

# MIGHTY MAC BRAND

# THUNDERBOLT

## *Butyl Degreaser*

### DESCRIPTION

A concentrated water-based cleaner degreaser formulated to effectively remove grease, oil, carbon, or any other industrial soil from concrete, machinery, engines, floors, walls, etc. Low foaming for use in automatic scrubbers. Extremely concentrated for dilutions of up to 1 ounce per gallon of water. Nonflammable and non-corrosive for safe use on all surfaces not harmed by water. Highly effective, economical, and easy to use.

### DIRECTIONS

Dilute with water depending on the job requirement. Apply by mop, sprayer, sponge or automatic scrubber. Apply to surface to be cleaned and allow to stand for several minutes. For heavier soil, agitate briskly with a brush or aggressive pad. For normal soil, allow the product to do the work. Wipe clean with a moist rag, sponge or pick up with wet vac or mop. Where applicable; rinse thoroughly with water. Avoid contact with windows or other glass surfaces.

HEAVY GREASE / OIL REMOVAL: Dilute 1 part product to 4 parts water.

GENERAL DEGREASING: Dilute 1 part product to 8 parts water.

INK and CRAYON REMOVAL: Dilute 1 part product to 4 parts water.

CARBON REMOVAL: Dilute 1 part product to 4 parts water.

WHITEWALL TIRE CLEANING: Apply full strength.

OVENS, GRILLS, UTENSILS, HOODS: Apply full strength.

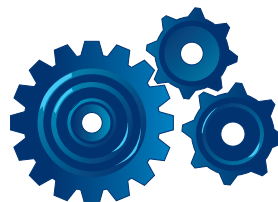
PLASTICS and FORMICA: Dilute 1 part product to 12 parts water.

These directions are flexible rather than specific. In many cases a more dilute solution can be used, while for extreme conditions a less dilute solution may be used.

This product meets the maximum content requirements for Volatile Organic Compounds (VOCs) as established by State and Federal regulations.

### PRODUCT SPECIFICATIONS

<b>Active Ingredients:</b>	23.0 ± 0.5%
<b>Color:</b>	Clear
<b>Odor:</b>	Mild and pleasant
<b>pH:</b>	13.0 - 13.5
<b>Viscosity:</b>	Water thin
<b>Foam:</b>	Low
<b>Abrasives:</b>	None
<b>Phosphate Content:</b>	None
<b>Solubility:</b>	Complete with water
<b>Emulsification:</b>	Excellent
<b>Detergency:</b>	Excellent
<b>Rinsability:</b>	Excellent
<b>Flash Point:</b>	None (waterbased)
<b>Biodegradability:</b>	Complete
<b>Storage/Stability:</b>	2 years
<b>Weight per Gallon:</b>	8.68 lbs./gal.
<b>Freeze / Thaw Stability:</b>	Keep from freezing



**Reorder#**  
**16-3510**



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## MATERIAL SAFETY DATA SHEET

N/A=Not Applicable

Prepared by: Regulatory Affairs Dept.

(Prepared According to 29 CFR 1910.1200)

Effective Date: 1/09 Revision: n/a

## SECTION 1-PRODUCT IDENTIFICATION AND SUPPLIER INFORMATION

**Product Name:** Thunderbolt  
**Generic Name:** Butyl Degreaser  
**Chemical Family:** Alkaline Detergent  
**Formula:** Proprietary

**Suppliers Name:** Michco  
**Suppliers Address:** 2011 N. High St., Lansing, MI 48906  
**Suppliers Website:** www.Michco.com

## SECTION 2-INGREDIENT INFORMATION

CHEMICAL NAME	CAS NO.	WT. %	PEL	TWA-TLV	STEL-TLV
Water	7732-18-5	to 100			
2-Butoxyethanol	111-76-2	5 to 10	25 ppm	25 ppm	N/A
Potassium Alkyl Aryl Sulfonate	27177-77-1	0 to 5			
Potassium Tall Oil Soap	61790-44-1	0 to 5			
Nonionic Surfactant	9016-45-9	0 to 5			
Sodium Metasilicate	6834-92-0	0 to 5			
Dye	N/A	< 1			
Fragrance	N/A	< 1			

## SECTION 3-PHYSICAL DATA

**Boiling Point (°F):** 212 F.  
**Vapor Pressure:** 20mm Hg @ 68 F.  
**% Volatile:** 85+  
**Solubility in Water:** Complete  
**Physical Description:** Thin tan liquid with characteristic odor.  
**VOC Content:** 5.86% (wt/wt), 0.52 lbs/gal., 61.4 grams/liter

**Specific Gravity:** 1.048  
**Vapor Density (Air=1):** >1  
**pH:** 12.0 – 13.0  
**Evaporation Rate (Water=1):** <1

## SECTION 4-FIRE AND EXPLOSION HAZARD DATA

**Flash Point (Method Used):** None (waterbased)  
**Upper Explosion Limit:** N/A  
**Lower Explosion Limit:** N/A  
**Extinguishing Media:** N/A  
**Special Firefighting Procedures:** Non Flammable  
**Unusual Fire and Explosion Hazards:** N/A

## SECTION 5-REACTIVITY DATA

**Stability:** Stable

**Hazards Decomposition Products:** Alkaline vapors in a fire.

**Hazardous Polymerization:** None

**Incompatibility (Materials to Avoid):** Strong acids.

## SECTION 6-STORAGE AND HANDLING INFORMATION

WARNING: Eye Irritant. May cause skin irritation with prolong or repeated contact. Avoid contact with eyes, skin and clothing. Wear rubber gloves, chemical splash goggles and protective outerwear when handling. Avoid breathing of vapors or mists. Use in well-ventilated area. Keep out of reach of children. For use by trained personnel only. Keep container closed during storage. For institutional and industrial use only.

## SECTION 7-HEALTH HAZARDS AND FIRST AID

**Effects of Overexposure:**

**Skin:** Moderate skin irritant. Prolonged or repeated contact may cause redness, dermatitis.

**Eyes:** Eye irritant. Liquid and mists will cause tearing, redness, burning sensation.

**Inhalation:** Vapors and mists may be irritating to mucous membranes in the nose, throat, and lungs.

**Ingestion:** Irritating to the mouth and throat. May cause headache, nausea, abdominal pain, vomiting, and diarrhea. Excessive amounts may cause collapse.

**First Aid Procedures:**

**Skin:** Flush with water. Seek medical attention if irritation persists.

**Eyes:** Immediately flush with large quantities of water, holding eyelids open. Seek medical attention if irritation persists.

**Inhalation:** Get to fresh air. Seek medical attention if irritation persists.

**Ingestion:** Do not induce vomiting. Drink large quantities of water. Seek medical attention immediately.

## SECTION 8-SPECIAL PROTECTION INFORMATION

**Respiratory Protection:** Use in well ventilated area.

**Ventilation Requirements:** Provide local exhaust to keep TLV of Section 2 ingredients below acceptable limit.

**Protective Gloves:** Chemical resistant rubber or neoprene.

**Eye Protection:** Safety glasses or chemical splash goggles.

**Other Protective Equipment:** Wear protective rubber footwear when using on floor. Wear protective outerwear when danger of mist contact may occur.

## SECTION 9-SPILL OR LEAK PROCEDURES

**Steps to be taken in Case Material is Released or Spilled:** Floors will become slippery. Avoid walking in product. Keep unessential personnel away. Mop up or otherwise absorb and hold disposal. Avoid discharge to sewer or open waterways.

**Waste Disposal Method:** Any method in accordance with local, state and federal laws. Best method is to recycle or reuse for intended purpose. Consult local authorities for disposal in public sewer. Do not dispose of into storm drain, stream, river or to ground. Rinse container thoroughly before discarding in trash.

## SECTION 10-REGULATORY INFORMATION

**SARA Title III - Section 311/312 -Hazard Categories:**

No - Fire Hazard

No - Sudden Release of Pressure Hazard

No - Reactivity Hazard

Yes - Immediate (acute) Health Hazard

No - Delayed (chronic) Health Hazard

**Shipping Information:**

FOR CONTAINERS > Cleaning Compound

FOR 1 GALLON CONTAINERS: Cleaning Compound

FOR CONTAINERS < 1 GALLON: Cleaning Compound

**HMIS Hazardous Materials Identification System**

<b>Health</b>	<b>2</b>
<b>Flammability</b>	<b>0</b>
<b>Reactivity</b>	<b>0</b>
<b>Personal Protection</b>	<b>D</b>

**FOR EMERGENCY MEDICAL OR TRANSPORT INFORMATION:** CHEM-TEL, Inc. @ 800-255-3924 (24 hours, 7 days per week)

This product contains the following toxic chemical(s) subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and of 40 CFR 372.

CAS#	Chemical Name	Percent by Weight
111-76-2	Glycol Ether	6% max.

This product contains the following chemical(s) which have been established to be either a carcinogen or suspected carcinogen.

CAS#	Chemical Name	Percent by Weight
	None	

## SECTION 11-OTHER INFORMATION

This company cannot anticipate all conditions of handling and use of this product. Therefore, this company accepts no responsibility for results obtained by the application of this information, or the safety and suitability of our products either alone or in combination with other products. It is the responsibility of the user to provide a safe workplace, using the health and safety information contained herein as a guide. This company will accept no liability for damages or loss incurred from the improper handling and use of this product