

1. Identification		
Product identifier		
Product name	No.2 ETCHING	
Product number	1022/4300	
Recommended use of the chemical and restrictions on use		
Application	Industrial Use	
Details of the supplier of the safety data sheet		
Supplier	SIFCO Applied Surface Concepts 5708 E. Schaaf Road Independence, Ohio 44131 U.S.A. Tel.: +1 216-524-0099 Fax: +1 216-524-6331 E-Mail: info@sifcoasc.com	
Emergency telephone number		
Emergency telephone	CHEMTREC (United States) (800) 424-9300; CHEMTREC (International) +1 703-527-3887	
2. Hazard(s) identification		
Classification of the substance	or mixture	
Physical hazards	Not Classified	
Health hazards	Skin Corr. 1C - H314 Eye Dam. 1 - H318	
Environmental hazards	Not Classified	
Label elements		
Pictogram		
Signal word	Danger	
Hazard statements	H314 Causes severe skin burns and eye damage.	

 P260 Do not breathe vapor/ spray. P264 Wash contaminated skin thoroughly after handling. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. P304+P340 If inhaled: Remove person to fresh air and keep comfortable for breathing. P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P501 Dispose of contents/ container in accordance with national regulations. P403+P233 Store in a well-ventilated place. Keep container tightly closed. P270 Do not eat, drink or smoke when using this product. P284 [In case of inadequate ventilation] wear respiratory protection. P301+P310 If swallowed: Immediately call a poison center/ doctor. P302+P352 If on skin: Wash with plenty of water
P302+P352 If on skin: Wash with plenty of water.

Contains

HYDROCHLORIC ACID 2%

Other hazards

This product does not contain any substances classified as PBT or vPvB.

3. Composition/information on ingredients

Mixtures

SODIUM CHLORIDE	10-15%
CAS number: 7647-14-5	
Classification Not Classified	
HYDROCHLORIC ACID	1-5%
CAS number: 7647-01-0	
Classification Skin Corr. 1B - H314 Eye Dam. 1 - H318	
STOT SE 3 - H335	

The full text for all hazard statements is displayed in Section 16.

4. First-aid measures

Description of first aid measures

Inhalation	Move affected person to fresh air at once. Get medical attention.	
Ingestion	Get medical attention immediately. Do not induce vomiting.	
Skin Contact	Remove contaminated clothing immediately and wash skin with soap and water. Continue to rinse for at least 15 minutes and get medical attention.	
Eye contact	Remove affected person from source of contamination. Rinse immediately with plenty of water. Continue to rinse for at least 15 minutes and get medical attention.	
Most important symptoms and effects, both acute and delayed		
Inhalation	Coughing, chest tightness, feeling of chest pressure.	
Ingestion	May cause chemical burns in mouth and throat. May cause stomach pain or vomiting.	
Ingestion Skin contact	May cause chemical burns in mouth and throat. May cause stomach pain or vomiting. May cause serious chemical burns to the skin.	

Eye contact	Causes severe burns. May cause serious eye damage.	
-	n of immediate medical attention and special treatment needed	
Notes for the doctor	No specific recommendations.	
5. Fire-fighting measures		
Extinguishing media		
Suitable extinguishing media	The product is not flammable. Use fire-extinguishing media suitable for the surrounding fire.	
Special hazards arising from the	he substance or mixture	
Specific hazards	Corrosive gases or vapors.	
Advice for firefighters		
Protective actions during firefighting	Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.	
Special protective equipment for firefighters	Use protective equipment appropriate for surrounding materials.	
6. Accidental release measure	S	
Personal precautions, protectiv	ve equipment and emergency procedures	
Personal precautions	Follow precautions for safe handling described in this safety data sheet. Avoid inhalation of vapors. Provide adequate general and local exhaust ventilation.	
Environmental precautions		
Environmental precautions	Do not discharge into drains or watercourses or onto the ground. Inform the relevant authorities if environmental pollution occurs (sewers, waterways, soil or air).	
Methods and material for conta	ainment and cleaning up	
Methods for cleaning up	Wear suitable protective equipment, including gloves, goggles/face shield, respirator, boots, clothing or apron, as appropriate. Flush contaminated area with plenty of water. Avoid the spillage or runoff entering drains, sewers or watercourses. Collect and dispose of spillage as indicated in Section 13. Wash thoroughly after dealing with a spillage.	
Reference to other sections	Wear protective clothing as described in Section 8 of this safety data sheet. See Section 11 for additional information on health hazards. See Section 12 for additional information on ecological hazards. For waste disposal, see Section 13.	
7. Handling and storage		
Precautions for safe handling		
Usage precautions	Avoid spilling. Avoid contact with skin and eyes. Avoid inhalation of vapors and spray/mists. Provide adequate general and local exhaust ventilation.	
Conditions for safe storage, in	Conditions for safe storage, including any incompatibilities	
Storage precautions	Store in tightly-closed, original container in a dry, cool and well-ventilated place. Protect from freezing and direct sunlight.	
Storage class	Corrosive storage.	
Specific end uses(s)		
Specific end use(s)	The identified uses for this product are detailed in Section 1.	
8. Exposure Controls/personal protection		

Control parameters

Occupational exposure limits

HYDROCHLORIC ACID

Ceiling exposure limit: OSHA 5 ppm 7 mg/m³ Ceiling exposure limit: ACGIH 2 ppm 2.98 mg/m³ A4

OSHA = Occupational Safety and Health Administration. ACGIH = American Conference of Governmental Industrial Hygienists. A4 = Not Classifiable as a Human Carcinogen.

Exposure controls

Protective equipment



Appropriate engineering controls	As this product contains ingredients with exposure limits, process enclosures, local exhaust ventilation or other engineering controls should be used to keep worker exposure below any statutory or recommended limits, if use generates dust, fumes, gas, vapor or mist.
Eye/face protection	Tight-fitting safety glasses.
Hand protection	It is recommended that chemical-resistant, impervious gloves are worn. Considering the data specified by the glove manufacturer, check during use that the gloves are retaining their protective properties and change them as soon as any deterioration is detected. It is recommended that gloves are made of the following material: Nitrile rubber.
Other skin and body protection	Appropriate footwear and additional protective clothing complying with an approved standard should be worn if a risk assessment indicates skin contamination is possible.
Hygiene measures	Do not eat, drink or smoke when using this product. Wash at the end of each work shift and before eating, smoking and using the toilet.
Respiratory protection	If ventilation is inadequate, suitable respiratory protection must be worn. Respiratory protection must be used if the airborne contamination exceeds the recommended occupational exposure limit.

9. Physical and Chemical Properties

Information on basic physical and chemical properties		
Appearance	Liquid.	
Color	Colorless to pale yellow.	
Odor	No characteristic odor.	
рН	pH (concentrated solution): 0-1	
Relative density	1.083-1.093 @ 20°C	
Other information	Not available.	
10. Stability and reactivity		
Reactivity	There are no known reactivity hazards associated with this product.	
Stability	Stable at normal ambient temperatures and when used as recommended.	

Possibility of hazardous reactions	Not determined.
Conditions to avoid	Avoid excessive heat for prolonged periods of time.
Materials to avoid	Strong alkalis. Strong oxidizing agents. Strong reducing agents. Alkalis - inorganic.
Hazardous decomposition products	None at ambient temperatures.
11. Toxicological information	
Information on toxicological ef	fects
Inhalation	Vapors irritate the respiratory system.
Ingestion	Causes severe burns. May cause chemical burns in mouth, esophagus and stomach.
Skin Contact	May cause serious chemical burns to the skin.
Eye contact	Causes serious eye damage. Immediate first aid is imperative.
Acute and chronic health hazards	May cause burns in mucous membranes, throat, esophagus and stomach.
Route of entry	Ingestion Inhalation Skin and/or eye contact
12. Ecological Information	
Ecotoxicity	The product is not expected to be hazardous to the environment.
Toxicity	No data available.
Ecological information on ingr	edients.
	HYDROCHLORIC ACID
Acute toxicity - fish LC₅₀, 96 hours: 100-1000 mg/l, Fish	
Persistence and degradability	
Persistence and degradability	No data available.
Bioaccumulative potential	
Bio-Accumulative Potential	The product does not contain any substances expected to be bioaccumulating.
Mobility in soil	
Mobility	The product is soluble in water.
Other adverse effects	
Other adverse effects	Not determined.
13. Disposal considerations	
Waste treatment methods	
General information	Disposal of this product, process solutions, residues and by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and

any local authority requirements.

Disposal methods	Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.
14. Transport information	
UN Number	
UN No. (TDG)	1789
UN No. (IMDG)	1789
UN No. (ICAO)	1789
UN No. (DOT)	1789
UN proper shipping name	
Proper shipping name (TDG)	HYDROCHLORIC ACID
Proper shipping name (IMDG)	HYDROCHLORIC ACID
Proper shipping name (ICAO)	HYDROCHLORIC ACID
Proper shipping name (DOT)	HYDROCHLORIC ACID
Transport hazard class(es)	
TDG class	8
TDG label(s)	8
IMDG Class	8
ICAO class/division	8
Transport labels	
B	
Packing group	
TDG Packing Group	III
IMDG packing group	III
ICAO packing group	III
DOT packing group	III
Environmental hazards	
Environmentally Hazardous Substance No.	
Special precautions for user	
EmS	F-A, S-B
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	No information required.
15. Regulatory information	
US Federal Regulations	

SARA Section 302 Extremely Hazardous Substances Tier II Threshold Planning Quantities

Hydrochloric Acid 500 lbs

CERCLA/Superfund, Hazardous Substances/Reportable Quantities (EPA)

Final CERCLA RQ: 5000 lbs Hydrochloric Acid

SARA Extremely Hazardous Substances EPCRA Reportable Quantities

Exempt.

SARA 313 Emission Reporting

Yes

CAA Accidental Release Prevention

HAP Hydrochloric Acid

SARA (311/312) Hazard Categories

Acute Chronic

OSHA Highly Hazardous Chemicals

Threshold Quantity: 5000 lbs Hydrochloric Acid

US State Regulations

California Proposition 65 Carcinogens and Reproductive Toxins Exempt.

California Directors List of Hazardous Substances

Present. Hydrochloric Acid

Inventories

US - TSCA All ingredients are present.

16. Other information

Classification abbreviations and acronyms	Acute Tox. = Acute toxicity Carc. = Carcinogenicity Eye Dam. = Serious eye damage Eye Irrit. = Eye irritation Flam. Liq. = Flammable liquid Muta. = Germ cell mutagenicity Resp. Sens. = Respiratory sensitisation Skin Corr. = Skin corrosion Skin Irrit. = Skin irritation Skin Sens. = Skin sensitisation STOT RE = Specific target organ toxicity-repeated exposure STOT SE = Specific target organ toxicity-single exposure
Revision date	10/13/2017
Revision	3

Hazard statements in full	H314 Causes severe skin burns and eye damage. H318 Causes serious eye damage. H335 May cause respiratory irritation.
NFPA - instability hazard	Normally stable. (0)
NFPA - health hazard	Extremely hazardous, serious injury. (3)
NFPA - flammability hazard	Will not burn. (0)

The Information in this data sheet is believed to be correct but neither we nor our employees or agents give any warranty or make any representation to the accuracy thereof and accept no liability for any loss, injury or damage which may result in it's use. The sole purpose of this data sheet is to provide guidance on the safe handling and use of the products to which it relates. It does not form part of any product specification nor part of any contract. It is not practical for the guidance and information in this data sheet to cover every conceivable application of a product and as we may not be aware of the use to which the products covered by this data sheet are to be put it remains the responsibility of the user to conduct it's own tests and to satisy itself as to the suitability of the product.