

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 11.09.2015

Version number 2

Revision: 11.09.2015

SECTION 1: Identification of the substance/mixture and of the company/undertaking

- **Date of compilation:** 15.08.2014
- **1.1 Product identifier**
- **Trade name:** Pelox® Aluminium Cleaner P-AL
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the preparation:** Cleaning of Aluminium Surfaces
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer / Supplier:**
Pelox BioChemie- und Umwelttechnik GmbH & Co. KG
Langer Acker 22
D-30900 Wedemark
Germany
mail: office@pelox.de
contact person : Mr. Peter Krämer
www.pelox.de
- phone: ++49 5130 58 89 0
fax: ++49 5130 58 89 58
- **E-mail address of the competent person responsible for the Safety Data Sheet:** office@pelox.de
- **Informing department:**
quality management department
phone.: ++49 5130 58 89 0
office hours: Monday-Thursday: 8.00 a.m. - 16.00 p.m / Friday: 8.00 a.m - 13.00 p.m.
- **1.4 Emergency telephone number:** As above or next toxicological information centre.

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



GHS06 skull and crossbones

Acute Tox. 3 H311 Toxic in contact with skin.



GHS05 corrosion

Met. Corr.1 H290 May be corrosive to metals.

Skin Corr. 1A H314 Causes severe skin burns and eye damage.

Eye Dam. 1 H318 Causes serious eye damage.



GHS07

Acute Tox. 4 H302 Harmful if swallowed.

- **2.2 Label elements**

- **Labelling according to Regulation (EC) No 1272/2008**

The product is classified and labelled according to the CLP regulation.

- **Hazard pictograms**



GHS05

GHS06

- **Signal word** Danger

(Contd. on page 2)

Trade name: Pelox[®] Aluminium Cleaner P-AL

(Contd. of page 1)

· Hazard-determining components of labelling:

Phosphoric acid
Hydrofluoric acid

· Hazard statements

H290 May be corrosive to metals.
H302 Harmful if swallowed.
H311 Toxic in contact with skin.
H314 Causes severe skin burns and eye damage.

· Precautionary statements

P260 Do not breathe mist/vapours/spray.
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/shower.
P310 Immediately call a POISON CENTER/doctor.
P405 Store locked up.

· 2.3 Other hazards

· Results of PBT and vPvB assessment

· **PBT:** Not applicable.
· **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

· 3.2 Chemical characterisation: Mixtures

· **Description:** Mixture of the substances listed below with nonhazardous additions.

· Dangerous components:

CAS: 7664-38-2 EINECS: 231-633-2 Index number: 015-011-00-6	Phosphoric acid ⚠ Met. Corr.1, H290; Skin Corr. 1B, H314	≤25%
CAS: 7664-39-3 EINECS: 231-634-8 Index number: 009-003-00-1	Hydrofluoric acid ⚠ Acute Tox. 2, H300; Acute Tox. 1, H310; Acute Tox. 2, H330; ⚠ Met. Corr.1, H290; Skin Corr. 1A, H314	≤2.5%

· **Additional information:** For the wording of the listed risk phrases refer to section 16.

SECTION 4: First aid measures

· 4.1 Description of first aid measures

· General information:

Immediately remove any clothing contaminated by the product.
Symptoms of poisoning may occur after several hours. Medical observation for at least 48 hours after the accident is recommended.

· After inhalation:

Supply fresh air or oxygen; call for doctor.
In case of unconsciousness bring patient into stable side position for transport.

· After skin contact:

Instantly rinse with water.
Immediate medical treatment necessary. Failure to treat burns can prevent wounds from healing.
Rub in Ca-gluconate solution or Ca-gluconate gel immediately.

· After eye contact:

Rinse opened eye for several minutes under running water. Then consult doctor.
Remove contact lenses, if present and easy to do.

· After swallowing:

Rinse out mouth and then drink plenty of water.
Do not induce vomiting; instantly call for medical help.

(Contd. on page 3)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 11.09.2015

Version number 2

Revision: 11.09.2015

Trade name: Pelox® Aluminium Cleaner P-AL

(Contd. of page 2)

- **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Danger:** Danger of gastric perforation.
- **4.3 Indication of any immediate medical attention and special treatment needed** symptomatic treatment

SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents** Use fire fighting measures that suit the environment.
- **5.2 Special hazards arising from the substance or mixture**
Can be released in case of fire:
Hydrogen fluoride (HF)
Oxides of phosphorus (PxOy)
- **5.3 Advice for firefighters**
- **Protective equipment:**
Wear self-contained breathing apparatus.
Wear full protective suit.
- **Additional information**
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.
If without risk possible, move drums with material away from dangerous area.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation.
Use breathing protection against the effects of fumes/dust/aerosol.
Avoid contact with skin and eyes.
- **6.2 Environmental precautions:**
Damp down gases/fumes/haze with water spray jet.
Do not allow to enter drainage system, surface or ground water.
Keep dirty washing water for appropriate disposal.
Inform respective authorities in case product reaches water or sewage system.
Prevent material from reaching sewage system, holes and cellars.
- **6.3 Methods and material for containment and cleaning up:**
Ensure adequate ventilation.
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Send for recovery or disposal in suitable containers.
Dispose of the material collected according to regulations.
- **6.4 Reference to other sections**
See Section 7 for information on safe handling
See Section 8 for information on personal protection equipment.
See Section 13 for information on disposal.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
Do not breathe vapour/spray.
Avoid contact with skin and eyes.
Keep containers tightly sealed.
When diluting, always stir the product into standing water.
Make sure that all applicable workplace limits are observed.
- **Information about protection against explosions and fires:** The product is not flammable.

(Contd. on page 4)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 11.09.2015

Version number 2

Revision: 11.09.2015

Trade name: Pelox[®] Aluminium Cleaner P-AL

(Contd. of page 3)

- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and containers:**
Store only in the original container.
Provide acid-resistant floor.
Observe all local and national regulations for storage of water polluting products.
- **Information about storage in one common storage facility:**
Store away from foodstuffs.
Do not store together with alkalis (caustic solutions).
Store away from metals.
- **Further information about storage conditions:**
Store container in a well ventilated position.
Store in cool, dry conditions in well sealed containers.
Protect from frost.
Protect from heat and direct sunlight.
Store in a locked cabinet or with access restricted to specifically instructed persons.
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **8.1 Control parameters**

· **Components with critical values that require monitoring at the workplace:**

7664-38-2 Phosphoric acid

WEL (Great Britain)	Short-term value: 2 mg/m ³ Long-term value: 1 mg/m ³
IOELV (European Union)	Short-term value: 2 mg/m ³ Long-term value: 1 mg/m ³

7664-39-3 Hydrofluoric acid

WEL (Great Britain)	Short-term value: 2.5 mg/m ³ , 3 ppm Long-term value: 1.5 mg/m ³ , 1.8 ppm
IOELV (European Union)	Short-term value: 2.5 mg/m ³ , 3 ppm Long-term value: 1.5 mg/m ³ , 1.8 ppm

· **DNELs**

7664-38-2 Phosphoric acid

Inhalative	DNEL acute / short-term exposure - local effects	2 mg/m ³ (worker)
	DNEL long-term exposure - local effects	0.73 mg/m ³ (general population) 2.92 mg/m ³ (worker)

7664-39-3 Hydrofluoric acid

Oral	DNEL acute / short-term exposure - systemic effect	0.01 mg/kg bw/d (general population)
	DNEL long-term exposure - systemic effects	0.01 mg/kg bw/d (general population)
Inhalative	DNEL acute / short-term exposure - local effects	1.25 mg/m ³ (general population) 2.5 mg/m ³ (worker)
	DNEL acute / short-term exposure - systemic effect	0.03 mg/m ³ (general population) 2.5 mg/m ³ (worker)
	DNEL long-term exposure - local effects	0.2 mg/m ³ (general population) 0.0015 mg/m ³ (worker)
	DNEL long-term exposure - systemic effects	0.03 mg/m ³ (general population) 1.5 mg/m ³ (worker)

(Contd. on page 5)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 11.09.2015

Version number 2

Revision: 11.09.2015

Trade name: Pelox® Aluminium Cleaner P-AL

(Contd. of page 4)

· PNECs
7664-39-3 Hydrofluoric acid

PNEC	0.9 mg/l (aqua (freshwater)) based on NOEC: 8,9 mg/L 0.9 mg/l (aqua (marine water)) 11 mg/kg (soil) based on biological nitrification: 106 mg/kg
PNEC STP	51 mg/l (aqua (intermittent releases)) based on NOEC: 510 mg/L

· 8.2 Exposure controls
· Personal protective equipment
· General protective and hygienic measures

Keep away from foodstuffs, beverages and food.

Instantly remove any contaminated garments.

Wash hands during breaks and at the end of the work.

Use skin protection cream for preventive skin protection.

Do not inhale gases / fumes / aerosols.

Avoid contact with the eyes and skin.

Do not eat, drink or smoke while working.

· Breathing equipment: Use breathing protection in case of insufficient ventilation.
· Recommended filter device for short term use: Combination filter ABEK-P3
· Protection of hands: Pelox® PVC acid protective gloves
· Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· Eye protection:

Tightly sealed safety glasses

Face shield

· Body protection:

Acid resistant protective clothing

Body protection must be chosen depending on activity and possible exposure.

· Limitation and supervision of exposure into the environment

Do not allow to enter drainage system, surface or ground water.

SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties
· General Information
· Appearance:

Form:	liquid
Colour:	reddish
Smell:	acidic
Odour threshold:	not determined

· pH-value at 20 °C: < 1

· Change in condition

Melting point/Melting range:	not determined
Boiling point/Boiling range:	106 °C

· Flash point: not applicable

· Inflammability (solid, gaseous) not applicable

· Ignition temperature: not applicable

(Contd. on page 6)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 11.09.2015

Version number 2

Revision: 11.09.2015

Trade name: Pelox[®] Aluminium Cleaner P-AL

(Contd. of page 5)

· Decomposition temperature:	Not determined.
· Self-inflammability:	Product is not selfigniting.
· Danger of explosion:	Product is not explosive.
· Critical values for explosion:	
Lower:	not applicable
Upper:	not applicable
· Oxidising properties	not determined
· Vapor pressure:	Not determined.
· Density at 20 °C:	1.10 - 1.20 g/cm ³
· Bulk density:	not applicable
· Relative density	Not determined.
· Vapour density (AIR = 1):	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with Water:	fully miscible
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity:	
dynamic:	not determined
kinematic:	not determined
· 9.2 Other information	No further relevant information available.

SECTION 10: Stability and reactivity

- **10.1 Reactivity** see 10.3
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions**
Corrosive action on metals
Reacts with metals forming hydrogen
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:**
Alkaline materials
Metals
Glass
- **10.6 Hazardous decomposition products:**
Hydrogen fluoride
Phosphorus oxides (e.g. P₂O₅)

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity**
Harmful if swallowed.
Toxic in contact with skin.

· **LD/LC50 values that are relevant for classification:**

7664-38-2 Phosphoric acid

Oral	LD50	1530 mg/kg (rat)
Dermal	LD50	2740 mg/kg (rabbit)

(Contd. on page 7)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 11.09.2015

Version number 2

Revision: 11.09.2015

Trade name: Pelox® Aluminium Cleaner P-AL

(Contd. of page 6)

Inhalative	LC50/1 h	1.689 mg/l (rabbit)
7664-39-3 Hydrofluoric acid		
Inhalative	LC50/1h	342 ml/m ³ (mouse)
		1276 ml/m ³ (rat) (ppm)

- **Primary irritant effect:**
- **Skin corrosion/irritation**
Causes severe skin burns and eye damage.
- **Serious eye damage/irritation**
Causes serious eye damage.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

· 12.1 Toxicity

· Aquatic toxicity:		
7664-38-2 Phosphoric acid		
EC50/24 h	29 mg/l (water flea (daphnia magna)) (ISO 6341 15)	Water quality
IC50	270 mg/l (bacteria)	
LC50/96 h	75.1 mg/l (oryzias latipes)	
7664-39-3 Hydrofluoric acid		
EC50/48 h	97 mg/l (water flea (daphnia magna))	
LC50/96 h	165 mg/l (salmo gairdneri)	

- **12.2 Persistence and degradability**
Anorganic product, is not eliminable from water by means of biological cleaning processes.
- **12.3 Bioaccumulative potential** Not bioaccumulative
- **12.4 Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system.
Must not reach sewage water or drainage ditch undiluted or unneutralised.
Water hazard class 1 (Self-assessment): slightly hazardous for water
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation** Disposal must be made according to official regulations.
- **European waste catalogue:**
Waste disposal key numbers from EWC have to be assigned depending on origin and processing.

(Contd. on page 8)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 11.09.2015

Version number 2







Revision: 11.09.2015

Trade name: Pelox[®] Aluminium Cleaner P-AL

(Contd. of page 7)

- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

SECTION 14: Transport information

· 14.1 UN-Number · ADR, IMDG, IATA	UN2922
· 14.2 UN proper shipping name · ADR · IMDG, IATA	UN2922 CORROSIVE LIQUID, TOXIC, N.O.S. (HYDROFLUORIC ACID, PHOSPHORIC ACID, SOLUTION) CORROSIVE LIQUID, TOXIC, N.O.S. (HYDROFLUORIC ACID, PHOSPHORIC ACID, SOLUTION)
· 14.3 Transport hazard class(es) · ADR	
 	
· Class · Label	8 (CT1) Corrosive substances. 8+6.1
· IMDG	
 	
· Class · Label	8 Corrosive substances. 8/6.1
· IATA	
 	
· Class · Label	8 Corrosive substances. 8 (6.1)
· 14.4 Packing group · ADR, IMDG, IATA	II
· 14.6 Special precautions for user · Kemler Number: · EMS Number: · Segregation groups	Warning: Corrosive substances. 86 F-A,S-B Acids
· 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
· Transport/Additional information:	Transport by post may be prohibited or restricted.
· ADR · Excepted quantities (EQ):	E2

(Contd. on page 9)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 11.09.2015

Version number 2

Revision: 11.09.2015

Trade name: Pelox® Aluminium Cleaner P-AL

(Contd. of page 8)

· Limited quantities (LQ):	1L
· Excepted quantities (EQ)	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· Transport category:	2
· Tunnel restriction code:	E
<hr/>	
· IMDG	
· Limited quantities (LQ)	5L
· Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· UN "Model Regulation":	UN2922, CORROSIVE LIQUID, TOXIC, N.O.S. (HYDROFLUORIC ACID, PHOSPHORIC ACID, SOLUTION), 8 (6.1), II

SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **National regulations**
- **Information about limitation of use:** Employment restrictions concerning young persons must be observed.
- **Decree to be applied in case of technical fault:** Directive 2012/18/EU does not apply.
- **Water hazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water
- **Other regulations, limitations and prohibitive regulations**
Observe restrictions on the marketing and use according to Annex XVII of Regulation (EC) No 1907/2006.
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Relevant phrases**
The(se) H-phrases are those of the ingredient(s) and do(es) not necessarily represent the classification of the product.
H290 May be corrosive to metals.
H300 Fatal if swallowed.
H310 Fatal in contact with skin.
H314 Causes severe skin burns and eye damage.
H330 Fatal if inhaled.
- **Department issuing MSDS:**
C.S.B. GmbH Phone: +49 - 2151 - 652086-0
Düsseldorfer Str. 113 Fax: +49 - 2151 - 652086-9
47809 Krefeld / Germany
- **Abbreviations and acronyms:**
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
DNEL: Derived No-Effect Level (REACH)

(Contd. on page 10)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 11.09.2015

Version number 2

Revision: 11.09.2015

Trade name: Pelox[®] Aluminium Cleaner P-AL

(Contd. of page 9)

PNEC: Predicted No-Effect Concentration (REACH)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Met. Corr. 1: Corrosive to metals, Hazard Category 1
Acute Tox. 2: Acute toxicity, Hazard Category 2
Acute Tox. 4: Acute toxicity, Hazard Category 4
Acute Tox. 1: Acute toxicity, Hazard Category 1
Acute Tox. 3: Acute toxicity, Hazard Category 3
Skin Corr. 1A: Skin corrosion/irritation, Hazard Category 1A
Skin Corr. 1B: Skin corrosion/irritation, Hazard Category 1B
Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1

· **Sources:** These data are based on information submitted by pre-suppliers.

· *** Data compared to the previous version altered.**

GB