

Heavy Duty Masonry & Concrete CLEANER

MATERIAL SAFETY DATA SHEET

HAZARD RATING

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

HEALTH	3
FLAMMABILITY	0
REACTIVITY	2

GENERAL INFORMATION

PRODUCT IDENTIFICATION: BRAVO HEAVY DUTY MASONRY & CONCRETE CLEANER

COMMON NAME:

HYDROCHLORIC ACID SOLUTION WITH DETERGENTS

DOT SHIPPING NAME: HYDROCHLORIC ACID, UN# 1789, Class 8, Group II

HEALTH AND SAFETY: Corrosive liquid that may cause damage or burns to the skin and eyes. May cause respiratory tract irritation or burns. 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: HYDROGEN CHLORIDE (32-37 %)
COMMON NAME: HYDROCHLORIC ACID
 MURIATIC ACID
CAS NO.: 7647-01-0
ACGIH TLV(C): Hydrogen Chloride - 2 ppm
OSHA PEL(C): Hydrogen Chloride - 5 ppm, 7 mg/m³

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): 1.112
SOLUBILITY IN H2O % BY WT: 100%
EVAPORATION RATE (BUOH=1): N/A
APPEARANCE AND ODOR: Clear to slightly yellow solution with sharp pungent irritating odor
PH: 1
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 – decompose 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 under normal storage. Containers may burst if heated.

INCOMPATIBILITY: (Materials to Avoid): A strong mineral acid, concentrated hydrochloric acid is incompatible with many substances and highly reactive with strong bases, metals, metal oxides, hydroxides, amines, carbonates and other alkaline materials. Incompatible with materials such as cyanides, sulfides, sulfites, and formaldehyde.

HAZARDOUS DECOMPOSITION OR DECOMPOSITION PRODUCTS: When heated to decomposition, emits toxic hydrogen chloride fumes and will react with water or steam to produce heat and toxic and corrosive fumes. Thermal oxidative decomposition produces toxic chlorine fumes and explosive hydrogen gas.

CONDITIONS TO AVOID: Contact with strong bases (alkalis), can cause violent reaction generating large amounts of heat. Heat and direct sunlight.

SECTION VI HEALTH HAZARDS / FIRST AID

EMERGENCY OVERVIEW: Pungent, yellow liquid that is corrosive. Can cause burns and is harmful and potentially fatal if swallowed or inhaled.

ROUTES OF EXPOSURE:

INHALATION: Corrosive! Inhalation of vapors can cause coughing, choking, inflammation of the nose, throat, and upper respiratory tract, and in severe cases, pulmonary edema, circulatory failure, and death.

EYE CONTACT: Corrosive! Vapors are irritating and may cause damage to the eyes. Contact may cause severe burns and permanent eye damage.

SKIN CONTACT/ABSORPTION: Corrosive! Can cause redness, pain, and severe skin burns. Concentrated solutions cause deep ulcers and discolor skin.

INGESTION: Corrosive! Swallowing hydrochloric acid can cause immediate pain and burns of the mouth, throat, esophagus and gastrointestinal tract. May cause nausea, vomiting, and diarrhea. Swallowing may be fatal.

CHRONIC EXPOSURE: Long-term exposure to concentrated vapors may cause erosion of teeth. Long term exposures seldom occur due to the corrosive properties of the acid.

AGGRAVATION OF PRE-EXISTING CONDITIONS: Persons with pre-existing skin disorders or eye disease may be more susceptible to the effects of this substance.

EMERGENCY AND FIRST AID PROCEDURES:

INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

INGESTION: DO NOT INDUCE VOMITING! Give large quantities of water or milk if available. Never give anything by mouth to an unconscious person. Get medical attention immediately.

SKIN CONTACT: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.

EYE CONTACT: Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

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

	NPCA-HMI	NFPA 704	KEY
HEALTH	3	3	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 - 5,000 pounds.

Status under SARA Title III, Section 313: None

Toxic Substance Control Act (TSCA): Some substances in this product (Hydrochloric 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 D1A – 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 live 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.

SELLER MAKES NO WARRANTY, EXPRESSED OR IMPLIED, CONCERNING THE PRODUCT OR THE MERCHANTABILITY OR FITNESS THEREOF FOR ANY PURPOSE OR CONCERNING THE ACCURACY OF ANY INFORMATION PROVIDED BY ESSROC – ITALCEMENTI GROUP., except that the product shall conform to contracted specifications. The information provided herein was believed by Essroc to be accurate at the time of preparation or prepared from sources believed to be reliable, but it is the responsibility of the user to investigate and understand other pertinent sources of information to comply with all laws and procedures applicable to the safe handling and use of the product and to determine the suitability of the product for its intended use. Buyer's exclusive remedy shall be for damages and no claim of any kind, whether as to product delivered or for non-delivery of product, and whether based on contract, breach or warranty, negligence, or otherwise shall be greater in amount than the purchase price of the quantity of product in respect of which damages are claimed. In no event Seller be liable for incidental or consequential damages, whether Buyer's claim is based on contract, breach of warranty, negligence or otherwise.

SECTION VIII CONTROL MEASURES

VENTILATION REQUIREMENTS: A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area..

RESPIRATORY PROTECTION: HYDROCHLORIC ACID has a medium vapor pressure at room temperature and may present a significant inhalation hazard under ambient conditions. If the exposure limit is exceeded, a full facepiece respirator with an acid gas cartridge may be worn up to 50 times the exposure limit or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. For emergencies or instances where the exposure levels are not known, use a full-facepiece positive-pressure, air-supplied respirator. WARNING: Air purifying respirators do not protect workers in oxygen-deficient atmospheres. A NIOSH approved dust/mist respirator may be used for nuisance level mists.

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 automatize 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.

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: