

Safety Data Sheet

SECTION I - IDENTIFICATION

PRODUCT NAME: Bro-4
PRODUCT CODE: 289000005-32OT
PRODUCT USE: Tub & Tile Cleaner
COMPANY NAME: Brothers MFG.
COMPANY ADDRESS: 10900 60th Street N, Grant, MN 55082
COMPANY PHONE: 651-646-1696
EMERGENCY PHONE: 800-255-3924

SECTION II – HAZARDS IDENTIFICATION

CLASSIFICATION: Skin Corrosion: Category 1C

Eye Corrosion: Category 1

Corrosive to Metals

HAZARD STATEMENT(S): DANGER: Causes Severe skin burns and eye damage. May be corrosive to metals.

This product contains the following percentage of chemicals of unknown toxicity: 0%

PRECAUTIONARY STATEMENTS: Do not breathe mists. Wash hands thoroughly after handling. Wear protective gloves and eye protection. If swallowed: Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. Wash contaminated clothing before reuse. If inhaled: Remove person to fresh air and keep comfortable for breathing. 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. Store locked up. Dispose of contents and container in accordance with local, state, and national regulations. Keep only in original container. Absorb spillage to prevent material damage. Store in a corrosive resistant container with a resistant inner liner.



SYMBOL:

HAZARDS NOT OTHERWISE CLASSIFIED: N/A

SECTION III – COMPOSITION/INFORMATION ON INGREDIENTS

HAZARDOUS INGREDIENT	CAS NUMBER	PERCENT
Hydrogen Chloride	7647-01-0	.5-1.5%
Phosphoric Acid	7664-38-2	7-13%

SECTION IV - FIRST AID MEASURES

EYES: Immediately flush with water for 30 minutes while holding eyelids open. Seek immediate medical attention.

INGESTION: Rinse mouth with water. Do not induce vomiting unless directed by medical authority. Seek medical attention.

INHALATION: Move to fresh air. If breathing is difficult, administer oxygen. If not breathing administer artificial respiration or at any sign of loss of consciousness seek immediate medical attention.

SKIN: Immediately wash with water for 15 minutes. Remove contaminated clothing and shoes immediately. Seek immediate medical attention.

ACUTE HEALTH HAZARDS: Causes severe burns.

CHRONIC HEALTH HAZARDS: Respiratory Disease and Dermal related medical conditions.

NOTE TO PHYSICIAN: The absence of visible signs or symptoms of burns does not reliably exclude the presence of actual tissue damage.

SECTION V – FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA: Use appropriate media for surrounding fire.

UNSUITABLE EXTINGUISHING MEDIA: N/A

SPECIAL FIRE FIGHTING PROCEDURES: Wear NIOSH approved Self Contained Breathing Apparatus with a full face piece operated in a positive pressure demand mode with full body protective clothing when fighting fires. Avoid contact with skin and breathing smoke, fumes, and decomposition products. Cool fire exposed containers with water fog to prevent bursting.

Safety Data Sheet

UNUSUAL FIRE AND EXPLOSION HAZARDS: May form oxides of phosphorus.

HAZARDOUS COMBUSTION PRODUCTS: May react with some metals to generate hydrogen gas which can be explosive in air.

SECTION VI – ACCIDENTAL RELEASE MEASURES

PERSONAL PROTECTIVE EQUIPMENT: Refer to section VIII for proper Personal Protective Equipment.

SPILL: Flush with water and neutralize with soda ash and absorb w/ inert material. Do not use combustible material. Dike area to contain spill. Dilute spill with large quantities of water and then neutralize with soda ash and flush to drain.

WASTE DISPOSAL: Dispose of in accordance with federal, state, and local regulations. Do not reuse container, triple rinse container and recycle or place in trash collection. Drums and pails should be offered for recycling.

RCRA STATUS: Waste likely considered Hazardous Waste D002 (Corrosive waste) due to the pH of the solution and the corrosive characteristic.

SECTION VII – HANDLING AND STORAGE

HANDLING AND STORAGE: Store in a cool, dry area away from other chemicals. Gloves and clothing to cover exposed skin recommended when handling. Wash clothing after handling avoid extremes of cold and heat. Keep away from children. Avoid contact with metals.

OTHER PRECAUTIONS: None

INCOMPATIBILITY: Strong alkalis, strong oxidizing agents, reducing agents, cyanides, sulfides, sulfites, alkali metals, flourine.

SECTION VIII – EXPOSURE CONTROLS/PERSONAL PROTECTION

HAZARDOUS INGREDIENT	OSHA PEL	ACGIH TLV
Hydrogen Chloride	5 ppm	2 ppm
Phosphoric Acid	1 mg/m ³	1 mg/m ³

ENGINEERING CONTROLS / VENTILATION: General ventilation adequate but local exhaust/ventilation preferred.

RESPIRATORY PROTECTION: Not required with normal use. Wear NIOSH/MSHA approved respiratory protection if exposure limits are exceeded.

PERSONAL PROTECTIVE EQUIPMENT: Safety glasses and chemical resistant gloves

ADDITIONAL MEASURES: Wash hands thoroughly with soap and water after using. If clothing becomes contaminated remove and wash immediately.

SECTION IX - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Yellow Liquid

ODOR: Mint scent

ODOR THRESHOLD: .622 mg/m³

BOILING POINT: > 212°F (100°C)

FREEZING POINT: N/D

FLAMMABILITY: Not considered a flammable liquid by OSHA (29CFR 1910.1200)

FLASH POINT: N/D

AUTOIGNITION TEMPERATURE: N/D

LOWER FLAMMABILITY LIMIT: N/D

UPPER FLAMMABILITY LIMIT: N/D

VAPOR PRESSURE (mm Hg): 17.5 @ 77°F (25°C)

VAPOR DENSITY (AIR=1): > 1 @ 77°F (25°C)

EVAPORATION RATE: <0.8

SPECIFIC GRAVITY (H₂O=1): 1.10 @ 77° F (25° C)

pH: 1

SOLIDS (%): N/D

SOLUBILITY IN WATER: 100%

PARTITION COEFFICIENT: n-OCTANOL/WATER (K_{ow}): N/D

VOLATILITY INCLUDING WATER (%): 100%

VOLATILE ORGANIC COMPOUNDS (VOC): <1%

DIELECTRIC STRENGTH (Volts): N/A

DECOMPOSITION TEMPERATURE: 158°C (316°F)

Safety Data Sheet

VISCOSITY: N/D

SECTION X – STABILITY AND REACTIVITY DATA

REACTIVITY: Chemically active metals and bases.

CHEMICAL STABILITY: Stable

CONDITIONS TO AVOID: Extremes of hot and cold. Reacts with metals to liberate hydrogen gas.

INCOMPATIBILITY: Strong alkalis, strong oxidizing agents, reducing agents, cyanides, sulfides, sulfites, alkali metals, flourine.

HAZARDOUS DECOMPOSITION OR BY-PRODUCT: Some metals can release oxides of phosphorus and release hydrogen gas which can be explosive

POSSIBLE HAZARDOUS REACTIONS: Will not occur

SECTION XI – TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION: Not Established

ROUTES OF ENTRY: Eyes, Ingestion, Inhalation, Skin

EYES: Causes severe burns, stinging, redness, tearing, swelling, and may cause corneal damage, blindness. Burning may not be immediately painful or visible.

INGESTION: Causes burning of mouth, throat, and digestive tract and may be fatal.

INHALATION: Acute exposure may cause nausea, vomiting, coughing and pulmonary irritation.

SKIN: Causes burns to all living tissue. Burns may not be immediately painful.

MEDICAL CONDITION AGGRAVATED: Asthma, bronchitis, emphysema and other lung diseases and chronic nose, sinus or throat conditions. Skin irritation may be aggravated in individuals with existing skin disorders.

ACUTE HEALTH HAZARDS: Causes severe burns.

CHRONIC HEALTH HAZARDS: Respiratory Disease and Dermal related medical conditions.

CARCINOGENICITY: OSHA: No ACGIH: No NTP: No IARC: No OTHER: N/A

SECTION XII – ECOLOGICAL INFORMATION

ECOLOGICAL INFORMATION: Not Established

BIODEGRADABILITY: This product is biodegradable.

BIOACCUMULATION: This product is not expected to bioaccumulate.

SOIL MOBILITY: This product is mobile in soil.

OTHER ECOLOGICAL HAZARDS: None Known

SECTION XIII – DISPOSAL CONSIDERATIONS

WASTE DISPOSAL: Dispose of in accordance with federal, state, and local regulations. Do not reuse container, triple rinse container and recycle or place in trash collection. Drums and pails should be offered for recycling.

RCRA STATUS: Waste likely considered Hazardous Waste D002 (Corrosive waste) due to the pH of the solution and the corrosive characteristic.

SECTION XIV - TRANSPORTATION INFORMATION

PROPER SHIPPING NAME: Corrosive Liquid, Acidic, Inorganic, NOS (Hydrochloric acid, Phosphoric acid)

HAZARD CLASS/DIVISION: None 8

UN/NA NUMBER: UN 3264

PACKAGING GROUP: III

AIR SHIPMENT

PROPER SHIPPING NAME: Corrosive Liquid, Acidic, Inorganic, NOS (Hydrochloric acid, Phosphoric acid)

HAZARD CLASS/DIVISION: 8

UN/NA NUMBER: UN 3264

SHIPPING BY WATER:

VESSEL (IMO/IMDG)

PROPER SHIPPING NAME: Corrosive Liquid, Acidic, Inorganic, NOS (Hydrochloric acid, Phosphoric acid)

Safety Data Sheet

HAZARD CLASS/DIVISION: 8
UN/NA NUMBER: UN 3264
ENVIRONMENTAL HAZARDS WATER: N/A

SECTION XV - REGULATORY INFORMATION

TSCA STATUS: All Chemicals are listed or exempt.

CERCLA (COMPREHENSIVE RESPONSE COMPENSATION, AND LIABILITY ACT): **Phosphoric Acid** (7664-38-4) -
Reportable Quantity = 5,000 lbs **Hydrogen Chloride** (7647-01-0) - Reportable Qty. = 5000 lbs.

SARA 311/312 HAZARD CATEGORIES: Acute Health

SARA 313 REPORTABLE INGREDIENTS: Phosphoric Acid (7664-38-2)

CLEAN WATER ACT: None

STATE REGULATIONS: California Proposition 65: None

INTERNATIONAL REGULATIONS: All components are listed or exempted.

NFPA HEALTH:	2	HMIS HEALTH:	2
NFPA FLAMMABILITY:	0	HMIS FLAMMABILITY:	0
NFPA REACTIVITY:	1	HMIS REACTIVITY:	1
NFPA OTHER:	N/A	HMIS PROTECTION:	B

SECTION XVI - ADDITIONAL INFORMATION

PREPARATION BY: Jonathon Jarvis

DATE PREPARED: 10/25/2013

REVISION DATE: 10/23/2014

N/A = Not Applicable; N/D = Not Determined

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