Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by UK REACH Regulation SI 2019/758

# SAFETY DATA SHEET

Chemtronics<sup>®</sup>

Circuitworks® No Clean Flux Dispensing Pen (UK - Great Britain)

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

| 1.1 Product identifier        |  |
|-------------------------------|--|
| Product name                  | : Circuitworks® No Clean Flux Dispensing Pen (UK - Great Britain)                    |
| Product code                  | : CW8100, CW8100BLK  |
| Product description           | : Fluxing agents soldering   |
| Product type                  | : Liquid.  |
| Other means of identification | : Fluxing agents soldering<br>Industrial/Professional use<br>UFI: WPA8-0FM-D00U-VAV2 |

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

| Identified uses       |  |
|-----------------------|--|
| Fluxing agents        |  |
| Licos advisod against |  |

#### Uses advised against Not applicable.

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

Manufacturer Chemtronics 8125 Cobb Center Drive Kennesaw, GA 30152 Tel. 770-424-4888 or toll free 800-645-5244

Distributor

Importer ITW Contamination Control BV Saffierlaan 5 VZ-2132 Hoofddorp The Netherlands

Email: info@itw-cc.com

Tel: +31 88 1307 400 FAX: +31 88 1307 499 Website: www.Chemtronicseu.com

#### e-mail address of person responsible for this SDS : Importer/Only Representative Bay 150 Shannon Industrial Estate Shannon County Clare Ireland V14 DF82 +353 61 771 500 customerservice.shannon@itwpp.com

#### **National contact**

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by UK REACH Regulation SI 2019/758

Circuitworks® No Clean Flux Dispensing Pen (UK - Great Britain)

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

ITW Contamination Control BV Saffierlaan 5 VZ-2132 Hoofddorp The Netherlands

Email: info@itw-cc.com

Tel: +31 88 1307 400 FAX: +31 88 1307 499 Website: www.Chemtronicseu.com

#### 1.4 Emergency telephone number

| National advisory body/Po | ison Centre   |
|---------------------------|---|
| Telephone number          | : EMERGENCY HEALTH INFORMATION:<br>United Kingdom (England or Wales) 0845 46 47 or Scotland 08454 24 24 24 (UK<br>only) |
| <u>Supplier</u>           |   |
| Telephone number          | : Chemtronics Product Information: 800-TECH-401 (800-832-4401)<br>Chemtronics Customer Service: 800-645-5244            |
| Hours of operation        | : 8:00 AM to 5:00 PM  |
| Information limitations   | : EMERGENCY HEALTH INFORMATION:<br>EMERGENCY SPILL INFORMATION:<br>Transport information                                |

## **SECTION 2: Hazards identification**

#### 2.1 Classification of the substance or mixture

Product definition : Mixture

#### **Classification according to UK CLP/GHS**

Flam. Liq. 2, H225 Eye Irrit. 2, H319 Skin Sens. 1, H317 STOT SE 3, H336

The product is classified as hazardous according to UK CLP Regulation SI 2019/720 as amended.

Ingredients of unknown<br/>toxicity: 10 percent of the mixture consists of component(s) of unknown acute dermal toxicity<br/>81 percent of the mixture consists of component(s) of unknown acute inhalation<br/>toxicityIngredients of unknown: Contains 3% of components with unknown hazards to the aquatic environment

## Ingredients of unknown ecotoxicity

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

## 2.2 Label elements

**Hazard pictograms** 



| Signal word<br>Hazard statements | : | Danger<br>Highly flammable liquid and vapour.<br>May cause an allergic skin reaction.<br>Causes serious eye irritation.<br>May cause drowsiness or dizziness.               |
|----------------------------------|---|---|
| Precautionary statements         |   |   |
| Prevention                       | : | Wear protective gloves. Wear eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Avoid breathing vapour. |

## **SECTION 2: Hazards identification**

| SECTION 2. Hazards  |     |   |
|---|-----|---|
| Response  | :   | IF INHALED: Call a POISON CENTER or doctor if you feel unwell. Take off<br>contaminated clothing and wash it before reuse. IF ON SKIN: Wash with plenty of<br>water. If skin irritation or rash occurs: Get medical advice or attention. IF IN EYES:<br>Rinse cautiously with water for several minutes. Remove contact lenses, if present<br>and easy to do. Continue rinsing. If eye irritation persists: Get medical advice or<br>attention. |
| Storage   | 1   | Store in a well-ventilated place. Keep container tightly closed.  |
| Disposal  | 1   | Dispose of contents and container in accordance with all local, regional, national and international regulations.   |
| Supplemental label<br>elements  | :   | FOR INDUSTRIAL USE ONLY<br>For professional use only.<br>UK: Caution: exposure to fumes from this material may cause certain sensitive<br>individuals to develop eczema and/or occupational asthma. May cause sensitization<br>by inhalation and skin contact. Sensitized persons may subsequently show asthmatic<br>symptoms when exposed to atmospheric concentrations well below the OEL.  |
| Annex XVII - Restrictions<br>on the manufacture,<br>placing on the market and<br>use of certain dangerous<br>substances, mixtures and<br>articles | :   | Not applicable.   |
| Special packaging requirem  | ien | t <u>s</u>  |
| Containers to be fitted<br>with child-resistant<br>fastenings   | :   | Not applicable.   |
| Tactile warning of danger   | 1   | Not applicable.   |
| 2.3 Other hazards   |     |   |
| Product meets the criteria<br>for PBT or vPvB according<br>to Regulation (EC) No.<br>1907/2006, Annex XIII  | :   | This mixture does not contain any substances that are assessed to be a PBT or a vPvB.   |
| Other hazards which do not result in classification   | :   | None known.   |
|   |     |   |

## **SECTION 3: Composition/information on ingredients**

| Product/ingredient name | Identifiers  | %         | Classification  | Туре    |
|-------------------------|--|-----------|---|---------|
| propan-2-ol             | EC: 200-661-7<br>CAS: 67-63-0<br>Index: 603-117-00-0   | ≥50 - ≤75 | Flam. Liq. 2, H225<br>Eye Irrit. 2, H319<br>STOT SE 3, H336                   | [1] [2] |
| rosin                   | EC: 232-475-7<br>CAS: 8050-09-7<br>Index: 650-015-00-7 | ≥10 - ≤19 | Skin Sens. 1, H317<br>Aquatic Chronic 4,<br>H413                              | [1] [2] |
| adipic acid             | EC: 204-673-3<br>CAS: 124-04-9<br>Index: 607-144-00-9  | ≤5        | Eye Irrit. 2, H319<br>Aquatic Chronic 3,<br>H412                              | [1]     |
| dimethyl glutarate      | EC: 214-277-2<br>CAS: 1119-40-0                        | ≤5        | Eye Irrit. 2, H319  | [1]     |
|                         |  |           | See Section 16 for<br>the full text of the H<br>statements declared<br>above. |         |

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section. <u>Type</u>

## **SECTION 3: Composition/information on ingredients**

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

Occupational exposure limits, if available, are listed in Section 8.

#### **SECTION 4: First aid measures** .

| 4.1 Description of first aid r | neasures  |
|--------------------------------|---|
| Eye contact                    | <ul> <li>Immediately flush eyes with plenty of water, occasionally lifting the upper and lower<br/>eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10<br/>minutes. Get medical attention.</li> </ul>   |
| Inhalation                     | : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If<br>it is suspected that fumes are still present, the rescuer should wear an appropriate<br>mask or self-contained breathing apparatus. If not breathing, if breathing is irregular<br>or if respiratory arrest occurs, provide artificial respiration or oxygen by trained<br>personnel. It may be dangerous to the person providing aid to give mouth-to-mouth<br>resuscitation. Get medical attention. If necessary, call a poison center or physician.<br>If unconscious, place in recovery position and get medical attention immediately.<br>Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.  |
| Skin contact                   | : Wash with plenty of soap and water. Remove contaminated clothing and shoes.<br>Wash contaminated clothing thoroughly with water before removing it, or wear gloves.<br>Continue to rinse for at least 10 minutes. Get medical attention. In the event of any<br>complaints or symptoms, avoid further exposure. Wash clothing before reuse.<br>Clean shoes thoroughly before reuse.   |
| Ingestion                      | : Wash out mouth with water. Remove dentures if any. If material has been<br>swallowed and the exposed person is conscious, give small quantities of water to<br>drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not<br>induce vomiting unless directed to do so by medical personnel. If vomiting occurs,<br>the head should be kept low so that vomit does not enter the lungs. Get medical<br>attention. If necessary, call a poison center or physician. Never give anything by<br>mouth to an unconscious person. If unconscious, place in recovery position and get<br>medical attention immediately. Maintain an open airway. Loosen tight clothing such<br>as a collar, tie, belt or waistband. |
| Protection of first-aiders     | : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.   |

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

### **Over-exposure signs/symptoms**

| Eye contact  | : Adverse symptoms may include the following:<br>pain or irritation<br>watering<br>redness   |
|--------------|--|
| Inhalation   | : Adverse symptoms may include the following:<br>asthma<br>wheezing and breathing difficulties<br>May cause sensitisation by inhalation.<br>nausea or vomiting<br>headache<br>drowsiness/fatigue<br>dizziness/vertigo<br>unconsciousness |
| Skin contact | : Adverse symptoms may include the following:<br>irritation<br>redness<br>sensitiser May cause allergic reactions in certain individuals.  |
| Ingestion    | : Adverse symptoms may include the following:<br>Ingestion Seek medical attention.   |

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

| Date of issue/Date of revision : 1/19/2023 | Date of previous issue | : No previous validation | Version : 1 | 4/15 |
|--|------------------------|--------------------------|-------------|------|
|--|------------------------|--------------------------|-------------|------|

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|  | SECTION | 4: First aid | measures |
|--|---------|--------------|----------|
|--|---------|--------------|----------|

| SECTION 4: First aid                         | d measures   |
|--|--|
| Notes to physician                           | : Treat symptomatically. Contact poison treatment specialist immediately if large<br>quantities have been ingested or inhaled.   |
| Specific treatments                          | : No specific treatment.   |
| SECTION 5: Firefigh                          | ting measures  |
| 5.1 Extinguishing media                      |  |
| Suitable extinguishing media                 | : Use dry chemical, CO <sub>2</sub> , water spray (fog) or foam.   |
| Unsuitable extinguishing media               | : Do not use water jet.  |
| 5.2 Special hazards arising f                | rom the substance or mixture   |
| Hazards from the substance or mixture        | : Highly flammable liquid and vapour. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion.  |
| Hazardous combustion products                | : Decomposition products may include the following materials:<br>carbon dioxide<br>carbon monoxide   |
| 5.3 Advice for firefighters                  |  |
| Special protective actions for fire-fighters | : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water |

spray to keep fire-exposed containers cool. **Special protective** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. equipment for fire-fighters

### **SECTION 6: Accidental release measures**

| 6.1 Personal precautions, pro  | teo | ctive equipment and emergency procedures  |
|--------------------------------|-----|---|
| For non-emergency<br>personnel | •   | No action shall be taken involving any personal risk or without suitable training.<br>Evacuate surrounding areas. Keep unnecessary and unprotected personnel from<br>entering. Do not touch or walk through spilt material. Shut off all ignition sources.<br>No flares, smoking or flames in hazard area. Avoid breathing vapour or mist.<br>Provide adequate ventilation. Wear appropriate respirator when ventilation is<br>inadequate. Put on appropriate personal protective equipment.  |
| For emergency responders       | :   | If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".   |
| 6.2 Environmental precautions  | :   | Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains<br>and sewers. Inform the relevant authorities if the product has caused environmental<br>pollution (sewers, waterways, soil or air).   |
| 6.3 Methods and material for o | co  | ntainment and cleaning up   |
| Small spill                    | :   | Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.  |
| Large spill                    | :   | Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product. Note: see Section 1 for |

### **SECTION 6: Accidental release measures**

emergency contact information and Section 13 for waste disposal.

| 6.4 Reference to other | : See Section 1 for emergency contact information.                          |
|------------------------|---|
| sections               | See Section 8 for information on appropriate personal protective equipment. |
|                        | See Section 13 for additional waste treatment information.                  |

### **SECTION 7: Handling and storage**

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

#### 7.1 Precautions for safe handling

| Protective measures                    | : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapour or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container. |
|--|---|
| Advice on general occupational hygiene | : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.   |

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

Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidising materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

#### Seveso Directive - Reporting thresholds

| Danger criteria |                                 |                         |
|-----------------|---------------------------------|-------------------------|
| Category        | Notification and MAPP threshold | Safety report threshold |
| P5c             | 5000 tonne                      | 50000 tonne             |

#### 7.3 Specific end use(s)

Recommendations Industrial sector specific solutions : Not available.

specific : Not available.

## SECTION 8: Exposure controls/personal protection

## 8.1 Control parameters

**Occupational exposure limits** 

Circuitworks® No Clean Flux Dispensing Pen (UK - Great Britain)

## **SECTION 8: Exposure controls/personal protection**

| Product/ingredient name | Exposure limit values                                    |
|-------------------------|--|
| propan-2-ol             | EH40/2005 WELs (United Kingdom (UK), 1/2020).            |
|                         | STEL: 1250 mg/m <sup>3</sup> 15 minutes.                 |
|                         | STEL: 500 ppm 15 minutes.                                |
|                         | TWA: 999 mg/m <sup>3</sup> 8 hours.                      |
|                         | TWA: 400 ppm 8 hours.                                    |
| rosin                   | EH40/2005 WELs (United Kingdom (UK), 1/2020). Inhalation |
|                         | sensitiser.  |
|                         | STEL: 0.15 mg/m³ 15 minutes. Form: Fume                  |
|                         | TWA: 0.05 mg/m <sup>3</sup> 8 hours. Form: Fume          |

#### **Biological exposure indices**

No exposure indices known.

**Recommended monitoring procedures**: Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

#### **DNELs/DMELs**

| Product/ingredient name | Туре | Exposure                 | Value                 | Population            | Effects  |
|-------------------------|------|--------------------------|-----------------------|-----------------------|----------|
| propan-2-ol             | DNEL | Long term Oral           | 26 mg/kg<br>bw/day    | General<br>population | Systemic |
|                         | DNEL | Long term<br>Inhalation  | 89 mg/m³              | General<br>population | Systemic |
|                         | DNEL | Long term Dermal         | 319 mg/kg<br>bw/day   | General<br>population | Systemic |
|                         | DNEL | Long term<br>Inhalation  | 500 mg/m <sup>3</sup> | Workers               | Systemic |
|                         | DNEL | Long term Dermal         | 888 mg/kg<br>bw/day   | Workers               | Systemic |
| osin                    | DNEL | Long term Oral           | 10 mg/kg<br>bw/day    | General<br>population | Systemic |
|                         | DNEL | Long term Dermal         | 10 mg/kg<br>bw/day    | General<br>population | Systemic |
|                         | DNEL | Long term Dermal         | 17 mg/kg<br>bw/day    | Workers               | Systemic |
|                         | DNEL | Long term<br>Inhalation  | 35 mg/m <sup>3</sup>  | General<br>population | Systemic |
|                         | DNEL | Long term<br>Inhalation  | 117 mg/m³             | Workers               | Systemic |
| adipic acid             | DNEL | Short term<br>Inhalation | 5 mg/m³               | Workers               | Local    |
|                         | DNEL | Long term<br>Inhalation  | 5 mg/m³               | Workers               | Local    |
|                         | DNEL | Short term Oral          | 19 mg/kg<br>bw/day    | General<br>population | Systemic |
|                         | DNEL | Long term Oral           | 19 mg/kg<br>bw/day    | General<br>population | Systemic |
|                         | DNEL | Short term Dermal        | 19 mg/kg<br>bw/day    | General<br>population | Systemic |
|                         | DNEL | Long term Dermal         | 19 mg/kg<br>bw/day    | General<br>population | Systemic |
|                         | DNEL | Short term Dermal        | 38 mg/kg<br>bw/day    | Workers               | Systemic |
|                         | DNEL | Long term Dermal         | 38 mg/kg<br>bw/day    | Workers               | Systemic |
|                         | DNEL | Short term<br>Inhalation | 65 mg/m <sup>3</sup>  | General<br>population | Systemic |
|                         | DNEL | Long term<br>Inhalation  | 65 mg/m³              | General<br>population | Systemic |
|                         | DNEL | Short term<br>Inhalation | 264 mg/m <sup>3</sup> | Workers               | Systemic |
|                         | DNEL | Long term<br>Inhalation  | 264 mg/m <sup>3</sup> | Workers               | Systemic |

## SECTION 8: Exposure controls/personal protection

| 3 | SECTION 6. Exposure controls/personal protection |      |                         |                       |            |       |
|---|--|------|-------------------------|-----------------------|------------|-------|
|   | dimethyl glutarate                               | DNEL | Long term               | 5 mg/m³               | General    | Local |
|   |  |      | Inhalation              |                       | population |       |
|   |  | DNEL | Long term<br>Inhalation | 8.3 mg/m <sup>3</sup> | Workers    | Local |

| Ρ | Ν | Е | С | s |
|---|---|---|---|---|
|   |   |   |   |   |

No PNECs available

| 8.2 Exposure controls            |  |
|----------------------------------|--|
| Appropriate engineering controls | : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapour or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.   |
| Individual protection meas       | <u>ures</u>  |
| Hygiene measures                 | : Wash hands, forearms and face thoroughly after handling chemical products, before<br>eating, smoking and using the lavatory and at the end of the working period.<br>Appropriate techniques should be used to remove potentially contaminated clothing.<br>Contaminated work clothing should not be allowed out of the workplace. Wash<br>contaminated clothing before reusing. Ensure that eyewash stations and safety<br>showers are close to the workstation location.  |
| Eye/face protection              | : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.   |
| Skin protection                  |  |
| Hand protection                  | : Chemical-resistant, impervious gloves complying with an approved standard should<br>be worn at all times when handling chemical products if a risk assessment indicates<br>this is necessary. Considering the parameters specified by the glove manufacturer,<br>check during use that the gloves are still retaining their protective properties. It<br>should be noted that the time to breakthrough for any glove material may be<br>different for different glove manufacturers. In the case of mixtures, consisting of<br>several substances, the protection time of the gloves cannot be accurately estimated. |
| Body protection                  | : Personal protective equipment for the body should be selected based on the task<br>being performed and the risks involved and should be approved by a specialist<br>before handling this product. When there is a risk of ignition from static electricity,<br>wear anti-static protective clothing. For the greatest protection from static discharges,<br>clothing should include anti-static overalls, boots and gloves.  |
| Other skin protection            | <ul> <li>Appropriate footwear and any additional skin protection measures should be<br/>selected based on the task being performed and the risks involved and should be<br/>approved by a specialist before handling this product.</li> </ul>  |
| Respiratory protection           | : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.   |
| Environmental exposure controls  | : Emissions from ventilation or work process equipment should be checked to ensure<br>they comply with the requirements of environmental protection legislation. In some<br>cases, fume scrubbers, filters or engineering modifications to the process equipment<br>will be necessary to reduce emissions to acceptable levels.  |

## **SECTION 9: Physical and chemical properties**

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

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

| uid.            |
|-----------------|
| uiu.            |
| ar. Colourless. |
| ohol-like.      |
|                 |

Date of issue/Date of revision

8/15

## **SECTION 9: Physical and chemical properties**

| Odour threshold                                 |      | Not ava  | ilable          |                   |         |  |  |
|---|------|--|-----------------|-------------------|---------|--|--|
| Melting point/freezing point                    | - C. | Not avai   |                 |                   |         |  |  |
|   |      |  |                 |                   |         |  |  |
| Initial boiling point and boiling range         | 1    | 82°C (1  | 79.0 F)         |                   |         |  |  |
| Flammability (solid, gas)                       | :    | : Highly flammable in the presence of the following materials or conditions: open flames, sparks and static discharge. |                 |                   |         |  |  |
| Upper/lower flammability or<br>explosive limits | :    | Not ava  | ilable.         |                   |         |  |  |
| Flash point                                     | :    | Closed   | cup: 12°C (53   | .6°F) [Tagliabue] |         |  |  |
| Auto-ignition temperature                       | 1    |  |                 |                   |         |  |  |
| Ingredient name                                 |      |  | °C              | °F                | Method  |  |  |
| adipic acid                                     |      |  | >400            | >752              | EU A.16 |  |  |
| propan-2-ol                                     |      |  | 456             | 852.8             |         |  |  |
| Decomposition temperature                       | :    | Not ava  | ilable.         |                   |         |  |  |
| рН  | :    | Not app  | licable.        |                   |         |  |  |
| Viscosity                                       | :    | Not ava  | ilable.         |                   |         |  |  |
| Solubility in water                             | :    | Not ava  | ilable.         |                   |         |  |  |
| Partition coefficient: n-octanol/<br>water      | :    | Not app  | licable.        |                   |         |  |  |
| Vapour pressure                                 | :    | 4.9 kPa  | (37 mm Hg)      |                   |         |  |  |
| Evaporation rate                                | :    | >1 (buty   | /l acetate = 1) |                   |         |  |  |
| Relative density                                | :    | 0.83   |                 |                   |         |  |  |
| Vapour density                                  | :    | <1 [Air =  | = 1]            |                   |         |  |  |
| Explosive properties                            | :    | Not ava  | ilable.         |                   |         |  |  |
| Oxidising properties                            | :    | Not ava  | ilable.         |                   |         |  |  |
| Particle characteristics                        |      |  |                 |                   |         |  |  |
|   |      |  |                 |                   |         |  |  |
| Median particle size                            | 1    | Not app  | licable.        |                   |         |  |  |

## **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 stable.  |
| 10.3 Possibility of hazardous reactions  | : Under normal conditions of storage and use, hazardous reactions will not occur.   |
| 10.4 Conditions to avoid                 | : Avoid all possible sources of ignition (spark or flame). Do not pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. |
| 10.5 Incompatible materials              | : Reactive or incompatible with the following materials:<br>oxidising materials   |
| 10.6 Hazardous<br>decomposition products | : Under normal conditions of storage and use, hazardous decomposition products should not be produced.  |

## **SECTION 11: Toxicological information**

#### **11.1 Information on toxicological effects**

#### Acute toxicity

| Product/ingredient name | Result      | Species | Dose        | Exposure |
|-------------------------|-------------|---------|-------------|----------|
| propan-2-ol             | LD50 Dermal | Rabbit  | 12800 mg/kg | -        |
|                         | LD50 Oral   | Rat     | 5000 mg/kg  | -        |
| rosin                   | LD50 Oral   | Rat     | 7600 mg/kg  | -        |
| adipic acid             | LD50 Dermal | Rabbit  | >7940 mg/kg | -        |
|                         | LD50 Oral   | Rat     | 5050 mg/kg  | -        |
| dimethyl glutarate      | LD50 Dermal | Rabbit  | >5000 mg/kg | -        |
|                         | LD50 Oral   | Rat     | >5000 mg/kg | -        |

**Conclusion/Summary** : Not available.

#### Acute toxicity estimates

| Product/ingredient name | Oral (mg/<br>kg) | Dermal<br>(mg/kg) | Inhalation<br>(gases)<br>(ppm) | Inhalation<br>(vapours)<br>(mg/l) | Inhalation<br>(dusts<br>and mists)<br>(mg/l) |
|-------------------------|------------------|-------------------|--------------------------------|-----------------------------------|--|
| propan-2-ol             | 5000             | 12800             | N/A                            | N/A                               | N/A  |
| rosin<br>adipic acid    | 7600<br>5050     | N/A<br>N/A        | N/A<br>N/A                     | N/A<br>N/A                        | N/A<br>N/A                                   |

#### Irritation/Corrosion

| Product/ingredient name | Result                   | Species | Score | Exposure     | Observation |
|-------------------------|--------------------------|---------|-------|--------------|-------------|
| propan-2-ol             | Eyes - Moderate irritant | Rabbit  | -     | 10 mg        | -           |
|                         | Eyes - Moderate irritant | Rabbit  | -     | 24 hours 100 | -           |
|                         |                          |         |       | mg           |             |
|                         | Eyes - Severe irritant   | Rabbit  | -     | 100 mg       | -           |
|                         | Skin - Mild irritant     | Rabbit  | -     | 500 mg       | -           |
| adipic acid             | Eyes - Mild irritant     | Rabbit  | -     | 10 mg        | -           |
|                         | Eyes - Moderate irritant | Rabbit  | -     | 24 hours 20  | -           |
|                         |                          |         |       | mg           |             |
|                         | Skin - Mild irritant     | Rabbit  | -     | 0.25 g       | -           |
| dimethyl glutarate      | Eyes - Moderate irritant | Rabbit  | -     | 0.1 MI       | -           |
| Conclusion/Summary      | : Not available.         |         |       |              |             |
| Sensitisation           |                          |         |       |              |             |
| Conclusion/Summary      | : Not available.         |         |       |              |             |
| Mutagenicity            |                          |         |       |              |             |
| Conclusion/Summary      | : Not available.         |         |       |              |             |
| Carcinogenicity         |                          |         |       |              |             |
| Conclusion/Summary      | : Not available.         |         |       |              |             |
| Reproductive toxicity   |                          |         |       |              |             |
| Conclusion/Summary      | : Not available.         |         |       |              |             |
| <b>_</b>                |                          |         |       |              |             |

**Teratogenicity Conclusion/Summary** 

#### : Not available. Specific target organ toxicity (single exposure)

| Product/ingredient name | Category   | Route of exposure | Target organs    |
|-------------------------|------------|-------------------|------------------|
| propan-2-ol             | Category 3 | -                 | Narcotic effects |

#### Specific target organ toxicity (repeated exposure)

Not available.

#### **Aspiration hazard**

Not available.

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## **SECTION 11: Toxicological information**

| SECTION 11: TOXICO                       |  |
|--|--|
| Information on likely routes of exposure | : Not available.   |
| Potential acute health effect            | t <u>s</u>   |
| Eye contact                              | : Causes serious eye irritation.   |
| Inhalation                               | : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause sensitisation by inhalation.   |
| Skin contact                             | : May cause an allergic skin reaction.   |
| Ingestion                                | : Can cause central nervous system (CNS) depression.   |
| Symptoms related to the ph               | vsical, chemical and toxicological characteristics   |
| Eye contact                              | : Adverse symptoms may include the following:  |
|  | pain or irritation<br>watering<br>redness  |
| Inhalation                               | : Adverse symptoms may include the following:  |
|  | asthma<br>wheezing and breathing difficulties  |
|  | May cause sensitisation by inhalation.   |
|  | nausea or vomiting   |
|  | headache<br>drowsiness/fatigue   |
|  | dizziness/vertigo  |
|  | unconsciousness  |
| Skin contact                             | : Adverse symptoms may include the following:  |
|  | irritation<br>redness  |
|  | sensitiser May cause allergic reactions in certain individuals.  |
| Ingestion                                | : Adverse symptoms may include the following:  |
|  | Ingestion Seek medical attention.  |
| Delayed and immediate effe               | cts as well as chronic effects from short and long-term exposure   |
| Short term exposure                      |  |
| Potential immediate<br>effects           | : Not available.   |
| Potential delayed effects                | : Not available.   |
| Long term exposure                       |  |
| Potential immediate<br>effects           | : Not available.   |
| Potential delayed effects                | : Not available.   |
| Potential chronic health ef              | fects  |
| Not available.                           |  |
| Conclusion/Summary                       | : Not available.   |
| General                                  | : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.  |
| Carcinogenicity                          | : No known significant effects or critical hazards.  |
| Mutagenicity                             | : No known significant effects or critical hazards.  |
| Reproductive toxicity                    | : No known significant effects or critical hazards.  |
|  |  |
| Other information                        | : UK: Caution: exposure to fumes from this material may cause certain sensitive individuals to develop eczema and/or occupational asthma. May cause sensitization by inhalation and skin contact. Sensitized persons may subsequently show asthmatic symptoms when exposed to atmospheric concentrations well below the OEL. |

Date of issue/Date of revision

## **SECTION 12: Ecological information**

#### 12.1 Toxicity

| Product/ingredient name | Result                               | Species   | Exposure |
|-------------------------|--------------------------------------|---|----------|
| propan-2-ol             | Acute EC50 7550 mg/l Fresh water     | Daphnia - Water flea - Daphnia<br>magna - Neonate   | 48 hours |
|                         | Acute LC50 1400000 µg/l Marine water | Crustaceans - Common shrimp,<br>sand shrimp - Crangon crangon                                 | 48 hours |
|                         | Acute LC50 4200 mg/l Fresh water     | Fish - Harlequinfish, red rasbora<br>- Rasbora heteromorpha                                   | 96 hours |
| adipic acid             | Acute LC50 97000 μg/l Fresh water    | Fish - Fathead minnow -<br>Pimephales promelas - Juvenile<br>(Fledgling, Hatchling, Weanling) | 96 hours |

**Conclusion/Summary** : Not available.

#### 12.2 Persistence and degradability

**Conclusion/Summary** : Not available.

#### 12.3 Bioaccumulative potential

1

| Product/ingredient name | LogPow     | BCF   | Potential |
|-------------------------|------------|-------|-----------|
| propan-2-ol             | 0.05       | -     | low       |
| rosin                   | 1.9 to 7.7 | -     | high      |
| adipic acid             | 0.093      | 3.162 | low       |
| dimethyl glutarate      | 0.49       | -     | low       |

| 12.4 Mobility in soil                  |                  |
|--|------------------|
| Soil/water partition coefficient (Koc) | : Not available. |
| Mobility                               | : Not available. |

#### 12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

**12.6 Other adverse effects** : No known significant effects or critical hazards.

## **SECTION 13: Disposal considerations**

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

#### 13.1 Waste treatment methods

| Product             |   |
|---------------------|---|
| Methods of disposal | : The generation of waste should be avoided or minimised wherever possible.<br>Disposal of this product, solutions and any by-products should at all times comply<br>with the requirements of environmental protection and waste disposal legislation and<br>any regional local authority requirements. Dispose of surplus and non-recyclable<br>products via a licensed waste disposal contractor. Waste should not be disposed of<br>untreated to the sewer unless fully compliant with the requirements of all authorities<br>with jurisdiction. |
| Hazardous waste     | : The classification of the product may meet the criteria for a hazardous waste.  |
| Packaging           |   |
| Methods of disposal | <ul> <li>The generation of waste should be avoided or minimised wherever possible. Waste<br/>packaging should be recycled. Incineration or landfill should only be considered<br/>when recycling is not feasible.</li> </ul>  |

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## **SECTION 13: Disposal considerations**

#### **Special precautions**

: This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapour from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

## **SECTION 14: Transport information**

|                                    | ADR/RID | ADN                           | IMDG                     | IATA   |
|------------------------------------|---------|-------------------------------|--------------------------|--------|
| 14.1 UN number                     | UN1263  | UN1263                        | UN1263                   | UN1263 |
| 14.2 UN proper<br>shipping name    | PAINT   | PAINT                         | PAINT                    | PAINT  |
| 14.3 Transport<br>hazard class(es) | 3       | 3                             | 3                        | 3      |
| 14.4 Packing group                 | -       | -                             | -                        | II     |
| 14.5<br>Environmental<br>hazards   | No.     | No.                           | No.                      | No.    |
| Additional informati               |         | <u>y limitation</u> Passenger | and Cargo Aircraft: 1 L. |        |

### **14.7 Transport in bulk** : Not available.

## according to IMO instruments

## **SECTION 15: Regulatory information**

# 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture <u>UK (GB)/REACH</u>

#### Annex XIV - List of substances subject to authorisation

#### Annex XIV

None of the components are listed.

### Substances of very high concern

None of the components are listed.

### Ozone depleting substances

Not listed.

#### Prior Informed Consent (PIC)

Not listed.

#### Persistent Organic Pollutants Not listed.

#### Circuitworks® No Clean Flux Dispensing Pen (UK - Great Britain) SECTION 15: Regulatory information **Annex XVII - Restrictions** : Not applicable. on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles Seveso Directive This product is controlled under the Seveso Directive. Danger criteria Category P5c **EU regulations Industrial emissions** : Not listed (integrated pollution prevention and control) -Air **Industrial emissions** : Not listed (integrated pollution prevention and control) -Water International regulations Chemical Weapon Convention List Schedules I, II & III Chemicals Not listed. **Montreal Protocol** Not listed. Stockholm Convention on Persistent Organic Pollutants Not listed. Rotterdam Convention on Prior Informed Consent (PIC) Not listed. **UNECE Aarhus Protocol on POPs and Heavy Metals** Not listed. **Inventory list** Australia : All components are listed or exempted. Canada : All components are listed or exempted. China : All components are listed or exempted. **Eurasian Economic Union** : Russian Federation inventory: Not determined. : Japan inventory (CSCL): All components are listed or exempted. Japan Japan inventory (ISHL): Not determined. **New Zealand** : All components are listed or exempted. **Philippines** : All components are listed or exempted. **Republic of Korea** : All components are listed or exempted. Taiwan : All components are listed or exempted. Thailand : Not determined. Turkey : All components are listed or exempted. **United States** : All components are active or exempted. Viet Nam : All components are listed or exempted. This product contains substances for which Chemical Safety Assessments are still **15.2 Chemical safety** 5 assessment required.

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## SECTION 16: Other information

Indicates information that has changed from previously issued version.

| Abbreviations and acronyms | 1 |   |
|----------------------------|---|---|
|                            |   | GB CLP = UK CLP (EC No 1272/2008) on the Classification, Labelling and        |
|                            |   | Packaging of Substances and Mixtures as amended by (EU Exit) Regulations 2019 |
|                            |   | No. 720 and amendments  |
|                            |   | DMEL = Derived Minimal Effect Level   |
|                            |   | DNEL = Derived No Effect Level  |
|                            |   | EUH statement = GB CLP-specific Hazard statement                              |
|                            |   | N/A = Not available   |
|                            |   | PBT = Persistent, Bioaccumulative and Toxic                                   |
|                            |   | PNEC = Predicted No Effect Concentration                                      |
|                            |   | RRN = REACH Registration Number   |
|                            |   | SGG = Segregation Group   |
|                            |   | vPvB = Very Persistent and Very Bioaccumulative                               |

#### Procedure used to derive the classification

| Classification     | Justification         |
|--------------------|-----------------------|
| Flam. Liq. 2, H225 | On basis of test data |
| Eye Irrit. 2, H319 | Calculation method    |
| Skin Sens. 1, H317 | Calculation method    |
| STOT SE 3, H336    | Calculation method    |

Full text of abbreviated H 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.                      |
| H412 | Harmful to aquatic life with long lasting effects.      |
| H413 | May cause long lasting harmful effects to aquatic life. |

#### **Full text of classifications**

| Aquatic Chronic 3      | LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3               |
|------------------------|---|
| Aquatic Chronic 4      | LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 4               |
| Eye Irrit. 2           | SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2                |
| Flam. Liq. 2           | FLAMMABLE LIQUIDS - Category 2                                |
| Skin Sens. 1           | SKIN SENSITISATION - Category 1                               |
| STOT SE 3              | SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 3 |
| Date of printing       | : 1/19/2023   |
| Date of issue/ Date of | : 1/19/2023   |
| revision               |   |
| Date of previous issue | e : No previous validation                                    |
| Version                | : 1   |
| Notice to reader       |   |

#### Notice to reader

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Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.