

Material Safety Data Sheet

According to (EC) No 1907/2006

Water Soluble Paste Flux

F

1. Identification of the Preparation and of the Company

Trade Names: 6-415; 6-416; 6-417; 400 series, SP Series Water-soluble Fluxes

Synonyms: Flux, Solder Paste Flux, FluxPlus™, Water-soluble flux

Manufacturer: EFD Inc.

40 Catamore Boulevard
East Providence, RI 02914, USA

Phone: +1-401-431-7000

Emergency: Chemtrec (Transportation) +1-800-424-9300
Outside USA +1-703-527-3887

PRECAUTIONS: Keep away from ignition sources. Use with adequate ventilation.

HAZARDOUS DECOMPOSITION PRODUCTS: May form carbon monoxide, carbon dioxide or other toxic fumes.

6. Accidental Release Measures

PERSONAL PRECAUTIONS: Wear appropriate personal protection equipment (refer to Section 8.)

ENVIRONMENTAL PRECAUTIONS: Keep out of sewers and waterways.

METHODS FOR CLEANING: Collect and place into properly labeled waste container. Dispose of according to applicable government regulations.

2. Composition/Information on Ingredients

| Component | CAS | EINECS | % by Weight | OSHA PEL mg/m ³ | ACGHIV TLV mg/m ³ |
|-----------------------|-----------|-----------|-------------|----------------------------|------------------------------|
| Polyvinyl pyrrolidone | 9003-39-8 | | 0.0-8.0 | NE | NE |
| Polyglycol | Mixture | Mixture | 20.0-80.0 | NE | NE |
| Carboxylic acid | Mixture | Mixture | 15.0-20.0 | NE | NE |
| Ethylene glycol | 107-21-1 | 203-473-3 | 0.0-25.0 | NE | NE |

NE = Not Established

7. Handling and Storage

HANDLING: Avoid inhalation of fumes and vapor. Avoid contact with eyes, skin and clothing. Keep away from children. For industrial use only. Wash hands thoroughly after handling before eating, drinking or smoking.

STORAGE: Store in a cool, dry place and away from heat or open flame. Keep container closed. Do not store with foodstuffs.

3. Hazard Identification

GENERAL: Fumes generated during soldering are irritating to the eyes and may cause headache and respiratory system irritations or damage. Inhalation or ingestion may produce nausea, vomiting, headache or joint and muscle pain. May cause skin or eye irritation.

EYE CONTACT: May cause mild eye irritation.

SKIN CONTACT: May cause mild skin irritation. Prolonged contact may cause sensitization.

INHALATION: Inhalation hazard is low. May cause nausea, vomiting, headache.

INGESTION: Ingestion may cause damage.

8. Exposure Controls/Personal Protection

ENGINEERING MEASURES:

Maintain adequate local ventilation. Operators should be protected from soldering fumes.

PERSONAL PROTECTIVE EQUIPMENT:

EYES: Wear appropriate safety glasses.

SKIN: Wear appropriate protective clothing and impervious rubber gloves. Avoid skin contact. Workers should wash hands thoroughly before eating, drinking or smoking.

INHALATION: Use with adequate ventilation.

HYGIENE: Eating, drinking and smoking should not be permitted in areas where soldering is done. Do not store foodstuffs with solder.

4. First Aid Measures

EYES: Remove contact lenses. Immediately flush with copious amounts of water for at least 15 minutes. Seek medical attention.

SKIN: Wash affected area with plenty of warm, soapy water. If irritation develops, seek medical attention.

INHALATION: Remove person to fresh air. If breathing has stopped, perform artificial respiration and seek medical attention.

INGESTION: If person is conscious, give large quantity of water to drink. Do not induce vomiting. Seek immediate medical attention. Harmful if swallowed.

9. Chemical and Physical Properties

APPEARANCE AND ODOR: White to off-white colored gel or liquid with a mild odor

FLASH POINT: >111°C (COC)

FLAMMABILITY: Not established

AUTO IGNITION TEMPERATURE: Not established

pH: Not applicable

VAPOR PRESSURE: Not established

VAPOR DENSITY: Not established

MELTING POINT: Not applicable

BOILING POINT: 124° – 215°C

SOLUBILITY IN WATER: Soluble

RELATIVE DENSITY: >1 (H₂O = 1)

EVAPORATION RATE: Not applicable

5. Fire Fighting Measures

EXTINGUISHING MEDIA: Dry chemical, foam, CO₂.

UNSUITABLE EXTINGUISHING MEDIA: Water.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Flux may burn if soldering is done with a flame.

FIRE FIGHTING EQUIPMENT: If large quantities of solder are on fire, breathing apparatus should be used, as toxic fumes may be emitted.

EFD, Inc. 40 Catamore Boulevard, East Providence, RI 02914, USA www.efd-inc.com

North and South America: +1-800-556-3484 +1-401-431-7000
Fax: +1-401-431-7079
solder@efd-inc.com

Europe +44 (0) 1582 666334
Fax: +44 (0) 1582 664227
europe@efd-inc.com

Asia +86 (21) 3866 9006
Fax: +86 (21) 3866 9095
china@efd-inc.com

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10. Stability and Reactivity

STABILITY: Stable

MATERIALS TO AVOID: Strong oxidizers

CONDITIONS TO AVOID: High temperatures, high humidity.

HAZARDOUS DECOMPOSITION PRODUCTS: None identified.

HAZARDOUS POLYMERIZATION: Will not occur.

11. Toxicological Information

ACUTE TOXICITY: Not considered toxic under normal use.

LOCAL EFFECTS: None known.

EXCESSIVE EXPOSURE:

SKIN: Rosin may be a sensitizer. May cause skin irritation or dermatitis.

EYES: May be irritating to the eyes.

INHALATION: Prolonged inhalation of soldering vapors may produce asthma-like reactions.

12. Ecological Information

Possible ecological hazard. In high concentrations, this product may be dangerous to plants and animals. Flux is biodegradable.

13. Disposal Considerations

Dispose of according to applicable government regulations. Recycle when possible. Do not dump into sewers, on the ground, or into any body of water.

14. Transportation Information

UN Number: Not regulated
ADR/RID Not regulated
IMO/IMDG Not regulated
CAO/IATA Not regulated

15. Regulatory Information

TSCA STATUS: All chemical constituents used in the manufacture of this product are listed on the TSCA inventory maintained by the U.S. Environmental Protection Agency.

REGULATED CHEMICALS:

| Chemical Name | CAS# | Regulation |
|----------------|------|------------|
| None regulated | | |

None regulated

SARA Title III: None regulated

California State Proposition 65: No data.

EUROPEAN REGULATIONS:

HAZARD SYMBOL AND HAZARD INFORMATION

Xi – Irritant



R-Phrases

R36/38 Irritation of eyes and skin
R42/43 May cause sensitization by inhalation and skin contact

S-Phrases

S2 Keep out of reach of children
S24/25 Avoid contact with skin and eyes
S36/37 Wear safety gloves and glasses

16. Other Information

| | | | | |
|---------------------|------------|---|---------------------|-----|
| NFPA Rating: | Health | 1 | Flammability | 1 |
| | Reactivity | 0 | Special | n/a |
| HMIS Rating: | Health | 1 | Flammability | 1 |
| | Reactivity | 0 | Personal Protection | n/a |

The information contained herein is based on data considered accurate. However, no warranty is expressed or implied regarding the accuracy of these data or the results to be obtained from the use thereof. Additionally, EFD Inc. assumes no responsibility for injury to the end user proximately caused by the material even if reasonable safety procedures are followed. The end user assumes the risk in his use of this material.

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