

# FLUX AG GEL, pot 60g

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830  
Date of issue: 5/17/2019 Revision date: 7/17/2018 Supersedes: 5/22/2018 Version: 5.0

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

#### 1.1. Product identifier

Product form : Mixture  
Trade name : FLUX AG GEL, pot 60g  
Product code : 867853  
Type of product : Welding and soldering products, flux products

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

##### 1.2.1. Relevant identified uses

Main use category : Professional use  
Function or use category : Welding and soldering agents

##### 1.2.2. Uses advised against

No additional information available

#### 1.3. Details of the supplier of the safety data sheet

**Rubix Engineering**  
31, Rue de la Baume  
75008 PARIS  
France

T +33 (0)1.44.86.08.10  
[infoclient@giss.fr](mailto:infoclient@giss.fr)

#### 1.4. Emergency telephone number

| Country | Organisation/Company     | Address | Emergency number     | Comment |
|---------|--------------------------|---------|----------------------|---------|
| France  | ORFILA (INRS) - 24H/24 - |         | +33 (0)1 45 42 59 59 |         |

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Reproductive toxicity, Category 2 H361  
Full text of H statements : see section 16

##### Adverse physicochemical, human health and environmental effects

Suspected of damaging fertility or the unborn child.

#### 2.2. Label elements

##### Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



GHS08

Signal word (CLP) : Warning  
Hazardous ingredients : Potassium tetraborate Tetrahydrate  
Hazard statements (CLP) : H361 - Suspected of damaging fertility or the unborn child.  
Precautionary statements (CLP) : P201 - Obtain special instructions before use.  
P202 - Do not handle until all safety precautions have been read and understood.  
P280 - Wear protective gloves, protective clothing, eye protection, face protection.  
P308+P313 - IF exposed or concerned: Get medical attention.  
P405 - Store locked up.  
P501 - Dispose of contents and container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

#### 2.3. Other hazards

No additional information available

### SECTION 3: Composition/information on ingredients

#### 3.1. Substances

Not established.

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### 3.2. Mixtures

| Name                               | Product identifier  | %    | Classification according to Regulation (EC) No. 1272/2008 [CLP]                             |
|------------------------------------|---|------|---|
| Potassium tetraborate Tetrahydrate | (CAS-No.) 12045-78-2<br>(EC-No.) 215-575-5<br>(REACH-no) 01-2119970730-37 | < 35 | Repr. 2, H361fd   |
| potassium fluoride                 | (CAS-No.) 7789-23-3<br>(EC-No.) 232-151-5<br>(EC Index-No.) 009-005-00-2  | < 5  | Acute Tox. 3 (Oral), H301<br>Acute Tox. 3 (Dermal), H311<br>Acute Tox. 3 (Inhalation), H331 |

Full text of H-statements: see section 16

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

|                                       |   |
|---------------------------------------|---|
| First-aid measures general            | : IF exposed or concerned: Get medical advice/attention. Call a poison center or a doctor if you feel unwell.   |
| First-aid measures after inhalation   | : Remove person to fresh air and keep comfortable for breathing. Allow affected person to breathe fresh air. In case of doubt or persistent symptoms, consult always a physician. |
| First-aid measures after skin contact | : Wash contaminated clothing before reuse. Gently wash with plenty of soap and water.   |
| First-aid measures after eye contact  | : Rinse immediately and plentifully with water and take medical advice.   |
| First-aid measures after ingestion    | : Do not induce vomiting. Obtain emergency medical attention.   |

### 4.2. Most important symptoms and effects, both acute and delayed

|                                     |                                     |
|-------------------------------------|-------------------------------------|
| Symptoms/effects after inhalation   | : May cause respiratory irritation. |
| Symptoms/effects after skin contact | : May cause moderate irritation.    |
| Symptoms/effects after eye contact  | : May cause eye irritation.         |
| Symptoms/effects after ingestion    | : Harmful if swallowed.             |

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

Treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

|                              |   |
|------------------------------|---|
| Suitable extinguishing media | : Only combustible materials near the workstation can cause a fire or explosion. The extinguishing means must therefore be adapted to the inflamed materials. |
|------------------------------|---|

### 5.2. Special hazards arising from the substance or mixture

|  |   |
|--|---|
| Hazardous decomposition products in case of fire | : Toxic and corrosive vapours may be released. Hydrofluoric Acid. |
|--|---|

### 5.3. Advice for firefighters

|                                |  |
|--------------------------------|--|
| Protection during firefighting | : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing. |
|--------------------------------|--|

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

#### 6.1.1. For non-emergency personnel

|                      |  |
|----------------------|--|
| Protective equipment | : Wear recommended personal protective equipment. In case of vapour formation use adequate respirator. |
| Emergency procedures | : Ventilate spillage area. Evacuate unnecessary personnel.   |

#### 6.1.2. For emergency responders

|                      |   |
|----------------------|---|
| Protective equipment | : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection". |
|----------------------|---|

### 6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

### 6.3. Methods and material for containment and cleaning up

|                         |   |
|-------------------------|---|
| Methods for cleaning up | : On land, sweep or shovel into suitable containers.            |
| Other information       | : Dispose of materials or solid residues at an authorized site. |

### 6.4. Reference to other sections

For further information refer to section 13.

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### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Precautions for safe handling : Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Use only outdoors or in a well-ventilated area. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Do not breathe gas, vapours, fume, spray.

Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

#### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store locked up. Keep container closed when not in use. Store in dry protected location to prevent any moisture contact.

Incompatible materials : Oxidation agents. Strong acids.

#### 7.3. Specific end use(s)

See Heading 1.

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

No additional information available

#### 8.2. Exposure controls

##### Appropriate engineering controls:

Ensure good ventilation of the work station.

##### Personal protective equipment:

Protective clothing. Insufficient ventilation: wear respiratory protection. Safety glasses. Gloves.

##### Hand protection:

Hand protection related to the use of a soldering process: Heat-resistant gloves (leather gloves and refractory fleece with cuff). Protective gloves used for welding and allied processes must comply with EN 12477.

##### Eye protection:

Wear goggles (or passive mask) with opacifying glasses (or screen) in accordance with EN 175. Protective glasses used for welding and allied techniques must comply with EN 169.

##### Skin and body protection:

Wear suitable protective clothing

##### Respiratory protection:

[In case of inadequate ventilation] wear respiratory protection.

##### Personal protective equipment symbol(s):



##### Environmental exposure controls:

Avoid release to the environment.

### SECTION 9: Physical and chemical properties

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

Physical state : Solid  
Colour : white.  
Odour : odourless.  
Odour threshold : No data available  
pH : No data available  
Relative evaporation rate (butylacetate=1) : No data available  
Melting point : No data available  
Freezing point : Not applicable  
Boiling point : 100 °C  
Flash point : Not applicable  
Auto-ignition temperature : Not applicable  
Decomposition temperature : 450 °C  
Flammability (solid, gas) : Non flammable.

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|                                  |                     |
|----------------------------------|---------------------|
| Vapour pressure                  | : 23 hPa            |
| Relative vapour density at 20 °C | : No data available |
| Relative density                 | : No data available |
| Solubility                       | : Soluble in water. |
| Log Pow                          | : No data available |
| Viscosity, kinematic             | : No data available |
| Viscosity, dynamic               | : No data available |
| Explosive properties             | : No data available |
| Oxidising properties             | : No data available |
| Explosive limits                 | : Not applicable    |

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No additional information available.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No additional information available.

### 10.4. Conditions to avoid

No information available.

### 10.5. Incompatible materials

Strong acids. Oxidizing agent.

### 10.6. Hazardous decomposition products

Hydrogen fluoride.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

|                             |                  |
|-----------------------------|------------------|
| Acute toxicity (oral)       | : Not classified |
| Acute toxicity (dermal)     | : Not classified |
| Acute toxicity (inhalation) | : Not classified |

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|               |            |
|---------------|------------|
| LD50 oral rat | 2256 mg/kg |
|---------------|------------|

#### Potassium tetraborate Tetrahydrate (12045-78-2)

|               |                          |
|---------------|--------------------------|
| LD50 oral rat | 3690 (3500 - 4100) mg/kg |
|---------------|--------------------------|

|   |  |
|---|--|
| Skin corrosion/irritation                           | : Not classified                                       |
| Serious eye damage/irritation                       | : Not classified                                       |
| Respiratory or skin sensitisation                   | : Not classified                                       |
| Germ cell mutagenicity                              | : Not classified                                       |
| Carcinogenicity                                     | : Not classified                                       |
| Reproductive toxicity                               | : Suspected of damaging fertility or the unborn child. |
| STOT-single exposure                                | : Not classified                                       |
| STOT-repeated exposure                              | : Not classified                                       |
| Aspiration hazard                                   | : Not classified                                       |
| Potential adverse human health effects and symptoms | : Harmful if swallowed.                                |

## SECTION 12: Ecological information

### 12.1. Toxicity

|                          |   |
|--------------------------|---|
| Ecology - general        | : The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment. |
| Acute aquatic toxicity   | : Not classified  |
| Chronic aquatic toxicity | : Not classified  |

#### Potassium tetraborate Tetrahydrate (12045-78-2)

|             |         |
|-------------|---------|
| LC50 fish 1 | 40 mg/l |
|-------------|---------|

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|                                |          |
|--------------------------------|----------|
| LC50 other aquatic organisms 1 | 133 mg/l |
|--------------------------------|----------|

### potassium fluoride (7789-23-3)

|                              |          |
|------------------------------|----------|
| EC50 Daphnia 1               | 270 mg/l |
| ErC50 (other aquatic plants) | 95 mg/l  |

#### 12.2. Persistence and degradability

No additional information available

#### 12.3. Bioaccumulative potential

No additional information available

#### 12.4. Mobility in soil

No additional information available

#### 12.5. Results of PBT and vPvB assessment

No additional information available

#### 12.6. Other adverse effects

No additional information available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

|  |   |
|--|---|
| Regional legislation (waste)               | : Ensure all national/local regulations are observed.   |
| Waste treatment methods                    | : Dispose of contents/container in accordance with licensed collector's sorting instructions. |
| Product/Packaging disposal recommendations | : Do not remove as household garbage.   |
| European List of Waste (LoW) code          | : Code Waste to be completed according to the use and the list of Decision 2000/352 / EC      |

## SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

| ADR                                     | IMDG          | IATA          | ADN           | RID           |
|---|---------------|---------------|---------------|---------------|
| <b>14.1. UN number</b>                  |               |               |               |               |
| Not regulated                           | Not regulated | Not regulated | Not regulated | Not regulated |
| <b>14.2. UN proper shipping name</b>    |               |               |               |               |
| Not regulated                           | Not regulated | Not regulated | Not regulated | Not regulated |
| <b>14.3. Transport hazard class(es)</b> |               |               |               |               |
| Not regulated                           | Not regulated | Not regulated | Not regulated | Not regulated |
| <b>14.4. Packing group</b>              |               |               |               |               |
| Not regulated                           | Not regulated | Not regulated | Not regulated | Not regulated |
| <b>14.5. Environmental hazards</b>      |               |               |               |               |
| Not regulated                           | Not regulated | Not regulated | Not regulated | Not regulated |

No supplementary information available

### 14.6. Special precautions for user

#### Overland transport

Not regulated

#### Transport by sea

Not regulated

#### Air transport

Not regulated

#### Inland waterway transport

Not regulated

#### Rail transport

Not regulated

### 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not established.

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### SECTION 15: Regulatory information

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

##### 15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Contains no substance subject to REGULATION (EU) No 649/2012 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 4 July 2012 concerning the export and import of hazardous chemicals.

Substance(s) are not subject to Regulation (EC) No 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC.

##### 15.1.2. National regulations

Ensure all national/local regulations are observed

#### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

### SECTION 16: Other information

| Abbreviations and acronyms: |   |
|-----------------------------|---|
| ADN                         | European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways   |
| ADR                         | European Agreement concerning the International Carriage of Dangerous Goods by Road               |
| BCF                         | Bioconcentration factor   |
| IARC                        | International Agency for Research on Cancer   |
| LC50                        | Median lethal concentration   |
| CLP                         | Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008                       |
| DMEL                        | Derived Minimal Effect level  |
| DNEL                        | Derived-No Effect Level   |
| EC50                        | Median effective concentration  |
| ATE                         | Acute Toxicity Estimate   |
| SDS                         | Safety Data Sheet   |
| IATA                        | International Air Transport Association   |
| IMDG                        | International Maritime Dangerous Goods  |
| LOAEL                       | Lowest Observed Adverse Effect Level  |
| LD50                        | Median lethal dose  |
| NOAEC                       | No-Observed Adverse Effect Concentration  |
| NOAEL                       | No-Observed Adverse Effect Level  |
| NOEC                        | No-Observed Effect Concentration  |
| OECD                        | Organisation for Economic Co-operation and Development  |
| PBT                         | Persistent Bioaccumulative Toxic  |
| PNEC                        | Predicted No-Effect Concentration   |
| REACH                       | Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006 |
| RID                         | Regulations concerning the International Carriage of Dangerous Goods by Rail                      |
| STP                         | Sewage treatment plant  |
| TLM                         | Median Tolerance Limit  |
| vPvB                        | Very Persistent and Very Bioaccumulative  |

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

Training advice : Normal use of this product shall imply use in accordance with the instructions on the packaging.

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### Other information

: **DISCLAIMER OF LIABILITY** The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This SDS was prepared and is to be used only for this product. If the product is used as a component in another product, this SDS information may not be applicable. Ensure all national/local regulations are observed.

| Full text of H- and EUH-statements:   |  |                    |
|---|--|--------------------|
| Acute Tox. 3 (Dermal)   | Acute toxicity (dermal), Category 3                                      |                    |
| Acute Tox. 3 (Inhalation)   | Acute toxicity (inhal.), Category 3                                      |                    |
| Acute Tox. 3 (Oral)   | Acute toxicity (oral), Category 3  |                    |
| Repr. 2   | Reproductive toxicity, Category 2  |                    |
| H301  | Toxic if swallowed.  |                    |
| H311  | Toxic in contact with skin.  |                    |
| H331  | Toxic if inhaled.  |                    |
| H361  | Suspected of damaging fertility or the unborn child.                     |                    |
| H361fd  | Suspected of damaging fertility. Suspected of damaging the unborn child. |                    |
| Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]: |  |                    |
| Repr. 2   | H361   | Calculation method |

SDS EU (REACH Annex II)

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.*