



Safety Data Sheet

Section 1. PRODUCT AND COMPANY IDENTIFICATION

1.1 Product identifier

Product Name: **SCALE AWAY**
Synonym: None
Product Item No.: 66

1.2 Recommended use of the product and restrictions on use

Uses: Removal of hard water scale, and rust
Restrictions:
Product dilution: Product is able to be diluted

1.3 Details of the supplier of the safety data sheet

Company: Emtech Laboratories, Inc.
580 S. Cemetery Street
Norcross, Georgia 30071
Telephone: 877-753-3271
Fax Phone Number: 888-294-7060

1.4 Emergency telephone number

Emergency Phone Number: 678-534-8007

Section 2. Hazards Identification

2.1 Classification of the substance or mixture:

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Health Hazards

Acute toxicity, Oral (Category 4) H302
Acute toxicity, Inhalation (Category 4) H332
Serious Eye Damage (Category 1) H318
Skin Corrosion (Category 1A) H314
STOT SE (Category 3) H335

Environmental Hazards

Acute aquatic toxicity (Category 2) H401

Other Hazards

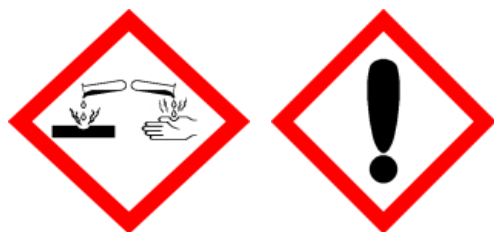
Corrosive to metals (Category 1) H290
Flammable liquids (Category 4) H227

GHS Classification Scale (1= severe hazard; 4= slight hazard)

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2.2 GHS Label elements

Pictogram(s)



Signal Word:

Danger

Hazard statement(s):

H227	Combustible Liquids.
H290	May be corrosive to metals
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage
H318	Causes serious eye damage.
H332	Harmful if inhaled.
H335	May cause respiratory irritation
H401	Toxic to aquatic life

Precautionary statement - Prevention

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260	Do not breathe fume, mist, vapours, spray
P264	Wash skin thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release to the environment.
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.

Precautionary statement – Response

P301 + P330 + P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353	IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.
P304 + P340 + P312	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor /physician if you feel unwell.
P305 + P351 + P338	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/ physician.
P310	

Precautionary statement – Storage

P390	Absorb spillage to prevent material damage.
P403 + P235 + P233	Store in a well-ventilated place. Keep cool. Keep container tightly closed.
P501	Dispose of contents/ container to an approved waste disposal plant.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS: No data.

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Section 3. Composition / Information on Ingredients

Substance/ Mixture: Mixture

Hazardous Ingredients	Concentration Range (%)	CAS number
Phosphoric acid	45 – 55	7664-38-2
Alkylated naphthalene sulfonate, sodium salt	1 - 2	Mixture
2-butoxyethanol	1 - 3	111-76-2
Citric Acid	1 – 3	77-92-9

Balance of other ingredients is non-hazardous or less than 0.1%. Any concentration shown as a range is to protect confidentiality or is due to batch variation.

Section 4. First Aid Measures

4.1 Description of first aid measures

General

Wear chemical resistant gloves, immediately remove contaminated clothing. If danger of loss of consciousness, place patient in recovery position and transport accordingly. Apply artificial respiration if necessary. First aid personnel should pay attention to their own safety by avoiding contact with the substance.

Inhalation

Keep patient calm. Remove victim to fresh air. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult give medical oxygen. Get medical attention immediately.

Ingestion

Never give anything by mouth if victim is rapidly losing consciousness, is unconscious or convulsing. Have victim drink two glasses of water to dilute material in the stomach. Do NOT induce vomiting. Get medical attention immediately. If vomiting occurs naturally, have the victim lean forward to reduce risk of aspiration, rinse mouth and repeat administration of water. Persons attending the victim should avoid direct contact with heavily contaminated clothing and vomitus. Wear impervious gloves while decontaminating skin and hair.

Skin

For minor skin contact, avoid spreading material on unaffected skin. Immediately flush contaminated area with lukewarm, gently running water for at least 20-30 minutes. Under running water, remove contaminated clothing, shoes and leather goods. Apply sterile dressings. Seek medical attention.

Eye

Immediately flush the contaminated eye(s) with lukewarm, gently flowing water for at least 20-30 minutes, while holding the eyelid(s) open. Get medical attention immediately. Protect unexposed eye.

4.2 Most important symptoms and effects, both acute and delayed

Irritation, Nausea, Headache, Shortness of breath. May cause severe burns and ulcerations. May cause severe burn and irreversible eye injury. May cause gastrointestinal tract burns, corrosion and permanent tissue damage of the digestive tract and esophagus. Other known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11.

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4.3 Indication of any immediate medical attention and special treatment needed

If seeking medical attention, provide SDS document to physician. Wipe off contact areas with a dry cloth if possible, before flushing with water. Dispose of cloth by soaking in water. Neutralize the soaking solution with sodium hydroxide solution.

Section 5. Fire-Fighting Measures**5.1 Suitable Extinguishing Media**

Use water spray, alcohol-resistant foam, dry agent (carbon dioxide, dry chemical powder).

Unsuitable Extinguishing Media:

Water jet.

5.2 Special hazards arising from the substance or mixture

Combustible liquid. Can form explosive mixtures with air near, or above, 85°C.

5.3 Advice for firefighters

Wear full protective clothing (chemical splash suit) and positive pressure self-contained breathing apparatus. Water spray can be used to absorb heat, keep containers cool and protect fire-exposed materials. If a leak or spill has not ignited, use water spray to disperse the vapors. Use water spray to flush spills away from ignition sources.

5.4 Further information

Contaminated extinguishing water must be disposed of in accordance with official regulations. Can form peroxides of unknown stability.

National Fire
Protection

Association (NFPA)

0 = None 4 = Extreme Hazard

Health: 3

Fire Hazard: 2

Reactivity: 0

Section 6. Accidental Release Measures**6.1 Personal precautions, protective equipment and emergency procedures**

Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. For personal protection see section 8.

6.2 Methods and materials for containment and cleaning up

For small amounts: Pick up with suitable absorbent material. Dispose of absorbed material in accordance with regulations. Do not use saw-dust or other combustible substances as an absorbent during cleanup. For large amounts: Pump off product. Correctly dispose of recovered product immediately.

6.3 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

6.4 Reference to other sections

See section 8 to personal protective protection and section 13 to waste treatment.

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Section 7. Handling and Storage

7.1 Precautions for safe handling

Use caution when combining with water; DO NOT add water to corrosive liquid, ALWAYS add corrosive liquid to water while stirring to prevent release of heat, steam and fumes. This product reacts violently with bases liberating heat and causing spattering. This mixture is COMBUSTIBLE Immediately report leaks, spills or failures of the engineering controls. Avoid generating vapors and mists. Inspect containers for damage or leaks before handling. Whenever possible, use self-closing, portable containers for dispensing small amounts of this material. Prevent damage to containers and keep them closed when not in use. Use this mixture in the smallest possible amounts in appropriate labeled containers and open carefully on a stable surface, in a well-ventilated area.

7.2 Conditions for safe storage, including and incompatibilities

Keep container tightly closed. Store in a cool, dry, well-ventilated area away from sunlight, heat and ignition sources. Avoid freezing. The suitable conditions to store this product is about 20 °C and a maximum storage duration between 5 and 12 months. Storage area should be clearly identified, clear of obstruction and accessible only to trained and authorized personnel. Keep storage area separate from work areas.

7.3 Specific end use(s)

Apart from the uses referenced in section 1.2 no other specific uses are stipulated

Section 8. Exposure Controls / Personal Protection

8.1 Control parameters

Ingredients with workplace control parameters

Ingredients	CAS-No.	Type	Permissible Concentration	Basis
Phosphoric Acid	7664-38-2	Ceiling	3 mg/m ³	ACGIH
2-butoxyethanol	111-76-2	TWA PEL	20 ppm 50 ppm 240 mg/m ³	USA, AGGIH USA, OSHA

TWA - The time-weighted average airborne concentration of a particular substance when calculated over an eight-hour working day, for a five-day working week.

STEL (Short Term Exposure Limit) - the airborne concentration of a particular substance calculated as a time-weighted average over 15 minutes, which should not be exceeded at any time during a normal eight hour work day. According to current knowledge this concentration should neither impair the health of, nor cause undue discomfort to, nearly all workers.

WEEL - Workplace Environmental Exposure Levels

These Workplace Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept to as low a level as is workable. These workplace exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.

8.2 Appropriate engineering controls

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Vapor heavier than air - prevent concentration in hollows or sumps. DO NOT enter confined spaces where vapor may have collected. Keep containers closed when not in use.

8.3 Personal protective equipment

General Information

Provide eyewash, safety shower and washing facilities.

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Eye/face protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Body Protection

Complete suit protecting against chemicals, the type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Always wash hands before smoking, eating, drinking or using the toilet. Wash hands before breaks and at the end of workday. Wash contaminated clothing and other protective equipment before storage or re-use.

Section 9. Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

a) Appearance	Form:	Liquid
	Color:	Clear, amber to brown
b) Odor		Moderate
c) Odor Threshold		no data available
d) pH		0.3 - 0.6 Typical
pH10% Solution		1.0 - 1.5 Typical
e) Melting point/freezing point		no data available
f) Initial boiling point and boiling range		212°F (100°C)
g) Flash point closed cup		>140°F (60°C)
h) Evaporation rate		no data available
i) Flammability (solid, gas)		no data available
j) Upper/lower flammability or explosive limits		no data available
k) Vapor pressure		no data available
l) Vapor density		no data available
m) Relative density		1.28 g/cm ³ at 25 °C (77 °F)
n) Water solubility		soluble
o) Partition coefficient: n-octanol/water		no data available
p) Auto-ignition temperature		no data available
q) Decomposition temperature		no data available
r) Viscosity		no data available

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s) Explosive properties	no data available
t) Oxidizing properties	no data available

9.2 Other information

VOC (Volatile Organic Compounds)	3% by weight
Molecular Weight	Mixture
Bulk Density	no data available

Section 10. Stability and Reactivity

10.1 Reactivity

No data available

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

No data available

10.4 Conditions to avoid

Avoid exposure to sources of ignition, and open flame.

10.5 Incompatible materials

When handling this product, avoid contact with strong oxidizing agents, strong reducing agents, bases, certain metals, acid chlorides, and acid anhydrides.

10.6 Hazardous decomposition products

In the event of fire, decomposition products may include the following materials: carbon dioxide, carbon monoxide, oxides of phosphorous, and sulfur oxides. Hydrogen gas is released in contact with most metals. In the event of fire: see section 5

Section 11. Toxicological Information

11.1 Likely Routes of exposure

Likely routes of exposure include: inhalation, eye and skin contact.

11.2 Signs and symptoms of exposure

Eye irritation signs and symptoms may include severe pain and damage.

Skin irritation signs and symptoms may include burning sensation on skin.

Breathing of high vapor concentrations may cause central nervous system (CNS) depression resulting in dizziness, light-headedness, headache, nausea, and loss of coordination. Also, may cause respiratory irritation. Respiratory irritation signs and symptoms may include cough, drowsiness, headache, and sore throat.

11.3 Delayed and immediate effects/Chronic effects from short- and long-term exposure**Eye**

Corrosive. Can cause permanent damage to the cornea, blindness. Repeated or prolonged exposure to corrosive materials or fumes may cause conjunctivitis.

Skin

Contact with skin causes severe burns. Repeated or prolonged exposure to corrosive materials will cause dermatitis.

Inhalation

Under normal conditions of use, no health effects are expected. Repeated or prolonged exposure to corrosive fumes may cause bronchial irritation with chronic cough.

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Ingestion

Causes corrosion, burns to mouth and esophagus, abdominal pain and digestive tract burns, chest pain, nausea, vomiting, diarrhea, seizures. Aspiration of the swallowed or vomited product can cause severe pulmonary complications. Repeated or prolonged exposure to corrosive materials or fumes may cause gastrointestinal disturbances.

Chronic effects

Metabolism of 2-butoxyethanol to oxalic acid may cause kidney stones in humans; red cell damage in rodents; human red cells are more resistant. Other health injuries are not expected under normal safe use as described in the sections of this safety data sheet.

Respiratory or skin sensitization

No data available

Germ cell mutagenicity

No data available

Reproductive toxicity

No data available

No data available

Specific target organ toxicity-single exposure

Inhalation, Oral - May cause drowsiness or dizziness.

Specific target organ toxicity-repeated exposure

No data available

Aspiration hazard

Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia.

Additional Information

RTECS (Registry of Toxic Effects of Chemical Substances): WB4900000

Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin.

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

11.4 Information on toxicological effects**Acute toxicity**

Ingredient	CAS No.	LD50-Oral, Rat	Inhalation, Rat	Dermal, Rabbit
Alkylated naphthalene Sulfonate, sodium salt	Mixture	26533-37434 mg/kg		>2,000 mg/kg
Phosphoric Acid	7664-38-2	1530 mg/m3	>850 mg/m3	
2-butoxyethanol	111-76-2	1300 mg/kg	>4.9 mg/l 3hr	2000 mg/kg

Skin corrosion/irritation test subject (Rabbit Skin)

Skin-Rabbit

Result: 595 mg/kg 24 Hour(s) • Severe irritation, irreversible, burns (corrosive)

Serious eye damage/eye irritation test subject (Rabbit Eye)

Eyes-Rabbit

Result: 119 mg/kg • Severe irritation, irreversible, burns (corrosive)

11.5 Carcinogenicity

IARC (International Agency for Research on Cancer): No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH (American Conference of Governmental Industrial Hygienists): No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

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NTP (National Toxicology Program): No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA (Occupational Safety and Health Administration): No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Section 12. Ecological Information

12.1 Ecotoxicity

Ingredient	CAS No.	
Phosphoric Acid	7664-38-2	96HR LC50 (fish): 138 mg/l (Mosquitofish)
2-butoxyethanol	111-76-2	96hr LC50 (fish): 1474 mg/l (Oncorhynchus mykiss)

12.2 Persistence and degradability

According to the results of tests of biodegradability the organic components should be readily biodegradable.

12.3 Bioaccumulative potential

No data available for the inorganic ingredient in this product, however the potential for bioaccumulation or\of the organic ingredients is low.

12.4 Mobility in soil

No data available

12.5 Other adverse effects

In high concentrations will cause immediate damage to wildlife, fish, and plants. While acidity of this material is readily reduced in natural waters, the resulting phosphate may persist indefinitely or incorporate into biological systems.

Section 13. Disposal Considerations

13.1 Waste treatment methods

DO NOT DUMP INTO ANY SEWERS, ON THE GROUND, OR INTO ANY BODY OF WATER.

All disposal practices must be in compliance with all Federal, State/Provincial and local laws and regulations.

Regulations may vary in different locations. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator.

Section 14. Transportation Information

Land Transport (DOT)

14.1 UN number	UN1760
14.2 Proper Shipping Name:	Compounds, Cleaning Liquid, N.O.S.
14.3 Transport Hazard Class:	8
14.4 Packing Group	II
14.5 Special Precautions for the user	No data

IATA (International Air Transport Association): No data

IMDG (International Maritime Dangerous Goods Code): No data

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Section 15. Regulatory Information

SARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

The following components are subject to reporting levels established by SARA Title III, Section 313:

2-Butoxyethanol (CAS 111-76-2)

SARA 311/312 Hazards

Fire Hazard, Acute Health Hazard

US State regulations

Massachusetts Right To Know Components

Phosphoric Acid (CAS 7664-38-2), 2-butoxyethanol (CAS 111-76-2)

Pennsylvania Right To Know Components

Phosphoric Acid (CAS 7664-38-2), 2-butoxyethanol (CAS 111-76-2)

New Jersey Right To Know Components

2-butoxyethanol (CAS 111-76-2)

Rhode Island Right To Know Components

Phosphoric Acid (CAS 7664-38-2), 2-butoxyethanol (CAS 111-76-2)

California Prop. 65 Components

Based on raw material supplied information, this product does not contain chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

Section 16. Other Information

Hazardous Material Information System (HMIS)	Health:	3
	Fire Hazard:	2
	Reactivity:	0

0 = None 4 = Extreme

Personal Protective Equipment **B – Safety
Safety Glasses, Gloves**

SDS Issuing date: 07/12/2016

The information above includes data compiled from Safety Data Sheets from manufactures' of each component of this product. Emtech Laboratories, Inc. believes the data contained herein are accurate. The data are not to be taken as warranty or representation for which Emtech Laboratories, Inc. assumes legal responsibility. They are offered solely for your consideration, investigation and verification. Any use of these data and information must be in accordance with applicable Federal, State and local laws and regulations.

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