



11. Dezember 2017

Material Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)

INTERNATIONAL STANDARD NORM ISO 11014-1

| Trade Name: CR 11 | SMD Solder paste CR 11 DIN EN 29 453 | Flux F-SW 32 NF EN 29 454.1.2.3 |
|---|---|--|
| <p>1.) <u>IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND USES ADVISED AGAINST</u></p> <p>1.1.) Product identifier</p> <p>Trade name/designation</p> <p>1.2.) Relevant identified uses of the substance or mixture and uses advised against</p> <p>Use of the substance/mixture</p> <p>Relevant identified uses</p> <p>Sector of uses [SU]:</p> <p>Product categories [PC]:</p> <p>Article categories [AC]:</p> <p>Uses advised</p> <p>Sector of uses [SU]:</p> <p>1.3.) Details of the supplier of the safety data sheet</p> <p>Supplier/Manufacturer: address:</p> <p>1.4.) Emergency telephone number</p> | <p>Solder Paste CR11</p> <p>Processing for soldering. The product is intended for professional use.</p> <p>SU 3 Industrial uses: Uses of substances as such or in preparations at industrial sites.</p> <p>SU 16 Manufacture of computer, electronic and optical products, electrical equipment</p> <p>SU 17 General manufacturing, e. g. machinery, equipment, vehicles, other transport equipment</p> <p>PC 38 Welding and soldering products (with flux coatings or flux cores), flux products</p> <p>PC 38 Welding and soldering products (with flux coatings or flux cores), flux products</p> <p>AC 1 Vehicles</p> <p>AC 2 Machinery, mechanical appliances, electrical/electronic articles</p> <p>AC 9 Photographic and reprographic articles: cameras, video cameras</p> <p>SU 21 Consumer uses: Private households (= general public = consumers)</p> <p>EDSYN GMBH EUROPA Finkenweg 2 D 97892 Kreuzwertheim</p> | <p>Tel.: 09342 - 6413 Fax: 09342 - 6417</p> <p>closed hospital</p> |



11. Dezember 2017

| <p>2.) HAZARDS IDENTIFICATION</p> <p>2.1.) Classification of the substance or mixture</p> <p>Classification according to Regulation (EC) No. 1272/2008 [CLP]</p> <table border="1" data-bbox="313 577 1409 690"> <thead> <tr> <th>Hazard classes and hazard categories</th> <th>Hazard statements</th> <th>Classification procedure</th> </tr> </thead> <tbody> <tr> <td>Respiratory or skin sensitisation (Skin Sens. 1)</td> <td>H317: May cause an allergic skin reaction.</td> <td></td> </tr> </tbody> </table> <p>2.2.) Label elements</p> <p>Labelling according to Regulation (EC) No. 1272/2008 [CLP]:</p> <p>Hazard pictograms:</p>  <p>GHS07 Exclamation mark</p> <p>Signal word:</p> <p>Hazard statements for health hazards: H317 May cause an allergic skin reaction.</p> <p>Supplemental hazard information (EU): -</p> <p>Special rules for supplemental label elements for certain mixtures:</p> <p>50,2 % percent of the mixture consists of ingredient(s) of unknown acute toxicity (dermal). 50,2 % percent of the mixture consists of ingredient(s) of unknown acute toxicity (inhalative).</p> <p>2.3.) Other hazards</p> <p>No data available.</p> | Hazard classes and hazard categories | Hazard statements | Classification procedure | Respiratory or skin sensitisation (Skin Sens. 1) | H317: May cause an allergic skin reaction. | | |
|--|---|--|--------------------------|--|---|-------------|--|
| Hazard classes and hazard categories | Hazard statements | Classification procedure | | | | | |
| Respiratory or skin sensitisation (Skin Sens. 1) | H317: May cause an allergic skin reaction. | | | | | | |
| <p>3.) COMPOSITION / INFORMATION ON INGREDIENTS</p> <p>3.2.) Mixtures</p> <p>Description:</p> <p>Tin-solder for soft-soldering</p> <p>Hazardous ingredients / Hazardous impurities / Stabilisers:</p> <table border="1" data-bbox="313 1686 1427 1856"> <thead> <tr> <th>Product identifiers</th> <th>Substance name Classification according to Regulation (EC) No 1272/2008 [CLP]</th> <th>Concentration</th> </tr> </thead> <tbody> <tr> <td>CAS-No. 8050-26-8</td> <td>Flux based on resin Skin Sens. 1  Warning H317</td> <td>7 - 12 Wt-%</td> </tr> </tbody> </table> <p>Full text of H- and EUH-phrases: see section 16.</p> | Product identifiers | Substance name Classification according to Regulation (EC) No 1272/2008 [CLP] | Concentration | CAS-No. 8050-26-8 | Flux based on resin Skin Sens. 1  Warning H317 | 7 - 12 Wt-% | |
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11. Dezember 2017

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| <p>4.) <u>FIRST AID MEASURES</u></p> <p>4.1.) Description of first aid measures</p> <p>General information:</p> <p>Following inhalation:</p> <p>In case of skin contact:</p> <p>In case of eye contact:</p> <p>After ingestion:</p> <p>Self-protection of the first aider:</p> <p>4.2.) Most important symptoms and effects, both acute and delayed</p> <p>4.3.) Indication of any immediate medical attention and special treatment needed</p> | <p>In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). Remove victim out of the danger area. Remove contaminated, saturated clothing. If unconscious place in recovery position and seek medical advice. Do not leave affected person unattended.</p> <p>Provide fresh air. In case of respiratory tract irritation, consult a physician.</p> <p>After contact with skin, wash immediately with plenty of water and soap. Take off immediately all contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention.</p> <p>Rinse immediately carefully and thoroughly with eye-bath or water. Consult a physician.</p> <p>Rinse mouth. Let water be drunken in little sips (dilution effect). Get medical advice/attention if you feel unwell.</p> <p>Use personal protection equipment.</p> <p>Allergic reactions.</p> <p>Treat symptomatically.</p> |
| <p>5.) <u>FIREFIGHTING MEASURES</u></p> <p>5.1.) Extinguishing media</p> <p>Suitable extinguishing media:</p> <p>Extinguishing media which must not be used for safety reasons:</p> <p>5.2.) Special hazards arising from the substance or mixture</p> <p>Hazardous combustion products:</p> <p>5.3.) Advice for firefighters</p> <p>5.4.) Additional information</p> | <p>Co-ordinate fire-fighting measures to the fire surroundings.</p> <p>Water</p> <p>The product itself does not burn.</p> <p>In case of fire: Gases/vapours, toxic.</p> <p>Wear a self-contained breathing apparatus and chemical protective clothing.</p> <p>Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.</p> |



11. Dezember 2017

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| <p>6.) <u>ACCIDENTAL RELEASE MEASURES</u></p> <p>6.1.) Personal precautions, protective equipment and emergency procedures</p> <p>6.1.1.) For non-emergency personnel</p> <p>Personal precautions:</p> <p>Protective equipment:</p> <p>6.1.2.) For emergency responders</p> <p>Personal protection equipment:</p> <p>6.2.) Environmental precautions:</p> <p>6.3.) Methods and material for containment and cleaning up</p> <p>For containment:</p> <p>Methods for cleaning up:</p> <p>6.4.) Reference to other sections</p> <p>6.5.) Additional information</p> | <p>Remove persons to safety.</p> <p>Wear protective gloves/protective clothing/eye protection/face protection.</p> <p>Personal protection equipment: see section 8</p> <p>Do not allow to enter into drains / surface water.</p> <p>Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).</p> <p>Take up mechanically, placing in appropriate containers for disposal. Wipe up with absorbent material (eg. cloth, fleece).</p> <p><u>Safe handling</u>: see section 7 <u>Personal protection equipment</u>: see section 8 <u>Disposal</u>: see section 13</p> <p>Use appropriate container to avoid environmental contamination.</p> |
| <p>7.) <u>HANDLING AND STORAGE</u></p> <p>7.1.) Precautions for safe handling</p> <p>Protective measures</p> <p>Advices on safe handling:</p> <p>Fire prevent measures:</p> <p>Advices on general occupational hygiene:</p> <p>7.2.) Conditions for safe storage, including any incompatibilities</p> <p>Technical measures and storage conditions:</p> <p>Packaging materials:</p> <p>7.3.) Specific end use(s)</p> <p>Recommendation:</p> | <p>Wear personal protection equipment (refer to section 8).</p> <p>No special measures are necessary.</p> <p>When using do not eat, drink or smoke. Avoid contact with eyes and skin.</p> <p>Keep container tightly closed in a cool, well-ventilated place.</p> <p>Keep/Store only in original container.</p> <p>Observe technical data sheet.</p> |



11. Dezember 2017

| <p>8.) <u>EXPOSURE CONTROLS / PERSONAL PROTECTION</u></p> <p>8.1.) Control parameters</p> | | | | | | | | | | | | | | | | |
|---|---|---|---|------------|--------------------------|------------------------|----------|--------------------------|--|------------|-----------------------------|--------------------------------------|----------|-----------------------------|--------------------------------------|--|
| <p>Occupational exposure limit values</p> | | | | | | | | | | | | | | | | |
| <table border="1"> <thead> <tr> <th>Limit value type (country of origin)</th> <th>Substance name</th> <th>1. long-term occupational exposure limit value 2. short-term occupational exposure limit value 3. Instantaneous value 4. Monitoring and observation processes 5. Remark</th> </tr> </thead> <tbody> <tr> <td>IOELV (EU)</td> <td>tin CAS-No. 7440-31-5</td> <td>1. 2 mg/m³</td> </tr> <tr> <td>WEL (GB)</td> <td>tin CAS-No. 7440-31-5</td> <td>1. 2 mg/m³ 2. 4 mg/m³</td> </tr> <tr> <td>IOELV (EU)</td> <td>silver CAS-No. 7440-22-4</td> <td>1. 0,1 mg/m³ 5. metal</td> </tr> <tr> <td>WEL (GB)</td> <td>silver CAS-No. 7440-22-4</td> <td>1. 0,1 mg/m³ 5. metal</td> </tr> </tbody> </table> | Limit value type (country of origin) | Substance name | 1. long-term occupational exposure limit value 2. short-term occupational exposure limit value 3. Instantaneous value 4. Monitoring and observation processes 5. Remark | IOELV (EU) | tin CAS-No. 7440-31-5 | 1. 2 mg/m ³ | WEL (GB) | tin CAS-No. 7440-31-5 | 1. 2 mg/m ³ 2. 4 mg/m ³ | IOELV (EU) | silver CAS-No. 7440-22-4 | 1. 0,1 mg/m ³ 5. metal | WEL (GB) | silver CAS-No. 7440-22-4 | 1. 0,1 mg/m ³ 5. metal | |
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| <p>8.1.2.) Biological limit values</p> | <p>No data available</p> | | | | | | | | | | | | | | | |
| <p>8.1.3.) DNEL-/PNEC-values</p> | <p>No data available</p> | | | | | | | | | | | | | | | |
| <p>8.2.) Exposure controls:</p> | | | | | | | | | | | | | | | | |
| <p>8.2.1.) Appropriate engineering controls</p> | <p>See section 7. No additional measures necessary.</p> | | | | | | | | | | | | | | | |
| <p>8.2.2.) Personal protection equipment</p> | | | | | | | | | | | | | | | | |
| <p>Eye/face protection:</p> | <p>Eye glasses with side protection</p> | | | | | | | | | | | | | | | |
| <p>Skin/Hand protection:</p> | <p>Tested protective gloves must be worn DIN EN 374</p> | | | | | | | | | | | | | | | |
| <p>Respiratory protection:</p> | <p>Suitable material: Breakthrough time (maximum wearing time) min. In the case of wanting to use the gloves again, clean them before taking off and air them well. Breakthrough times and swelling properties of the material must be taken into consideration.</p> | | | | | | | | | | | | | | | |
| <p>Respiratory protection:</p> | <p>If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn.</p> | | | | | | | | | | | | | | | |
| <p>8.2.3.) Environmental exposure controls</p> | <p>No data available.</p> | | | | | | | | | | | | | | | |
| <p>8.3.) Additional information</p> | <p>No data available.</p> | | | | | | | | | | | | | | | |
| <p>9.) <u>PHYSICAL AND CHEMICAL PROPERTIES</u></p> | | | | | | | | | | | | | | | | |
| <p>9.1.) Information on basic physical and chemical properties</p> | | | | | | | | | | | | | | | | |
| <p>Appearance</p> | | | | | | | | | | | | | | | | |
| <p>Physical state:</p> | <p>pasty</p> | | | | | | | | | | | | | | | |
| <p>Colour:</p> | <p>grey</p> | | | | | | | | | | | | | | | |
| <p>Odour:</p> | <p>earthy</p> | | | | | | | | | | | | | | | |



11. Dezember 2017

| Safety relevant basis data: | | | | |
|--|---|-------|--------|----------------|
| <u>parameter</u> | | at °C | Method | Remark |
| pH: | 4 – 6 | 20 °C | | Value for flux |
| Melting point/freezing point: | 138 - 142 °C | | | |
| Freezing point: | not determined. | | | |
| Initial boiling point and boiling range: | not applicable. | | | |
| Decomposition temperature (°C): | not determined. | | | |
| Flash point: | not applicable. | | | |
| Evaporation rate: | not determined. | | | |
| Ignition temperature in °C: | not determined. | | | |
| Upper/lower flammability or explosive limits: | not determined. | | | |
| Vapour pressure: | not determined. | | | |
| Vapour density: | not determined. | | | |
| Density: | not determined. | | | |
| Bulk density: | not determined. | | | |
| Water solubility /g/l): | not applicable. | | | |
| Partition coefficient: n-octanol/water: | not determined. | | | |
| Dynamic viscosity: | not determined. | | | |
| Kinematic viscosity: | not determined. | | | |
| 9.2.) Other information | No data available. | | | |
| 10.) <u>STABILITY AND REACTIVITY</u> | | | | |
| 10.1.) Reactivity | Risk of explosion if heated under confinement. The product itself does not burn. | | | |
| 10.2.) Chemical stability | No data available. | | | |
| 10.3.) Possibility of hazardous reactions | Warning! Do not use together with other products. May release dangerous gases (chlorine). | | | |
| 10.4.) Conditions to avoid | No data available. | | | |
| 10.5.) Incompatible materials | No data available. | | | |
| 10.6.) Hazardous decomposition products | In case of fire: Gases/vapours, toxic | | | |
| 11.) <u>TOXICOLOGICAL INFORMATION</u> | | | | |
| 11.1.) Information on toxicological effects | | | | |
| Respiratory or skin sensitisation: | May cause allergy or asthma symptoms or breathing difficulties if inhaled. | | | |



11. Dezember 2017

| <p>12. ECOLOGICAL INFORMATION</p> <p>12.1.) Toxicity</p> <p>12.2.) Persistence and degradability</p> <p>12.3.) Bioaccumulative potential</p> <p>12.4.) Mobility in soil</p> <p>12.5.) Results of PBT and vPvB assessment</p> | <p>No data available.</p> <p>No data available.</p> <p>No data available.</p> <p>No data available.</p> <table border="1" data-bbox="316 703 1404 808"> <thead> <tr> <th>CAS No.</th> <th>Substance name</th> <th>Results of PBT- and vPvB-assessment</th> </tr> </thead> <tbody> <tr> <td>8050-26-8</td> <td>Flux based on resin</td> <td>---</td> </tr> </tbody> </table> | CAS No. | Substance name | Results of PBT- and vPvB-assessment | 8050-26-8 | Flux based on resin | --- |
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| CAS No. | Substance name | Results of PBT- and vPvB-assessment | | | | | |
| 8050-26-8 | Flux based on resin | --- | | | | | |
| <p>12.6.) Other adverse effects</p> | <p>No data available.</p> | | | | | | |
| <p>13.) DISPOSAL CONSIDERATIONS</p> <p>13.1.) Waste treatment methods</p> <p>13.1.1.) Product/Packaging disposal</p> <p>Waste code product:</p> <p>Waste code packaging:</p> <p><u>Waste treatment options</u></p> <p>Appropriate disposal / Product:</p> <p>Appropriate disposal / Package:</p> <p>13.2.) Additional information</p> | <p>Completely emptied packages can be recycled. Return to manufacturer.</p> <p>Waste codes/waste designations according to EWC/AVV</p> <p>12 01 04 Non-ferrous metal dust and particles</p> <p>07 02 13 Waste plastic</p> <p>Dispose of waste according to applicable legislation. Consult the appropriate local waste disposal expert about waste disposal.</p> <p>Completely emptied packages can be recycled.</p> <p>No data available.</p> | | | | | | |
| <p>14.) Transport INFORMATION</p> <p>14.1.) UN-No.</p> <p>14.2.) UN proper shipping name</p> <p>14.3.) Transport hazard class(es)</p> <p>14.4.) Packing group</p> <p>14.5.) Environmental hazards</p> <p>14.6.) Special precautions for user</p> <p>14.7.) Transport in bulk according to Annex II of MARPOL 73/78 and the IBC-Code</p> | <p>not relevant.</p> <p>not relevant.</p> <p>not relevant.</p> <p>not relevant.</p> <p>not relevant.</p> <p>not relevant.</p> <p>not relevant.</p> | | | | | | |



11. Dezember 2017

| <p>15.) <u>REGULATORY INFORMATION</u></p> <p>15.1.) Safety, health and environmental regulations/legislation specific for the substance or mixture</p> <p>15.2.) Chemical Safety Assessment</p> <p>14.3.) Additional information</p> | <p>No data available.</p> <p>No data available.</p> <p>No data available.</p> | | | | | | |
|--|---|--------------------------|--------------------------|--|---|--|---|
| <p>16.) <u>OTHER INFORMATION</u></p> <p>16.1.) Indication of changes</p> <p>16.2.) Abbreviations and acronyms</p> <p>16.3.) Key literature references and sources for data</p> <p>16.4.) Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]</p> <p>Classification according to Regulation (EC) No 1272/2008 [CLP]:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Hazard classes and hazard categories</th> <th style="text-align: left;">Hazard statements</th> <th style="text-align: left;">Classification procedure</th> </tr> </thead> <tbody> <tr> <td>Respiratory or skin sensitisation (Skin Sens. 1)</td> <td>H317: May cause an allergic skin reaction.</td> <td></td> </tr> </tbody> </table> | Hazard classes and hazard categories | Hazard statements | Classification procedure | Respiratory or skin sensitisation (Skin Sens. 1) | H317: May cause an allergic skin reaction. | | <p>No data available.</p> <p>No data available.</p> <p>No data available.</p> |
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| <p>16.5.) Relevant R-, H- and EUH-phrases (Number and full text)</p> <p>16.6.) Training advice</p> <p><u>Additional information</u></p> <p>Revision date:</p> | <p>H317 May cause an allergic skin reaction.</p> <p>No data available.</p> <p>13.07.2012 / 13.04.2014 / 13.05.2015 / 22./29.06.2016 //</p> | | | | | | |

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.