



SAFETY DATA SHEET
No. 1 ETCHING AND ACTIVATING

1. Identification

Product identifier

Product name No. 1 ETCHING AND ACTIVATING

Product number 1021/4200

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. 1A - H314 Eye Dam. 1 - H318

Environmental hazards Not Classified

Human health The product is strongly irritating to eyes and skin. Prolonged contact may cause burns.

Label elements

Pictogram



Signal word Danger

Hazard statements H314 Causes severe skin burns and eye damage.

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Precautionary statements	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.	

Contains 4.8%

Other hazards

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

3. Composition/information on ingredients

Mixtures

AMMONIUM SULPHATE	5-10%
CAS number: 7783-20-2	
Classification	
Not Classified	
SULFURIC ACID 4.8%	1-5%
CAS number: 7664-93-9	
Classification	
Skin Corr. 1A - H314	
Eye Dam. 1 - H318	

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.
Skin contact	May cause serious chemical burns to the skin.
Eye contact	Causes severe burns. May cause serious eye damage.

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Indication 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 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 measures

Personal precautions, protective 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 containment 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, 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

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SULFURIC ACID 4.8%

Long-term exposure limit (8-hour TWA): OSHA 1 mg/m³

Long-term exposure limit (8-hour TWA): ACGIH 0.2 mg/m³ thoracic fraction
A2

OSHA = Occupational Safety and Health Administration.

ACGIH = American Conference of Governmental Industrial Hygienists.

A2 = Suspected 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	Clear liquid.
Odor	Odorless.
Odor threshold	No information available.
pH	pH (concentrated solution): 0-1
Melting point	No information available.
Initial boiling point and range	No information available.
Flash point	No information available.
Evaporation rate	No information available.
Flammability (solid, gas)	No information available.
Upper/lower flammability or explosive limits	No information available.
Vapor pressure	No information available.

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Vapor density	No information available.
Relative density	1.075-1.085 @ 20°C
Solubility(ies)	No information available.
Partition coefficient	No information available.
Auto-ignition temperature	No information available.
Decomposition Temperature	No information available.
Viscosity	No information available.
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.
Hazardous decomposition products	None at ambient temperatures.

11. Toxicological information

Information on toxicological effects

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 exposure	Ingestion Inhalation Skin and/or eye contact

Toxicological information on ingredients.

AMMONIUM SULPHATE

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 4,250.0

Species Rat

Acute toxicity - dermal

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Acute toxicity dermal (LD₅₀ 2,000.0 mg/kg)

Species Rat

SULFURIC ACID 4.8%

Acute toxicity - oral

Acute toxicity oral (LD₅₀ 2,140.0 mg/kg)

Species Rat

ATE oral (mg/kg) 2,140.0

12. Ecological information

Ecotoxicity Not regarded as dangerous for the environment. The product may affect the acidity (pH) of water which may have hazardous effects on aquatic organisms.

Toxicity No data available.

Ecological information on ingredients.

AMMONIUM SULPHATE

Acute aquatic toxicity

Acute toxicity - fish LC₅₀, 53 hours: mg/l, Fish
EC₅₀, 122-129 hours: 48 mg/l, Daphnia magna

SULFURIC ACID 4.8%

Acute aquatic toxicity

Acute toxicity - fish LC₅₀, 96 hours: 42 mg/l, Fish
Acute toxicity - aquatic invertebrates EC₅₀, : 29 mg/l, Daphnia magna

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.

Partition coefficient No information available.

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.

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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)	1760
UN No. (IMDG)	1760
UN No. (ICAO)	1760
UN No. (DOT)	1760

UN proper shipping name

Proper shipping name (TDG)	CORROSIVE LIQUID, N.O.S. (SULPHURIC ACID ...%)
Proper shipping name (IMDG)	CORROSIVE LIQUID, N.O.S. (SULPHURIC ACID ...%)
Proper shipping name (ICAO)	CORROSIVE LIQUID, N.O.S. (SULPHURIC ACID ...%)
Proper shipping name (DOT)	CORROSIVE LIQUID, N.O.S. (SULPHURIC ACID ...%)

Transport hazard class(es)

TDG class	8
TDG label(s)	8
IMDG Class	8
ICAO class/division	8

Transport labels



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

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National regulations

The customer is advised to check if there are specific local or national regulations specifically applicable to the chemicals contained in the product. The hazards statement for this product is in accordance with international regulations, always observing the most stringent requirements.

US Federal Regulations

SARA Section 302 Extremely Hazardous Substances Tier II Threshold Planning Quantities

1000 lbs
Sulfuric Acid

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

Final CERCLA RQ: 1000 lbs
Sulfuric Acid

SARA Extremely Hazardous Substances EPCRA Reportable Quantities

EPCRA RQ: 1000 lbs
Sulfuric Acid

SARA 313 Emission Reporting

Exempt.

CAA Accidental Release Prevention

Exempt.

SARA (311/312) Hazard Categories

Acute
Chronic

OSHA Highly Hazardous Chemicals

Exempt.

US State Regulations

California Proposition 65 Carcinogens and Reproductive Toxins

Exempt.

California Directors List of Hazardous Substances

Present.
Sulfuric 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

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Revision date	9/29/2017
Revision	3
Hazard statements in full	H314 Causes severe skin burns and eye damage. H318 Causes serious eye damage.
NFPA - health hazard	Extremely hazardous, serious injury. (3)
NFPA - flammability hazard	Will not burn. (0)
NFPA - instability hazard	Normally unstable. (2)

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 satisfy itself as to the suitability of the product.