

## SAFETY DATA SHEET

### Flux Pen

According to Regulation (EC) No 1907/2006, Annex II, as amended. Commission Regulation (EU) No 2015/830 of 28 May 2015.

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

##### 1.1. Product identifier

**Product name** Flux Pen  
**Product number** SMF, ESMF12P, ZE

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

**Identified uses** Flux  
**Uses advised against** No specific uses advised against are identified.

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

**Supplier** ELECTROLUBE. A division of HK WENTWORTH LTD  
 ASHBY PARK, COALFIELD WAY,  
 ASHBY DE LA ZOUCH, LEICESTERSHIRE LE65 1JR  
 UNITED KINGDOM  
 +44 (0)1530 419600  
 +44 (0)1530 416640  
 info@hkw.co.uk

##### 1.4. Emergency telephone number

**Emergency telephone** +44 1865 407333

#### SECTION 2: Hazards identification

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

###### Classification (EC 1272/2008)

**Physical hazards** Flam. Liq. 2 - H225  
**Health hazards** Eye Irrit. 2 - H319 Skin Sens. 1 - H317 STOT SE 3 - H336  
**Environmental hazards** Not Classified

##### 2.2. Label elements

###### Pictogram



**Signal word** Danger

**Hazard statements** H225 Highly flammable liquid and vapour.  
 H317 May cause an allergic skin reaction.  
 H319 Causes serious eye irritation.  
 H336 May cause drowsiness or dizziness.

## Flux Pen

<b>Precautionary statements</b>	<p>P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.</p> <p>P261 Avoid breathing vapour/ spray.</p> <p>P264 Wash contaminated skin thoroughly after handling.</p> <p>P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.</p> <p>P403+P235 Store in a well-ventilated place. Keep cool.</p> <p>P501 Dispose of contents/ container in accordance with national regulations.</p>
<b>Contains</b>	Propan-2-ol, Rosin; colophony
<b>Supplementary precautionary statements</b>	<p>P240 Ground and bond container and receiving equipment.</p> <p>P241 Use explosion-proof electrical equipment.</p> <p>P242 Use non-sparking tools.</p> <p>P243 Take action to prevent static discharges.</p> <p>P271 Use only outdoors or in a well-ventilated area.</p> <p>P272 Contaminated work clothing should not be allowed out of the workplace.</p> <p>P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.</p> <p>P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.</p> <p>P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>P312 Call a POISON CENTRE/doctor if you feel unwell.</p> <p>P333+P313 If skin irritation or rash occurs: Get medical advice/ attention.</p> <p>P337+P313 If eye irritation persists: Get medical advice/ attention.</p> <p>P362+P364 Take off contaminated clothing and wash it before reuse.</p> <p>P370+P378 In case of fire: Use foam, carbon dioxide, dry powder or water fog to extinguish.</p> <p>P403+P233 Store in a well-ventilated place. Keep container tightly closed.</p>

### 2.3. Other hazards

This product does not contain any substances classified as PBT or vPvB.

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

<b>Propan-2-ol</b>	<b>60-100%</b>
CAS number: 67-63-0	EC number: 200-661-7
	REACH registration number: 01-2119457558-25-XXXX
<b>Classification</b>	
Flam. Liq. 2 - H225	
Eye Irrit. 2 - H319	
STOT SE 3 - H336	
<b>Rosin; colophony</b>	<b>10-30%</b>
CAS number: 8050-09-7	EC number: 232-475-7
<b>Classification</b>	
Skin Sens. 1 - H317	

The full text for all hazard statements is displayed in Section 16.

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

**General information** Get medical attention immediately. Show this Safety Data Sheet to the medical personnel.

## Flux Pen

<b>Inhalation</b>	Remove affected person from source of contamination. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Maintain an open airway. Loosen tight clothing such as collar, tie or belt. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Place unconscious person on their side in the recovery position and ensure breathing can take place.
<b>Ingestion</b>	Rinse mouth thoroughly with water. Remove any dentures. Give a few small glasses of water or milk to drink. Stop if the affected person feels sick as vomiting may be dangerous. Do not induce vomiting unless under the direction of medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Place unconscious person on their side in the recovery position and ensure breathing can take place. Maintain an open airway. Loosen tight clothing such as collar, tie or belt.
<b>Skin contact</b>	It is important to remove the substance from the skin immediately. In the event of any sensitisation symptoms developing, ensure further exposure is avoided. Remove contamination with soap and water or recognised skin cleansing agent. Get medical attention if symptoms are severe or persist after washing.
<b>Eye contact</b>	Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 10 minutes.
<b>Protection of first aiders</b>	First aid personnel should wear appropriate protective equipment during any rescue. If it is suspected that volatile contaminants are still present around the affected person, first aid personnel should wear an appropriate respirator or self-contained breathing apparatus. Wash contaminated clothing thoroughly with water before removing it from the affected person, or wear gloves. It may be dangerous for first aid personnel to carry out mouth-to-mouth resuscitation.

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

<b>General information</b>	See Section 11 for additional information on health hazards. The severity of the symptoms described will vary dependent on the concentration and the length of exposure.
<b>Inhalation</b>	A single exposure may cause the following adverse effects: Headache. Nausea, vomiting. Central nervous system depression. Drowsiness, dizziness, disorientation, vertigo. Narcotic effect.
<b>Ingestion</b>	May cause sensitisation or allergic reactions in sensitive individuals. Gastrointestinal symptoms, including upset stomach. Fumes from the stomach contents may be inhaled, resulting in the same symptoms as inhalation.
<b>Skin contact</b>	May cause skin sensitisation or allergic reactions in sensitive individuals. Prolonged contact may cause dryness of the skin.
<b>Eye contact</b>	Irritating to eyes.

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

<b>Notes for the doctor</b>	Treat symptomatically. May cause sensitisation or allergic reactions in sensitive individuals.
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## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

<b>Suitable extinguishing media</b>	The product is flammable. Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog. Use fire-extinguishing media suitable for the surrounding fire.
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire.

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

## Flux Pen

<b>Specific hazards</b>	Containers can burst violently or explode when heated, due to excessive pressure build-up. Flammable liquid and vapour. Vapours may be ignited by a spark, a hot surface or an ember. Vapours may form explosive mixtures with air. Fire-water run-off in sewers may create fire or explosion hazard.
<b>Hazardous combustion products</b>	Thermal decomposition or combustion products may include the following substances: Harmful gases or vapours.
<b><u>5.3. Advice for firefighters</u></b>	
<b>Protective actions during firefighting</b>	Avoid breathing fire gases or vapours. Evacuate area. Keep upwind to avoid inhalation of gases, vapours, fumes and smoke. Ventilate closed spaces before entering them. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Cool containers exposed to flames with water until well after the fire is out. If a leak or spill has not ignited, use water spray to disperse vapours and protect men stopping the leak. Control run-off water by containing and keeping it out of sewers and watercourses. If risk of water pollution occurs, notify appropriate authorities.
<b>Special protective equipment for firefighters</b>	Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing. Firefighter's clothing conforming to European standard EN469 (including helmets, protective boots and gloves) will provide a basic level of protection for chemical incidents.

### SECTION 6: Accidental release measures

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

<b>Personal precautions</b>	No action shall be taken without appropriate training or involving any personal risk. Keep unnecessary and unprotected personnel away from the spillage. Wear protective clothing as described in Section 8 of this safety data sheet. Follow precautions for safe handling described in this safety data sheet. Wash thoroughly after dealing with a spillage. Ensure procedures and training for emergency decontamination and disposal are in place. Do not touch or walk into spilled material. Evacuate area. Provide adequate ventilation. No smoking, sparks, flames or other sources of ignition near spillage. Promptly remove any clothing that becomes contaminated. Avoid inhalation of vapours and spray/mists. Use suitable respiratory protection if ventilation is inadequate. Avoid contact with skin and eyes.
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#### **6.2. Environmental precautions**

<b>Environmental precautions</b>	Large Spillages: Inform the relevant authorities if environmental pollution occurs (sewers, waterways, soil or air).
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#### **6.3. Methods and material for containment and cleaning up**

<b>Methods for cleaning up</b>	Wear protective clothing as described in Section 8 of this safety data sheet. Clear up spills immediately and dispose of waste safely. Eliminate all ignition sources if safe to do so. No smoking, sparks, flames or other sources of ignition near spillage. Do not allow material to enter confined spaces, due to the risk of explosion. Approach the spillage from upwind. Small Spillages: If the product is soluble in water, dilute the spillage with water and mop it up. Alternatively, or if it is not water-soluble, absorb the spillage with an inert, dry material and place it in a suitable waste disposal container. Large Spillages: If leakage cannot be stopped, evacuate area. Flush spilled material into an effluent treatment plant, or proceed as follows. Contain and absorb spillage with sand, earth or other non-combustible material. Place waste in labelled, sealed containers. Clean contaminated objects and areas thoroughly, observing environmental regulations. The contaminated absorbent may pose the same hazard as the spilled material. Flush contaminated area with plenty of water. Wash thoroughly after dealing with a spillage. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.
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#### **6.4. Reference to other sections**

## Flux Pen

**Reference to other sections** For personal protection, see Section 8. See Section 11 for additional information on health hazards. See Section 12 for additional information on ecological hazards. For waste disposal, see Section 13.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

**Usage precautions** Read and follow manufacturer's recommendations. Wear protective clothing as described in Section 8 of this safety data sheet. Keep away from food, drink and animal feeding stuffs. Handle all packages and containers carefully to minimise spills. Keep container tightly sealed when not in use. Avoid the formation of mists. The product is flammable. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. In use may form flammable/explosive vapour-air mixture. Vapours may accumulate on the floor and in low-lying areas. Use explosion-proof electrical, ventilating and lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharges. Do not handle until all safety precautions have been read and understood. Do not handle broken packages without protective equipment. Do not reuse empty containers.

**Advice on general occupational hygiene** Wash promptly if skin becomes contaminated. Take off contaminated clothing. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Wash at the end of each work shift and before eating, smoking and using the toilet. Change work clothing daily before leaving workplace.

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

**Storage precautions** Store away from incompatible materials (see Section 10). Store in accordance with local regulations. Eliminate all sources of ignition. Take precautionary measures against static discharges. Earth container and transfer equipment to eliminate sparks from static electricity. Keep away from oxidising materials, heat and flames. Keep only in the original container. Keep container tightly closed, in a cool, well ventilated place. Keep containers upright. Protect containers from damage. Bund storage facilities to prevent soil and water pollution in the event of spillage. The storage area floor should be leak-tight, jointless and not absorbent.

**Storage class** Flammable liquid storage.

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

**Specific end use(s)** The identified uses for this product are detailed in Section 1.2.

### SECTION 8: Exposure Controls/personal protection

#### 8.1. Control parameters

##### Occupational exposure limits

##### **Propan-2-ol**

Long-term exposure limit (8-hour TWA): WEL 400 ppm 999 mg/m<sup>3</sup>

Short-term exposure limit (15-minute): WEL 500 ppm 1250 mg/m<sup>3</sup>

##### **Rosin; colophony**

Long-term exposure limit (8-hour TWA): WEL 0.05 mg/m<sup>3</sup> fume

Short-term exposure limit (15-minute): WEL 0.15 mg/m<sup>3</sup> fume

Sen

WEL = Workplace Exposure Limit

Sen = Capable of causing occupational asthma.

#### 8.2. Exposure controls

## Flux Pen

### Protective equipment



### Appropriate engineering controls

Provide adequate ventilation. Personal, workplace environment or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Use process enclosures, local exhaust ventilation or other engineering controls as the primary means to minimise worker exposure. Personal protective equipment should only be used if worker exposure cannot be controlled adequately by the engineering control measures. Ensure control measures are regularly inspected and maintained. Ensure operatives are trained to minimise exposure. The engineering controls also need to keep gas, vapour or dust concentrations below any lower explosive limits. Use explosion-proof ventilating equipment.

### Eye/face protection

Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. Personal protective equipment for eye and face protection should comply with European Standard EN166. Wear tight-fitting, chemical splash goggles or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

### Hand protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. To protect hands from chemicals, gloves should comply with European Standard EN374. Considering the data specified by the glove manufacturer, check during use that the gloves are retaining their protective properties and change them as soon as any deterioration is detected. Frequent changes are recommended.

### Other skin and body protection

Appropriate footwear and additional protective clothing complying with an approved standard should be worn if a risk assessment indicates skin contamination is possible.

### Hygiene measures

Provide eyewash station and safety shower. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Clean equipment and the work area every day. Good personal hygiene procedures should be implemented. Wash at the end of each work shift and before eating, smoking and using the toilet. When using do not eat, drink or smoke. Preventive industrial medical examinations should be carried out. Warn cleaning personnel of any hazardous properties of the product.

### Respiratory protection

Respiratory protection complying with an approved standard should be worn if a risk assessment indicates inhalation of contaminants is possible. Ensure all respiratory protective equipment is suitable for its intended use and is 'CE'-marked. Check that the respirator fits tightly and the filter is changed regularly. Gas and combination filter cartridges should comply with European Standard EN14387. Full face mask respirators with replaceable filter cartridges should comply with European Standard EN136. Half mask and quarter mask respirators with replaceable filter cartridges should comply with European Standard EN140.

### Environmental exposure controls

Keep container tightly sealed when not in use.

## SECTION 9: Physical and Chemical Properties

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

Appearance	Liquid.
Colour	Light (or pale). Straw.
Odour	Solvent.
pH	Not available.

## Flux Pen

<b>Melting point</b>	Not available.
<b>Initial boiling point and range</b>	82°C/179.6°F @
<b>Flash point</b>	12°C/53.6°F
<b>Evaporation rate</b>	Not available.
<b>Flammability (solid, gas)</b>	Not available.
<b>Upper/lower flammability or explosive limits</b>	Lower flammable/explosive limit: 2.0% Upper flammable/explosive limit: 12.0%
<b>Vapour pressure</b>	Not available. 43 hPa @ 20°C/68°F
<b>Vapour density</b>	Not available.
<b>Relative density</b>	0.83 @ 20°C/68°F
<b>Solubility(ies)</b>	Immiscible with water.
<b>Partition coefficient</b>	Not available.
<b>Auto-ignition temperature</b>	425°C/797°F
<b>Decomposition Temperature</b>	Not available.
<b>Viscosity</b>	Not available.
<b>Explosive properties</b>	Not considered to be explosive.
<b>Oxidising properties</b>	Does not meet the criteria for classification as oxidising.

### 9.2. Other information

#### SECTION 10: Stability and reactivity

##### 10.1. Reactivity

**Reactivity** See the other subsections of this section for further details.

##### 10.2. Chemical stability

**Stability** Stable at normal ambient temperatures and when used as recommended. Stable under the prescribed storage conditions.

##### 10.3. Possibility of hazardous reactions

**Possibility of hazardous reactions** The following materials may react strongly with the product: Oxidising agents.

##### 10.4. Conditions to avoid

**Conditions to avoid** Avoid heat, flames and other sources of ignition. Containers can burst violently or explode when heated, due to excessive pressure build-up. Static electricity and formation of sparks must be prevented. Do not pressurise, cut, weld, drill, grind or otherwise expose containers to heat or sources of ignition.

##### 10.5. Incompatible materials

**Materials to avoid** Oxidising materials. Acids - oxidising.

##### 10.6. Hazardous decomposition products

**Hazardous decomposition products** Does not decompose when used and stored as recommended. Thermal decomposition or combustion products may include the following substances: Harmful gases or vapours.

#### SECTION 11: Toxicological information

## Flux Pen

### 11.1. Information on toxicological effects

#### Acute toxicity - oral

**Notes (oral LD<sub>50</sub>)** Based on available data the classification criteria are not met.

#### Acute toxicity - dermal

**Notes (dermal LD<sub>50</sub>)** Based on available data the classification criteria are not met.

#### Acute toxicity - inhalation

**Notes (inhalation LC<sub>50</sub>)** Based on available data the classification criteria are not met.

#### Skin corrosion/irritation

**Animal data** Based on available data the classification criteria are not met.

#### Serious eye damage/irritation

**Serious eye damage/irritation** Causes serious eye irritation.

#### Respiratory sensitisation

**Respiratory sensitisation** Based on available data the classification criteria are not met.

#### Skin sensitisation

**Skin sensitisation** May cause skin sensitisation or allergic reactions in sensitive individuals.

#### Germ cell mutagenicity

**Genotoxicity - in vitro** Based on available data the classification criteria are not met.

#### Carcinogenicity

**Carcinogenicity** Based on available data the classification criteria are not met.

#### **IARC carcinogenicity**

Contains a substance which may be potentially carcinogenic. IARC Group 3 Not classifiable as to its carcinogenicity to humans.

#### Reproductive toxicity

**Reproductive toxicity - fertility** Based on available data the classification criteria are not met.

**Reproductive toxicity - development** Based on available data the classification criteria are not met.

#### Specific target organ toxicity - single exposure

**STOT - single exposure** STOT SE 3 - H336 May cause drowsiness or dizziness.

**Target organs** Central nervous system

#### Specific target organ toxicity - repeated exposure

**STOT - repeated exposure** Not classified as a specific target organ toxicant after repeated exposure.

#### Aspiration hazard

**Aspiration hazard** Based on available data the classification criteria are not met.

#### **General information**

The severity of the symptoms described will vary dependent on the concentration and the length of exposure.

#### **Inhalation**

A single exposure may cause the following adverse effects: Headache. Nausea, vomiting. Central nervous system depression. Drowsiness, dizziness, disorientation, vertigo. Narcotic effect.

#### **Ingestion**

May cause sensitisation or allergic reactions in sensitive individuals. Gastrointestinal symptoms, including upset stomach. Fumes from the stomach contents may be inhaled, resulting in the same symptoms as inhalation.



## Flux Pen

<b>Skin contact</b>	May cause skin sensitisation or allergic reactions in sensitive individuals. Prolonged contact may cause dryness of the skin.
<b>Eye contact</b>	Irritating to eyes.
<b>Route of exposure</b>	Ingestion Inhalation Skin and/or eye contact
<b>Target organs</b>	Central nervous system
<b>Medical considerations</b>	Skin disorders and allergies.

### Toxicological information on ingredients.

#### Propan-2-ol

##### Acute toxicity - dermal

**Notes (dermal LD<sub>50</sub>)** LD<sub>50</sub> 5840 mg/kg, Oral, Rat REACH dossier information. Based on available data the classification criteria are not met.

##### Skin corrosion/irritation

**Animal data** Primary dermal irritation index: 0 REACH dossier information. Based on available data the classification criteria are not met.

##### Serious eye damage/irritation

**Serious eye damage/irritation** Dose: 0.1 mL, 1 second, Rabbit Causes serious eye irritation.

##### Skin sensitisation

**Skin sensitisation** Buehler test - Guinea pig: Not sensitising. REACH dossier information. Based on available data the classification criteria are not met.

##### Germ cell mutagenicity

**Genotoxicity - in vitro** Gene mutation: Negative. REACH dossier information. Based on available data the classification criteria are not met.

**Genotoxicity - in vivo** Chromosome aberration: Negative. REACH dossier information. Based on available data the classification criteria are not met.

##### Carcinogenicity

**Carcinogenicity** NOAEL 5000 ppm, Inhalation, Rat REACH dossier information. Based on available data the classification criteria are not met.

**IARC carcinogenicity** IARC Group 3 Not classifiable as to its carcinogenicity to humans.

##### Specific target organ toxicity - single exposure

**STOT - single exposure** STOT SE 3 - H336 May cause drowsiness or dizziness.

**Target organs** Central nervous system

##### Specific target organ toxicity - repeated exposure

**STOT - repeated exposure** NOAEC 5000 ppm, Inhalation, Rat REACH dossier information. Based on available data the classification criteria are not met.

### SECTION 12: Ecological Information

**Ecotoxicity** Not regarded as dangerous for the environment. However, large or frequent spills may have hazardous effects on the environment.

#### 12.1. Toxicity

## Flux Pen

**Toxicity** Based on available data the classification criteria are not met.

### Ecological information on ingredients.

#### Propan-2-ol

**Toxicity** Aquatic toxicity is unlikely to occur. Based on available data the classification criteria are not met.

#### Acute aquatic toxicity

**Acute toxicity - fish** LC<sub>50</sub>, 96 hours: 10000 mg/l, Pimephales promelas (Fat-head Minnow)

**Acute toxicity - aquatic invertebrates** LC<sub>50</sub>, 24 hours: >10000 mg/l, Daphnia magna

**Acute toxicity - aquatic plants** EC<sub>50</sub>, 7 days: 1800 mg/l, Scenedesmus quadricauda

### 12.2. Persistence and degradability

**Persistence and degradability** The degradability of the product is not known.

### Ecological information on ingredients.

#### Propan-2-ol

**Persistence and degradability** The substance is readily biodegradable.

**Biodegradation** Water - Degradation 53%: 5 days

**Biological oxygen demand** 1.19-1.72 g O<sub>2</sub>/g substance

**Chemical oxygen demand** 2.23 g O<sub>2</sub>/g substance

### 12.3. Bioaccumulative potential

**Bioaccumulative potential** No data available on bioaccumulation.

**Partition coefficient** Not available.

### Ecological information on ingredients.

#### Propan-2-ol

**Bioaccumulative potential** Bioaccumulation is unlikely.

### 12.4. Mobility in soil

**Mobility** No data available.

### Ecological information on ingredients.

#### Propan-2-ol

**Mobility** The product is soluble in water.

### 12.5. Results of PBT and vPvB assessment

#### Ecological information on ingredients.

#### Propan-2-ol

**Results of PBT and vPvB assessment** This substance is not classified as PBT or vPvB according to current EU criteria.

## Flux Pen

### 12.6. Other adverse effects

**Other adverse effects**                      None known.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

**General information**                      The generation of waste should be minimised or avoided wherever possible. Reuse or recycle products wherever possible. This material and its container must be disposed of in a safe way. Disposal of this product, process solutions, residues and by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any local authority requirements. When handling waste, the safety precautions applying to handling of the product should be considered. Care should be taken when handling emptied containers that have not been thoroughly cleaned or rinsed out. Empty containers or liners may retain some product residues and hence be potentially hazardous.

**Disposal methods**                              Do not empty into drains. Dispose of surplus products and those that cannot be recycled via a licensed waste disposal contractor. Waste, residues, empty containers, discarded work clothes and contaminated cleaning materials should be collected in designated containers, labelled with their contents. Incineration or landfill should only be considered when recycling is not feasible. Vapour from residual product may create a highly flammable or explosive atmosphere inside the container. Containers should be thoroughly emptied before disposal because of the risk of an explosion. Do not cut or weld used containers unless they have been thoroughly cleaned internally.

## SECTION 14: Transport information

### 14.1. UN number

<b>UN No. (ADR/RID)</b>	1219
<b>UN No. (IMDG)</b>	1219
<b>UN No. (ICAO)</b>	1219
<b>UN No. (ADN)</b>	1219

### 14.2. UN proper shipping name

<b>Proper shipping name (ADR/RID)</b>	ISOPROPANOL (ISOPROPYL ALCOHOL)
<b>Proper shipping name (IMDG)</b>	ISOPROPANOL (ISOPROPYL ALCOHOL)
<b>Proper shipping name (ICAO)</b>	ISOPROPANOL (ISOPROPYL ALCOHOL)
<b>Proper shipping name (ADN)</b>	ISOPROPANOL (ISOPROPYL ALCOHOL)

### 14.3. Transport hazard class(es)

<b>ADR/RID class</b>	3
<b>ADR/RID classification code</b>	F1
<b>ADR/RID label</b>	3
<b>IMDG class</b>	3
<b>ICAO class/division</b>	3
<b>ADN class</b>	3

## Flux Pen

### Transport labels



#### 14.4. Packing group

ADR/RID packing group	II
IMDG packing group	II
ADN packing group	II
ICAO packing group	II

#### 14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

No.

#### 14.6. Special precautions for user

EmS	F-E, S-D
ADR transport category	2
Emergency Action Code	•2YE
Hazard Identification Number (ADR/RID)	33
Tunnel restriction code	(D/E)

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

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

### SECTION 15: Regulatory information

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

<b>National regulations</b>	Health and Safety at Work etc. Act 1974 (as amended). The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009 (SI 2009 No. 1348) (as amended) ["CDG 2009"]. EH40/2005 Workplace exposure limits.
<b>EU legislation</b>	Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended). Commission Regulation (EU) No 2015/830 of 28 May 2015. 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 (as amended).

#### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

#### Inventories

##### EU - EINECS/ELINCS

None of the ingredients are listed or exempt.

## Flux Pen

### SECTION 16: Other information

<b>Abbreviations and acronyms used in the safety data sheet</b>	<p>ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.</p> <p>ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways.</p> <p>RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail.</p> <p>IATA: International Air Transport Association.</p> <p>ICAO-TI: Technical Instructions for the Safe Transport of Dangerous Goods by Air.</p> <p>IMDG: International Maritime Dangerous Goods.</p> <p>CAS: Chemical Abstracts Service.</p> <p>ATE: Acute Toxicity Estimate.</p> <p>LC<sub>50</sub>: Lethal Concentration to 50 % of a test population.</p> <p>LD<sub>50</sub>: Lethal Dose to 50% of a test population (Median Lethal Dose).</p> <p>EC<sub>50</sub>: 50% of maximal Effective Concentration.</p> <p>PBT: Persistent, Bioaccumulative and Toxic substance.</p> <p>vPvB: Very Persistent and Very Bioaccumulative.</p>
<b>Classification abbreviations and acronyms</b>	<p>Flam. Liq. = Flammable liquid</p> <p>Eye Irrit. = Eye irritation</p> <p>Skin Sens. = Skin sensitisation</p> <p>STOT SE = Specific target organ toxicity-single exposure</p>
<b>Classification procedures according to Regulation (EC) 1272/2008</b>	<p>STOT SE 3 - H336: Eye Irrit. 2 - H319: Skin Sens. 1 - H317: : Calculation method. Flam. Liq. 2 - H225: : Expert judgement.</p>
<b>Training advice</b>	<p>Read and follow manufacturer's recommendations. Only trained personnel should use this material.</p>
<b>Issued by</b>	<p>Emily Kirk</p>
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<b>Revision</b>	<p>1</p>
<b>SDS number</b>	<p>1082</p>
<b>Hazard statements in full</b>	<p>H225 Highly flammable liquid and vapour.</p> <p>H317 May cause an allergic skin reaction.</p> <p>H319 Causes serious eye irritation.</p> <p>H336 May cause drowsiness or dizziness.</p>

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