

U. S. Corrosion Technologies, LLC
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BOOT KLEAN™ Safety Data Sheet

1. IDENTIFICATION

Product Name: BOOT KLEAN™
Product Numbers: 85208, 85500
Product Type and Use: Aqueous alkaline cleaner / degreaser
Manufacturer: U.S. Corrosion Technologies, LLC
2638 National Drive, Garland, TX 75041
Telephone: 972-271-7361 Fax: 972-278-9721
Contact:
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2. HAZARDS IDENTIFICATION

Hazard Classification

Health Hazard(s)

Skin Corrosion/Irritation Category 1C
Eye Irritation Category 1
Acute Toxicity - Inhalation Category 4
Acute Toxicity - Oral Category 4
STOT-SE Category 3

Physical Hazard(s)

Corrosive to metals Category 1

Hazard(s) not otherwise classified

None

Labeling

Signal Word: DANGER
Pictograms: Corrosion, Health Hazard

Statements of Hazard

Hazard Statements

Causes severe skin burns and eye damage
Harmful if inhaled or swallowed
May cause respiratory irritation
May be corrosive to metals

Precautionary Statements

Wear protective gloves, eye and face protection. Do not breathe vapors or mist. Use only outdoors or in a well-ventilated area. Take off contaminated clothing and wash it before reuse. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Store locked up in a well ventilated place. Keep only in original container. Absorb spillage to prevent material damage. Store in corrosive-resistant container with resistant inner liner. Dispose of contents and container in accordance with applicable regulations.
If on skin: Rinse skin with water or shower. Immediately call a poison center or doctor.
If in eyes: 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.
If inhaled: Remove person to fresh air and keep comfortable for breathing. Immediately call a poison center or doctor.
If swallowed: Rinse mouth. Do NOT induce vomiting. Immediately call a poison center or doctor.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	CAS Number	Percent by Wt.
2-butoxyethanol	111-76-2	10-15*
Monoethanolamine	141-43-5	10-15*

* Exact percentage of composition has been withheld as a trade secret

4. FIRST AID MEASURES

General Advice: Causes skin and eye damage. May be absorbed through the skin; avoid contact. Do not swallow. Avoid breathing vapor or mist. Use with adequate ventilation. Keep container closed.

Inhalation: Remove person to fresh air and keep comfortable for breathing. Immediately call a poison center or doctor.

Skin Contact: Remove contaminated clothing. Flush skin with plenty of water. Remove contaminated clothing and wash before reuse. Immediately call a poison center or doctor.

Eye Contact: Immediately flush cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center or doctor.

Ingestion: Do not give anything by mouth to an unconscious person. Do not induce vomiting unless advised to do so by a doctor or poison control center. Rinse mouth. Immediately call a poison center or doctor.

5. FIRE FIGHTING MEASURES

Extinguishing Media: Product does not support combustion. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Suitable: Carbon Dioxide, Dry Chemical and Foam

Unsuitable: Alcohol, Alcohol based solutions

Fire Fighting Procedures: As in any fire, wear self-contained breathing apparatus, pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Cool fire-exposed containers with water spray.

Unusual Fire and Explosion Hazards: None known.

Hazardous Combustion/ Decomposition Products: Oxides of carbon, phosphorous and nitrogen.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions / Protective Equipment / Emergency Procedures: Use caution as spills may be slippery. Ensure adequate ventilation. Use personal protective equipment.

Methods and materials for containment and cleaning up: Small spills of one gallon or less may be flushed with plenty of water to sanitary sewer system (If permitted by local sewer regulations). Dike and contain large spills with inert absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer liquid to plastic containers. Do not store or dispense into metal containers; especially aluminum. Use clean non-sparking tools to collect absorbed material and transfer to a properly labeled container for recovery or disposal according to applicable regulations.

7. HANDLING AND STORAGE

HANDLING

Precautions for Safe Handling: Avoid skin and eye contact. Use with adequate ventilation. Avoid breathing vapor and mist. Follow all SDS/label precautions.

STORAGE

Conditions to avoid: Store in a cool, dry, well-ventilated place in the original container. Separate from acids, reactive metals, and ammonium salts. Do not store or transfer in aluminum, fiberglass, copper, brass, zinc or galvanized containers. Keep container tightly closed when not in use. Freezing will affect the physical condition but will not damage the material. Thaw and mix before using.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE LIMITS

Component	ACGIH		OSHA		STEL ppm	STEL mg/m3
	TLV ppm	TLV mg/m3	PEL ppm	PEL mg/m3		
2-butoxyethanol	20 (Skin)	Not Est.	50	240	Not Est.	Not Est.
Monoethanolamine	3	Not Est.	3	6	6	15

Engineering Controls: Use with local exhaust ventilation. Ensure adequate ventilation, especially in confined areas.

Personal Protection

Respiratory Protection: None required under normal use conditions. In case of insufficient ventilation, wear a suitable NIOSH approved air purifying respirator.

Hand / Skin Protection: Wear impermeable gloves such as neoprene or nitrile rubber gloves. Gauntlets and apron may be worn depending on the extent of exposure.

Eye / Face Protection: Face shield with safety glasses with side-shields.

General Hygiene Measures: Avoid contact. Always wash hands and face before eating, drinking or smoking. Remove and wash contaminated clothing before re-use. An eyewash station and washing facilities should be readily accessible to the area of use. See 29 CFR 1910.132-138 for further guidance.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Translucent	Volatile by volume (%):	75
Physical State:	Viscous liquid	Vapor Density (Air=1):	1
Odor:	Fishy	Evaporation Rate (BuAc= 1):	<1
Color:	Water white	Vapor Pressure, mmHg @23°C:	21.1
Viscosity, cSt @ 40°C:	Not established	Solubility in water:	Complete
cSt @ 100°C:	Not established	Octanol/Water Partition (log Pow)	
pH:	11	2-butoxyethanol	0.81
Boiling Point/ Range:	>200°F / 93°C	Monoethanolamine	-2.3
Melting Point:	>32°F / 0°C	VOC Content (g/L)(%):	0
Flash Point:	Non-flammable	Specific Gravity @15.6°C:	1.002
Method:	Not applicable	Pour Point:	>32°F / 0°C
Lower Explosive Limit, vol %:	3.4 MEA	Non-volatile by Volume (%):	25
Upper Explosive Limit, vol %:	Not established	Dielectric Strength:	Not applicable
Autoignition Temperature:	424°C		

10. STABILITY AND REACTIVITY

Stability: Stable at ambient temperatures.

Conditions to Avoid: None known

Hazardous Polymerization: Will not occur.

Materials to Avoid: Strong oxidizing agents, acids and reactive metals such as aluminum, magnesium, copper, brass, zinc or galvanized metal. Do not mix with nitrosating agents like sodium nitrate as it can form carcinogenic nitrosamines.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Product Information: Not established

Ingredient Information

2-butoxyethanol: Ori-Rat LD50 470 mg/kg, Skn-Rbt LD50 220 mg/kg, Ihl-Rat LC50 450 ppm 4 h

Monoethanolamine: Ori-Rat LD50: 1,515-1,720 mg/kg, Ihl-Rat LD50: >1.3 mg/L 6 h, Skn-Rbt LD50: 1,025 mg/kg

Acute Effects

Signs and Symptoms of Overexposure: Skin and serious eye irritation, Coughing, Sneezing

Inhalation: Vapor and mist may cause respiratory irritation with nasal discomfort and discharge, coughing and sneezing.

Skin Contact: May cause redness and itching. May be absorbed through skin in harmful amounts.

Eye Contact: May cause stinging, tearing, redness, and pain. May cause blindness.

Ingestion: May cause nausea, vomiting and diarrhea.

Primary Route(s) of Exposure: Eyes, Skin, Inhalation

Primary Route(s) of Entry: Inhalation, Ingestion

Target Organs: Liver, kidneys, lymphatic system, skin, blood, eyes, central nervous system and respiratory system

Chronic Effects

2-butoxyethanol target organ effects: liver, kidneys, lymphatic system, skin, blood, eyes, CNS and respiratory system

Monoethanolamine: Liver, kidneys and respiratory system

Carcinogenicity: 2-butoxyethanol: ACGIH A3; IARC Group 3; Not classifiable as to its carcinogenicity to humans.
Medical Conditions Aggravated by Exposure: May aggravate existing skin, eye and respiratory conditions including asthma and dermatitis.

12. ECOLOGICAL INFORMATION

Product Data: Not established

Ingredient Data

2-butoxyethanol: Toxicity to Fish LC50 = 1490 mg/L *Lepomis macrochirus* 96 h, Water Flea EC50 1698 - 1940 mg/L 24 h *Daphnia magna*, 1000 mg/L 48 h *Daphnia magna*

Monoethanolamine: Toxicity to Algae EC50 = 15 mg/L *Desmodesmus subspicatus* 72 h, Toxicity to Fish LC50 114 - 196 mg/L *Oncorhynchus mykiss* 96 h LC50 300 - 1000 mg/L *Lepomis macrochirus* 96 h LC50 = 227 mg/L *Pimephales promelas* 96 h LC50 = 3684 mg/L *Brachydanio rerio* 96 h LC50 > 200 mg/L *Oncorhynchus mykiss* 96 h, Microtox EC50 = 110 mg/L 17 h EC50 = 12200 mg/L 2 h EC50 = 13.7 mg/L 30 min, Water Flea EC50: *Daphnia magna* 65mg/L 48 h

Elimination Information: 2-butoxyethanol: log Kow 0.81; Monoethanolamine: Readily biodegradable, log Kow -2.3

13. DISPOSAL CONSIDERATIONS

Product: Dispose of contents and container in accordance with applicable regulations.

Container: Empty remaining contents. Empty containers should be taken for local recycling, recovery or waste disposal.

14. TRANSPORT INFORMATION

Road Transport

Proper Shipping Name: Amines, liquid, corrosive, n.o.s. (Ethanolamine)

UN-No: UN2735

Class: 8

Packing Group: II

Sea Transport

Proper Shipping Name: Amines, liquid, corrosive, n.o.s. (Ethanolamine)

Class: 8

UN-No: UN2735

Packing Group: II

EmS No. F-A, S-B

Air Transport

Proper Shipping Name: Amines, liquid, corrosive, n.o.s. (Ethanolamine)

Class: 8

UN-No UN2735

Packing Group: II

ERG Code 8L

15. REGULATORY INFORMATION

U.S. Federal Regulations

Toxic Substances Control Act (TSCA): All components are included on the Inventory

Superfund Amendments and Reauthorization Act (SARA) Title III:

Immediate Hazard	Delayed Hazard	Fire Hazard	Pressure Hazard	Reactivity Hazard
X	X	-	-	-

16. OTHER INFORMATION

Prepared by: U.S. Corrosion Technologies, LLC Technical Services Department

Revision Date: 7/26/2016

Supersedes Date: 6/16/2016

Revision Indicator: v 2.0

National Fire Protection Association (704)

Health: 1

Flammability: 1

Reactivity: 0

Other: -

The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results and assume no liability for damage incurred by use of this material. All chemicals may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist. Final determination of suitability of the chemical and application of such products is the sole responsibility of the user. No representations or warranties, either expressed or implied, of merchantability, fitness for a particular purpose or any other nature are made hereunder with respect to the information contained herein or the chemical to which the information refers. It is the sole responsibility of the user to comply with all applicable Federal, State and Local Laws and Regulations. Any questions with regards to information contained herein should be referred to: U. S. Corrosion Technologies, LLC (972) 271-7361.