MATERIAL SAFETY DATA SHEET
Date of Issue 01/07/00
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1. Identification of Substance/Preparation and Company

Product Name: **Zinc Chloride Based Fluxes (35S & PLF)**

Supplier:
DKL Metals Ltd
Avontoun Works
Linlithgow
West Lothian
EH49 6QD

Tel No: +44(0) 1506 847710
Fax No: +44(0) 1506 848199
E-mail: sales@dklmetals.co.uk

2. Composition/Information on Ingredients

Ingredients	CAS No.	Einecs	Symbol	R-Phrases	%W/W
Zinc Chloride	7646-85-7	231-592-0	C, *N	34, *50/53	23 to 58
Water	N/A				Balance

Risk Phrases

R34	Causes burns
R50/53	Toxic to aquatic organisms. May cause long term adverse effects in the aquatic environment.

3. Hazards Identification

Human Health Hazards: Causes burns. Harmful if swallowed.

Physical/Chemical Hazards: Corrosive. No other significant chemical hazard.

Environmental Hazards: Toxic to aquatic organisms, *may cause long term adverse effects in the aquatic environment.

4. First Aid Measures

Effects and Symptoms

Inhalation: Inhalation of fumes will cause sever irritation of respiratory system.

Ingestion: Corrosive to mouth, throat, and digestive tract resulting in burning of tissue, nausea and vomiting.

Skin contact: Severe skin irritation can lead to dermatitis.

Eye contact: Severe eye irritation.

First Aid Measures

Inhalation: Move to fresh air. If skin irritation persists, call a physician.

Skin contact: Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists, call a physician.

Eye contact: Rinse with plenty of water, seek medical advice.

Ingestion: Rinse mouth, give plenty of water to drink seek medical advice.

5. Fire Fighting Measures

Flammability: Non-flammable

Extinguisher Media: Water, dry powder, foam, carbon dioxide (CO2)

Protective Equipment: In the Event of fire, wear self contaminated breathing apparatus.

6. Accidental Release Measures

Personal precautions: Wear suitable gloves and eye/face protection

Environmental precautions: Do not let product enter drains. No not flush into surface water or sanitary sewer system. Contact the proper local authorities if spillage seeps into the water bodies.

Methods of cleaning up: Soak up with inert absorbent material (eg. Sand, silica, gel, acid binder, universal binder, sawdust.) Shovel into suitable container for disposal. Do not allow material to contaminate ground water system.

7. Handling and Storage

Handling/Storage: No special storage conditions required

Packing material: Suitable Polyethylene containers

Not suitable: Mild steel

8. Exposure Controls/Personal Protection

Maximum Exposure Limits (MEL's)

	Long Term Exposure Limits (8 hour TWA)	Short Term Exposure Limits (15 min)
	1.00mg/m3	2.00mg/m3

Personal Protection Equipment: Protective suit, rubber or plastic gloves and goggles

9. Physical and Chemical Properties

Form:	Aqueous
Colour:	Water white to light straw
Odour:	None
Molecular weight:	136.29
Specific gravity (H20=1)	1.51(46%), 1.71(58%), 2.0(72%)
pH	5 (10%)
Solubility in water	Completely miscible

10. Stability and Reactivity

Stability: Stable

11. Toxicological Information

Main Constituent	Zinc Chloride Anhydrous (no data available for solutions)
Acute Toxicity	
Oral	LD50/oral/rat = 350mg/kg. Harmful if swallowed
Inhalation	TCLo, Inhalation, human = 4800mg/m3/3H. Causes pulmonary changes
Eye Irritation	Severe eye irritation
Skin Irritation	Severe skin irritation
Carcinogenicity	Questionable carcinogen with experimental tumorigenic effects.

Mutagenicity	Human mutation data reported. Mutation Cytogenic analysis, Human/Lymphocytes = 300 micromol/L

12. Ecological Information

Persistence and degradability: Not Biodegradable-highly water contaminating.

Ecotoxicity effects: Known to be toxic to aquatic organisms – no data available.

13. Disposal Considerations

Methods of disposal: Must be reconditioned or disposed of as a special waste according to the Control of Pollution (Special Waste) Regulations 1980.

14. Transport Information

UN Number: 1840
IMDG Class: 8 – Corrosive. Marine pollutant
ADR Item number: 2801 22 (c)
IATA-DGR Class: 8 – Corrosive
UN Packing Group: III
Trem Card No.

15. Regulatory Information

Classification C-Corrosive, *N – Dangerous to the Environment

16. Other Information

Handle in accordance with good industrial hygiene and safety practices, information given above is based on our present knowledge and is believed to be reliable.