SAFETY DATA SHEET

ISSUED JUNE, 2015 (VALID 5 YEARS FROM DATE OF ISSUE)

Chemtools VABP Aluminium Brazing Paste Flux

Section 1 - Identification of The Material and Supplier

<table>
<thead>
<tr>
<th>Chemtools Pty Ltd</th>
<th>Phone: 1300 738 250 (business hours)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit 2/14-16 Lee Holm Road</td>
<td>Fax: 02 9623 3670</td>
</tr>
<tr>
<td>St Marys NSW 2760</td>
<td><a href="http://www.chemtools.com.au">www.chemtools.com.au</a></td>
</tr>
</tbody>
</table>

Chemical nature: Blend of ingredients.

Product Name: Chemtools VABP Aluminium Brazing Paste Flux

Poisons Information Centre: Phone 13 1126 from anywhere in Australia

Product Use: Aluminium Brazing Paste Flux.

Creation Date: June, 2015

Section 2 - Hazards Identification

**Statement of Hazardous Nature**
This product is classified as: Xi, Irritating. T, Toxic. Hazardous according to the criteria of SWA.

Not a Dangerous Good according to Australian Dangerous Goods (ADG) Code, IATA or IMDG/IMSBC criteria.

Risk Phrases: R60, R61, R36/38. May impair fertility. May cause harm to the unborn child. Irritating to eyes and skin.

Safety Phrases: S36, S24/25. Wear suitable protective clothing. Avoid contact with skin and eyes.

SUSMP Classification: S5

ADG Classification: None allocated. Not a Dangerous Good according to Australian Dangerous Goods (ADG) Code, IATA or IMDG/IMSBC criteria.

UN Number: None allocated

**GHS Signal word:** DANGER

**HAZARD STATEMENT:**
- H315: Causes skin irritation.
- H320: Causes eye irritation.
- H335: May cause respiratory irritation.
- H360: May damage fertility or the unborn child.

**PREVENTION**
P102: Keep out of reach of children.
P201: Obtain special instructions before use.
P202: Do not handle until all safety precautions have been read and understood.
P262: Do not get in eyes, on skin, or on clothing.
P264: Wash contacted areas thoroughly after handling.
P281: Use personal protective equipment as required.

**RESPONSE**
P362: Take off contaminated clothing and wash before reuse.
P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

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Issued by: Chemtools Pty Ltd

Poisons Information Centre: 13 1126 from anywhere in Australia, (0800 764 766 in New Zealand)
P302+P352: IF ON SKIN: Wash with plenty of soap and water.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313: If exposed or concerned: Get medical advice.
P332+P313: If skin irritation occurs: Get medical advice.
P337+P313: If eye irritation persists: Get medical advice.
P370+P378: Not combustible. Use extinguishing media suited to burning materials.

**STORAGE**
P402+P404: Store in a dry place. Store in a closed container.

**DISPOSAL**
P501: If they can not be recycled, dispose of contents to an approved waste disposal plant and containers to landfill (see Section 13 of this SDS).

## Emergency Overview

**Physical Description & Colour:** Pasty solid.

**Odour:** No data re odour.

**Major Health Hazards:** may impair fertility, may cause harm to unborn children, irritating to eyes and skin.

## Potential Health Effects

### Inhalation:
**Short Term Exposure:** Available data indicates that this product is not harmful. However product may be mildly irritating, although unlikely to cause anything more than mild transient discomfort.

**Long Term Exposure:** No data for health effects associated with long term inhalation.

### Skin Contact:
**Short Term Exposure:** This product is a skin irritant. Symptoms may include itchiness and reddening of contacted skin. Other symptoms may also become evident, but if treated promptly, all should disappear once exposure has ceased.

**Long Term Exposure:** No data for health effects associated with long term skin exposure.

### Eye Contact:
**Short Term Exposure:** This product is an eye irritant. Symptoms may include stinging and reddening of eyes and watering which may become copious. Other symptoms may also become evident. If exposure is brief, symptoms should disappear once exposure has ceased. However, lengthy exposure or delayed treatment may cause permanent damage.

**Long Term Exposure:** No data for health effects associated with long term eye exposure.

### Ingestion:
**Short Term Exposure:** Significant oral exposure is considered to be unlikely. However, this product is an oral irritant. Symptoms may include burning sensation and reddening of skin in mouth and throat. Other symptoms may also become evident, but all should disappear once exposure has ceased.

**Long Term Exposure:** No data for health effects associated with long term ingestion.

### Carcinogen Status:
**SWA:** No significant ingredient is classified as carcinogenic by SWA.

**NTP:** No significant ingredient is classified as carcinogenic by NTP.

**IARC:** No significant ingredient is classified as carcinogenic by IARC.

## Section 3 - Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>CAS No</th>
<th>Conc,%</th>
<th>TWA (mg/m³)</th>
<th>STEL (mg/m³)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonium bisulfite</td>
<td>10192-30-0</td>
<td>30-60</td>
<td>not set</td>
<td>not set</td>
</tr>
<tr>
<td>Boric acid</td>
<td>10043-35-3</td>
<td>30-60</td>
<td>not set</td>
<td>not set</td>
</tr>
<tr>
<td>Other non hazardous ingredients</td>
<td>secret</td>
<td>to 100</td>
<td>not set</td>
<td>not set</td>
</tr>
</tbody>
</table>

This is a commercial product whose exact ratio of components may vary slightly. Minor quantities of other non hazardous ingredients are also possible.

The SWA TWA exposure value is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day working week. The STEL (Short Term Exposure Limit) is an exposure value that may be equalled (but should not be exceeded) for no longer than 15 minutes and should not be repeated more than 4 times per day. There should be at least 60 minutes between successive exposures at the STEL. The term "peak" is used when the TWA limit, because of the rapid action of the substance, should never be exceeded, even briefly.
Section 4 - First Aid Measures

General Information:
You should call The Poisons Information Centre if you feel that you may have been poisoned, burned or irritated by this product. The number is 13 1126 from anywhere in Australia (0800 764 766 in New Zealand) and is available at all times. Have this SDS with you when you call.

Inhalation: No first aid measures normally required. However, if inhalation has occurred, and irritation has developed, remove to fresh air and observe until recovered. If irritation becomes painful or persists more than about 30 minutes, seek medical advice.

Skin Contact: Quickly and gently brush away excess particles. Wash gently and thoroughly with warm water (use non-abrasive soap if necessary) for 10-20 minutes or until product is removed. Under running water, remove contaminated clothing, shoes and leather goods (e.g. watchbands and belts) and completely decontaminate them before reuse or discard. If irritation persists, repeat flushing and seek medical attention.

Eye Contact: Quickly and gently brush particles from eyes. Immediately flush the contaminated eye(s) with lukewarm, gently flowing water for 15 minutes or until the product is removed, while holding the eyelid(s) open. Take care not to rinse contaminated water into the unaffected eye or onto the face. Obtain medical attention immediately. Take special care if exposed person is wearing contact lenses.

Ingestion: If swallowed, do NOT induce vomiting. Wash mouth with water and contact a Poisons Information Centre, or call a doctor.

Section 5 - Fire Fighting Measures

Fire and Explosion Hazards: The major hazard in fires is usually inhalation of heated and toxic or oxygen deficient (or both), fire gases. There is no risk of an explosion from this product under normal circumstances if it is involved in a fire.

Fire decomposition products from this product are not expected to be hazardous or harmful.

Extinguishing Media: Not combustible. Use extinguishing media suited to burning materials.

Fire Fighting: If a significant quantity of this product is involved in a fire, call the fire brigade.

Flash point: Does not burn.

Upper Flammability Limit: Does not burn.

Lower Flammability Limit: Does not burn.

Autoignition temperature: Not applicable - does not burn.

Flammability Class: Does not burn.

Section 6 - Accidental Release Measures

Accidental release: In the event of a major spill, prevent spillage from entering drains or water courses. Wear full protective clothing including eye/face protection. All skin areas should be covered. See below under Personal Protection regarding Australian Standards relating to personal protective equipment. Suitable materials for protective clothing include Nitrile, butyl rubber. Eye/face protective equipment should comprise as a minimum, protective glasses and, preferably, goggles. If there is a significant chance that dusts are likely to build up in cleanup area, we recommend that you use a suitable dust mask. Otherwise, not normally necessary. Stop leak if safe to do so, and contain spill. Sweep up and shovel or collect recoverable product into labelled containers for recycling or salvage, and dispose of promptly. Consider vacuuming if appropriate. Recycle containers wherever possible after careful cleaning. After spills, wash area preventing runoff from entering drains. If a significant quantity of material enters drains, advise emergency services. This material may be suitable for approved landfill. Ensure legality of disposal by consulting regulations prior to disposal. Thoroughly launder protective clothing before storage or re-use. Advise laundry of nature of contamination when sending contaminated clothing to laundry.

Section 7 - Handling and Storage

Handling: Keep exposure to this product to a minimum, and minimise the quantities kept in work areas. Check Section 8 of this SDS for details of personal protective measures, and make sure that those measures are followed. The measures detailed below under "Storage" should be followed during handling in order to minimise risks to persons using the product in the workplace. Also, avoid contact or contamination of product with incompatible materials listed in Section 10.

Storage: This product is a Scheduled Poison. Observe all relevant regulations regarding sale, transport and storage of this schedule of poison. Make sure that containers of this product are kept tightly closed. Keep containers dry and away from water. Make sure that the product does not come into contact with substances listed under "Incompatibilities" in Section 10. Check packaging - there may be further storage instructions on the label.
Section 8 - Exposure Controls and Personal Protection

The following Australian Standards will provide general advice regarding safety clothing and equipment:

- Respiratory equipment: AS/NZS 1715
- Protective Gloves: AS 2161
- Occupational Protective Clothing: AS/NZS 4501
- Industrial Eye Protection: AS1336 and AS/NZS 1337
- Occupational Protective Footwear: AS/NZS2210

**SWA Exposure Limits**

- **TWA (mg/m³):** No data
- **STEL (mg/m³):** No data

Exposure limits have not been established by SWA for any of the significant ingredients in this product.

**Ventilation:** This product should only be used in a well ventilated area. If natural ventilation is inadequate, use of a fan is suggested.

**Eye Protection:** Protective glasses or goggles should be worn when this product is being used. Failure to protect your eyes may cause them harm. Emergency eye wash facilities are also recommended in an area close to where this product is being used.

**Skin Protection:** Prevent skin contact by wearing impervious gloves, clothes and, preferably, apron. Make sure that all skin areas are covered. See below for suitable material types.

**Protective Material Types:** We suggest that protective clothing be made from the following materials: nitrile, butyl rubber.

**Respirator:** If there is a significant chance that dusts are likely to build up in the area where this product is being used, we recommend that you use a suitable dust mask. Otherwise, not normally necessary.

Eyebaths or eyewash stations and safety deluge showers should, if practical, be provided near to where this product is being handled commercially.

Section 9 - Physical and Chemical Properties:

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical Description &amp; colour</td>
<td>Pasty solid</td>
</tr>
<tr>
<td>Odour</td>
<td>No data</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>Approximately 100°C at 100kPa</td>
</tr>
<tr>
<td>Freezing/Melting Point</td>
<td>No specific data. Paste at normal temperatures.</td>
</tr>
<tr>
<td>Volatiles</td>
<td>Water component (approx 20%).</td>
</tr>
<tr>
<td>Vapour Pressure</td>
<td>No data</td>
</tr>
<tr>
<td>Vapour Density</td>
<td>As for water</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>No data</td>
</tr>
<tr>
<td>Water Solubility</td>
<td>Completely soluble in water.</td>
</tr>
<tr>
<td>pH</td>
<td>No data</td>
</tr>
<tr>
<td>Volatility</td>
<td>No data</td>
</tr>
<tr>
<td>Odour Threshold</td>
<td>No data</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>As for water</td>
</tr>
<tr>
<td>Coeff Oil/water Distribution</td>
<td>No data</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Autoignition temp</td>
<td>Not applicable - does not burn</td>
</tr>
</tbody>
</table>

Section 10 - Stability and Reactivity

**Reactivity:** This product is unlikely to react or decompose under normal storage conditions. However, if you have any doubts, contact the supplier for advice on shelf life properties.

**Conditions to Avoid:** Keep containers tightly closed. Containers should be kept dry.

**Incompatibilities:** No particular Incompatibilities.

**Fire Decomposition:**

**Polymerisation:** This product will not undergo polymerisation reactions.

Section 11 - Toxicological Information

**Local Effects:**

- There is no data to hand indicating any particular target organs.

**Target Organs:**

Boric Acid is a SWA Class 2 Reproductive risk, may impair fertility.
Product Name: Chemtools VABP Aluminium Brazing Paste Flux

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This revision issued: June, 2015

**Classification of Hazardous Ingredients**

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Risk Phrases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boric Acid</td>
<td>Conc&gt;=5.5%: T; R60; R61</td>
</tr>
</tbody>
</table>

**Section 12 - Ecological Information**

This product is unlikely to adversely affect the environment. Salts, acids and bases are typically diluted and neutralised when released to the environment in small quantities.

**Section 13 - Disposal Considerations**

**Disposal:** Containers should be emptied as completely as practical before disposal. If possible, recycle product and containers either in-house or send to recycle company. If this is not practical, send to a commercial waste disposal site.

**Section 14 - Transport Information**

**UN Number:** This product is not classified as a Dangerous Good by ADG, IATA or IMDG/IMSBC criteria. No special transport conditions are necessary unless required by other regulations.

**Section 15 - Regulatory Information**

**AICS:** All of the significant ingredients in this formulation are compliant with NICNAS regulations. The following ingredient: Boric acid, is mentioned in the SUSMP.

**Section 16 - Other Information**

This SDS contains only safety-related information. For other data see product literature.

**Acronyms:**

- **ADG Code**       Australian Code for the Transport of Dangerous Goods by Road and Rail (7th edition)
- **AICS**           Australian Inventory of Chemical Substances
- **SWA**            Safe Work Australia, formerly ASCC and NOHSC
- **CAS number**     Chemical Abstracts Service Registry Number
- **Hazchem Code**   Emergency action code of numbers and letters that provide information to emergency services especially firefighters
- **IARC**          International Agency for Research on Cancer
- **NOS**           Not otherwise specified
- **NTP**           National Toxicology Program (USA)
- **R-Phrase**      Risk Phrase
- **SUSMP**         Standard for the Uniform Scheduling of Medicines & Poisons
- **UN Number**     United Nations Number

This SDS summarises our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user must review this SDS in the context of how the product will be handled and used in the workplace.

If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact this company so we can attempt to obtain additional information from our suppliers.

Our responsibility for products sold is subject to our standard terms and conditions, a copy of which is sent to our customers and is also available on request.

Please read all labels carefully before using product.

This SDS is prepared in accord with the SWA document “Preparation of Safety Data Sheets for Hazardous Chemicals - Code of Practice” (December 2011)