

MBO (UK) Limited

35S Inorganic Water Washable Liquid Flux

TDS/MSDS

1. Supplier:

<u>Head Office</u>	<u>Sales Office</u>
MBO (UK) Limited Mill End Standon Ware Herts SG11 1LR Tel: +44(0)1920 823999 Fax: +44(0)1920 823631 Email: info@mbouk.co.uk	MBO (UK) Limited Mill End Standon Ware Herts SG11 1LR Tel: +44(0)1920 823999 Fax: +44(0)1920 823631 Email: info@mbouk.co.uk

2. Composition / Information on Ingredients.

Alloy Ingredients	%	CAS-NO	Hazard
Zinc Chloride	23-58 *	7646-85-7	R22. Harmful if swallowed. R34. Causes burns. R37. Irritating to the respiratory system. R50/53. Very toxic to aquatic organisms, may cause long term adverse effects in the aquatic environment.
Ammonium Chloride	4-5 *	12125-02-9	R22. Harmful if swallowed. R36. Irritating to eyes.
Hydrochloric Acid	< 0.5 *	7647-01-0	R23. Toxic by inhalation. R35. Causes severe burns.

* Combined as an aqueous solution ~ 50% water

3. Health Hazards Identification.

- | | |
|---------------------|---|
| 3.1.1 Inhalation: | Serious damage to the lining of the nose, throat and lungs. |
| 3.1.2 Ingestion: | May cause burns in mucous membranes, throat and oesophagus and stomach. |
| 3.1.3 Skin contact: | This substance is corrosive, causes burns. |
| 3.1.4 Eye contact: | Causes burns. |

3.1.5 Long term exposure effects: Prolonged or repeated skin contact may lead to dermatitis. The flux may be slightly irritating to the skin and eyes. The fume produced may cause respiratory irritation.

4. First-aid Measures.

- 4.1 Inhalation: Remove the casualty from the area of exposure and into fresh air. Wear protective clothing and breathing apparatus if necessary. If breathing is weak, irregular or has stopped seek medical attention immediately.
- 4.2 Ingestion: DO NOT INDUCE VOMITING. If the victim is conscious, give large amounts of water. Seek medical advice immediately.
- 4.3 Skin contact: Remove all contaminated clothing and affected areas as soon as possible, unless stuck to the skin. Drench the effected skin with running water for 10 minutes using a mild soap. If irritation persists repeat the above and seek medical attention immediately.
- 4.4 Eye contact: Flush eye, including under the eyelids with clean running water for at least 15 minutes. Remove all chemicals from contact with the victim's eyes immediately. Transfer to hospital for a detailed eye examination as soon as possible.

5. Fire Fighting Measures.

- 5.1 Suitable extinguishing media: Not flammable. Water, dry powder, foam and Carbon Dioxide.
- 5.2 NOT suitable media: Not applicable.
- 5.3 Fire-fighting equipment: Fire fighters should wear full turn-out equipment with respiratory equipment.

6. Accidental Releases Measures.

- 6.1 Personal precautions: Safety glasses, safety goggles. Impervious clothing and/or gloves. Respiratory protection may be required. Dust mask. Self contained breathing apparatus.
- 6.2 Environmental precautions: Do not discharge effluent to drain without prior consent from the appropriate authority.
- 6.3 Methods for clean up: Collect / soak up with inert absorbent material (sand, silica gel, acid binder, sawdust). Dispose in sealed containers in accordance with appropriate waste regulation.

7. Handling & Storage.

- 7.1 Storage conditions: Store in tightly closed container.
- 7.2 Handling Precautions: Avoid use of mild steel containers. Use polyethylene containers.

8. Exposure Limits, Controls and Personal Protection.

8.1 Exposure Limits.

Ingredient	Workplace Exposure Limit	
	Long-term exposure limit (8hour TWA reference period) mg/m ³	Short-term exposure limit (15 minute reference period) mg/m ³
Zinc Chloride	1	2
Ammonium Chloride	10	20
Hydrochloric Acid	1ppm	5ppm

8.2 Controls and Personal Protection.

Eye protection:	Not applicable under normal soldering conditions.
Respiratory protection:	Where concentrations in air may exceed the limits given and engineering controls, work practice or other means of exposure reduction are not practicable or adequate, approved respirators may be necessary to prevent over exposure by inhalation.
Skin protection:	Not applicable under normal soldering conditions.

9. Physical & Chemical Properties.

Physical-Chemical Data.

9.1 Appearance:	White to light straw liquid.
9.2 Odour:	Not available.
9.3 Melting Point Range:	Not available.
9.4 Boiling Point:	Not available.
9.5 Flash Point:	Over 200 Degree Centigrade
9.6 Auto-flammability :	Not applicable.
9.7 Density:	1.51 @ 46%
9.8 Explosion Limits:	Not available.
9.9 Solubility in Water:	Completely soluble.
9.10 pH-Value:	5 @ 10%.
9.11 Viscosity:	Not available.

10. Stability- Reactivity.

10.1 Conditions to avoid:	None - stable.
10.2 Materials to avoid:	Avoid strong alkalis.
10.3 Hazardous Decomposition :	Zinc Chloride or Hydrogen Chloride fumes.

11. Toxicological Information.

Toxicological data:	Unknown.
---------------------	----------

12. Ecological Information.

12.1 Mobility:	Not available.
12.2 Persistence and degradability.	Unknown.
Biological Oxygen Demand.	Not available.
Chemical Oxygen Demand.	Not available.
12.3 Aquatic toxicology.	Known to be toxic to aquatic organisms.

13. Disposal Considerations.

Waste disposal is subject to a Duty of Care and the Waste Management Licensing Regulations and subject to the Hazardous Waste Regulations.

14. Transport Information.

No specific requirements.

15. Regulatory Information / Hazardous Labeling.

15.1 Classification;

ZINC CHLORIDE	Xn – Harmful, C – Corrosive, N – Dangerous for the environment	R22, R34, R37, R50/53 S26, S45, S51, S24/25, S36/37/39, S57, S60, S61
AMMONIUM CHLORIDE	Xn – Harmful, Xi – Irritant	R22, R36, S2, S22
HYDROCHLORIC ACID	T – Toxic, C – Corrosive	R23, R35, S(1/2), S9, S26, S36/37/39, S45

15.2 Risk & Safety Phrases:

ZINC CHLORIDE

R22	Harmful if swallowed.
R34	Causes burns.
R37	Irritating to the respiratory system.
R50/53	Very toxic to aquatic organisms, may cause long term adverse effects in the aquatic environment.
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 unwell seek medical advice immediately. (Show label where possible).
S51	Use only in well-ventilated areas.
S24/25	Avoid contact with skin and eyes.
S36/37/38	Wear suitable protective clothing, gloves and eye/face protection.
S57	Use appropriate containment to avoid environmental contamination.
S60	This material and its container must be disposed of as hazardous waste.
S61	Avoid release to the environment.

AMMONIUM CHLORIDE

R22	Harmful if swallowed.
R36	Irritating to eyes.
S2	Keep out of reach of children.
S22	Do not breathe dust.

HYDROCHLORIC ACID

R23	Toxic by inhalation.
R35	Causes severe burns.
S(1/2)	Keep locked up and out of reach of children.
S9	Keep container in well ventilated place.
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 unwell seek medical advice immediately. (Show label where possible).
S36/37/39	Wear suitable protective clothing, gloves and eye/face protection.

This information does not constitute the users own assessment of workplace risk as required by H&S legislation.

16. Other Information

16.1 EH40/ 2005

Workplace Exposure Limits.

16.2 CHIP

Chemical (Hazard Information and Packaging for Supply) Regulations.

16.3 HSE. (COSHH)

Control of Substance Hazardous to Health Regulations.

The information given in this sheet represents the best of our knowledge; it may not be used as a warranty.