1 PRODUCT AND COMPANY IDENTIFICATION

**Product Name**: Braze Fluxes

<table>
<thead>
<tr>
<th>PRODUCT NAME</th>
<th>FORM</th>
<th>WORKING RANGE</th>
<th>PH</th>
<th>GROUP</th>
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<tbody>
<tr>
<td>Easyflo Flux Powder</td>
<td>White</td>
<td>550–800°C</td>
<td>8</td>
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<tr>
<td>Easyflo – Stainless Steel Grade</td>
<td>White</td>
<td>550–775°C</td>
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<tr>
<td>Easyflo Flux Paste</td>
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<td>578–825°C</td>
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<td>Easyflo Dipping Grade</td>
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<td>550–750°C</td>
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<tr>
<td>Tenacity No 5A</td>
<td>Brown Powder</td>
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<td>Tenacity 125 Powder</td>
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<td>Tenacity 125 Paste</td>
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<td>Tenacity 12 Powder</td>
<td>White Powder</td>
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<tr>
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<td>Tenacity 5 Powder</td>
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<td>Tenacity 10 Powder</td>
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<td>Flux Coating on Rods</td>
<td>White Paste</td>
<td>Compact Colorant</td>
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<td>Tenacity 300 Powder</td>
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<td>Tenacity 300 Paste</td>
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<td>800–1300°C</td>
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<tr>
<td>“S” Powder</td>
<td>White Powder</td>
<td>800–1300°C</td>
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</tr>
<tr>
<td>“S” Paste</td>
<td>White Paste</td>
<td>800–1300°C</td>
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<td>Tenacity 500 Paste</td>
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<td>800–1200°C</td>
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<td>Tenacity 600 Powder</td>
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<tr>
<td>Tenacity 600 Paste</td>
<td>White Paste</td>
<td>800–1300°C</td>
<td>Not known</td>
<td>8</td>
</tr>
</tbody>
</table>

Company Identification: African Oxygen Limited
23 Webber Street
Johannesburg, 2001
Tel No: (011) 490-0400
Fax No: (011) 490-0506

EMERGENCY NUMBER: 0860 020202 or +27 (0)11 821-3000 (24 hours)

2 COMPOSITION/INFORMATION ON INGREDIENTS

Biafluoride, tetraborate, fluoroborate of potassium, boric acid, boric anhydride fluorosilicate of potassium, elemental boron, potassium tetraborate, borax and boric acid, boric oxide, silicofluoride of potassium, potassium biafluoride, biafluoride and organic polymers

3 HAZARDS IDENTIFICATION

Main Hazards

The main hazard with this product occurs in its use. On heating the flux will fume slightly, and with overheating the fume will increase. The fumes produced include hydrogen fluoride and boron trifluoride which can cause irritation of the nasal passages, eyes and throat. The flux is harmful by ingestion and is irritating to the eyes. Contact with skin may cause moderate irritation.

4 FIRST AID MEASURES

**Severe** long term exposure to fume may result in fluorosis. In acute cases there is a danger of pulmonary oedema although this occurrence could also result from inhalation of brazing metal fume or torch gases. Inhalation of fumes will be irritating to the nose and throat and will cause smarting of the eyes. Tests carried out on fluxes indicate they are moderately irritating to the skin and if the skin is broken immediate irritation will occur on contact.

**Eye Contact**

Irrigate with water or isotonic saline for up to 20 minutes. Seek medical attention if there is any hint of eye damage.

**Skin Contact**

Remove any contaminated clothing and wash skin with soap and water. Seek medical attention if sores develop.

**Ingestion**

Rinse mouth with water and give patient water or milk to drink. Do not induce vomiting. Summon medical aid.

**Inhalation**

Remove from exposure and allow to rest in fresh air. In acute cases apply artificial respiration and, if necessary summon medical aid.

5 FIRE FIGHTING MEASURES

**Extinguishing Media**

Use any extinguishing medium suitable for surrounding fire.

**Specific Hazards - Non Flammable**

**Emergency Actions**

CONTACT THE NEAREST AFROX BRANCH.

**Protective Clothing**

Use full protection with breathing apparatus if involved in a fire as harmful fumes may be evolved.

**Environmental Precautions**

6 ACCIDENTAL RELEASE MEASURES

**Powder**

Carefully sweep up and collect in suitable container for re-use or disposal.

**Paste**

Either collects in suitable container for re-use or disposal. For large spills, cover with sand or other inert absorbent and collect in suitable container for disposal. Avoid contact with skin or eyes and do not inhale dust.

7 HANDLING AND STORAGE

Use only under conditions of good local ventilation or efficient extraction systems and do not inhale fumes evolved during use. Avoid contact with skin and eyes. Do not eat, drink, smoke or apply cosmetics whilst using this material. Keep away from food, drink and animal feeding stuffs and out of reach of children. Observe good industrial hygiene practices. STORAGE: Store in a cool, dry place. Keep container closed when not in use.

8 EXPOSURE CONTROLS/PERSOAL PROTECTION

**Occupational Exposure Hazards**

Avoid exposure to fume with good ventilation or local extraction.

**Engineering Control Measures**

**Personal Protection**

If a risk of inhalation exists personal respiratory protection should be worn. If necessary the use of safety glasses should be considered.

**Skin**

The use of barrier creams may present skin irritation. Wash hands and clean fingernails before meals.

9 PHYSICAL AND CHEMICAL PROPERTIES

**PHYSICAL DATA**

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Odourless powder or paste</td>
</tr>
<tr>
<td>PH</td>
<td>Not known</td>
</tr>
<tr>
<td>Boiling/Melting Point</td>
<td>Becomes fluid on heating</td>
</tr>
<tr>
<td>Flash Point</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

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MATERIAL SAFETY DATA SHEET (MSDS)
BRAZING FLUXES

DATE: July 2013 Version 2 Page 1 of 2

Ref. No.: MS106
Flammability Non flammable
Explosive properties Not explosive
Oxidizing properties Not oxidizing
Vapour pressure Not known
Solubility Water-low solubility
Partition Coefficient No data

10 STABILITY AND REACTIVITY
Containers of powder left open once the seals are broken may absorb moisture and become lumpy. Pastes are water based, and whilst stable, will lose water by evaporation if left open. Do not freeze. No other adverse reactions are known.

11 TOXICOLOGICAL INFORMATION
Toxicological data for these preparations: LD50 (oral) > 200mg/kg. Classified as moderately irritating, according to Draize skin test.
(For further information see Section 3. Adverse Health effects)

12 ECOLOGICAL INFORMATION
As far as known no threat is posed to environment by this material.

13 DISPOSAL CONSIDERATIONS
Disposal: according to local and national regulations.

14 TRANSPORT INFORMATION
None

15 REGULATORY INFORMATION
Harmful

<table>
<thead>
<tr>
<th>Risk Phrase</th>
<th>Description</th>
<th>Safety Phrase</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>R20/22</td>
<td>Harmful by inhalation, &amp; if swallowed</td>
<td>S2</td>
<td>Keep out of reach of Children</td>
</tr>
<tr>
<td>R36/38</td>
<td>Irritating to eyes &amp; skin</td>
<td>S13</td>
<td>Keep away from food, drink &amp; animal feed stuffs</td>
</tr>
<tr>
<td></td>
<td></td>
<td>S21</td>
<td>When using do not smoke</td>
</tr>
<tr>
<td></td>
<td></td>
<td>S22</td>
<td>Do not breathe dust</td>
</tr>
<tr>
<td></td>
<td></td>
<td>S26</td>
<td>In case of eye contact, rinse immediately with water and seek medical advice</td>
</tr>
<tr>
<td></td>
<td></td>
<td>S28</td>
<td>After contact with skin wash immediately with plenty of water</td>
</tr>
</tbody>
</table>

National legislation None
Refer to SABS 0265 for explanation of the above.

16 OTHER INFORMATION
Bibliography
SABS 0265 - Labelling of Dangerous Substances

17 EXCLUSION OF LIABILITY
Information contained in this publication is accurate at the date of publication. The company does not accept liability arising from the use of this information, or the use, application, adaptation or process of any products described herein.