



your partner in food safety

SDS

Safety Data Sheet

1) Product Identification

Product Name: BOSS--Acid Foam

Product Code: BOSS 6

Recommended Use: Foaming acid cleaner

Producer: Birko Corporation
9152 Yosemite Street
Henderson, CO 80640-8027

Contact Information: (303) 289-1090 or 1-800-525-0476

Emergency Number: CHEMTREC 1-800-424-9300

2) Hazard(s) Identification

Health	Environmental	Physical
Acute Toxicity Cat. 4 (oral) Skin Corrosion Cat. 1A Eye Effects Cat. 1	Aquatic Toxicity Acute Cat. 2	Corrosive Cat. 1

Labeling:**Symbol:****Signal Word: Danger**

Hazard Statement(s): Causes irreversible eye damage. Harmful or fatal if swallowed. Causes burns. Do not get into eyes, on skin, or on clothing. Corrosive to certain types of metals.

Precautionary Statement(s): Use rubber gloves, protective splash-proof goggles, and protective clothing. Remove contaminated clothing and wash before re-use. Do not contaminate food, feed, or water. Keep container closed when not in use.

3) Composition/ Information on Ingredients

Name(s)	Synonym(s)	CAS Number	Weight %
Phosphoric Acid	Ortho-phosphoric acid	7664-38-2	< 50%
Nitric Acid	Azotic Acid	7697-37-2	< 20%

4) First-Aid Measures

Inhalation	Skin Contact	Eye Contact	Ingestion
If symptoms develop, immediately move individual away from exposure and into fresh air. Seek immediate medical attention; keep person warm and quiet. If person is not breathing, begin artificial respiration. If breathing is difficult, administer oxygen.	Immediately flush skin with water for at least 15 minutes while removing contaminated clothing and shoes. Seek immediate medical attention. Wash clothing before re-use and discard contaminated shoes.	If material gets into the eyes, immediately flush eyes gently with water for at least 15 minutes while holding eyelids apart. If symptoms develop as a result of vapor exposure, immediately move individual away from exposure and into fresh air before flushing as recommended above. Seek immediate medical attention.	Seek immediate medical attention. Do not induce vomiting. Vomiting will cause further damage to the mouth and throat. If individual is conscious and alert, immediately rinse mouth with water and give milk or water to drink. If possible, do not leave individual unattended.

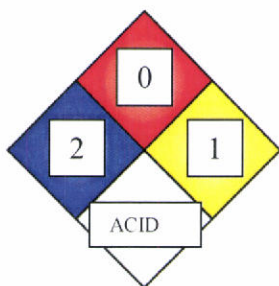
5) Firefighting Measures

Suitable Extinguishing Media: Water, Carbon Dioxide, Dry Chemical, and Foam Blanket

Unsuitable Extinguishing Media: N/A

Specific Hazards: Always wear self-contained breathing apparatus when fighting a chemical fire.

Special Protective Actions for Fire-Fighters: Carbon monoxide and Carbon dioxide gases liberated during combustion. PO_x and carbon, acids of phosphorus and phosphine, and NO_x liberated during decomposition.



6) Accidental Release Measures

Personal Precautions: Be sure to use all necessary Personal Protective Equipment

Environmental Precautions: Avoid contamination of food, feed, waterway, or groundwater.

Methods and Materials for Containment and Clean-Up: For small spills: Cover the contaminated surface with sodium bicarbonate or a soda ash/flaked lime mixture (50-50). Mix and add water if necessary to form a slurry. Scoop up slurry and wash site with soda ash solution. Proper mixing procedures are essential. Trained personnel should conduct this procedure. Untrained personnel should be removed from the spill area. For large spills: Persons not wearing protective equipment should be excluded from area of spill until clean-up is completed. Stop spill at source. Dike to prevent spreading. Pump to salvage tank.

7) Handling and Storage

Precautions for Safe Handling: Do not contaminate food, feed, or natural water. RELEASES HEAT WHEN MIXED WITH WATER. Supplier is not responsible for disposition of this product. Do not reuse container. Maintain an eyewash station, and safety shower in product handling areas.

Conditions for Safe Storage: Keep container closed when not in use. Store in a cool, dry location. Drums and totes require vented bungs to prevent swelling of stored materials.

8) Exposure Controls and Personal Protection

Appropriate Engineering Controls: Ventilation: Provide local exhaust ventilation where mist may be generated. Ensure compliance with applicable exposure limits.

Exposure Limits:

Name (CAS-No.)	PEL	TWA	STEL
Phosphoric Acid	OSHA 1 mg/m ³	OSHA 1 mg/m ³ ACGIH 1 mg/m ³	OSHA 3 mg/m ³ ACGIH 3 mg/m ³
Nitric Acid	OSHA 2 ppm	OSHA 2 ppm	OSHA 4 ppm

Personal Protective Equipment

Eye/Face	Skin	Gloves	Boots
			

Eye/Face: Safety glasses with Side shields. Wear chemical safety goggles with face shield when appropriate.

Skin: Wear chemical resistant clothing and rubber boots.

Gloves: Wear appropriate chemical resistant gloves.

Protective Material Types: Neoprene, nitrile rubber, polyvinyl chloride, polyethylene.

9) Physical and Chemical Properties

Physical Form: Liquid

Appearance: Orange

Odor: Sweet acid, slight acid

pH: (1% Solution) 1.6-2.0

Melting Point: Not available

Freezing Point: Not established

Boiling Point: Not established

Flash Point: Not applicable

Evaporation Rate: < 1

Flammability: Not flammable

Upper/Lower Flammability or explosive limits: Not applicable

Vapor Pressure: > 1

Vapor Density: > 1

Relative Density: Not established

Specific Gravity: 1.0-1.2

Solubility: 100%

Partition coefficient: Not available

Auto-Ignition Temperature: Not applicable

Decomposition Temperature: Not available

10) Stability and Reactivity

Chemical Stability: Stable at normal temperatures and pressure.

Possibility of Hazardous Reactions: This product does not polymerize under normal storage and use conditions.

Conditions to Avoid: Mixing with caustics and other strong bases. Acid reacts with most metals to release hydrogen gas which can form explosive mixtures with air.

Materials to Avoid: Alkali metals, strong alkalis, carbides, hydrogen sulfide, turpentine, organic acids, acid reacts with most metals to release hydrogen gas which can form explosive mixtures with air.

Hazardous Decomposition Products: PO_x and NO_x liberated during decomposition.

11) Toxicological Information

Acute Toxicity:

Test	Results	Basis
Oral-Rat LD50	4,400 mg/kg	Product test
Dermal-Rabbit LD50	>3,160 mg/kg	Product test

Summary Comments: The severity of the tissue damage is a function of its concentration, the length of tissue contact time, and local tissue conditions. After exposure there may be a time delay before irritation and other effects occur. This material is a strong irritant and is corrosive to the skin, eyes, and mucous membranes. This material may cause severe burns and permanent damage to any tissue with which it comes into contact. Inhalation will cause severe irritation, possible burns with pulmonary edema, which may lead to pneumonitis. Skin contact with this material may cause severe irritation and corrosion of tissue. Eye contact can cause severe irritation, corrosion with possible corneal damage and blindness. Ingestion may cause irritation, corrosion/ulceration, nausea, and vomiting.

Sub-chronic/Chronic Toxicity:

Test	Results	Comments
N/A	N/A	N/A

12) Ecological Information

Toxicity:

Test	Results
Mosquito fish LC50	96 hour 138 mg/L

Persistence and Degradability: No specific biodegradation test data located. While acidity of this material is readily reduced in natural waters, the resulting phosphate may persist indefinitely or incorporate into biological systems. Increased acidity in water will cause harm and death to aquatic organisms.

Bioaccumulative Potential: This material is believed not to bioaccumulate.

Mobility in Soil: Not available

Other Adverse Effects: Not available

13) Disposal Considerations

Disposal Method: Re-use or reprocess if possible. Dispose in accordance with all applicable regulations.

14) Transport Information

UN Number: UN1760

UN Proper Shipping Name: N.O.S. Phosphoric acid and nitric acid

Transport Hazard Class (es): 8

Packing Group: II

Environmental Hazard(s): N/A

Special Precautions for User: N/A

15) Regulatory Information

US Regulations:

CERCLA Sections 102a/103 Hazardous substances (40 CFR 302.4):

Phosphoric Acid: 5000 lbs. RQ on a 100% active basis

Nitric Acid: 1000 lbs. in 100% concentration. On a 100% active basis

SARA Title III SARA Sections 311/312 Hazardous Categories (40 CFR 370.21):

Acute: Yes

Chronic: No

Fire: No

Reactive: No

Sudden Release: No

40 CFR Part 355: Nitric Acid

40 CFR Part 370: Applicable

State Regulations:

California Proposition 65: This product is not listed.

California Hazardous Substance List:

7697-37-2 Nitric Acid

7664-38-2 Phosphoric Acid

New Jersey Worker and Community Right to Know: Reporting Requirements:

7697-37-2 Nitric Acid

7664-38-2 Phosphoric Acid

Right to Know Hazardous Substance List:

7697-37-2 Nitric Acid

7664-38-2 Phosphoric Acid

Pennsylvania Right to Know: Reporting Requirements:

7697-37-2 Nitric Acid

7664-38-2 Phosphoric Acid

Environmental Hazardous Substance List:

7697-37-2 Nitric Acid

7664-38-2 Phosphoric Acid

Rhodes Island Hazardous Substance List:

7697-37-2 Nitric Acid

7664-38-2 Phosphoric Acid

Canadian Regulations:

Controlled Products Regulations (CPR): This product has been classified in accordance with the criteria of the Controlled Products Regulations and the MSDS contains all of the information required by the CPR.

WHMIS Classification: E and D2 (B)

National Inventory Status: U.S. Inventory (TSCA): All the components of this substance are listed on or exempt from the inventory.

EC: Listed

Japan: Listed

Australia: Listed

Korea: Listed

Philippines: Listed

China: Listed

Canada Inventory (DSL/NDSL): All components of this product are listed on the DSL

16) Other Information

GHS

4	FLAMMABILITY
2	HEALTH
2	REACTIVITY
J	Personal Protection

Hazard Index

1-Extreme Hazard

2-High

3-Moderate

4-Low Hazard

Preparer: Ramsey Johnson

Approved By: Terry L. McAninch

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Personal Protective Index

