

Infosafe No.: ACPEE

Issue Date: June 2007

ISSUED by AGRMATTH

**Product Name:** **FLUX PASTE**  
*Classified as hazardous according to criteria of NOHSC*

## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY

**PRODUCT NAME:** FLUX PASTE  
**PRODUCT USE:** Brazing flux.  
**COMPANY NAME:** AGR Matthey (ABN 33824096614)  
**ADDRESS:** 339 Settlement Road Thomastown VIC 3074 Australia  
**EMERGENCY TEL.:** (03) 9465 2111  
**TELEPHONE/FAX:** Tel: (03) 9465 2111  
Fax: (03) 9464 1726

OTHER NAMES	NAME	PRODUCT CODE
	EASYFLO FLUX PASTE	
	EASYFLO FLUX TYPE S PASTE	
	TENACITY NO 4A FLUXPASTE	
	TENACITY 6 FLUXPASTE	
	ARGOTECT FLUXPASTE	

**OTHER INFORMATION:** This Material Safety Data Sheet (MSDS) 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 should read this MSDS and consider the information in the context of how the product will be handled and used in the workplace. The use should be considered also in conjunction with other products.  
If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact AGR Matthey.  
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 upon request.

**BRAND:** SilBRAZE is an AGR Matthey brand, trademark pending

## 2. HAZARDS IDENTIFICATION

**HAZARD CLASSIFICATION:** HAZARDOUS SUBSTANCE.  
NON-DANGEROUS GOODS.  
Hazard classification according to the criteria of NOHSC. Dangerous goods classification according to the Australia Dangerous Goods Code.

**RISK PHRASE(S):** R20/22 Harmful by inhalation and if swallowed.  
R36/38 Irritating to eyes and skin.

**SAFETY PHRASE(S):** S22 Do not breathe dust.  
S24/25 Avoid contact with skin and eyes.  
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
S36/39 Wear suitable protective clothing and eye/face protection.  
S62 If swallowed, do not induce vomiting; seek medical advice immediately and show this container or label.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

**INFORMATION ON COMPOSITION:** Flux paste is prepared by reaction of bifluorides and borates in the presence of water and other additives to form a complex mixture of potassium fluoroborates.

<b>INGREDIENTS:</b>	<b>NAME</b>	<b>CAS</b>	<b>PROPORTION</b>
	Boron (as Borates and Fluoroborates)	7440-42-8	10-60 %
	Potassium Fluorine (as Fluoroborates)	16984-48-8	10-60 %
	Potassium bifluoride	7789-29-9	0-<1 %

### 4. FIRST AID MEASURES

**INHALATION:** Remove the source of contamination or move the victim to fresh air. Ensure airways are clear and have qualified person give oxygen through a face mask if breathing is difficult. Apply artificial respiration if not breathing. Seek medical attention.

**INGESTION** Do NOT induce vomiting. Wash out mouth with water. Seek immediate medical attention.

**SKIN:** If skin contact occurs, immediately remove contaminated clothing. Flush skin under running water for 15 minutes. Then apply calcium gluconate gel. Contact the Poisons Information Centre (131126). If symptoms develop seek medical attention.

**EYE:** If in eyes, hold eyelids apart and flush the eye continuously with running water. Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes. Seek immediate medical attention.

**FIRST AID FACILITIES:** Eye wash and normal washroom facilities.

**ADVICE TO DOCTOR:** Treat symptomatically or consult a Poisons Information Centre (Phone 131 126).

**OTHER INFORMATION:** For advice, contact a Poisons Information Centre (Phone eg Australia 131 126; New Zealand 03 4747 000 [Not after May 2005] or 0800 764 766) or a doctor (at once).

### 5. FIRE FIGHTING MEASURES

**SUITABLE** Use dry chemical powder, carbon dioxide or foam.

**EXTINGUISHING MEDIA:** Do NOT use water jets. Water spray may be used to cool fire-exposed containers

#### **HAZARDS FROM**

**COMBUSTION PRODUCTS:** Under fire conditions this product may emit toxic and/or irritating fumes.

**PRECAUTIONS IN CONNECTION WITH FIRE:** Fire-fighters should wear full protective clothing and self contained breathing apparatus (SCBA) operated in positive pressure mode.

Part No#	Issue	Date
		06/07

## 6. ACCIDENTAL RELEASE MEASURES

<b>EMERGENCY PROCEDURES:</b>	Remove all sources of ignition. Increase ventilation. Wear appropriate breathing apparatus and full protective clothing to minimise skin and eye exposure. Do not dilute material but contain. Place inert, non-combustible absorbent material onto the spillage. Collect the material using clean nonsparking tools and place into a suitable labelled container for subsequent disposal. If large quantities of this material enter the waterways contact the Environmental Protection Authority, or your local Waste Management Authority.
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## 7. HANDLING AND STORAGE

<b>PRECAUTIONS FOR SAFE HANDLING:</b>	Repeated or prolonged contact with this material should be avoided in order to lessen the possibility of skin disorders. It is essential that all who come into contact with this material maintain high standards of personal hygiene ie. washing hands prior to eating, drinking or going to the toilet.
<b>STORAGE:</b>	Store in a cool, dry, well ventilated area, away from sources of ignition and out of direct sunlight. Keep containers closed when not in use. Store in suitable, labelled containers. Do not freeze paste.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

<b>NATIONAL EXPOSURE STANDARDS:</b>	<b>NAME</b>	<b>STEL mg/m3 ppm</b>	<b>TWA mg/m3 ppm</b>	<b>Footnote</b>
	Potassium Fluorine (as Fluoroborates)		2.5	For Fluorides (as F)
<b>BIOLOGICAL LIMIT VALUES:</b>	No Biological limit available.			
<b>ENGINEERING CONTROLS:</b>	For manual welding operations the nature of ventilation is determined by the location of the work. 1. For outdoor work, natural ventilation is generally sufficient. 2. For indoor work, conducted in open spaces, use mechanical ventilation. 3. For work conducted in limited or confined spaces, mechanical ventilation, using local exhaust systems, is required.			
<b>RESPIRATORY PROTECTION:</b>	If engineering controls are not effective in controlling airborne exposure then respiratory protective equipment should be used suitable for protecting against airborne contaminants. Final choice of appropriate breathing protection is dependent upon actual airborne concentrations and the type of breathing protection required will vary according to individual circumstances. Expert advice may be required to make this decision. Reference should be made to Australian Standards AS/NZS 1715, Selection, Use and maintenance of Respiratory Protective Devices; and AS/NZS 1716, Respiratory Protective Devices.			
<b>EYE PROTECTION:</b>	Welding face shield/goggles. Final choice of appropriate eye/face protection will vary according to individual circumstances ie. methods of handling or engineering controls and according to risk assessments undertaken. Eye protection should conform with Australian/New Zealand Standard AS/NZS 1337 - Eye Protectors for Industrial Applications.			

Part No#	Issue	Date
		06/07

<b>HAND PROTECTION:</b>	Welding gloves. Final choice of appropriate gloves will vary according to individual circumstances ie. methods of handling or according to risk assessments undertaken. Reference should be made to AS/NZS 2161.1: Occupational protective gloves - Selection, use and maintenance.
<b>BODY PROTECTION:</b>	Wear appropriate clothing including chemical resistant apron where clothing is likely to be contaminated. It is advisable that a local supplier of protective clothing is consulted regarding the choice of material.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

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<b>APPEARANCE:</b>	White to brown powder or paste.
<b>ODOUR:</b>	Not available
<b>MELTING POINT:</b>	~ 450°C to 850°C
<b>BOILING POINT:</b>	Not available
<b>SOLUBILITY IN WATER:</b>	Low solubility.
<b>SPECIFIC GRAVITY:</b> (H <sub>2</sub> O=1)	~ 1.6
<b>pH VALUE:</b>	~ 4 to 8
<b>VAPOUR PRESSURE:</b>	Not available
<b>VAPOUR DENSITY:</b> (AIR=1)	Not available
<b>FLASH POINT:</b>	Not applicable
<b>AUTO-IGNITION TEMPERATURE:</b>	Not available
<b>FLAMMABLE LIMITS LOWER:</b>	Not applicable
<b>FLAMMABLE LIMITS UPPER:</b>	Not applicable

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## 10. STABILITY AND REACTIVITY

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<b>CHEMICAL STABILITY:</b>	Stable under normal conditions.
<b>CONDITIONS TO AVOID:</b>	Extremes of temperature and direct sunlight.
<b>INCOMPATIBLE MATERIALS:</b>	Avoid contact with acids and strong oxidising agents.
<b>HAZARDOUS DECOMPOSITION PRODUCTS:</b>	<i>Thermal decomposition, at temperatures in excess of 600°C, may result in the release of toxic and/or irritating fumes including oxides of zinc, silver, copper, nickel and indium. Fumes given off during use may contain small quantities of hydrogen fluoride and boron trifluoride.</i>
<b>HAZARDOUS POLYMERIZATION:</b>	<i>Will not occur.</i>

Part No#	Issue	Date
		06/07

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## 11. TOXICOLOGICAL INFORMATION

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**TOXICOLOGY INFORMATION:** LD50 (oral, rat): > 200 mg/kg

**INHALATION:** Harmful by inhalation. Inhalation of product vapours or dusts will cause irritation of the nose, throat and respiratory system. Inhalation of fumes during brazing can cause irritation of the respiratory tract. Symptoms can include sore throat, shortness of breathing and delayed lung oedema, nasal irritation, mucous membrane dryness, dry or productive cough and nose bleeds.

**INGESTION:** Harmful if swallowed. Ingestion of this product will irritate the gastric tract causing nausea and vomiting.

**SKIN:** Irritating to skin. Will cause mild to moderate irritation in contact with the skin, which can result in redness and itching. Contact via generated fumes will also cause irritation to the skin. Contact with cuts and abrasions will result in immediate irritation to the affected area.

**EYE:** Irritating to eyes. On eye contact this product will cause tearing, stinging, blurred vision, and redness.

**CHRONIC EFFECTS:** Repeated high exposures may affect kidneys. Repeated exposure to Fluorides can cause nausea, vomiting, loss of appetite, diarrhea or constipation. Nose bleeds and sinus problems can also occur. Repeated high exposures can cause deposits of Fluorides in the bones and teeth, a condition called 'Fluorosis'. This may cause pain, disability and mottling of the teeth. Prolonged or repeated skin contact may cause defatting leading to dermatitis.

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## 12. ECOLOGICAL INFORMATION

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**ECOTOXICITY:** This product is likely to be harmful to all species of animal life.

**PERSISTENCE / DEGRADABILITY:** Not available.

**MOBILITY:** Not available.

**ENVIRON. PROTECTION:** Prevent this material entering waterways, drains and sewers.

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## 13. DISPOSAL CONSIDERATIONS

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**DISPOSAL CONSIDERATIONS:** Dispose of waste according to federal, EPA and state regulations.

Part No#	Issue	Date
		06/07

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## 14. TRANSPORT INFORMATION

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**TRANSPORT INFORMATION:** Not classified as a Dangerous Good according to the Australian Code for the Transport of Dangerous Goods by Road and Rail.

**STORAGE AND TRANSPORT:** Not classified as Dangerous Goods, according to the Australian Code for the Transport of Dangerous Goods by Road and Rail.

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## 15. REGULATORY INFORMATION

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**POISONS SCHEDULE:** S5

**HAZARD CATEGORY:** Harmful, Irritant.

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## 16. OTHER INFORMATION

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**DATE OF PREPARATION OR LAST REVISION OF MSDS:** MSDS reviewed: June 2007

**CONTACT PERSON/POINT:** Steven Windsor  
Laboratory Manager  
Telephone: 9465 2111  
Fax: 9464 1726

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Part No#	Issue	Date
		06/07