ECO SMART -BORIC ACID FREE- POWDER BRAZING FLUX

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)

Date of issue: 7/18/2016 Revision date: 7/18/2016 Supersedes: 5/2/2016 Version: 3.1

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

<table>
<thead>
<tr>
<th>1.1. Product identifier</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Product form</strong></td>
</tr>
<tr>
<td>Mixture</td>
</tr>
<tr>
<td><strong>Trade name</strong></td>
</tr>
<tr>
<td>ECO SMART -BORIC ACID FREE- POWDER BRAZING FLUX</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>1.2. Relevant identified uses of the substance or mixture and uses advised against</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1.2.1. Relevant identified uses</strong></td>
</tr>
<tr>
<td>Industrial/Professional use spec: Industrial For professional use only</td>
</tr>
<tr>
<td>Function or use category: Welding and soldering agents</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>1.3. Details of the supplier of the safety data sheet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Harris Euro S.L.</td>
</tr>
<tr>
<td>Arq. Ricard Giralt s/n Nave F 6</td>
</tr>
<tr>
<td>17600 Figueres - España</td>
</tr>
<tr>
<td>T +34 972 67 88 26 - F +34 972 50 51 43</td>
</tr>
<tr>
<td><a href="mailto:ventas@harriseuro.com">ventas@harriseuro.com</a></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>1.4. Emergency telephone number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency number: +1 216 383 8962</td>
</tr>
<tr>
<td>24 h</td>
</tr>
<tr>
<td>365 days</td>
</tr>
</tbody>
</table>

### SECTION 2: Hazards identification

<table>
<thead>
<tr>
<th>2.1. Classification of the substance or mixture</th>
</tr>
</thead>
<tbody>
<tr>
<td>Classification according to Regulation (EC) No. 1272/2008 [CLP]</td>
</tr>
<tr>
<td>Repr. 2 H361</td>
</tr>
</tbody>
</table>

Full text of hazard classes and H-statements: see section 16

Adverse physicochemical, human health and environmental effects

Suspected of damaging fertility or the unborn child.

<table>
<thead>
<tr>
<th>2.2. Label elements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Labelling according to Regulation (EC) No. 1272/2008 [CLP]</td>
</tr>
<tr>
<td>Hazard pictograms (CLP):</td>
</tr>
<tr>
<td>GHS08</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Signal word (CLP): Warning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hazardous ingredients: Boron potassium oxide (B4K2O7), tetrahydrate</td>
</tr>
<tr>
<td>Hazard statements (CLP): H361 - Suspected of damaging fertility or the unborn child</td>
</tr>
<tr>
<td>Precautionary statements (CLP): P201 - Obtain special instructions before use</td>
</tr>
<tr>
<td>P202 - Do not handle until all safety precautions have been read and understood</td>
</tr>
<tr>
<td>P280 - Wear eye protection, protective gloves, face protection, protective clothing</td>
</tr>
<tr>
<td>P308+P313 - IF exposed or concerned: Get medical advice/attention</td>
</tr>
<tr>
<td>P405 - Store locked up</td>
</tr>
<tr>
<td>P501 - Dispose of contents/container to appropriate collection point</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2.3. Other hazards</th>
</tr>
</thead>
<tbody>
<tr>
<td>PBT: not yet assessed</td>
</tr>
<tr>
<td>vPvB: not yet assessed</td>
</tr>
</tbody>
</table>
ECO SMART -BORIC ACID FREE- POWDER BRAZING FLUX
Safety Data Sheet
according to Regulation (EC) No. 1907/2006 (REACH)

SECTION 3: Composition/information on ingredients

3.1. Substance
Not applicable

3.2. Mixture

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
<th>Classification according to Regulation (EC) No. 1272/2008 [CLP]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boron potassium oxide (B4K2O7), tetrahydrate</td>
<td>(CAS No) 12045-78-2</td>
<td>&lt; 60</td>
<td>Repr. 2, H361fd</td>
</tr>
<tr>
<td>(EC no) 601-707-2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boron</td>
<td>(CAS No) 7440-42-8</td>
<td>&lt; 3</td>
<td>Acute Tox. 4 (Oral), H302</td>
</tr>
<tr>
<td>(EC no) 231-151-2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>alkali fluorosilicates(K) (Note A)</td>
<td>(CAS No) 16871-90-2</td>
<td>&lt; 3</td>
<td>Acute Tox. 3 (Inhalation), H331, Acute Tox. 3 (Dermal), H311,</td>
</tr>
<tr>
<td></td>
<td>(EC no) 240-896-2</td>
<td></td>
<td>Acute Tox. 3 (Oral), H301</td>
</tr>
<tr>
<td></td>
<td>(EC index no) 009-012-00-0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note A: Without prejudice to Article 17(2), the name of the substance must appear on the label in the form of one of the designations given in Part 3. In Part 3, use is sometimes made of a general description such as ‘... compounds’ or ‘... salts’. In this case, the supplier is required to state on the label the correct name, due account being taken of section 1.1.1.4.

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures
First-aid measures general: IF exposed or concerned: Get medical advice/attention.
First-aid measures after inhalation: Remove person to fresh air and keep comfortable for breathing. If not breathing provide artificial respiration. If you have difficulty breathing administer oxygen. Call a physician immediately.
First-aid measures after skin contact: Wash skin with plenty of water. Take off contaminated clothing. If skin irritation occurs: Get medical advice/attention.
First-aid measures after eye contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Do not rub eyes. Obtain medical attention if pain, blinking or redness persist.
First-aid measures after ingestion: Rinse mouth. Drink plenty of water. Do NOT induce vomiting. Obtain emergency medical attention.

4.2. Most important symptoms and effects, both acute and delayed
Symptoms/injuries: Suspected of damaging fertility or the unborn child.

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

SECTION 5: Firefighting measures

5.1. Extinguishing media

5.2. Special hazards arising from the substance or mixture
Fire hazard: Not combustible. Infrared radiation from flame or hot metal can ignite combustibles and flammable products.
Hazardous decomposition products in case of fire: Toxic fumes may be released.

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

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
General measures: Ensure adequate ventilation. Do not get in eyes, on skin, or on clothing.

6.1.1. For non-emergency personnel
Emergency procedures: Evacuate unnecessary personnel.

6.1.2. For emergency responders
Protective equipment: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: “Exposure controls/personal protection”.
6.2. Environmental precautions
Avoid release to the environment.

6.3. Methods and material for containment and cleaning up
Methods for cleaning up: Mechanically recover the product. Minimize generation of dust. Notify authorities if product enters sewers or public waters.
Other information: Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections
For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Precautions for safe handling: Ensure good ventilation of the work station. Avoid contact with skin and eyes. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear personal protective equipment.
Hygiene measures: Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities
Storage conditions: Store in a well-ventilated place. Keep cool. Store locked up.
Incompatible materials: Metals.

7.3. Specific end use(s)
No additional information available

SECTION 8: Exposure controls/personal protection
8.1. Control parameters
No additional information available

8.2. Exposure controls
Appropriate engineering controls:
Ensure good ventilation of the work station.

Hand protection:
Welders gloves (Technical Standard DIN 4841-4)

Eye protection:
Use eye protection to EN 166, designed to protect against dusts

Skin and body protection:
Wear suitable protective clothing

Respiratory protection:
In case of insufficient ventilation or if the occupational exposure limit is exceeded, wear suitable respiratory equipment

Environmental exposure controls:
Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties
Physical state: Solid
Appearance: Powder.
Colour: Green. Black.
Odour: Odourless.
Odour threshold: No data available
pH: No data available
Relative evaporation rate (butylacetate=1): No data available
Melting point: No data available
Freezing point: Not applicable
Boiling point: No data available
Flash point: Not applicable
Auto-ignition temperature: Not applicable
Decomposition temperature: No data available
Flammability (solid, gas): Not flammable
Vapour Pressure 20°C: No data available
Vapour density: No data available
Relative density: Not applicable
Solubility: No data available
Log Pow: No data available
Viscosity, kinematic: Not applicable
Viscosity, dynamic: No data available
Explosive properties: Not explosive.
Oxidising properties: Not applicable
Explosive limits: Not applicable

9.2. Other information
No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity
The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability
Stable under normal conditions.

10.3. Possibility of hazardous reactions
May be corrosive to metals. Strong acids. Alkalis.

10.4. Conditions to avoid
None under recommended storage and handling conditions (see section 7). Avoid dust formation.

10.5. Incompatible materials
Metal.

10.6. Hazardous 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: Not classified

Boron (7440-42-8)
LD50 oral rat: 650 mg/kg bodyweight

Boron potassium oxide (B4K2O7), tetrahydrate (12045-78-2)
LD50 oral rat: 3500 - 4100 mg/kg bodyweight

Skin corrosion/irritation: Not classified
Serious eye damage/irritation: Not classified
Respiratory or skin sensitisation: Not classified
Germ cell mutagenicity: Not classified
Carcinogenicity: Not classified
Reproductive toxicity: Suspected of damaging fertility or the unborn child.
Specific target organ toxicity (single exposure): Not classified
Specific target organ toxicity (repeated exposure): Not classified
Aspiration hazard: Not classified
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SECTION 12: Ecological information

12.1. Toxicity
Ecology - general : The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.

12.2. Persistence and degradability
No additional information available

12.3. Bioaccumulative potential
No additional information available

12.4. Mobility in soil
No additional information available

12.5. Results of PBT and vPvB assessment
ECO SMART -BORIC ACID FREE- POWDER BRAZING FLUX
PBT: not yet assessed
vPvB: not yet assessed

12.6. Other adverse effects
No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods
Waste treatment methods : Dispose of contents/container in accordance with licensed collector’s sorting instructions.
Waste disposal recommendations : Collect all waste in suitable and labelled containers and dispose according to local legislation.
Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

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

<table>
<thead>
<tr>
<th>ADR</th>
<th>IMDG</th>
<th>IATA</th>
<th>ADN</th>
<th>RID</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.1. UN number</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
<tr>
<td>14.2. UN proper shipping name</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
<tr>
<td>14.3. Transport hazard class(es)</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
<tr>
<td>14.4. Packing group</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

14.5. Environmental hazards
- Dangerous for the environment : No
- Dangerous for the environment : No
- Marine pollutant : No

No supplementary information available

14.6. Special precautions for user

- Overland transport
  No data available

- Transport by sea
  No data available

- Air transport
  No data available

- Inland waterway transport
  No data available

- Rail transport
  No data available

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code
Not applicable
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SECTION 15: Regulatory information
15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1. EU-Regulations
Contains no REACH substances with Annex XVII restrictions
Contains no substance on the REACH candidate list
Contains no REACH Annex XIV substances

15.1.2. National regulations
No additional information available

15.2. Chemical safety assessment
No chemical safety assessment has been carried out

SECTION 16: Other information

Indication of changes:
Emergency number. Composition/information on ingredients. Hazards identification.

Full text of H- and EUH-statements:

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Tox. 3 (Dermal)</td>
<td>Acute toxicity (dermal), Category 3</td>
</tr>
<tr>
<td>Acute Tox. 3 (Inhalation)</td>
<td>Acute toxicity (inhal.), Category 3</td>
</tr>
<tr>
<td>Acute Tox. 3 (Oral)</td>
<td>Acute toxicity (oral), Category 3</td>
</tr>
<tr>
<td>Acute Tox. 4 (Oral)</td>
<td>Acute toxicity (oral), Category 4</td>
</tr>
<tr>
<td>Repr. 2</td>
<td>Reproductive toxicity, Category 2</td>
</tr>
<tr>
<td>Repr. 2</td>
<td>Reproductive toxicity, Category 2</td>
</tr>
<tr>
<td>H301</td>
<td>Toxic if swallowed</td>
</tr>
<tr>
<td>H302</td>
<td>Harmful if swallowed</td>
</tr>
<tr>
<td>H311</td>
<td>Toxic in contact with skin</td>
</tr>
<tr>
<td>H331</td>
<td>Toxic if inhaled</td>
</tr>
<tr>
<td>H361</td>
<td>Suspected of damaging fertility or the unborn child</td>
</tr>
<tr>
<td>H361fd</td>
<td>Suspected of damaging fertility. Suspected of damaging the unborn child</td>
</tr>
</tbody>
</table>

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Repr. 2</td>
<td>H361</td>
</tr>
<tr>
<td>Calculation method</td>
<td></td>
</tr>
</tbody>
</table>

SDS EU (REACH Annex II)

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