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

1.1 Product identifier
Lithofin Anti-Slip

1.2 Relevant identified uses of the substance or mixture and uses advised against
Relevant identified uses
Mixture Washing and cleaning products, containing hydrofluoric

1.3 Supplier (manufacturer/importer/only representative/downstream user/distributor)
Contact :
Supplier : Lithofin AG
Street : Heinrich-Otto-Str. 36
Postal code/city : 73240 Wendlingen
Telephone : +49 (0)7024 9403-0
Telefax : +49 (0)7024 9403-40
Contact : Technical Department
E-mail: info@lithofin.de
Emergency telephone number:
+49 (0)7024 9403-0
(Only available during office hours)

1.4 Emergency telephone number
see section 1.3

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture
Classification according to Regulation (EC) No 1272/2008 [CLP]
Eye Dam. 1 ; H318 - Serious eye damage/eye irritation : Category 1 ; Causes serious eye damage.
Skin Corr. 1B ; H314 - Skin corrosion/irritation : Category 1B ; Causes severe skin burns and eye damage.

Additional information
The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

Remark
Full text of H- and EUH-phrases: see section 16.

2.2 Label elements
Labelling according to Regulation (EC) No. 1272/2008 [CLP]
Hazard pictograms

Corrosion (GHS05)
Signal word
Danger
Hazard components for labelling
AMMONIUM BIFLUORIDE ; CAS No. : 1341-49-7
Hazard statements
H314 Causes severe skin burns and eye damage.
Precautionary statements
P102 Keep out of reach of children.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
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.
P501 Dispose of contents/container in accordance with local and national regulations.

Other labelling

2.3 Other hazards
Adverse human health effects and symptoms
Due to its pH value (see section 9), irritation of the skin and eyes cannot be ruled out.

2.4 Additional information
The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

SECTION 3: Composition/information on ingredients

3.2 Mixtures
Hazardous ingredients
AMMONIUM BIFLUORIDE ; REACH registration No. : 01-2119489180-38-xxxx ; EC No. : 215-676-4; CAS No. : 1341-49-7
Weight fraction : ≥ 1 - < 5 %
Classification 1272/2008 [CLP] : Acute Tox. 3 ; H301 Skin Corr. 1B ; H314 Eye Dam. 1 ; H318

Additional information
All ingredients of this mixture are (pre)registered according to REACH regulation.
Full text of H- and EUH-phrases: see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures
General information
When in doubt or if symptoms are observed, get medical advice. Never give anything by mouth to an unconscious person or a person with cramps. If unconscious place in recovery position and seek medical advice.

Following inhalation
Remove casualty to fresh air and keep warm and at rest. If breathing is irregular or stopped, administer artificial respiration. In case of respiratory tract irritation, consult a physician.

In case of skin contact
After contact with skin, wash immediately with plenty of water and soap. Wash immediately with: Ca-Gluconate solution Immediately remove any contaminated clothing, shoes or stockings. Do not wash with: Cleaning agent, acidic Cleaning agent, alkaline Solvents/Thinner

After eye contact
In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist. Protect uninjured eye.

After ingestion
Call a physician immediately. Keep at rest. If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention. Do NOT induce vomiting.

Self-protection of the first aider
First aider: Pay attention to self-protection!

4.2 Most important symptoms and effects, both acute and delayed
No information available.

4.3 Indication of any immediate medical attention and special treatment needed
Notes for the doctor
Treat symptomatically.
Special treatment
First Aid, decontamination, treatment of symptoms.

SECTION 5: Firefighting measures

5.1 Extinguishing media
   Suitable extinguishing media
   Water spray ABC-powder Foam
   Unsuitable extinguishing media
   Full water jet Strong water jet

5.2 Special hazards arising from the substance or mixture
   Hazardous combustion products
   Carbon monoxide Carbon dioxide (CO2) Hydrogen fluoride

5.3 Advice for firefighters
   Use suitable breathing apparatus.
   Special protective equipment for firefighters
   Wear a self-contained breathing apparatus and chemical protective clothing.

5.4 Additional information
   Use water spray jet to protect personnel and to cool endangered containers. Do not allow run-off from fire-fighting to enter drains or water courses. Do not inhale explosion and combustion gases. The product itself does not burn. Coordinate fire-fighting measures to the fire surroundings.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
   Wear personal protection equipment (refer to section 8). Provide adequate ventilation. Remove persons to safety.

6.2 Environmental precautions
   Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.

6.3 Methods and material for containment and cleaning up
   For cleaning up
   Suitable material for taking up: Universal binder
   Clean contaminated articles and floor according to the environmental legislation. Retain contaminated washing water and dispose it. Dispose of waste according to applicable legislation.

   Other information
   Clear spills immediately.

6.4 Reference to other sections
   Safe handling: see section 7
   Personal protection equipment: see section 8
   Disposal: see section 13

SECTION 7: Handling and storage

7.1 Precautions for safe handling
   When using do not eat, drink, smoke, sniff.

   Protective measures
   All work processes must always be designed so that the following is excluded: Inhalation of vapours or spray/mists
   Skin contact Eye contact Wear personal protection equipment (refer to section 8). Always close containers tightly after the removal of product. Do not breathe gas/fumes/vapour/spray. Use only in well-ventilated areas. If local exhaust ventilation is not possible or not sufficient, the entire working area must be ventilated by technical means. Technical measures and the application of suitable work processes have priority over personal protection equipment.

   Measures to prevent fire
   The product is not: Flammable Usual measures for fire prevention.

   Fire class :
Shake well before use

Advises on general occupational hygiene
P362+P364 - Take off contaminated clothing and wash it before reuse.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels
Keep container tightly closed. Keep/Store only in original container. The floor should be leak tight, jointless and not absorbent. Ensure adequate ventilation of the storage area.

Hints on joint storage

Storage class (TRGS 510) : 8B

Protect from frost

Recommended storage temperature 5 - 25 °C

Further information on storage conditions
Keep locked up and out of reach of children. Keep container tightly closed in a cool, well-ventilated place.

7.3 Specific end use(s)
Recommendation
Observe technical data sheet. Observe instructions for use.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values
AMMONIUM BIFLUORIDE ; CAS No. : 1341-49-7

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<th>Limit value type (country of origin)</th>
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<th>Parameter</th>
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<th>Limit value</th>
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</tbody>
</table>

8.2 Exposure controls

Appropriate engineering controls
Ensure adequate ventilation of the storage area.
Technical measures and the application of suitable work processes have priority over personal protection equipment.

Personal protection equipment

Eye/face protection
Suitable eye protection
Eye glasses with side protection goggles

Required properties
DIN EN 166

Skin protection

Hand protection
Suitable gloves type : Gloves with long cuffs
Suitable material : NBR (Nitrile rubber), 0,4mm, >8h; Butyl caoutchouc, 0,5mm, >8h; FKM (fluoro rubber),
0,7mm, >8h;  
**Recommended glove articles**: Manufacturer KCL GmbH/Eichenzell-Germany; Ansell/Yarra City-Australia Or comparable articles from other companies.  
**Additional hand protection measures**: Check leak tightness/impermeability prior to use.  
**Remark**: Breakthrough times and swelling properties of the material must be taken into consideration. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves. Barrier creams are not substitutes for body protection.  
**Body protection**  
Protective clothing.  
**Suitable protective clothing**: Chemical protection clothing Chemical resistant safety shoes  
**Required properties**: acid-resistant.  
Protective clothing: DIN EN ISO 20345 DIN EN 13034 DIN EN 14605  
footwear: DIN EN 14404  
**Remark**: Barrier creams are not substitutes for body protection.  
**Respiratory protection**  
Usually no personal respirative protection necessary. Respiratory protection necessary at: insufficient ventilation aerosol or mist formation. high concentrations spray application  
**Suitable respiratory protection apparatus**  
Combination filtering device (EN 14387) Half-face mask (DIN EN 140) ABEK-P1  
**Remark**  
Use only respiratory protection equipment with CE-symbol including four digit test number. Observe the wear time limits according GefStoffV in combination with the rules for using respiratory protection apparatus (BGR 190).  
**General health and safety measures**  
Minimum standard for preventive measures while handling with working materials are specified in the TRGS 500.  
When using do not eat, drink, smoke, sniff. Keep away from food, drink and animal feeding stuffs. Avoid contact with skin, eyes and clothes. Remove contaminated, saturated clothing immediately. Wash contaminated clothing prior to re-use. Wash hands before breaks and after work. Apply skin care products after work. Do not breathe gas/fumes/vapour/spray.  

**SECTION 9: Physical and chemical properties**

9.1 **Information on basic physical and chemical properties**  
**Appearance**: Liquid  
**Colour**: light red  
**Odour**: odourless  
**Safety relevant basis data**  
**Melting point/melting range**: (1013 hPa) -3 °C  
**Initial boiling point and boiling range**: (1013 hPa) approx. 100 °C  
**Decomposition temperature**: (1013 hPa) not determined  
**Flash point**: not applicable closed cup (EN ISO 3679)  
**Ignition temperature**: not determined  
**Sustaining combustion**: No UN Test L2:Sustained combustibility test  
**Lower explosion limit**: not determined  
**Upper explosion limit**: not determined  
**Vapour pressure**: (50 °C) < 3000 hPa  
**Density**: (20 °C) 1,01 g/cm³ Pyknometer (DIN EN ISO 2811-1)  
**Solvent separation test**: (20 °C) < 3 % Test L1: Solvent separation test (UN)  
**Water solubility**: (20 °C) miscible  
**pH**: approx. 3 DIN 19268  
**log P O/W**: not determined (Mixture)
### SECTION 10: Stability and reactivity

**10.1 Reactivity**
No specific test data related to reactivity available for this product or its ingredients.

**10.2 Chemical stability**
The product is chemically stable under recommended conditions of storage, use and temperature.

**10.3 Possibility of hazardous reactions**
No hazardous reaction when handled and stored according to provisions.

**10.4 Conditions to avoid**
Stable under recommended storage and handling conditions.

**10.5 Incompatible materials**
The product develops hydrogen in an aqueous solution in contact with metals.

**10.6 Hazardous decomposition products**
Does not decompose when used for intended uses.

### SECTION 11: Toxicological information

**11.1 Information on toxicological effects**

**Acute effects**
There are no data available on the preparation/mixture itself. Data apply to the main component.

**Acute oral toxicity**
- **Parameter:** LD50 (AMMONIUM BIFLUORIDE; CAS No.: 1341-49-7)
- **Exposure route:** Oral
- **Species:** Rat
- **Effective dose:** 130 mg/kg
- **Method:** OECD 401

**Acute inhalation toxicity**
- **Parameter:** LC50 (AMMONIUM BIFLUORIDE; CAS No.: 1341-49-7)
- **Exposure route:** Inhalation
- **Species:** Mouse
- **Effective dose:** 342 mg/l
- **Exposure time:** 1 h

**Specific symptoms in animal studies**
There are no data available on the preparation/mixture itself.

**Irritant and corrosive effects**

**Assessment/classification**
Causes serious eye damage. Causes severe burns.

**Sensitisation**
There are no data available on the preparation/mixture itself.

**Repeated dose toxicity (subacute, subchronic, chronic)**
There are no data available on the preparation/mixture itself.

**CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**

**Carcinogenicity**
There are no data available on the preparation/mixture itself.

**Other information**
No indication of human carcinogenicity.

**Germ cell mutagenicity**
There are no data available on the preparation/mixture itself.
No indications of human germ cell mutagenicity exist.

**Reproductive toxicity**
There are no data available on the preparation/mixture itself.

**Other information**
No indications of human reproductive toxicity exist.

**Overall Assessment on CMR properties**
The ingredients in this mixture do not meet the criteria for classification as CMR category 1A or 1B according to CLP.

**STOT-single exposure**
See SECTION 2.1 (classification).

**STOT-repeated exposure**
See SECTION 2.1 (classification).

**Aspiration hazard**
See SECTION 2.1 (classification).

**SECTION 12: Ecological information**

**12.1 Toxicity**
Data apply to the main component. There are no data available on the preparation/mixture itself.

**Effects in sewage plants**
Observe local regulations concerning effluent treatment. Before discharge into sewage plants the product normally needs to be neutralised.

**12.2 Persistence and degradability**
There are no data available on the preparation/mixture itself.

**Biodegradation**
The surfactant contained in this mixture complies with the biodegradability criteria as laid down in Regulation (EC) No. 648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them, at their direct request or at the request of a detergent manufacturer.

**12.3 Bioaccumulative potential**
There are no data available on the preparation/mixture itself.

**12.4 Mobility in soil**
There are no data available on the preparation/mixture itself.

**12.5 Results of PBT and vPvB assessment**
The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

**12.6 Other adverse effects**
There are no data available on the preparation/mixture itself.

**12.7 Additional ecotoxicological information**

**Additional information**
The product has not been tested.

**SECTION 13: Disposal considerations**

**13.1 Waste treatment methods**
Dispose according to legislation.
Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.

Product/Packaging disposal
Waste codes/waste designations according to EWC/AVV
- Waste code product:
  - Waste code (EWC/AVV): 16 03 03*
- Waste code packaging:
  - Waste code packaging: 15 01 10*

Waste treatment options
- 29/35 - Do not empty into drains; dispose of this material and its container in a safe way. Delivery to an approved waste disposal company.
- Appropriate disposal / Package:
  - Contaminated packages must be completely emptied and can be re-used following proper cleaning. Packing which cannot be properly cleaned must be disposed of.

13.2 Additional information
These codes are assigned based upon the most common uses for this material and may not reflect contaminants resulting from actual use.

SECTION 14: Transport information

14.1 UN number
- UN 1760

14.2 UN proper shipping name
- Land transport (ADR/RID):
  - CORROSIVE LIQUID, N.O.S. (AMMONIUM BIFLUORIDE)
- Sea transport (IMDG):
  - CORROSIVE LIQUID, N.O.S. (AMMONIUM BIFLUORIDE)
- Air transport (ICAO-TI / IATA-DGR):
  - CORROSIVE LIQUID, N.O.S. (AMMONIUM BIFLUORIDE)

14.3 Transport hazard class(es)
- Land transport (ADR/RID):
  - Class(es): 8
  - Classification code: C9
  - Hazard identification number (Kemler No.): 80
  - Tunnel restriction code: E
  - Special provisions: LQ 1 I · E 2
  - Hazard label(s): 8
- Sea transport (IMDG):
  - Class(es): 8
  - EmS-No.: F-A / S-B
  - Special provisions: LQ 1 I · E 2 · IMDG-Code segregation group 1 - Acids
  - Hazard label(s): 8
- Air transport (ICAO-TI / IATA-DGR):
  - Class(es): 8
  - Special provisions: E 2
  - Hazard label(s): 8

14.4 Packing group
- II

14.5 Environmental hazards
- Land transport (ADR/RID): No
- Sea transport (IMDG): No
- Air transport (ICAO-TI / IATA-DGR): No

14.6 Special precautions for user
None
14.7 Transport in bulk according to Annex II of Marpol and the IBC Code
not required.

SECTION 15: Regulatory information

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

EU legislation
REGULATION (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)
REGULATION (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures (clp)
EN 2:1992 (DIN EN 2:2005-01)

Authorisations and/or restrictions on use

Restrictions on use
Use restriction according to REACH annex XVII, no.: None, if handled according to order.

Restrictions of occupation
Observe restrictions to employment for juvenils according to the ‘juvenile work protection guideline’ (94/33/EC).
Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

Other regulations (EU)
Regulation (EC) No. 648/2004 (Detergents regulation)
REGULATION (EU) No 649/2012 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL concerning the export and import of hazardous chemicals [PIC-Regulation]
REGULATION (EU) No 98/2013 on the marketing and use of explosives precursors: Not applicable.
Regulation (EC) No. 1005/2009 on substances that lead to the depletion of the ozone layer
Not applicable.
Contains the following substances that deplete the ozone layer: -

Regulation (EC) No 850/2004 [POP-Regulation]
Not applicable.
Name of the persistent organic pollutant (POP): -

National regulations
Observe in addition any national regulations!
Germany:
TRGS 400 (Risk assessment for activities involving hazardous substances)
TRGS 500 (Protective measures)
TRGS 510 (Storage of hazardous substances in non-stationary containers)
TRGS 555 (Working instruction and information for workers)

Water hazard class (WGK)
Class: 1 (Slightly hazardous to water) Classification according to AwSV

Other regulations, restrictions and prohibition regulations
Switzerland
VOCV-Regulation
Maximum VOC content (Switzerland): < 3 Wt % according to VOCV

15.2 Chemical safety assessment
For this substance/mixture a chemical safety assessment has not been carried out.

SECTION 16: Other information

16.1 Indication of changes
07. Hints on joint storage - Storage class

16.2 Abbreviations and acronyms

ABC-Pulver Extinguishing powder for fire class A, B and C
Trade name: Lithofin Anti-Slip

Revision date: 30.01.2019
Print date: 06.02.2019

WGK Wassergefährdungsklasse (Water hazard class)

For abbreviations and acronyms, see table at http://abbrev.esdscom.eu. For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).

16.3 Key literature references and sources for data
Regulation (EC) No 1272/2008 (GHS)
REACH Art. 59: Candidate List of substances of very high concern for Authorisation (https://www.echa.europa.eu/candidate-list-table)

16.4 Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]
Hazard statements for physical hazards: On basis of test data.
Hazard statements for health hazards: Calculation method.
Hazard statements for environmental hazards: Calculation method.

16.5 Relevant H- and EUH-phrases (Number and full text)
- H301 Toxic if swallowed.
- H314 Causes severe skin burns and eye damage.
- H318 Causes serious eye damage.

16.6 Training advice
None

16.7 Additional information
None

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.