

THESSCO LIMITED

SAFETY DATA SHEET.

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Print Date : 10.2.97

Reference : 44568/1

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

Product Name : Y Flux Powder.
Product Code : 44568
Supplier : Thessco Limited,
Royds Mills, Windsor Street,
Sheffield. S4 7WB, England.

Emergency Telephone Number : 0114 2720966

Fax : 0114 2752655

2. COMPOSITION/INFORMATION ON INGREDIENTS.

Chemical Name	CAS-No	EEC-No	Class	Weight %
Potassium Tetraborate	1332-77-0			< 50
Potassium Bifluoride	7789-29-9	232-156-2	T;25;C;R34	< 40
Boric Acid	10043-35-3			< 15
Boric Oxide	1303-86-2			< 5
Potassium Fluoroborate	14075-53-7			< 5

The blending of these constituents during the manufacture of the flux results in the formation of fluoroborates, metaborates and tetraborates of potassium.

3. HAZARDS IDENTIFICATION.

Most Important Hazards : If ingested or inhaled in sufficient quantities fluorine poisoning will occur.
Specific Hazards : Exposure of the skin to fluxes will cause irritation.
Contact with the eyes will cause rapid inflammation.

4. FIRST AID MEASURES.

General Advice : Show this safety data sheet to the doctor in attendance.

Inhalation : Remove patient to fresh air. Seek medical attention if respiratory symptoms develop.
Skin Contact : Wash affected areas with water. Apply calcium gluconate gel and massage into skin until any pain subsides.
Eye Contact : Irrigate with copious quantities of water or isotonic saline for at least five minutes. Seek medical attention.
Ingestion : If ingestion has been witnessed induce vomiting. If treatment is delayed administer large volumes of liquids - milk, calcium lactate or calcium gluconate (10g per 250ml water). Treat for shock. Seek medical attention.

5. FIRE FIGHTING MEASURES.

Suitable Extinguishing Media : Extinguish with waterspray, dry chemical or alcohol foam.

Extinguishing Media Which Must Not Be Used For Safety Reasons : Not applicable.

Specific Hazards : Non flammable. Standard procedure for chemical fires.

Special Protective Equipment For Firefighters : Wear self contained breathing apparatus for fire fighting if necessary.

Specific Methods : Not applicable.

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6. ACCIDENTAL RELEASE MEASURES

Personal Precautions : Wear personal protective equipment to prevent eye and skin contact.
Avoid generating or inhaling dust.

Environmental Precautions : Avoid contamination of water supplies.

Methods For Cleaning Up : Spillages of powder to be moistened with water, then shovelled into a plastic container. The flux should be made into a thin slurry and neutralised with an excess of hydrated calcium carbonate. After allowing to settle dispose of according to local/national regulations.

7. HANDLING AND STORAGE

Handling : When using do not eat drink or smoke. Avoid contact with the skin and eyes.

Storage : Keep containers tightly closed in a cool, dry, well ventilated place.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Data Taken From Health and Safety Executive Document EH40/96.

Occupational Exposure Limits

Flux Constituents and Decomposition Products

	Long Term Exposure Limit (8 hour TWA Value)	Short Term Exposure Limit (15 Minute TWA Value)
OBS Fluoride (as F)	2.5 mg m ⁻³	—
OBS Diboron Trioxide	10.0 mg m ⁻³	20.0 mg m ⁻³
OBS Boron Trifluoride	—	3.0 mg m ⁻³
OBS Hydrogen Fluoride (as F)	—	2.5 mg m ⁻³

Personal protective equipment to be worn when handling fluxes or brazing to prevent eye and skin contact or inhalation of fume or dust.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form : Powder.

Colour : White.

Odour : None.

pH : 8-9

Melting Point / Range : 550-750 °C

Relative Density : 0.60 -0.80 at 20 °C

Water Solubility : Low solubility - no specific data

10. STABILITY AND REACTIVITY

Stability : Powder is stable but may absorb moisture and become lumpy if left open once seal is broken.

Conditions To Avoid : Not applicable.

Materials To Avoid : Concentrated acids.

Hazardous Decomposition Products : Hydrogen fluoride, fluorides, boron trifluoride, boron oxides.

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11. TOXICOLOGICAL INFORMATION.

Acute Toxicity : LD50 (Oral - rat) > 200 mg / kg

Local Effects : Not known.

Sensitisation : Moderately irritating according to Draize skin test.

Long Term Toxicity : Not known.

Chronic Toxicity : Not known.

12. ECOLOGICAL INFORMATION.

Mobility : No information.

Persistence and Degradability : No information.

Bioaccumulation : No information.

Ecotoxicity Effects : No information.

13. DISPOSAL CONSIDERATIONS.

Waste From Residues / Unused Products : Dispose of according to local and national regulations.

Contaminated Packaging : Not applicable.

14. TRANSPORT INFORMATION.

Proper Shipping Name : None

15. REGULATORY INFORMATION.

Classification According To European Directive On Classification Of Hazardous Preparations 93/68/EEC

- Contains : -

- Symbol(s) : X_n

R-Phrase(s) : R20/22 - Harmful by inhalation and if swallowed.
R36/38 - Irritating to eyes and skin.

S-Phrase(s) : S2 - Keep out of reach of children.
S13 - Keep away from food, drink and animal feeding stuffs.
S20/21 - When using do not eat, drink or smoke.
S22 - Do not breathe dust.
S23 - Do not breathe fumes.
S26 - In case of contact with eyes, rinse immediately with plenty of water, and seek medical advice.
S45 - In case of accident or if you feel unwell seek medical advice immediately.

16. OTHER INFORMATION.

Recommended Use : General purpose brazing operations.

Recommended Restrictions : None.

Revision Number : 1

Further Information : Contact the technical department, Theseco Limited.

Telephone number (0114) 2720966

Fax number (0114) 2752655

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