

ALUX

Safety Data Sheet

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

- 1.1 Product identifier:** ALUX
- 1.2 Relevant identified uses of the substance or mixture and uses advised against:**
Anti-corrosive product, designed for periodically washing highly contaminated elements of aluminum, light metals and stainless steel.
- 1.3 Details of the supplier of the safety data sheet:**
TENZI Sp. z o.o.
Skarbimierzyce 20
72-002 Dołuje
tel. +48 91 3119777
fax. +48 91 3119779
E-mail address for a competent person responsible for SDS: technolog@tenzi.pl
- 1.4 Emergency telephone number:**
+48 91 31 19 777 (mon. - fri. 8am - 4pm) or 112.

SECTION 2. HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture:

Classification according to Regulation (EC) No. 1272/2008:

- Skin Corr. 1B H314** – Causes severe skin burns and eye damage.
Eye Dam. 1 H318 – Causes serious eye damage.
Acute Tox. 3 H301 – Toxic if swallowed.
Acute Tox. 2 H310 – Fatal in contact with skin.
Acute Tox. 3 H331 – Toxic if inhaled.

2.2. Label elements:
(According to 1272/2008/EC*)

Hazard symbols:



Signal words:
DANGER

- Hazard statements:**
H301+H331 – Toxic if swallowed or if inhaled
H310 – Fatal in contact with skin.
H314 – Causes severe skin burns and eye damage.

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Precautionary statements:

- P270** – Do not eat, drink or smoke when using this product.
P271 – Use only outdoors or in a well-ventilated area.
P280 – Wear protective gloves/protective clothing/eye protection/face protection.
P301+P330+P331 – IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353 – IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P301+P310 – IF SWALLOWED: Immediately call a POISON CENTER/doctor
P305+P351+P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P405 – Store locked up.

2.3. Other hazards:

Substance does not meet criteria for PBT or vPvB in accordance with Annex XIII of REACH Regulation.

SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

3.1. Substances:

Not applicable.

3.2. Mixtures:

Composition (according to: 648/2004/EC):

- < 7% hydrofluoric acid
- < 5% amphoteric surfactants
- auxiliary substances not classified as dangerous

Identification		Hazardous ingredient/classification	Concentration
CAS:	7664-39-3	Hydrofluoric acid (70%) Acute Tox. 2 H330, Acute Tox. 1 H310, Acute Tox. 2 H300, Skin Corr. 1A H314	< 7%
WE:	231-634-8		
Index:	009-003-00-1		
Registration:	01-2119458860-33-XXXX		

The full texts of H symbols and phrases are in section 16.

SECTION 4. FIRST AID MEASURES

4.1. Description of first aid measures:

Inhalation:

In case of inhalation poisoning symptoms (cough, dyspnea, dizziness) move the injured to fresh air. Lay him down in semi-recumbent posture and get medical attention.

Skin contact:

If product comes in contact with the skin, immediately remove all contaminated clothing and flush exposed area with large amounts of water. Do not use any alkalescent substances. Use gel containing calcium gluconate on burned skin, flush it with water and repeat the procedure for at least 15 minutes. If you don't have a gel containing calcium gluconate, then put some kind of material soaked in 10% solution of calcium gluconate on burned area and get medical attention.

Eye contact:

Flush eyes with running water (at least 15 minutes) while keeping eyelids open. Get medical attention.

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Ingestion:

DO NOT induce vomiting. Give lots of water to drink containing calcium gluconate/lactate.
In case of diarrhea, make a solution of sodium sulphate (1 spoon per 0.25l of water) and immediately get medical attention.
Don't give anything to unconscious person.

4.2. Most important symptoms and effects, both acute and delayed:**Inhalation:**

Toxic.

Skin:

Corrosive, causes serious skin burns and may cause death when in contact with skin.

Eyes:

Corrosive, causes serious eye damage.

Ingestion:

Toxic, causes serious burns in mouth and throat.

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

Get medical attention.

Fresh water and eye-wash preparations must be available on the worksite.

SECTION 5. FIREFIGHTING MEASURES

5.1. Extinguishing media:**Suitable extinguishing media:**

Use extinguishing measures that are appropriate to local circumstances and surrounding environment.

Unsuitable extinguishing media:

Water jet.

5.2. Special hazards arising from the substance or mixture:

Product is non-flammable.

5.3. Advice for firefighters:

Firefighters should wear self-contained breathing apparatus and full protective clothing. In case of fire, warn the people nearby and evacuate unprotected and untrained personnel from hazard area. Notify relevant emergency services. If possible, remove the containers away from the influence of fire and high temperature. Water may be used to keep fire-exposed containers cool until fire is out. The after burning residues should be removed

SECTION 6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures:**For non-emergency personnel:**

Protective clothes, protective chemical-proof gloves (0.11 mm thick), self-contained breathing apparatus, safety glasses.

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For emergency responders:

Protective clothes, protective chemical-proof gloves (0.11 mm thick), self-contained breathing apparatus, safety glasses. Avoid skin and eye contact. Provide proper ventilation..

6.2. Environmental precautions:

No data available.

6.3. Methods and material for containment and cleaning up:

In case of unexpected release of the substance into the environment, inform appropriate services about the emergency and remove any source of ignition. Prevent spills from entering sewers, surface water or groundwater. If it is possible, confine and contain the spill by closing the flow of the liquid, plug the damaged container and put it into leakproof wrapping. For a larger spill, make a dike around the outside edges of the spill and use absorbent materials (sand, sawdust, minced limestone). Store clean-up materials for disposal as hazardous waste. Decontaminate polluted area with water.

6.4. Reference to other sections:

See section 8 and 13.

SECTION 7. HANDLING AND STORAGE

7.1. Precautions for safe handling:

Be careful when working with this product.
Use personal protection recommended in section 8
Mix only with water. DO NOT mix with any other chemical substances.
People with skin allergy or respiratory system problems should not have contact with this product.
Avoid risk – read this instruction sheet carefully before using the product.
After usage, keep container tightly closed and keep it away from unauthorized people.
Use only adequate ventilation to avoid inhalation poisoning.

7.2. Conditions for safe storage, including any incompatibilities:

Store in a tightly closed, original plastic container. Store this product in a dry environment that will be maintained at 5°C - 35°C temperature with a good ventilation system and an easy washable, nonabsorbable alkaline resistant floor.
DO NOT expose the product to sunlight and keep away from heat, sparks, flame and source of ignition.

7.3. Specific end use(s):

No data available.

SECTION 8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

8.1. Control parameters:

Please check any national occupational exposure limit values in your country.

NDS/NDSch/NDSP values for individual chemical substances (according to SDS or Chemical Safety Report):

Hydrofluoric acid (data for highly concentrated substance):

NDS: 0.5 mg/m³
NDSch: 2 mg/m³
NDSP: not identified.

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DNEL /PNEC values for individual chemical substances (according to SDS or Chemical Safety Report):

Hydrofluoric acid (data for highly concentrated substance):

No data available.

NOTE: When the concentration of substance is known, personal protective equipment should be chosen based on substance concentration in a workplace, exposure time and operations performed by the employee. In emergency situations, if substance concentration in the workplace is unknown, personal protection of highest class level should be used.

8.2. Exposure controls:

RESPIRATORY PROTECTION:

self-contained breathing apparatus

HAND PROTECTION:

In case of full contact with the product: gloves from butyl rubber (0.7 mm thick).

In case of splash contact: gloves from polychloroprene (0.65 mm thick)

EYE/FACE PROTECTION:

Safety glasses inside tight housing.

SKIN PROTECTION:

Protective coated clothes, rubber coat and rubber boots.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties:

Appearance:	Colourless liquid
Odour:	Characteristic for materials used in production (acidic, harsh)
Odour threshold:	No data available
pH:	1 ± 1
Melting point:	No data available
Freezing point:	No data available
Initial boiling point:	No data available
Boiling range:	No data available
Flash point:	No data available
Evaporation rate:	No data available
Flammability (solid, gas):	No data available
Upper flammability limit:	No data available
Lower flammability limit:	No data available
Upper explosive limit:	No data available
Lower explosive limit:	No data available
Vapour pressure:	No data available
Vapour density:	No data available
Relative density:	1,010 ± 0.020 g/cm ³
Solubility:	
A) Water:	soluble
B) Organic solvent:	No data available

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Partition coefficient N-Octan: No data available
Partition coefficient Water: No data available
Auto-ignition temperature: No data available
Decomposition temperature: No data available
Viscosity: No data available
Explosive properties: No data available
Oxidising properties: No data available

9.2. Other information:

Refractive index: No data available Brix* \pm 5%

* - Degrees Brix is the content of an aqueous solution. One degree Brix is 1 gram of sucrose in 100 grams of solution and represents the strength of the solution as percentage by weight (%w/w).

SECTION 10. STABILITY AND REACTIVITY

10.1 Reactivity:

No data available.

10.2 Chemical stability:

Stable under recommended storage conditions (see section 7).

10.3 Possibility of hazardous reactions:

Creates explosive mixtures, if in contact with metals (releases hydrogen).
Reacts violently with sulfuric and chlorosulfuric acids.

10.4 Conditions to avoid:

Avoid heavily warmed rooms without ventilation and long-term exposure to sunlight.

10.5 Incompatible materials:

Materials to avoid: glass, glaze, metals.

10.6 Hazardous decomposition products:

Hydrogen fluoride.

SECTION 11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:

ACUTE TOXICITY:

Inhalation: toxic when inhaled. Very corrosive, may cause sore throat, cough, pneumonia and even death.

Skin contact: causes serious skin burns. May cause death when in contact with the skin.

Eye contact: cause serious eye damage

Digestive system: toxic. Causes serious burns in mouth, throat and stomach.

ATEmix = 7.14 (acute toxicity, inhalation)

ATEmix = 71.43 (acute toxicity, dermal)

ATEmix = 71.43 (acute toxicity, orally)

DETAILS OF PARTICULAR COMPONENTS (according to substance's SDS):

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Hydrofluoric acid (data for highly concentrated substance):

Acute toxicity:

LCL0:	41.5 mg/m ³	(human, inhalation).
LC50:	1059 mg/m ³ /1h	(rat, inhalation).
LC50:	3519 mg/m ³ /15min.	(guinea pig, inhalation).

Corrosive to skin and mucous membranes, not only as a acidic aqueous solution, but also in the form of gas.
Contact with eyes may lead to permanent blindness.
Long-time exposure causes fluorosis.
Acute exposure may cause pulmonary edema.
If corrupted skin is not healed immediately, there will be hard-to-mend blisters and wounds which will leave scars.

SECTION 12. ECOLOGICAL INFORMATION

12.1. Toxicity:

Data for the mixture ingredients:

Hydrofluoric acid (data for highly concentrated substance):

Toxic to fish and plankton. Harmful to plants, damages forest stands and cultivated plants – animal diseases.
Fruit trees and conifers are the most sensitive.
Harmful, because of the pH change.
Toxic concentration for fish: 40-60 mg/l

12.2. Persistence and degradability:

The surfactants contained within the product comply with the biodegradability criteria as laid down in Regulation (EC) No 648/2004 on detergents.

Substance	Method	Length	Degraded percentage
Hydrofluoric acid	Inorganic substance	Inorganic substance	Inorganic substance

12.3. Bioaccumulative potential:

No data available.

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment:

This substance/mixture does not meet the PBT and vPvB criteria of REACH, annex XIII..

12.6. Other adverse effects:

No data available.

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SECTION 13. DISPOSAL CONSIDERATIONS

RESIDUES AND WASTES:

DO NOT mix with other liquid wastes.

DO NOT empty into sewage system. Product should be totally used up according to its description.

If it's impossible to do so, dispose of this material and its container at hazardous or special waste collection point.

13.1. Waste treatment methods:

Contaminated containers should be completely emptied. Several times rinse the container promptly after emptying. Empty container can be stored in containers for collection of plastic packaging, or can be delivered to specialized company for recycling.

Disposal should be in accordance with the national/international regulations.

SECTION 14. TRANSPORT INFORMATION

TRADE NAME: ALUX

- 14.1. UN Number:** UN 2922
14.2. UN proper shipping name: Corrosive liquid, Toxic, N.O.S. (Hydrofluoric acid)
14.3. Transport hazard class(es): 8
14.4. Packing group: II
14.5. Environmental hazards: No
14.6. Special precautions for user: For more details see Sections 6 and 8.
14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: No data available.

WARNING LABELS

SECTION 15. REGULATORY INFORMATION

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

COMMISSION REGULATION (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC

REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on

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classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006

DIRECTIVE 2008/112/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 amending Council Directives 76/768/EEC, 88/378/EEC, 1999/13/EC and Directives 2000/53/EC, 2002/96/EC and 2004/42/EC of the European Parliament and of the Council in order to adapt them to Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures

COMMISSION REGULATION (EU) No 758/2013 of 7 August 2013 correcting Annex VI to Regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures

DIRECTIVE 2014/27/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 26 February 2014 amending Council Directives 92/58/EEC, 92/85/EEC, 94/33/EC, 98/24/EC and Directive 2004/37/EC of the European Parliament and of the Council, in order to align them to Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures

REGULATION (EC) No 648/2004 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 31 March 2004 on detergents

REGULATION (EC) No 1336/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 amending Regulation (EC) No 648/2004 in order to adapt it to Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures

REGULATION (EC) No 273/2004 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 11 February 2004 on drug precursors.

15.2. Chemical safety assessment

For mixture:

A Chemical Safety Assessment has not been carried out.

For following mixture substances:

Hydrofluoric acid: A Chemical Safety Assessment has been carried out.

SECTION 16. OTHER INFORMATION

Information above is based on current knowledge of product in its current form.

All data are presented in order to take into account safety requirements priority and not to guarantee special properties of the product. If product usage conditions are not under manufacturer control, responsibility for safe use lies with the person that uses them. The employer is obliged to inform all employees, who have contact with the product, about the risk and safety measures specified in the data sheet. Safety data presented above were prepared based on safety characteristics of substances used by the producer to compose the product and based on regulations for handling dangerous substances and their preparation. Classification of chemical mixture was done with calculation methods, based on the content of hazardous ingredients.

The full list of symbols and H phrases from Section 2 and 3:

Acute Tox. 2	– Acute toxicity, category 2.
Acute Tox. 3	– Acute toxicity, category 3.
Eye Dam. 1	– Serious eye damage, category 1.
Skin Corr. 1A	– Corrosive to skin, category 1A
Skin Corr. 1B	– Corrosive to skin, category 1B
H301	– Toxic if swallowed.
H310	– Fatal in contact with skin.
H314	– Causes severe skin burns and eye damage.
H318	– Causes serious eye damage.
H331	– Toxic if inhaled.

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More information on the product can be found on the specific technical data sheet which is available on www.tenzi.pl

Training:

Course participants should be trained about how to handle this hazardous substance, about safety and work hygiene. Drivers should also be trained and obtain proper certification in accordance with the ADR requirements.

Expiry date:

36 months from the production date (if product is stored according to the producer recommendations)

ALUX was submitted to Inspector for Chemical Substances.

Changes compared to the previous version:

- section 16 (expiry date)

Updated cards versions are now available on www.tenzi.pl

This Safety Data Sheet contains 10 pages. Changes in the content by unauthorized people is prohibited.