Safety Data Sheet

Issue Date: 25-Mar-2013 **Revision/Review Date:** 09-Dec-2019 **Version** 1.1

1. IDENTIFICATION

Product Identifier
Product Name Thunder & Lightning

Other Means of Identification
Product Code 062800

Recommended use of the Chemical and Restrictions on Use
Recommended Use Degreaser cleaner concentrate. For industrial use.

Details of the Supplier of the Safety Data Sheet
Midlab, Inc.
140 Private Brand Way
Athens, TN 37303

Emergency Telephone Number
Company Phone Number Phone: 1-423-337-3180
Emergency Telephone (24 hr) INFOTRAC 1-352-323-3500 (International)
1-800-535-5053 (North America)

2. HAZARDS IDENTIFICATION

Appearance Yellow **Physical State** Liquid **Odor** Citrus

Classification

Skin corrosion/irritation	Category 3
Serious eye damage/eye irritation	Category 2 Sub-Category A

Signal Word
Warning

Hazard Statements
Causes mild skin irritation.
Causes serious eye irritation.

Precautionary Statements - Prevention
Wash face, hands and any exposed skin thoroughly after handling.
Wear eye protection/face protection.

Precautionary Statements - Response
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
Continue rinsing. If eye irritation persists: get medical advice/attention.
IF ON SKIN: If skin irritation occurs: get medical advice/attention.

Precautionary Statements - Storage
No other means specified.

Precautionary Statements - Disposal
No other means specified.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
Water	7732-18-5	60-100
Ethylene Glycol Monobutyl Ether	111-76-2	5-10
Tetrapotassium Pyrophosphate	7320-34-5	1-5
Monoethanolamine	141-43-5	1-5
Trisodium Nitrilotriacetate Monohydrate	18662-53-8	1-5

If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. FIRST-AID MEASURES

First Aid Measures

Eye Contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Seek medical attention/advice if irritation persists.

Skin Contact Wash with soap and water. Take off contaminated clothing. Wash contaminated clothing before reuse.

Inhalation Remove to fresh air. Seek immediate medical attention/advice.

Ingestion Rinse mouth. Do not induce vomiting. Drink plenty of water. Seek medical advice.

Most important Symptoms and Effects

Symptoms Exposed individuals may experience eye tearing, redness and discomfort. Contact may cause irritation and redness.

Indication of any Immediate Medical Attention and Special Treatment Needed

Notes to Physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media
Water spray (fog). Carbon dioxide (CO2). Dry chemical. Foam.

Unsuitable Extinguishing Media
Not determined.

Specific Hazards Arising from the Chemical
None known.

Protective Equipment and Precautions for Firefighters
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

Personal Precautions Use personal protection recommended in Section 8.

Environmental Precautions Avoid release to the environment.

Methods and Material for Containment and Cleaning Up

Methods for Containment Prevent further leakage or spillage if safe to do so.

Methods for Clean-Up Collect in a clean, dry waste container for disposal. Dispose of in accordance with federal, state and local regulations. Use a water rinse for final clean up.

7. HANDLING AND STORAGE

Precautions for Safe Handling

Advice on Safe Handling Wash thoroughly after handling. Use personal protection recommended in Section 8. Do not breathe dust/fume/gas/mist/vapors/spray. Avoid contact with eyes. Handle in accordance with good industrial hygiene and safety practice.

Conditions for Safe Storage, including any Incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place. Keep locked up and out of reach of children. Protect from freezing.

Incompatible Materials Acids.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Ethylene Glycol Monobutyl Ether 111-76-2	TWA: 20 ppm	TWA: 50 ppm TWA: 240 mg/m^3 (vacated) TWA: 25 ppm (vacated) TWA: 120 mg/m^3 (vacated) S* S*	IDLH: 700 ppm TWA: 5 ppm TWA: 24 mg/m^3
Monoethanolamine 141-43-5	STEL: 6 ppm TWA: 3 ppm	TWA: 3 ppm TWA: 6 mg/m^3 (vacated) TWA: 3 ppm (vacated) TWA: 8 mg/m^3 (vacated) STEL: 6 ppm (vacated) STEL: 15 mg/m^3	IDLH: 30 ppm TWA: 3 ppm TWA: 8 mg/m^3 STEL: 6 ppm STEL: 15 mg/m^3

Appropriate Engineering Controls

Engineering Controls General ventilation sufficient.

Individual Protection Measures, such as Personal Protective Equipment

Eye/Face Protection Splash goggles or safety glasses.

Skin and Body Protection Chemical resistant protective gloves.

Respiratory Protection Ensure adequate ventilation, especially in confined areas.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on Basic Physical and Chemical Properties

Physical State Liquid
Appearance Clear
Color Yellow

Odor Citrus
Odor Threshold Not determined

Property	Values	Remarks • Method
pH	12.5-13.0	
Melting Point/Freezing Point	~ 0 °C / ~32 °F	
Boiling Point/Boiling Range	100 °C / 212 °F	
Flash Point	Not applicable	
Evaporation Rate	Not determined	
Flammability (Solid, Gas)	n/a-liquid	

Upper Flammability Limits	Not determined	
Lower Flammability Limit	Not determined	
Vapor Pressure	Not determined	
Vapor Density	Not determined	
Specific Gravity	1.04	
Water Solubility	Completely soluble	@ 25 °C (77 °F)
Solubility in other solvents	Not determined	
Partition Coefficient	Not determined	
Auto-ignition Temperature	Not determined	
Decomposition Temperature	Not determined	
Kinematic Viscosity	Not determined	
Dynamic Viscosity	Not determined	
Explosive Properties	Not determined	
Oxidizing Properties	Not determined	

10. STABILITY AND REACTIVITY

Reactivity
Not reactive under normal conditions.

Chemical Stability
Stable under recommended storage conditions.

Possibility of Hazardous Reactions
None under normal processing.

Conditions to Avoid
Keep out of reach of children. Keep from freezing.

Incompatible Materials
Acids.

Hazardous Decomposition Products
When exposed to fire, produces normal products of combustion.

11. TOXICOLOGICAL INFORMATION

Information on Likely Routes of Exposure

Product Information

Eye Contact	Causes serious eye irritation
Skin Contact	May cause skin irritation.
Inhalation	Avoid breathing vapors or mists.
Ingestion	Do not taste or swallow.

Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Ethylene Glycol Monobutyl Ether 111-76-2	= 470 mg/kg (Rat)	= 2270 mg/kg (Rat) = 220 mg/kg (Rabbit)	= 2.21 mg/L (Rat) 4 h = 450 ppm (Rat) 4 h
Tetrapotassium Pyrophosphate 7320-34-5	2980mg/kg (Rat)	>7940mg/kg (Rabbit)	-
Monoethanolamine 141-43-5	= 1720 mg/kg (Rat)	= 1 mL/kg (Rabbit) = 1025 mg/kg (Rabbit)	-
Trisodium Nitrilotriacetate Monohydrate 18662-53-8	= 1450 mg/kg (Rat)	> 10000 mg/kg (Rabbit)	-

Information on Physical, Chemical and Toxicological Effects

Symptoms Please see section 4 of this SDS for symptoms.

Delayed and Immediate Effects as well as Chronic Effects from Short and Long-Term Exposure

Carcinogenicity Not classifiable as a human carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
Ethylene Glycol Monobutyl Ether 111-76-2	A3	Group 3		
Trisodium Nitrilotriacetate Monohydrate 18662-53-8		X	X	

Legend
ACGIH (American Conference of Governmental Industrial Hygienists)
A3 - Animal Carcinogen
IARC (International Agency for Research on Cancer)
Group 3 IARC components are "not classifiable as human carcinogens"
IARC (International Agency for Research on Cancer)
"Possibly carcinogenic to humans"
NTP (National Toxicological Program)
"May reasonably be anticipated to be" carcinogenic

Numerical Measures of Toxicity
Not determined

12. ECOLOGICAL INFORMATION

Ecotoxicity
An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Ethylene Glycol Monobutyl Ether 111-76-2	-	1490: 96 h Lepomis macrochirus mg/L LC50 static 2950: 96 h Lepomis macrochirus mg/L LC50	-	1698 - 1940: 24 h Daphnia magna mg/L EC50 1000: 48 h Daphnia magna mg/L EC50
Tetrapotassium Pyrophosphate 7320-34-5	-	> 100 mg/L (96hr) Rainbow Trout	-	-
Monoethanolamine 141-43-5	15: 72 h Desmodesmus subspicatus mg/L EC50	227: 96 h Pimephales promelas mg/L LC50 flow-through 3684: 96 h Brachydanio rerio mg/L LC50 static 300 - 1000: 96 h Lepomis macrochirus mg/L LC50 static 114 - 196: 96 h Oncorhynchus mykiss mg/L LC50 static 200: 96 h Oncorhynchus mykiss mg/L LC50 flow-through	-	65: 48 h Daphnia magna mg/L EC50
Trisodium Nitrilotriacetate Monohydrate 18662-53-8	= 780 mg/L (96hr) Chlorella vulgaris	= 98 mg/L (96hr) Oncorhynchus mykiss	-	= 780 mg/L (48hr) Daphnia mahna

Persistence/Degradability
Not determined.

Bioaccumulation
Not determined.

Mobility

Chemical Name	Partition Coefficient
Ethylene Glycol Monobutyl Ether 111-76-2	0.81
Monoethanolamine 141-43-5	-1.91

Other Adverse Effects
Not determined

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods

Disposal of Wastes Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated Packaging Disposal should be in accordance with applicable regional, national and local laws and regulations.

14. TRANSPORT INFORMATION

DOT Not regulated

IATA Not regulated

IMDG Not regulated

15. REGULATORY INFORMATION

NOT FOR SALE IN CALIFORNIA

International Inventories

Canada – Domestic Substances List (DSL)	All ingredients are listed or exempt.
TSCA (Toxic Substances Control Act)	All ingredients are listed or exempt.

Legend:
TSCA *- United States Toxic Substances Control Act Section 8(b) Inventory*
DSL/NDSL *- Canadian Domestic Substances List/Non-Domestic Substances List*

US Federal Regulations

SARA 311/312 Hazard Categories

Acute Health Hazard Yes

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical Name	CAS No	Weight-%	SARA 313 - Threshold Values %
Ethylene Glycol Monobutyl Ether	111-76-2	1-5	1.0

US State Regulations

U.S. State Right-to-Know Regulations

Chemical Name	State List
Ethylene Glycol Monobutyl Ether 111-76-2	MA, NJ, PA
Monoethanolamine 141-43-5	MA, NJ, PA
Trisodium Nitrilotriacetate Monohydrate 18662-53-8	CAP65

AZ – Arizona Ambient Air Quality Guidelines

CT – Connecticut Hazardous Air Pollutants

CA – California Director's List of Hazardous Substances

CAP65 – California Prop 65

FL – Florida Substances List

ID – Idaho Non-Carcinogen Toxic Air Pollutants

IL – Illinois Toxic Air Contaminate- Carcinogenic

MA – Massachusetts Right to Know List

MN – Minnesota Hazardous Substances List NJ

– New Jersey Right to Know List

PA – Pennsylvania Right to Know List

RI – Rhode Island Hazardous Substances List

16. OTHER INFORMATION

NFPA	**Health Hazards**	**Flammability**	**Instability**	**Special Hazards**
	Not determined	Not determined	Not determined	Not determined
HMIS	**Health Hazards**	**Flammability**	**Physical Hazards**	**Personal Protection**
	2	0	0	Not determined

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Disclaimer

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.

Keep Out of Reach of Children. For Industrial and Institutional Use Only.

*Denotes changes from last version.

End of Safety Data Sheet