

SÄKERHETS DATABLAD

Säkerhetsdatablad enligt förordning (EU) nr 1907/2006 (REACH)

Aluminium Etch 16:1:1:2

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product name : Aluminium Etch 16:1:1:2

1.2. Relevant identified uses of the substance or mixture and uses advised against Relevant identified uses

Main use category : Professional use

Use of the substance/mixture : Electronics chemical

Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Supplier

Sunchem AB
Box 69
S-433 21 Partille Sweden
T +46 31 447310 - F +46 31 449581
[E-mail: d.s@sunco.se](mailto:d.s@sunco.se)

Manufacturer

Sunchem AB
Box 69
S-433 21 Partille Sweden
T +46 31 447310 - F +46 31 449581
[E-mail: d.s@sunco.se](mailto:d.s@sunco.se)

Contact person : Dick Sundström

1.4. Emergency telephone number

Country	Organisation/Company	Address	Emergency number
United Kingdom	National Poisons Information Service (Newcastle Unit)	Claremont Place Newcastle-upon-Tyne, Newcastle	+44 191 2606182/+44 191 2606180 24H

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Skin Corr. 1B H314
Eye Dam. 1 H318
Acute Tox 4 H332

Full text of H statements : see section 16

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]



Hazard pictograms (CLP) :

Signal word (CLP)	: Danger
Hazardous ingredients	: phosphoric acid ... %, orthophosphoric acid ... %; nitric acid
Hazard statements (CLP)	: H314 - Causes severe skin burns and eye damage. H332 - Harmful if inhaled.
Precautionary statements (CLP)	: P260 - Do not breathe dust/fume/gas/mist/vapours/spray. P280 - Wear protective gloves/protective clothing/eye protection/face protection. P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P310 - Immediately call a POISON CENTER/doctor P301+P330+P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

2.3. Other hazards

Other hazards not contributing to the classification : None under normal conditions.

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
phosphoric acid ... %, orthophosphoric acid ... % (Note B)	(CAS-No.) 7664-38-2 (EC-No.) 231-633-2 (EC Index-No.) 015-011-00-6 (REACH-no) 01-2119485924-24	60 - 70	Skin Corr. 1B, H314
acetic acid % (Note B)	(CAS-No.) 64-19-7 (EC-No.) 200-580-7 (EC Index-No.) 607-002-00-6 (REACH-no) 01-2119475328-30	5	Flam. Liq. 3, H226 Skin Corr. 1A, H314
nitric acid (Note B)	(CAS-No.) 7697-37-2 (EC-No.) 231-714-2 (EC Index-No.) 007-004-00-1 (REACH-no) 01-2119487297-23	2 - 5	Ox. Liq. 2, H272 Skin Corr. 1A, H314

Specific concentration limits:

Name	Product identifier	Specific concentration limits
phosphoric acid ... %, orthophosphoric acid ... %	(CAS-No.) 7664-38-2 (EC-No.) 231-633-2 (EC Index-No.) 015-011-00-6 (REACH-no) 01-2119485924-24	(10 =<C < 25) Eye Irrit. 2, H319 (10 =<C < 25) Skin Irrit. 2, H315 (C >= 25) Skin Corr. 1B, H314
acetic acid %	(CAS-No.) 64-19-7 (EC-No.) 200-580-7 (EC Index-No.) 607-002-00-6 (REACH-no) 01-2119475328-30	(10 =<C < 25) Eye Irrit. 2, H319 (10 =<C < 25) Skin Irrit. 2, H315 (25 =<C < 90) Skin Corr. 1B, H314 (C >= 90) Skin Corr. 1A, H314
nitric acid	(CAS-No.) 7697-37-2 (EC-No.) 231-714-2 (EC Index-No.) 007-004-00-1 (REACH-no) 01-2119487297-23	(5 =<C < 20) Skin Corr. 1B, H314 (C >= 20) Skin Corr. 1A, H314 (65 =<C < 99) Ox. Liq. 3, H272 (C >= 99) Ox. Liq. 2, H272

Full text of H-statements: see section 16

ATE inhalation value is the reason of extra H332 classification (due to 5% Nitric Acid), see section 11.

SECTION 4: FIRST AID MEASURES
4.1. Description of first aid measures

- First-aid measures general : Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor.
- First-aid measures after inhalation : Call a poison center or a doctor if you feel unwell. Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor.
- First-aid measures after skin contact : Wash with plenty of soap and water. Take off immediately all contaminated clothing. Get medical attention if any discomfort continues. Chemical burns must be treated by a physician. Rinse skin with water/shower. Immediately call a POISON CENTER/doctor.
- First-aid measures after eye contact : Get medical advice/attention if you feel unwell. Immediately flush with plenty of water for up to 15 minutes. Remove any contact lenses and open eyelids widely. If irritation persists: Continue flushing during transport to hospital. Bring these instructions. Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.
- First-aid measures after ingestion: DO NOT induce vomiting. Get medical attention immediately. Rinse nose, mouth and throat with water. Drink plenty of water. Get medical attention immediately!. Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER/doctor.

4.2. Most important symptoms and effects, both acute and delayed

- Symptoms/effects after inhalation : May cause respiratory irritation.
- Symptoms/effects after skin contact : Causes severe skin burns and eye damage.
- Symptoms/effects after eye contact : Causes serious eye damage.
- Symptoms/effects after ingestion : If ingested may cause corrosion of gastrointestinal tract.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

- Suitable extinguishing media : Use extinguishing media appropriate for surrounding fire.
- Unsuitable extinguishing media : Avoid water in straight hose stream; will scatter and spread fire.

5.2. Special hazards arising from the substance or mixture

- Fire hazard : Non flammable.
- Hazardous decomposition products in case of : Toxic and corrosive fumes are released. Very corrosive gases/vapours/fumes. Phosphorus fire oxides.

5.3. Advice for firefighters

- Firefighting instructions : Do not enter fire area without proper personal protective equipment, including respiratory protection. Exercise caution when fighting any chemical fire. Containers close to fire should be removed immediately or cooled with water.
- Protection during firefighting : Wear self-contained breathing apparatus (SCBA) to prevent contact with thermal decomposition products.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Ensure adequate ventilation, especially in confined areas. Avoid contact with skin and eyes. Use personal protective equipment as required. Do not breathe gas/fumes/vapour/spray (appropriate wording to be specified by the manufacturer).

For non-emergency personnel

- Protective equipment : Wear appropriate personal protective equipment - see Section 8.
- Emergency procedures : Keep public away from danger area.

For emergency responders

- Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Discharging into rivers and drains is forbidden. Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

- For containment : Dispose of at a licensed waste collection centre.
- Methods for cleaning up : Take up liquid spill into absorbent material. Post clean with water. Never pour spill back in original packaging for reuse.
- Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

See Section 8 for information on personal protection equipment. See section 13 for waste handling.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

- Additional hazards when processed : Corrosive storage.
- Precautions for safe handling : Avoid spilling, skin and eye contact. Avoid inhalation of vapours. Use only outdoors or in a well-ventilated area. Ensure adequate ventilation. NEVER pour water into this substance; when dissolving or diluting always add it slowly to the water.

Hygiene measures : Do not eat, drink or smoke when using this product. Wash hands, forearms and face thoroughly after handling. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Comply with applicable regulations.

Storage conditions : Keep cool. Protect from sunlight. Store in a dry place. Store in a well-ventilated place. Keep container tightly closed. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Incompatible materials : Bases.

7.3. Specific end use(s)

No additional data.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

phosphoric acid ... %, orthophosphoric acid ... % (7664-38-2)		
United Kingdom	Local name	Orthophosphoric acid
phosphoric acid ... %, orthophosphoric acid ... % (7664-38-2)		
United Kingdom	WEL TWA (mg/m ³)	1 mg/m ³
United Kingdom	WEL STEL (mg/m ³)	2 mg/m ³
nitric acid (7697-37-2)		
United Kingdom	Local name	Nitric acid
United Kingdom	WEL STEL (mg/m ³)	2.6 mg/m ³
United Kingdom	WEL STEL (ppm)	1 ppm

8.2. Exposure controls

Appropriate engineering controls : Eye wash facilities and emergency shower must be available when handling this product.

Hand protection : Wear suitable gloves. Butylrubber protective gloves. Nitril. Layer thickness : >0,40mm. Breakthrough time : 240 >480min. STANDARD EN 374.

Eye protection : Chemical goggles or face shield. STANDARD EN 166.

Skin and body protection : Wear suitable protective clothing

Respiratory protection : Where exposure through inhalation may occur from use, respiratory protection equipment is recommended. Use respiratory equipment with gas filter, type E. Standard EN 149.

Other information : Personal protective equipment should be chosen according to the CEN standards and in discussion with the supplier of the protective equipment.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical state : Liquid

Colour : Colourless.

Odour : Stinging.

Odour threshold : No data available

pH : No data available

Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: 21 °C
Freezing point	: 21 °C
Boiling point	: 213 °C
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: 0.03 mm Hg
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: 1.59 g/cm ³
Solubility	: Very soluble in water.
Log Pow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: Product is not explosive.
Oxidising properties	: Non flammable.
Explosive limits	: No data available

9.2. Other information

No additional information available

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

No incompatible groups noted.

10.2. Chemical stability

Stable under normal temperature conditions and recommended use.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use. Never add water to acid!.

10.4. Conditions to avoid

Stable under recommended handling and storage conditions (see section 7).

10.5. Incompatible materials

Alkali metals. alkalis. Strong oxidising agents.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced. Thermal decomposition generates : Corrosive vapours.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Acute toxicity : Harmful if inhaled.

ATE Inhalation: ca 1-5 mg/l (if LC50 inhalation = 0.18 mg/l*)

phosphoric acid ... %, orthophosphoric acid ... % (7664-38-2)	
LD50 dermal rabbit	2740 mg/kg
acetic acid % (64-19-7)	
LD50 oral rat	3310 mg/kg
LD50 dermal rat	1130 mg/kg
nitric acid (7697-37-2)	
LC50 inhalation rat (Vapours - mg/l/4h)	2.65 mg/l/4h (0.18 mg/l in SE SDB*)

Skin corrosion/irritation	: Causes severe skin burns and eye damage.
Serious eye damage/irritation	: Causes serious eye damage.
Respiratory or skin sensitisation	: Not classified Based on available data, the classification criteria are not met
Germ cell mutagenicity	: Not classified Based on available data, the classification criteria are not met
Carcinogenicity	: Not classified Based on available data, the classification criteria are not met
Reproductive toxicity	: Not classified Based on available data, the classification criteria are not met
STOT-single exposure	: Not classified Based on available data, the classification criteria are not met
STOT-repeated exposure	: Not classified Based on available data, the classification criteria are not met
Aspiration hazard	: Not classified Based on available data, the classification criteria are not met

SECTION 12: ECOLOGICAL INFORMATION
12.1. Toxicity

Ecology - general : Large amounts of the product may affect the acidity (pH-factor) in water with possible risk of harmful effects to aquatic organisms. Not regarded as dangerous to the environment. This does not, however, rule out the possibility that large or frequent smaller emissions of the product may be harmful to the environment.

phosphoric acid ... %, orthophosphoric acid ... % (7664-38-2)	
LC50 fish 1	138 mg/l
acetic acid % (64-19-7)	
LC50 fish 1	79 mg/l (96 hours - Pimephales promelas)
EC50 Daphnia 1	65 mg/l (48 hours - Daphnia magna)
nitric acid (7697-37-2)	
LC50 fish 1	72 mg/l (96 hours - Gambusia affinis - Mosquito fish)

12.2. Persistence and degradability

Aluminium Etch 16:1:1:2	
Persistence and degradability	Componet(s) are biodegradable.
acetic acid % (64-19-7)	
Biodegradation	> 60 % (28 days, method: OECD 301C)

12.3. Bioaccumulative potential

Aluminium Etch 16:1:1:2	
Bioaccumulative potential	No bioaccumulation.
phosphoric acid ... %, orthophosphoric acid ... % (7664-38-2)	
Log Pow	< 0
acetic acid % (64-19-7)	
Log Pow	-0.23
nitric acid (7697-37-2)	
Log Pow	-2.3

12.4. Mobility in soil

Aluminium Etch 16:1:1:2	
Ecology - soil	The product is water soluble and may spread in water systems.

12.5. Results of PBT and vPvB assessment

Aluminium Etch 16:1:1:2	
This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII	
This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII	

12.6. Other adverse effects

Other adverse effects : None to our knowledge.

SECTION 13: DISPOSAL CONSIDERATIONS
13.1. Waste treatment methods

Regional legislation (waste) : Dispose as hazardous waste.






Product/Packaging disposal recommendations: Dispose in a safe manner in accordance with local/national regulations.

Additional information : The given LoW-code is a guiding, and the code depends on how the waste is formed. User must evaluate the choice of correct code.

European List of Waste (LoW) code : 06 01 06* - other acids
16 05 07* - discarded inorganic chemicals consisting of or containing dangerous substances

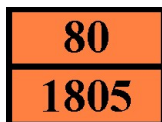
SECTION 14: TRANSPORT INFORMATION

In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	IATA	ADN	RID
14.1. UN number				
1805	1805	1805	1805	1805
14.2. UN proper shipping name				
PHOSPHORIC ACID, SOLUTION	PHOSPHORIC ACID SOLUTION	Phosphoric acid, solution	PHOSPHORIC ACID, SOLUTION	PHOSPHORIC ACID, SOLUTION
Transport document description				
UN 1805 PHOSPHORIC ACID, SOLUTION, 8, III, (E)	UN 1805 PHOSPHORIC ACID SOLUTION, 8, III			
14.3. Transport hazard class(es)				
8	8	8	8	8
				
14.4. Packing group				
III	III	III	III	III
14.5. Environmental hazards				
Dangerous for the environment : No	Dangerous for the environment : No Marine pollutant : No	Dangerous for the environment : No	Dangerous for the environment : No	Dangerous for the environment : No
No supplementary information available				

14.6. Special precautions for user
- Overland transport

Limited quantities (ADR) : 5l
 Excepted quantities (ADR) : E1
 Hazard identification number (Kemler No.) : 80



Orange plates :
EAC code : 2R

- Transport by sea

Special provisions (IMDG) : 223
EmS-No. (Fire) : F-A
EmS-No. (Spillage) : S-B

- Air transport

PCA Excepted quantities (IATA) : E1
PCA Limited quantities (IATA) : Y841
Special provisions (IATA) : A3,
A803

Rail transport

No data available

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

IBC code : No IBC-code for bulk transport offshore (MARPOL).

SECTION 15: REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

National regulations

EC-regulation 2015/830 /EC, 1907/2006/EC (REACH), 1272/2008/EC (CLP), 790/2009/EC. Transport of dangerous goods (ADR/RID, IMDG, IATA/ICAO). Workplace exposure limits.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: OTHER INFORMATION

Data sources : EC-regulation 2015/830 /EC, 1907/2006/EC (REACH), 1272/2008/EC (CLP), 790/2009/EC. Transport of dangerous goods (ADR/RID, IMDG, IATA/ICAO). Workplace exposure limits.

Version 4.1

Added H332 (Se section 3 and 11)

Full text of H- and EUH-statements:

Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Flam. Liq. 3	Flammable liquids, Category 3
Ox. Liq. 2	Oxidising Liquids, Category 2
Skin Corr. 1A	Skin corrosion/irritation, Category 1A

Skin Corr. 1B	Skin corrosion/irritation, Category 1B
H226	Flammable liquid and vapour.
H272	May intensify fire; oxidiser.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.

The information in this safety data sheet is based on information from the manufacturer/supplier, present european and national legislation, and presupposes that the product is used within the specified area of application.