (ppm)	10 ppm
ACGIH	ACGIH STEL (ppm)	10 ppm
OSHA	Not applicable	
oxalic acid (144-62-7)		
ACGIH	ACGIH TWA (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup>
ACGIH	ACGIH STEL (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup>
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	: protective gloves. Wear protective gloves.
Eye protection	: Chemical goggles or safety glasses.
Skin and body protection	: Wear suitable protective clothing.
Respiratory protection	: In case of inadequate ventilation wear respiratory protection. Wear appropriate mask.
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	: Purple.
Color	: Purple
Odor	: Acid
Odor threshold	: No data available
pH	: 2 - 3
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 F
Relative vapor density at 20 °C	: No data available
Relative density	: No data available
Relative density of saturated gas/air mixture	: 1
Solubility	: Soluble in water. Water: Solubility in water of component(s) of the mixture : • : • : 10 g/100ml
Log Pow	: No data available
Log Kow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available

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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

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

fume. Carbon monoxide. Carbon dioxide.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity : Not classified

#### 2-(2-butoxyethoxy)ethanol (112-34-5)

LD50 dermal rabbit	2764 mg/kg body weight (Rabbit; Experimental value; Equivalent or similar to OECD 402)
ATE US (dermal)	2764.000 mg/kg body weight

#### oxalic acid (144-62-7)

ATE US (oral)	500.000 mg/kg body weight
ATE US (dermal)	1100.000 mg/kg body weight

Skin corrosion/irritation : Not classified  
pH: 2 - 3  
Serious eye damage/irritation : Not classified  
pH: 2 - 3  
Respiratory or skin sensitization : Not classified  
Germ cell mutagenicity : Not classified  
Carcinogenicity : Not classified

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

#### 2-(2-butoxyethoxy)ethanol (112-34-5)

LC50 fish 1	1300 mg/l (96 h; Lepomis macrochirus)
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<b>2-(2-butoxyethoxy)ethanol (112-34-5)</b>	
EC50 Daphnia 1	4950 mg/l (48 h; Daphnia magna)
Threshold limit algae 1	> 100 mg/l (96 h; Desmodesmus subspicatus)

<b>oxalic acid (144-62-7)</b>	
LC50 fish 1	34.1 mg/l (96 h; Pimephales promelas)
LC50 other aquatic organisms 1	100 - 1000 mg/l (96 h)
EC50 Daphnia 1	137 mg/l (48 h; Daphnia magna)
LC50 fish 2	160 mg/l (48 h; Leuciscus idus)
TLM fish 1	4000 mg/l (24 h; Lepomis macrochirus)
Threshold limit other aquatic organisms 1	100 - 1000,96 h
Threshold limit algae 1	80 mg/l (192 h; Microcystis aeruginosa)
Threshold limit algae 2	790 mg/l (168 h; Scenedesmus quadricauda)

### 12.2. Persistence and degradability

<b>831, DURAGLOSS METAL CLEANER &amp; BRIGHTNER</b>	
Persistence and degradability	Not established.

<b>2-(2-butoxyethoxy)ethanol (112-34-5)</b>	
Persistence and degradability	Readily biodegradable in water. Low potential for adsorption in soil. Photooxidation in the air.

<b>oxalic acid (144-62-7)</b>	
Persistence and degradability	Readily biodegradable in water. Readily biodegradable in water in anaerobic conditions. Photolysis in water. Biodegradable in the soil. Photolysis in the air.
Biochemical oxygen demand (BOD)	0.14 g O <sub>2</sub> /g substance
Chemical oxygen demand (COD)	0.18 g O <sub>2</sub> /g substance
ThOD	0.18 g O <sub>2</sub> /g substance

### 12.3. Bioaccumulative potential

<b>831, DURAGLOSS METAL CLEANER &amp; BRIGHTNER</b>	
Bioaccumulative potential	Not established.

<b>2-(2-butoxyethoxy)ethanol (112-34-5)</b>	
Log Pow	1 (Test data; Equivalent or similar to OECD 107; 20 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

<b>oxalic acid (144-62-7)</b>	
Log Pow	-2.22 - -1.74 (Estimated value)
Bioaccumulative potential	Bioaccumulation: not applicable.

### 12.4. Mobility in soil

<b>2-(2-butoxyethoxy)ethanol (112-34-5)</b>	
Surface tension	0.0069 N/m (20 °C)

### 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

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### 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

#### 831, DURAGLOSS METAL CLEANER & BRIGHTNER

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

#### 2-(2-butoxyethoxy)ethanol (112-34-5)

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

#### oxalic acid (144-62-7)

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]

### 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

#### oxalic acid (144-62-7)

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

## SECTION 16: Other information

Revision date : 05/28/2015

Other information : None.

Full text of H-phrases:

Acute Tox. 4 (Dermal)	Acute toxicity (dermal) Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
Eye Irrit. 2A	Serious eye damage/eye irritation Category 2A
Skin Corr. 1A	Skin corrosion/irritation Category 1A
H302	Harmful if swallowed
H312	Harmful in contact with skin
H314	Causes severe skin burns and eye damage
H319	Causes serious eye irritation

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*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*