

## 1 Identification of the substance/mixture and of the company/undertaking

- **Product identifier**
- **Trade name: ALUMINIUM BRAZING FLUX - 500G**
- **Article number: 1216/26**
- **Relevant identified uses of the substance or mixture and uses advised against**
- **Product category PC38** Welding and soldering products (with flux coatings or flux cores.), flux products
- **Application of the substance / the preparation** Brazing flux
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Specialised Welding Products Ltd  
Unit 1 Farringdon Industrial Centre,  
Farringdon,  
Nr. Alton  
GU34 3DD
- **Emergency telephone number: 01420 588180**

## 2 Hazards identification

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



GHS06 skull and crossbones

Acute Tox. 3      H301      Toxic if swallowed.



GHS08 health hazard

STOT RE 2      H373      May cause damage to organs through prolonged or repeated exposure.



GHS05 corrosion

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



GHS09 environment

Aquatic Chronic 2      H411      Toxic to aquatic life with long lasting effects.



GHS07

STOT SE 3      H335+H336      May cause respiratory irritation. May cause drowsiness or dizziness.

- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**



C; Corrosive

R34:      Causes burns.



Xn; Harmful

R20/21/22-48:      Harmful by inhalation, in contact with skin and if swallowed. Danger of serious damage to health by prolonged exposure.



N; Dangerous for the environment

R51/53:      Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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## Safety data sheet

### according to 1907/2006/EC, Article 31

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- **Information concerning particular hazards for human and environment:**

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

- **Classification system:**

The classification was made according to the latest editions of the EU-lists, and expanded upon from company and literature data.

- **Label elements**

- **Labelling according to EU guidelines:**

The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials

- **Code letter and hazard designation of product:**

C Corrosive

N Dangerous for the environment

- **Hazard-determining components of labelling:**

potassium hexafluoroaluminate

ammonium fluoride

zinc chloride

- **Risk phrases:**

20/21/22 Harmful by inhalation, in contact with skin and if swallowed.

34 Causes burns.

48 Danger of serious damage to health by prolonged exposure.

51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

- **Safety phrases:**

9 Keep container in a well-ventilated place.

20 When using do not eat or drink.

26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

57 Use appropriate container to avoid environmental contamination.

- **Other hazards** No further relevant information available.

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

### 3 Composition/information on ingredients

- **Chemical characterization: Mixtures**

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

- **Dangerous components:**

CAS: 7447-41-8 EINECS: 231-212-3	lithium chloride ☒ Xn R22; ☒ Xi R37/38 ⚠ Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Irrit. 2, H319	10-25%
CAS: 60304-36-1 EINECS: 262-153-1	potassium fluoroaluminates ☒ Xn R20/22-48; ☒ Xi R36 ⚠ Acute Tox. 1, H300; ⚠ Acute Tox. 4, H332; Eye Irrit. 2, H319	10-25%
CAS: 7646-85-7 EINECS: 231-592-0	zinc chloride ☒ C R34; ☒ Xn R22; ☒ N R50/53 ⚠ Skin Corr. 1B, H314; ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410; ⚠ Acute Tox. 4, H302	10-25%
CAS: 12125-01-8 EINECS: 235-185-9	ammonium fluoride ☒ T R23/24/25 ⚠ Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331	2.5-10%

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

#### 4 First aid measures

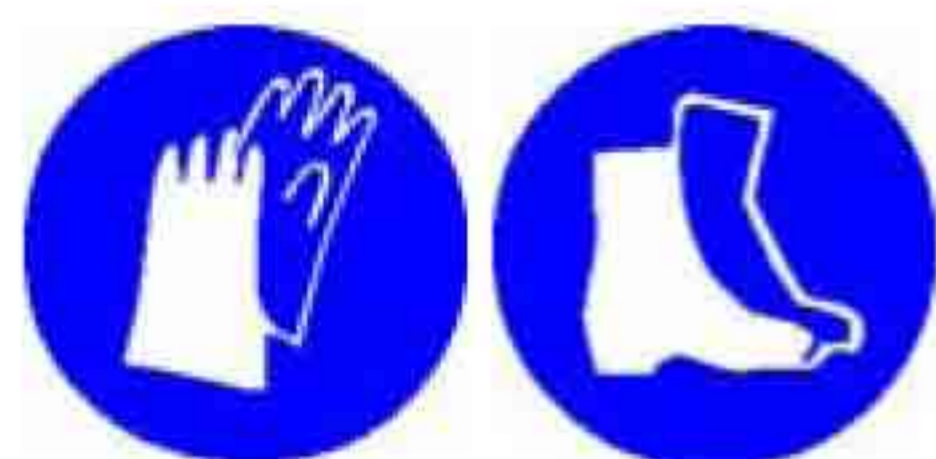
- **Description of first aid measures**
- **General information**  
Immediately remove any clothing soiled by the product.  
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
- **After inhalation**  
Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.  
In case of unconsciousness place patient stably on their side for transportation.
- **After skin contact** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact** Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing** Do NOT induce vomiting, do NOT drink, seek medical advice
- **Information for doctor**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

#### 5 Firefighting measures

- **Extinguishing media**
- **Suitable extinguishing agents**  
CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** Mount respiratory protective device.

#### 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**



Wear protective equipment. Keep unprotected persons away.

- **Environmental precautions:**  
Inform respective authorities in case of seepage into water course or sewage system.  
Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**  
Use neutralizing agent.  
Dispose of contaminated material as waste according to item 13.  
Ensure adequate ventilation.
- **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 disposal information.

#### 7 Handling and storage

- **Handling**
- **Precautions for safe handling**  
Provide suction extractors if dust is formed.  
Thorough dedusting.  
Ensure good ventilation/extraction at the workplace.

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- Prevent formation of dust.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**  
Advised preservation period under normal storage conditions: 6 months  
Keep receptacle tightly sealed.
- **Specific end use(s)** No further relevant information available.

## 8 Exposure controls/personal protection

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

- **Components with limit values that require monitoring at the workplace:**

7646-85-7 zinc chloride (10-25%)

WEL	Short-term value: 2 mg/m <sup>3</sup> Long-term value: 1 mg/m <sup>3</sup>
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12125-01-8 ammonium fluoride (2.5-10%)

WEL	Long-term value: 2.5 mg/m <sup>3</sup> as F
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- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal protective equipment**
- **General protective and hygienic measures**  
Keep away from foodstuffs, beverages and feed.  
Immediately remove all soiled and contaminated clothing  
Wash hands before breaks and at the end of work.  
Avoid contact with the eyes and skin.
- **Breathing equipment:**



In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use an air-fed respirator.

- **Protection of hands:**  
Protective gloves.  
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.  
Due to a lack of tests, no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.  
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
- **Glove material**  
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
- **Penetration time of glove material**  
The exact penetration time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:** Tightly sealed goggles.

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### 9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

**Form:** Powder

**Colour:** White

· **Odour:** Odourless

· **Odour threshold:** Not determined.

· **pH-value:** Not applicable.

· **Change in condition**

**Melting point/Melting range:** undetermined

**Boiling point/Boiling range:** undetermined

· **Flash point:** Not applicable

· **Flammability (solid, gaseous)** Not determined.

· **Ignition temperature:**

**Decomposition temperature:** Not determined.

· **Self igniting:** Product is not self igniting.

· **Danger of explosion:** Product does not present an explosion hazard.

· **Explosion limits:**

**Lower:** Not determined.

**Upper:** Not determined.

· **Vapour pressure at 20°C:** 1 hPa

· **Density:** Not determined

· **Relative density** Not determined.

· **Vapour density** Not applicable.

· **Evaporation rate** Not applicable.

· **Solubility in / Miscibility with**

**Water:** Slightly soluble

· **Segregation coefficient (n-octanol/water):** Not determined.

· **Viscosity:**

**dynamic:** Not applicable.

**kinematic:** Not applicable.

**Organic solvents:** 0.0 %

**Solids content:** 100.0 %

· **Other information** No further relevant information available.

### 10 Stability and reactivity

· **Reactivity**

· **Chemical stability**

· **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.

· **Possibility of hazardous reactions** No dangerous reactions known

· **Conditions to avoid** No further relevant information available.

· **Incompatible materials:** No further relevant information available.

· **Hazardous decomposition products:** No dangerous decomposition products known

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## 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

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

7646-85-7 zinc chloride

Oral LD50 350 mg/kg (rat)

Inhalative LC50 1260 mg/l (rat) (30min)

60304-36-1 potassium fluoroaluminates

Oral LD50 &gt;2 mg/kg (rat)

- **Primary irritant effect:**
- **on the skin:** Caustic effect on skin and mucous membranes.
- **on the eye:** Strong caustic effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**  
The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:  
Harmful  
Corrosive  
Swallowing will lead to a strong caustic effect on mouth and throat and danger of perforation of esophagus and stomach.

## 12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.

- **Type of test Effective concentration Method Assessment**

7646-85-7 zinc chloride

L(E)C 21 mg/L (fish)

12 mg/L (daphnia)

12125-01-8 ammonium fluoride

L(E)C 364 mg/L (fish) (96h)

- **Persistence and degradability** No further relevant information available.
- **Behaviour in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**
- **Remark:** Toxic for fish
- **Additional ecological information:**
- **General notes:**  
Water danger class 3 (German Regulation) (Self-assessment): extremely hazardous for water.  
Do not allow product to reach ground water, water course or sewage system, even in small quantities.  
Must not reach sewage water or drainage ditch undiluted or unneutralized.  
Danger to drinking water if even extremely small quantities leak into the ground.  
Also poisonous for fish and plankton in water bodies.  
Toxic for aquatic organisms
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

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### 13 Disposal considerations

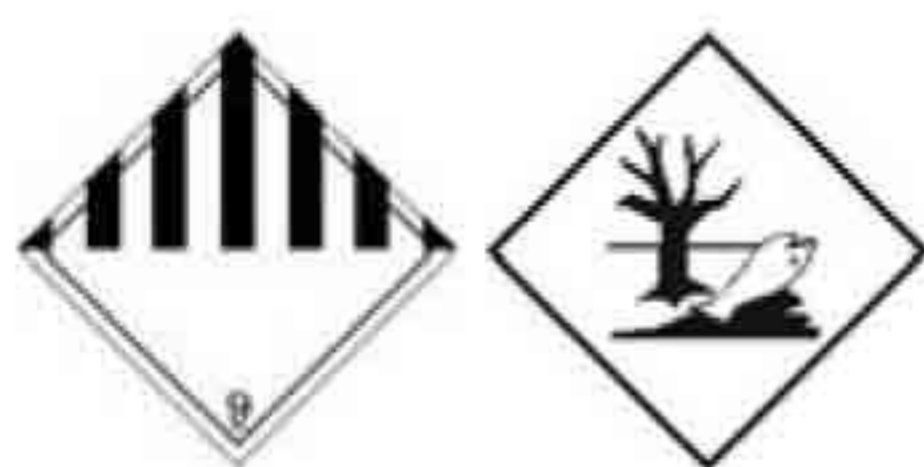
- Waste treatment methods
- Recommendation



Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

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

### 14 Transport information

<ul style="list-style-type: none"> <li>· UN-Number</li> <li>· ADR, IMDG, IATA</li> <li>· ADN</li> </ul>	<p>UN3077</p> <p>Void</p>
<ul style="list-style-type: none"> <li>· UN proper shipping name</li> <li>· ADR</li> <li>· ADN</li> <li>· IMDG</li> <li>· IATA</li> </ul>	<p>3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (ZINC CHLORIDE)</p> <p>Void</p> <p>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (ZINC CHLORIDE), MARINE POLLUTANT</p> <p>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (ZINC CHLORIDE)</p>
<ul style="list-style-type: none"> <li>· Transport hazard class(es)</li> <li>· ADR, IMDG, IATA</li> </ul>	
<ul style="list-style-type: none"> <li>· Class</li> <li>· Label</li> <li>· ADN/R Class:</li> </ul>	<p>9 Miscellaneous dangerous substances and articles.</p> <p>9</p> <p>Void</p>
<ul style="list-style-type: none"> <li>· Packing group</li> <li>· ADR, IMDG, IATA</li> </ul>	<p>III</p>
<ul style="list-style-type: none"> <li>· Environmental hazards:</li> <li>· Marine pollutant:</li> <li>· Special marking (ADR):</li> <li>· Special marking (IATA):</li> </ul>	<p>Product contains environmentally hazardous substances: zinc chloride</p> <p>Yes</p> <p>Symbol (fish and tree)</p> <p>Symbol (fish and tree)</p> <p>Symbol (fish and tree)</p>
<ul style="list-style-type: none"> <li>· Special precautions for user</li> <li>· Danger code (Kemler):</li> <li>· EMS Number:</li> <li>· Segregation groups</li> </ul>	<p>Warning: Miscellaneous dangerous substances and articles.</p> <p>90</p> <p>F-A,S-F</p> <p>Acids</p>
<ul style="list-style-type: none"> <li>· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</li> </ul>	<p>Not applicable.</p>
<ul style="list-style-type: none"> <li>· Transport/Additional information:</li> </ul>	
<ul style="list-style-type: none"> <li>· ADR</li> <li>· Limited quantities (LQ)</li> <li>· Transport category</li> </ul>	<p>5 kg</p> <p>3</p>

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· <b>Tunnel restriction code</b>	E
· <b>UN "Model Regulation":</b>	UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (ZINC CHLORIDE), 9, III

### 15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **National regulations**
- **Technical instructions (air):**

Class	Share in %
III	<10

- **Water hazard class: Water danger class 3 (Self-assessment): extremely hazardous for water.**
- **Customs Combined Nomenclature : 38.10.90.90.00**
- **Chemical safety assessment: A Chemical Safety Assessment has not been carried out.**

### 16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Relevant phrases**

- H300 Fatal if swallowed.  
 H301 Toxic if swallowed.  
 H302 Harmful if swallowed.  
 H311 Toxic in contact with skin.  
 H314 Causes severe skin burns and eye damage.  
 H315 Causes skin irritation.  
 H319 Causes serious eye irritation.  
 H331 Toxic if inhaled.  
 H332 Harmful if inhaled.  
 H400 Very toxic to aquatic life.  
 H410 Very toxic to aquatic life with long lasting effects.
- R20/22 Harmful by inhalation and if swallowed.  
 R22 Harmful if swallowed.  
 R23/24/25 Toxic by inhalation, in contact with skin and if swallowed.  
 R34 Causes burns.  
 R36 Irritating to eyes.  
 R37/38 Irritating to respiratory system and skin.  
 R48 Danger of serious damage to health by prolonged exposure.  
 R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

- **Department issuing MSDS: Technical service**

- **Contact:**

Vincent Francon

- **\* Data compared to the previous version altered.**