

HAZARD RATING

4=EXTREME
3=HIGH
2=MODERATE
1=SLIGHT
0=INSIGNIFICANT

HEALTH	3
FLAMMABILITY	0
REACTIVITY	1

MATERIAL SAFETY DATA SHEET**GENERAL INFORMATION**

PRODUCT IDENTIFICATION: BRAVO MASONRY CLEANER & EFFLORESCENCE REMOVER

COMMON NAME: SULFAMIC ACID SOLUTION

DOT SHIPPING NAME: SULFAMIC ACID, UN# 2967, Class 8, Group III

HEALTH AND SAFETY: Corrosive liquid that may cause damage to the skin and eyes. May cause respiratory tract irritation. Wear proper safety equipment to avoid exposure.

SECTION I

DISTRIBUTOR: Essroc – Italcementi Group
EMERGENCY NO.: 1-800-424-9300 (Chemtrec)
ADDRESS: 3251 Bath Pike, Nazareth, PA 18064
PHONE: 1-800-437-7762 Customer Service (US)
1-800-386-2111 Customer Service(CAN)
PREPARED: June 4, 2009
PREPARED BY: Essroc MSDS Development Committee

SECTION II HAZARDOUS INGREDIENTS

CHEMICAL NAME: AMIDO SULFONIC ACID (15% solution)
COMMON NAME: SULFAMIC ACID
CAS NO.: 5329-14-6
ACGIH TLV: Not defined
OSHA PEL: Not defined

SECTION III PHYSICAL/CHEMICAL CHARACTERISTICS

BOILING POINT: 215° F
VAPOR PRESSURE: MM/HG: 0.0285 (36° F) - 17.5 (68° F)
SPECIFIC GRAVITY (H2O=1): 1.152
SOLUBILITY IN H2O % BY WT: 100%
EVAPORATION RATE (BUOH=1): N/A
APPEARANCE AND ODOR: Clear liquid with light odor
PH: 1-2
VOC CONTENT: 0 GR/LITER OR 0 #/GAL.

SECTION IV FIRE AND EXPLOSION DATA

FLASH POINT: N/A
AUTOIGNITION TEMPERATURE: N/A
FLAMMABLE LIMITS IN AIR: % BY VOL: N/A
LOWER: N/A **UPPER:** N/A
EXTINGUISHING MEDIA: Non flammable. Extinguish source of fire. CO₂, dry chemical, water fog – decomposes above 209°C forming toxic fumes.
SPECIAL FIRE FIGHTING PROCEDURES: Wear NIOSH/MSHA approved self-contained breathing apparatus with a full face piece operated in pressure demand or other positive pressure mode, and full body protective clothing when fighting fires. Water spray may be used to cool closed containers.
UNUSUAL FIRE AND EXPLOSION HAZARD: Reacts with most metals to release hydrogen gas which can form explosive mixtures with air. Risk increases in poorly ventilated spaces. Extinguish all nearby sources of ignition.

SECTION V REACTIVITY DATA

STABILITY: Is stable
INCOMPATIBILITY: (Materials to Avoid): Metals, oxidizing agents, reducing agents, sulfides, cyanides, sulfites, and alkalis.
HAZARDOUS DECOMPOSITION OR DECOMPOSITION PRODUCTS: Sulfur trioxide, sulfur dioxide, nitrogen, and ammonia.
CONDITIONS TO AVOID: Contact with strong bases (alkalis), can cause violent reaction generating large amounts of heat.

SECTION VI HEALTH HAZARD INFORMATION

EMERGENCY OVERVIEW: Odorless, clear liquid that is corrosive. Can cause burns and harmful if swallowed or inhaled.
ROUTES OF EXPOSURE:
INHALATION HEALTH RISKS AND SYSTEMS OF EXPOSURE: Will cause severe irritation to the upper respiratory tract.
EYE CONTACT: Can cause severe irritation / chemical burns.
SKIN CONTACT/ABSORPTION: Can cause severe irritation / chemical burns.
INGESTION/INHALATION: Can cause severe burns to the mouth, throat and stomach.
EFFECTS OF OVEREXPOSURE: Causes burns to eyes that may cause permanent damage. Causes burns to skin. Breathing of mist can cause irritation to nasal and respiratory passages. Ingestion can cause damage to mucous membranes.
ACUTE OVEREXPOSURE: Fatalities can occur from ingestion.
EMERGENCY AND FIRST AID PROCEDURES:
EYES: Flush immediately with large amounts of water for at least 15 minutes. If irritation persists, take to a physician for treatment. If swallowed: obtain medical attention immediately.
SKIN: Thoroughly wash exposed area with soap and water. Remove contaminated clothing.
INHALATION: Remove to fresh air, give CPR if unconscious.

**SECTION VII PRECAUTIONS FOR
SAFE HANDLING AND USE**

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:
Evacuate immediate area where concentrated fumes are present. Clean up personnel must wear proper protective equipment. Completely contain spilled material with dikes, etc., and prevent runoff into ground and surface waters or into sewers. Dilute with water and neutralized with soda ash or dilute caustic soda. Neutralized material, both liquid and solid, should be recovered for proper disposal. Provide adequate ventilation.
WASTE DISPOSAL METHOD: TREATMENT: Recovered solids or liquids may be sent to a licensed reclaimer or disposed of in a permitted waste management facility. Neutralized liquid residues should be acceptable for discharge to a sanitary sewer with permission of the receiving facility. Consult federal, state, and/or local authorities for approved procedure. Empty containers may be triple rinsed with water to remove all residues and disposed of in a sanitary landfill.
PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: Store at ambient temperature in closed container to prevent evaporation. May be stored in temperatures from 40F to 140F without deterioration.
OTHER PRECAUTIONS: "DO NOT TAKE INTERNALLY." "AVOID PROLONGED SKIN CONTACT." Product is a strong cleaner and degreaser in an acidic solution. The product should be handled with care and used only for its intended purpose. **FOR INDUSTRIAL USE ONLY.**

SECTION VIII CONTROL MEASURES

VENTILATION REQUIREMENTS: Provide sufficient general and/or local exhaust ventilation to maintain exposure below levels that cause irritation (ACGIH- TLV not defined).

RESPIRATORY PROTECTION: SULFAMIC ACID has a very low vapor pressure at room temperature and is not expected to present a significant inhalation hazard under ambient conditions. For conditions of use where exposure to the dust or mist is apparent or irritation is experienced, a NIOSH approved dust/mist respirator may be worn. A NIOSH approved half-face dust/mist respirator may be used for nuisance level mists. For emergencies or instances where the exposure levels are not known, use a full-face positive-pressure, air-supplied respirator. **WARNING:** Air-purifying respirators do not protect workers in oxygen-deficient atmospheres. Follow all applicable respirator use standards and regulations.

EYES: Chemical splash goggles and/or full-face shield (8-inch minimum) in compliance with OSHA regulations. Do not wear contact lenses because they may contribute to the severity of an eye injury.

GLOVES: Rubber type, neoprene or PVC with acceptable acid resistance

OTHER CLOTHING AND EQUIPMENT: Acid-resistant rubber boots, headgear as needed depending on application methods and job-site conditions. Eyewash and safety shower should be readily accessible.

SECTION IX SPECIAL PRECAUTIONS

WORK PRACTICES: Proper work practices and planning should be utilized to avoid contact with workers, passerby, and non-masonry surfaces. Do not atomize during application. Beware of wind drift. Pre-rinsing with low-pressure water immediately before pressure washing effectively reduces product content in pressure washing residues. See the Product Data Sheet and label for specific precautions to be taken during use. Smoking, eating and drinking should be prohibited during the use of this product. Wash hands before breaks and at the end of a shift.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Use proper safety equipment (see VIII) when handling. Store in a cool, well-ventilated area. Separate from oxidizing agents, reducing agents, alkalis, cyanides, sulfides, etc. (see section VI). Dilution, storage and application equipment should be HDPE, polypropylene or other acid-resistant materials. Addition of acidic cleaner to water releases heat which can result in violent boiling and spattering. **Always add cleaner to water slowly and in small amounts. Never use hot water. Never add water to acidic cleaners.** Containers of this material may be hazardous when emptied, since emptied containers retain product residues (vapor, liquid, and/or solid). All hazard precautions given in this data sheet must be observed

HMIS HAZARD RATINGS:

	NPCA-HMI	NFPA 704	KEY
HEALTH	3	2	4=SEVERE
FLAMMABILITY	0	0	3=SERIOUS
REACTIVITY	1	1	2=MODERATE
			1=SLIGHT
			0=MINIMAL

SECTION X OTHER REGULATORY INFORMATION

Status under USDOL-OSHA & MSHA Hazard Communication Standards (29CFR 1910.1200 & 30CFR Part 47): This product is considered a "hazardous chemical" under these regulations, and should be part of any hazard communication program.

Status under CERCLA/Superfund, 40 CFR 117 and 302: Not Listed

Hazard Category under SARA TITLE III, Sections 311- 312: Threshold reporting quantity 10,000 pounds sulfamic acid.

Status under SARA Title III, Section 313: None

Toxic Substance Control Act (TSCA): Some substances in this product (Sulfamic acid) are on the TSCA inventory list.

Status under the Federal Hazardous Substances Act: This product is a "hazardous substance" subject to statutes promulgated under the subject act.

Status under WHMIS: This product is considered to be a hazardous material under the Hazardous Products Act as defined by the Controlled Products Regulations (Class D2A – Materials causing other toxic effects and Class E - Corrosive material) and is therefore subject to the labeling and MSDS requirements of the Workplace Hazardous Materials Information System (WHMIS).

SECTION XI OTHER INFORMATION

Abbreviations:

ACGIH	American Conference of Government Industrial Hygienists
ASTM	American Society of Testing Materials
CAS	Chemical Abstract Service
CFR	Code of Federal Regulations
DOT	Department of Transportation
IARC	International Agency for Research
IDLH	Immediately dangerous to life and health (NIOSH).
m ³	cubic meter
mg	Milligram
mm	millimeter
MSDS	Material Safety Data Sheet
MSHA	Mine Safety and Health Administration
NIOSH	National Institute for Occupational Safety and Health
NTP	National Toxicity Program
OSHA	Occupational Safety and Health Administration
PEL	Permissible Exposure Limit
RQ	Reportable Quantities
SARA	Superfund Amendments and Reauthorization Act
TLV	Threshold Limit Value
TWA	Time Weighted Average
URT	Upper Respiratory Tract
WHMIS	Workplace Hazardous Material Information System

Other important information:

This product should only be used by knowledgeable persons. While the information provided in this material safety data sheet is believed to provide a useful summary of the hazards of this product as it is commonly used, the sheet cannot anticipate and provide all of the information that might be needed in every situation. Inexperienced product users should obtain proper training before using this product.

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