

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

- **1.1 Product identifier**
- **Trade name:** FLUX - NEW METALS
- **Article number:** 840
- **Reference Safety data sheet** Ref. 840 - EN - FDS n°105c
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
- **Sector of Use**
  - SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites
  - SU21 Consumer uses: Private households / general public / consumers
- **Product category** PC38 Welding and soldering products, flux products
- **Application of the substance / the mixture** Brazing flux
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
GUILBERT EXPRESS  
33, Avenue du Maréchal de Lattre de Tassigny  
94127 FONTENAY SOUS BOIS Cedex  
www.express-fds.fr
- **Further information obtainable from:** info@express.fr
- **1.4 Emergency telephone number:**  
+33/825 800 251  
ENGLAND  
National Poisons Information Service :
  - In England and Wales: NHS Direct - 0845 4647 ;
  - In Scotland: NHS 24 - 08454 24 24 24IRELAND  
National Poisons Information Centre, 01 8092566 or 01 8379964.

**SECTION 2: Hazards identification**

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



GHS05 corrosion

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

Eye Dam. 1 H318 Causes serious eye damage.



GHS09 environment

Aquatic Acute 1 H400 Very toxic to aquatic life.

Aquatic Chronic 1 H410 Very toxic to aquatic life with long lasting effects.



GHS07

STOT SE 3 H335 May cause respiratory irritation.

- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**  
The product is classified and labelled according to the CLP regulation.

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**· Hazard pictograms**

GHS05   GHS07   GHS09

**· Signal word** *Danger***· Hazard statements***H314 Causes severe skin burns and eye damage.**H335 May cause respiratory irritation.**H410 Very toxic to aquatic life with long lasting effects.***· Precautionary statements***P101 If medical advice is needed, have product container or label at hand.**P102 Keep out of reach of children.**P103 Read carefully and follow all instructions.**P260 Do not breathe dust/fume/gas/mist/vapours/spray.**P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or 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.**P405 Store locked up.**P501 Dispose of contents/container in accordance with local/regional/national/international regulations.***· 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 substances listed below with nonhazardous additions.**· Dangerous components:**

CAS: 7646-85-7 EINECS: 231-592-0 Reg.nr.: 01-2119472431-44-XXXX	zinc chloride ⚠ Skin Corr. 1B, H314; ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410; ⚠ Acute Tox. 4, H302	25-50%
CAS: 12125-02-9 EINECS: 235-186-4 Reg.nr.: 01-2119487950-27-XXXX	ammonium chloride ⚠ Acute Tox. 4, H302; Eye Irrit. 2, H319	2.5-10%

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

### SECTION 4: First aid measures

**· 4.1 Description of first aid measures****· General information:** Immediately remove any clothing soiled by the product.**· After inhalation:** In case of unconsciousness place patient stably in side position 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:** Drink plenty of water and provide fresh air. Call for a doctor immediately.**· 4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.

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- **4.3 Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

### SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **5.2 Special hazards arising from the substance or mixture**  
Hydrogen chloride (HCl)  
During heating or in case of fire poisonous gases are produced.
- **5.3 Advice for firefighters**
- **Protective equipment:**  
No special measures required.  
Mouth respiratory protective device.

### SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**  
Mount respiratory protective device.  
Wear protective equipment. Keep unprotected persons away.
- **6.2 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.
- **6.3 Methods and material for containment and cleaning up:**  
Use neutralising agent.  
Dispose contaminated material as waste according to item 13.  
Ensure adequate ventilation.
- **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 disposal information.

### SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**  
Thorough dedusting.  
Keep away from heat and direct sunlight.  
Ensure good ventilation/exhaustion at the workplace.
- **Information about fire - and explosion protection:** Keep respiratory protective device available.
- **7.2 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:** Keep container tightly sealed.
- **Recommended storage temperature:** Storage temperature : Room temperature
- **7.3 Specific end use(s)** No further relevant information available.

### SECTION 8: Exposure controls/personal protection

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

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### · 8.1 Control parameters

#### · **Ingredients with limit values that require monitoring at the workplace:**

##### **7646-85-7 zinc chloride**

WEL Short-term value: 2 mg/m<sup>3</sup>  
Long-term value: 1 mg/m<sup>3</sup>

##### **12125-02-9 ammonium chloride**

WEL Short-term value: 20 mg/m<sup>3</sup>  
Long-term value: 10 mg/m<sup>3</sup>

· **Additional information:** The lists valid during the making were used as basis.

### · 8.2 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.  
Avoid contact with the eyes and skin.

##### · **Respiratory protection:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.



Suitable respiratory protective device recommended.

#### · **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing 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

##### · **Material of gloves**

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

##### · **Eye protection:**



Tightly sealed goggles

##### · **Body protection:** Protective work clothing

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### SECTION 9: Physical and chemical properties

#### · 9.1 Information on basic physical and chemical properties

##### · General Information

##### · Appearance:

Form:	Liquid
Colour:	Pale
Odour:	Odourless

· pH-value: Not determined.

##### · Change in condition

Melting point/freezing point: Not determined.  
Initial boiling point and boiling range: 100 °C

· Flash point: Not applicable.

· Flammability (solid, gas): Not applicable.

· Decomposition temperature: Not determined.

· Auto-ignition temperature: Product is not selfigniting.

· Explosive properties: Product does not present an explosion hazard.

· Vapour pressure at 20 °C: 23 hPa

· Density at 20 °C: 1.39 - 1.42 g/cm<sup>3</sup>

· Solubility in / Miscibility with water: Not miscible or difficult to mix.

##### · Solvent content:

Organic solvents:	0.0 %
Water:	>50 %
VOC (EC)	0.00 %

· 9.2 Other information No further relevant information available.

### SECTION 10: Stability and reactivity

· 10.1 Reactivity No further relevant information available.

#### · 10.2 Chemical stability

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

· 10.3 Possibility of hazardous reactions No dangerous reactions known.

· 10.4 Conditions to avoid No further relevant information available.

· 10.5 Incompatible materials: Strong Bases

· 10.6 Hazardous decomposition products:

Irritant gases/vapours  
Hydrogen chloride (HCl)

### SECTION 11: Toxicological information

#### · 11.1 Information on toxicological effects

· Acute toxicity No further relevant information available.

#### · LD/LC50 values relevant for classification:

7646-85-7 zinc chloride

Oral	LD50	350 mg/kg (rat)
Inhalative	LC50/inh	1,260 mg/l (rat)

· Primary irritant effect:

· Skin corrosion/irritation

Causes severe skin burns and eye damage.

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- **Serious eye damage/irritation**  
Causes serious eye damage.
- **Respiratory or skin sensitisation** No further relevant information available.
- **CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity** No further relevant information available.
- **Carcinogenicity** No further relevant information available.
- **Reproductive toxicity** No further relevant information available.
- **STOT-single exposure**  
May cause respiratory irritation.
- **STOT-repeated exposure** No further relevant information available.
- **Aspiration hazard** No further relevant information available.

### SECTION 12: Ecological information

#### · 12.1 Toxicity

##### · **Aquatic toxicity:**

<b>7646-85-7 zinc chloride</b>	
CL50	21 mg/l (96h) (Fish)
CE50	12 mg/l (48h) (daphnia)

#### · 12.2 Persistence and degradability

 No further relevant information available.

#### · 12.3 Bioaccumulative potential

 No further relevant information available.

#### · 12.4 Mobility in soil

 No further relevant information available.

#### · **Ecotoxicological effects:**

##### · **Remark:** Very toxic for fish

##### · **Additional ecological information:**

##### · **General notes:**

Water hazard 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 unneutralised.

Danger to drinking water if even extremely small quantities leak into the ground.

Also poisonous for fish and plankton in water bodies.

Very toxic for aquatic organisms

#### · 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**

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

##### · **Uncleaned packaging:**

##### · **Recommendation:** Disposal must be made according to official regulations.

### SECTION 14: Transport information

#### · 14.1 UN-Number

##### · **ADR, IMDG, IATA**

UN1840

#### · 14.2 UN proper shipping name

##### · **ADR**

1840 ZINC CHLORIDE SOLUTION mixture,  
ENVIRONMENTALLY HAZARDOUS

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· <b>IMDG</b>	<i>ZINC CHLORIDE SOLUTION mixture, MARINE POLLUTANT</i>
· <b>IATA</b>	<i>ZINC CHLORIDE SOLUTION mixture</i>
· <b>14.3 Transport hazard class(es)</b>	
· <b>ADR, IMDG</b>	
 	
· <b>Class</b>	8 Corrosive substances.
· <b>Label</b>	8
· <b>IATA</b>	
	
· <b>Class</b>	8 Corrosive substances.
· <b>Label</b>	8
· <b>14.4 Packing group</b>	
· <b>ADR, IMDG, IATA</b>	III
· <b>14.5 Environmental hazards:</b>	<i>Product contains environmentally hazardous substances: zinc chloride</i>
· <b>Marine pollutant:</b>	<i>Yes</i>
· <b>Special marking (ADR):</b>	<i>Symbol (fish and tree)</i>
· <b>14.6 Special precautions for user</b>	<i>Warning: Corrosive substances.</i>
· <b>Hazard identification number (Kemler code):</b>	80
· <b>EMS Number:</b>	F-A,S-B
· <b>Segregation groups</b>	<i>Acids, heavy metals and their salts (including their organometallic compounds)</i>
· <b>Stowage Category</b>	A
· <b>14.7 Transport in bulk according to Annex II of Marpol and the IBC Code</b>	<i>Not applicable.</i>
· <b>Transport/Additional information:</b>	
· <b>ADR</b>	
· <b>Limited quantities (LQ)</b>	5L
· <b>Excepted quantities (EQ)</b>	Code: E1 Maximum net quantity per inner packaging: 30 g Maximum net quantity per outer packaging: 1000 g
· <b>Transport category</b>	3
· <b>Tunnel restriction code</b>	E
· <b>IMDG</b>	
· <b>Limited quantities (LQ)</b>	5L
· <b>Excepted quantities (EQ)</b>	Code: E1 Maximum net quantity per inner packaging: 30 g Maximum net quantity per outer packaging: 1000 g
· <b>UN "Model Regulation":</b>	<i>UN 1840 ZINC CHLORIDE SOLUTION MIXTURE, 8, III, ENVIRONMENTALLY HAZARDOUS</i>

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### SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** None of the ingredients is listed.
- **Seveso category E1** Hazardous to the Aquatic Environment
- **Qualifying quantity (tonnes) for the application of lower-tier requirements** 100 t
- **Qualifying quantity (tonnes) for the application of upper-tier requirements** 200 t
- **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 65
- **National regulations:**
- **Waterhazard class:** Water hazard class 3 (Self-assessment): extremely hazardous for water.

### SECTION 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**  
*H302 Harmful if swallowed.*  
*H314 Causes severe skin burns and eye damage.*  
*H319 Causes serious eye irritation.*  
*H400 Very toxic to aquatic life.*  
*H410 Very toxic to aquatic life with long lasting effects.*
- **Abbreviations and acronyms:**  
*RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)*  
*IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)*  
*ICAO: International Civil Aviation Organisation*  
*ICAO-TI: Technical Instructions by the "International Civil Aviation Organisation" (ICAO)*  
*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)*  
*VOC: Volatile Organic Compounds (USA, EU)*  
*LC50: Lethal concentration, 50 percent*  
*LD50: Lethal dose, 50 percent*  
*PBT: Persistent, Bioaccumulative and Toxic*  
*vPvB: very Persistent and very Bioaccumulative*  
*Acute Tox. 4: Acute toxicity - oral - Category 4*  
*Skin Corr. 1B: Skin corrosion/irritation - Category 1B*  
*Eye Dam. 1: Serious eye damage/eye irritation - Category 1*  
*Eye Irrit. 2: Serious eye damage/eye irritation - Category 2*  
*STOT SE 3: Specific target organ toxicity (single exposure) - Category 3*  
*Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard - Category 1*  
*Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard - Category 1*
- **\* Data compared to the previous version altered.**