

## MATERIAL SAFETY DATA SHEET



## I PRODUCT IDENTIFICATION

**MANUFACTURER'S NAME AND ADDRESS:** PROSOCO, Inc.  
3741 Greenway Circle  
Lawrence, Kansas 66046

**EMERGENCY TELEPHONE NUMBERS:**  
**8:00 AM - 5:00 PM CST Monday-Friday:** 785/865-4200  
**NON-BUSINESS HOURS (INFOTRAC):** 800/535-5053

**PRODUCT TRADE NAME:** Sure Klean® Degreaser & Etch

## II HAZARDOUS INGREDIENTS

CHEMICAL NAME	(COMMON NAME)	CAS NO.	NFPA CODE	ACGIH TLV/TWA	OSHA PEL/TWA
Hydrogen Chloride Solution	(Hydrochloric Acid)	7647-01-0	3,0,0,-	5 ppm	5 ppm
2-Butoxyethanol	(Ethylene Glycol Monobutyl Ether)	111-76-2	2,2,0,-	25 ppm	25 ppm (skin)

Percent content of hazardous ingredients withheld as trade secret pursuant to Massachusetts regulations.

## III PHYSICAL DATA

	BOILING POINT (°F)	VAPOR PRESSURE (mm Hg)	VAPOR DENSITY (Air=1)	EVAPORATION RATE (1=Butyl Acetate)
Hydrogen Chloride Solution	150	29 (68°F)	1.30	< 1.00
2-Butoxyethanol	340	0.8 (68°F)	4.1	0.1
	SPECIFIC GRAVITY	SOLUBILITY IN WATER	APPEARANCE AND ODOR	
Degreaser & Etch	1.013	100%	Clear liquid, pungent odor	

## IV FIRE AND EXPLOSION HAZARD DATA

**FLASH POINT (METHOD):** (2-Butoxyethanol): 143°F (T.C.C.)

**FLAMMABLE LIMITS:** Unknown.

**EXTINGUISHING MEDIA:** Foam, dry chemical, carbon dioxide, or water spray.

**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 may be used to cool closed containers.

**UNUSUAL FIRE AND EXPLOSION HAZARDS:** Reacts with most metals to release hydrogen gas which can form explosive mixtures with air.

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## V HEALTH HAZARD DATA

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**PRIMARY ROUTES OF EXPOSURE:** Inhalation, skin, eyes.

**CARCINOGEN INFORMATION:** Not listed (OSHA, IARC, NTP).

**MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:** Asthma, bronchitis, emphysema, and other lung conditions; and chronic nose, sinus, or throat conditions. Exposures of 100 ppm for six hours a day for 50 days caused only slight unrest and irritation to the eyes and nose of rabbits, guinea pigs and pigeons. The hemoglobin content of the blood was also slightly diminished. Monkeys receiving 20 exposures of 33 ppm for six hours did not display any adverse effects. Higher exposures (unspecified) have caused weight loss which paralleled the severity of exposure. In humans long term overexposure has been associated with erosion of the teeth.

**EFFECTS OF OVEREXPOSURE:** Causes severe damage to eyes and even blindness very rapidly. Causes burns, possible deep ulceration to skin. Breathing of mist or dust can cause damage to nasal and respiratory passages. Swallowing results in severe damage to mucous membranes and deep tissue; can result in death on penetration to vital areas.

**EYE CONTACT:** Liquid or concentrated vapors can cause eye irritation, severe burns and permanent damage including blindness even after a short exposure to small amounts.

**SKIN CONTACT:** Liquid or concentrated vapors can rapidly cause burning of skin. Repeated or prolonged contact with dilute solutions and concentrated vapors can cause irritation and dermatitis.

**INHALATION:** Hydrogen chloride gas, mist, and vapor can cause irritation of respiratory tract, with burning, choking, coughing, headaches, and rapid heartbeat. 35 ppm can cause irritation of the throat and 50-100 ppm is nearly unbearable for one hour. Inflammation, destruction of nasal passages and breathing difficulties can occur with high concentrations and may be delayed in onset. Inhalation of sufficiently high concentrations may result in laryngeal spasms, laryngeal edema or rapidly developing pulmonary edema. Mists may also cause bleeding of the nose and gums, and ulceration of the nasal or oral mucosa. 1,000-2,000 ppm can be fatal.

**INGESTION:** Unlikely route of exposure. Can cause severe burns of mouth, esophagus, and stomach. Nausea, pain, and vomiting may occur. Depending on the amount swallowed, holes may develop in the intestinal tract, kidney inflammation, shock and death can occur.

### **EMERGENCY AND FIRST AID PROCEDURES:**

**EYE CONTACT:** Rinse eyes with large quantities of water for at least 15 minutes, holding eyelids apart to ensure flushing of the entire eye surface. Get medical attention immediately.

**SKIN CONTACT:** Remove contaminated clothing and flush exposed area with large quantities of water for at least 15 minutes. Launder contaminated clothing before reuse. Discard contaminated shoes. Get immediate medical attention.

**INHALATION:** Remove person to fresh air. If breathing stops, administer artificial respiration, preferably mouth-to-mouth. If breathing is difficult, give oxygen. Get medical attention immediately.

**INGESTION:** If conscious, give large quantities of water or milk. Do not induce vomiting. Get medical attention immediately. Do not give anything by mouth to an unconscious or convulsing person.

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## VI REACTIVITY DATA

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**STABILITY:** Stable.

**CONDITIONS TO AVOID:** Contact with strong bases (alkali), can cause violent reaction generating large amounts of heat.

**INCOMPATIBILITY (MATERIALS TO AVOID):** Metals, oxidizing agents, nitric acid, chlorates, sulfides, and cyanides. Contact with sulfides releases poisonous flammable hydrogen sulfide. Mercuric sulfate, perchloric acid, carbides of calcium, cesium, rubidium, acetylides of cesium and rubidium, phosphides of calcium and uranium, and lithium silicide.

**HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS:** Hydrogen gas when contacting metals, hydrogen chloride.

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## VII SPILL OR LEAK PROCEDURES

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**SPILL, LEAK AND WASTE DISPOSAL PROCEDURES:** Evacuate immediate area where concentrated fumes are present. Cleanup personnel must wear proper protective equipment. Completely contain spilled material with dikes, etc., and prevent runoff into ground and surface waters or into sewers.

Spills and leaks should be neutralized by pouring dry soda ash or lime over the affected area to absorb as much liquid as possible. Allow powdered material to remain on spill for five to ten minutes and flush thoroughly with water. Neutralized material, both liquid and solid, must be recovered for proper disposal.

**WASTE DISPOSAL METHODS:** Recovered solids or liquids may be sent to a licensed reclaimer or disposed of in a permitted waste management facility. Consult federal, state, and/or local authorities for approved procedure.

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## VIII SPECIAL PROTECTION INFORMATION

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**RESPIRATORY PROTECTION:** For vapor or mist concentrations which exceed or are likely to exceed 5 ppm Threshold Limit Value (TLV), wear a NIOSH/MSHA approved full face respirator. NIOSH/MSHA approved self-contained breathing apparatus with full face piece should be worn when concentrations exceed 100 ppm or during leaks and/or emergencies. Follow all applicable respirator use, standards or regulations. (Also contact your safety equipment supplier for proper NIOSH/MSHA approved units.)

**VENTILATION:** Provide sufficient explosion-proof general and/or local exhaust ventilation to maintain exposure below the TLV.

**PROTECTIVE CLOTHING:** Wear neoprene or PVC rain suit. (Consult safety equipment supplier.)

**PROTECTIVE GLOVES:** Rubber type, neoprene or PVC with acceptable acid resistance. (Contact safety equipment supplier for approved gloves.)

**EYE PROTECTION:** Chemical splash goggles and/or full face shield (8 inch minimum) in compliance with OSHA regulations. (Contact safety equipment supplier for approved goggles.) Do not wear contact lenses because they may contribute to the severity of an eye injury.

**OTHER PROTECTIVE EQUIPMENT:** Acid-resistant rubber boots, headgear. Eyewash and safety shower.

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## IX SPECIAL PRECAUTIONS

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**PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:** Use proper safety equipment (see section VIII) when handling. Store in a cool, well-ventilated area. Separate from oxidizing agents, nitric acid, alkalis, chlorates, sulfides, etc. (see section VI). Store in proper acid-resistant containers such as rubber-lined steel, glass, or plastic.

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.

**OTHER PRECAUTIONS:** Do not get in eyes, on skin or on clothing. Can cause severe injury or blindness. Avoid breathing mist or vapor. Provide ventilation sufficient to limit employee exposure below OSHA permissible limit. Do not take internally. Wash thoroughly after handling.

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### DISCLAIMER:

The information contained on the Material Safety Data Sheet has been compiled from data considered accurate. This data is believed to be reliable, but it must be pointed out that values for certain properties are known to vary from source to source. PROSOCO, Inc. expressly disclaims any warranty express or implied as well as any liability for any injury or loss arising from the use of this information or the materials described. This data is not to be construed as absolutely complete since additional data may be desirable when particular conditions or circumstances exist. It is the responsibility of the user to determine the best precautions necessary for the safe handling and use of this product for his unique application. This data relates only to the specific material designated and is not to be used in combination with any other material. Many federal and state regulations pertain directly or indirectly to the product's end use and disposal of containers and unused material. It is the purchaser's responsibility to familiarize himself with all applicable regulations.

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