

Safety Data Sheet

According to 1907/2006/EC, Article 31 REACH

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WARTON METALS LIMITED



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

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|--|---|
| 1.1. Product Identifier | |
| Product Name | Future 315 Low Residue No Clean Flux |
| 1.2. Relevant Identified uses of the substance or mixture and uses advised against | |
| Description | No Clean Flux/Rework Flux. |
| 1.3. Details of the supplier of the safety data sheet | |
| Company Address | Allendale Electronics Ltd. PCB Soldering Dept. Pindar Road Hoddesdon Hertfordshire EN11 0BZ England |
| Web | www.pcb-soldering.co.uk |
| Telephone | 01992 455924 |
| Fax | 01992 450781 |
| Email | sales@pcb-soldering.co.uk |
| 1.4. Emergency telephone number | |
| Emergency Telephone Number | +44(0)1992 455924 (8am-5pm Monday-Friday) |

SECTION 2: Hazards Identification

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| 2.1. Classification of the substance or mixture | |
| Classification- EU Directive 67/548/EEC 1999/45/EC Main Hazards | F; R11 Xi ;R36 R67 Symbols: F: Highly Flammable. Xi: Irritant Highly Flammable. Irritating to eyes. Vapours may cause drowsiness and dizziness |
| Classification- EC 1272/2008 Main Hazards | Flammable Liquid Category 2 Eye irritation:Category 2. Target organ toxicant (central nervous system):Category 3 |

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| 2.2. Label Elements EU Directive 67/548/EEC 1999/45/EC | |
| Symbols | F: Highly Flammable. Xi: Irritant   |
| Risk Phrases | R11 - Highly Flammable R36/37/38 - Irritating to eyes, Respiratory system and skin R41 - Risk of serious damage to eyes R67 - Vapours may cause drowsiness and dizziness S16 - Keep away from sources of ignition-No smoking |
| Safety Phrases | |

Label Elements EC 1272/2008 (CLP/GHS)

| | |
|--------------------------|---|
| GHS Symbols |   |
| Hazard Statements | Signal Word: Danger H225: Highly Flammable liquid and vapour H315: Causes Skin irritation H319: Causes serious eye irritation H336 May cause drowsiness or dizziness |
| Precautionary Statements | P210: Keep away from heat/sparks/open flames/hot surfaces-No smoking. P261: Avoid breathing mist/vapours P280: Wear protective gloves and eye protection. |

P301 + P310: If swallowed, immediately call a doctor.
 P305+P351+P338: If in EYES, rinse cautiously with water for several minutes.
 Remove contact lenses.
 P403+P235: Store in a well-ventilated place. Keep cool.
 Contains propan-2-ol

SECTION 3: Composition/Information on ingredients

3.2. This material is defined as a mixture
 67/548/EEC/1999/45/EC

| Chemical Name | CAS No | EC No. | REACH Registration Number | Conc.(%w/w) | DSD Classification | CLP |
|---------------------------|------------|-----------|---------------------------|-------------------|---------------------|--|
| Isopropanol (Propan-2-ol) | 67-63 -0 | 200-661-7 | 01-2119457558-25 | 90-100 % 1-10% | F;R11 Xi;R36 R67 | Eye irrit.2 H319 Flam. Liq.2 H225 STOT SE 3 H336 |
| Carboxylic Acid C4-C6 | 68603-87-2 | 271-678-5 | Not available | 1-10% | R37/38, R41 | |

SECTION 4: First Aid Measures

4.1. Description of first aid measures

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| Inhalation Eye contact Skin contact Ingestion | Move the exposed person to fresh air. If not breathing give artificial respiration. Rinse immediately with plenty of water for 15 minutes holding the eyelid open. Wash off immediately with plenty of soap and water. Remove contaminated clothing. Rinse mouth thoroughly. DO NOT INDUCE VOMITING. Never give anything by mouth to an unconscious person. |
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4.2. Most important symptoms and effects, both acute and delayed

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| | Central nervous system depression, prolonged or repeated exposure can cause: nausea, headache, vomiting, narcosis, drowsiness. Over-exposure may cause mild, reversible liver effects. |
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4.3 Indication of any immediate medical attention and special treatment needed

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|--|-------------------|
| | No data available |
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SECTION 5: Firefighting Measures

5.1. Extinguishing Media

| | |
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| | Use water spray, alcohol resistant foam, dry chemical or carbon dioxide. |
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5.2. Special hazards arising from the substance or mixture

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| | Carbon oxides |
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5.3 Advice for Fire Fighters

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| | Wear self contained breathing apparatus for fire fighting if necessary. Use water spray to cool unopened containers. |
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SECTION 6: Accidental Release Measures

6.1. Personal precautions, protective equipment and emergency procedures

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| | Use personal protective equipment. Avoid breathing vapours and mist. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas. |
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6.2. Environmental precautions

| | |
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| | Do not allow product to enter drains. Prevent further spillage if safe. |
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6.3. Methods and material for containment and cleaning up

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|--|---|
| | Asorb with inert, absorbent material. Sweep up. Transfer to suitable, labelled containers for disposal. Clean spillage area thoroughly with plenty of water. Do not let product enter drains. |
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6.4. reference to other sections

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| | See section 2,8,13 for further information |
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SECTION 7: Handling and Storage

7.1. Precautions for safe handling

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| | Avoid contact with eyes and skin. Ensure adequate ventilation of the working area. Adopt best manual handling considerations when handling, carrying and using. |
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7.2. Precautions for safe storage, including and incompatibilities

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| | Keep in a cool, dry, well ventilated area. Keep containers tightly closed. Store in correctly labelled containers. Keep away from sources of ignition-no smoking. |
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7.3. Specific end use(s)

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| | To be used as a soldering flux |
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SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1. Exposure Limit Values

| | |
|---------------------------|---|
| Isopropanol (Propan-2-ol) | STEL 500ppm 1,250mg/m ³ UK EH40 WEL-Workplace Exposure limits TWA 400ppm 999mg/m ³ UK EH40 WEL-Workplace Exposure limits |
|---------------------------|---|

8.2. Exposure Controls

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|--|---|
| 8.2.1 Appropriate engineering controls | Ensure adequate ventilation of the working area. |
| 8.2.2. Individual protection measures | Wear protective clothing. Handle in accordance with good industrial hygiene practice. Wash hands before breaks and at the end of day. |
| Eye/face protection | In case of splashing wear approved safety goggles. |
| Skin / Hand protection | Chemical resistant gloves (PVC) |

SECTION 9: Information on basic physical and chemical properties

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|---------------------------|--------------------------------|
| State | Liquid |
| Colour | Clear |
| Odour | Alcoholic |
| pH | No data available |
| Melting point | -89.5°C |
| Freezing point | No data available |
| Boiling point | No data available |
| Flash point | <19°C |
| Evaporation rate | 3.0 |
| Flammability limits | No data available |
| Vapour flammability | No data available |
| Vapour pressure | No data available |
| Vapour density | No data available |
| Relative density | 0.800g/cm ³ at 25°C |
| Fat solubility | No data available |
| Partition coefficient | 0.05 |
| Autoignition temperature | 425°C |
| Viscosity | No data available |
| Solubility | Soluble in water |
| Decomposition Temperature | No data available |

9.2. Other Information

| | |
|-----------------|-------------------|
| Conductivity | No data available |
| Surface Tension | 20.8mN/m at 25°C |
| Gas group | No data available |

SECTION 10: Stability and Reactivity

10.1. Reactivity

| | |
|--|-----------------------------------|
| | No data available on this product |
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10.2. Stability

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| | Stable under normal conditions |
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10.3. Possibility of Hazardous Reactions

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| | No data available |
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10.4. Conditions to avoid

| | |
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| | Heat, flames and sparks. Extreme temperatures and direct sunlight. |
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10.5. Incompatible Materials

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| | Strong oxidizing agents. |
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10.6. Hazardous Decomposition Products

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| | No data available |
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SECTION 11: Toxicological Information

11.1. Information on toxicological effects

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|-----------------------------------|---|
| Acute toxicity | LD50 Oral-rat-5,045mg/kg (behavioural, altered sleep/general depressed activity) LC50 – Inhalation –rat- 8hr -16000ppm LD50 – Dermal –rabbit 12,800 mg/kg |
| Skin Corrosion | Skin-rabbit-Mild skin irritation |
| Serious eye damage/eye irritation | Eyes –rabbit-eye irritation- 24 hour |
| Respiratory or skin irritation | No data available |
| Germ cell mutagenicity | No data available |
| Carcinogenicity | IARC- Group 3, Not classifiable as to its carcinogenicity to humans (2-propanol) |
| Reproductive toxicity | No data available |
| Specific target organ toxicity- | May cause drowsiness and dizziness |

| | |
|--|---|
| Repeated exposure Specific target organ toxicity Aspiration hazard | No data available No data available |
| Potential health effects Inhalation | May be harmful if inhaled. May cause respiratory tract irritation. Vapours may cause drowsiness and dizziness. |
| Ingestion | May be harmful if swallowed |
| Skin | May be harmful if absorbed through skin. |
| Eyes | Causes serious eye irritation. |
| Signs and Symptoms of Exposure | Central nervous system depression, prolonged and repeated exposure can cause, nausea, headache, vomiting, narcosis, drowsiness, over-exposure may cause mild, reversible liver effects. |

SECTION 12: Ecological Information


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| 12.1 Toxicity | |
| Toxicity to fish | LC50-Pimephales promelas (fathead minnow) -9,640.00mg/l-96h |
| Toxicity to daphnia and other aquatic invertebrates | EC50 – Daphnia magna (water flea)- 5,102.00mg/l-24h |
| Toxicity to algae | EC50-Desmodesmus subspicatus (green algae)->2,000.00mg/l-72h EC50 – Algae->1,000.00mg/l-24h |

| | |
|--|-------------------|
| 12.2. Persistence and degradability | |
| | No data available |
| 12.3. Bioaccumulative potential | |
| | No data available |
| 12.4. Mobility in soil | |
| | No data available |
| 12.5. Results of PBT and vPvB assessment | |
| | No data available |
| 12.6 Other adverse effects | |
| | No data available |

SECTION 13: Disposal Considerations

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|------------------------|--|
| General Information | |
| | Dispose of in compliance with all local and national regulations. |
| Disposal methods | |
| | Contact a licensed waste disposal company |
| Disposal and Packaging | |
| | Do NOT reuse empty containers. Empty containers can be sent for disposal and recycling. |
| Further Information | |
| | For disposal with the EC, the appropriate code according to the European Waste Catalogue (EWC) should be used. |

SECTION 14: Transport Information

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| Hazard Pictograms | |
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|-------------------------------|-------------|
| 14.1. UN Number | |
| | UN1219 |
| 14.2. UN Proper Shipping Name | |
| | ISOPROPANOL |
| 14.3. Transport Hazard Class | |
| ADR/RID | 3 |
| Subsidiary risk | - |
| IMDG | 3 |
| Subsidiary risk | - |
| IATA | 3 |
| Subsidiary risk | - |

14.4. Packing Group

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|---------------|----|
| Packing Group | II |
|---------------|----|

14.5. Environmental Hazards

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| Environmental hazard | No |
| Marine Pollutant | No |

ADR/RID

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|-----------------|-----|
| Hazard ID | 33 |
| Tunnel Category | D/E |

IMDG

| | |
|----------|---------|
| Ems Code | F-E-S-D |
|----------|---------|

IATA

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|---------------------------------|-----|
| Packing Instruction (Cargo) | 364 |
| Maximum quantity | 60L |
| Packing Instruction (Passenger) | 353 |
| Maximum quantity | 5L |

SECTION 15: Regulatory Information

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

15.2 Chemical Safety Assessment – A chemical safety assessment has not been carried out for the mixture.

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| Regulations | |
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Commission regulation (EU) No 453/2010 of the 20 May 2010 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Regulation, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94. Council Directive 76/769/EEC and Commission Directive 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC.

Regulation (EC) No 1907/2006 of the European Parliament and of the council of 18 December 2006 concerning the Regulation, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Directive (EEC) No 793/93 and Commission Regulation (EC) No 1488/94. Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC. (93/105/EC) and 2000/21/EC.

SECTION 16: Other Information

Other Information

| | |
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| | None |
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Further Information

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| | The information supplied in this Safety Data Sheet is designed only as guidance for the safe use, storage and handling of the product. This information is correct to the best of our knowledge and belief at the date of publication however no guarantee is made to its accuracy. This information related only to the specific material designated and may not be valid for such material used in combination with any other materials or in any other process. |
|--|--|