

SECTION 1 - IDENTIFICATION

| Trade Names: | This material safety data sheet covers the following products: NF Flux NF-P NF-D |
|------------------|---|
| Synonyms: | Fluoride-Free Brazing Flux |
| Chemical Family: | Brazing Flux |
| CAS Number: | NA |
| Chemical Name: | NA |
| Manufacturer: | Okai Corporation |
| | 687 Lehigh Avenue |
| | Union, New Jersey 07083 |
| | 908-687-4443 |
| | safety@okai.com |
| Emergency: | Chemtrec: 800-223-0025 |

SECTION 2 - HAZARDOUS INGREDIENTS

| INGREDIENT | CAS NUMBER | OSHA PEL | ACGIH TLV | Wt Percent |
|-------------------------|------------|-----------------------|-----------------------|------------|
| Boric Acid | 10043-35-3 | 0.1 mg/m ³ | 0.1 mg/m ³ | 1-8 |
| Sodium Tetraborate | 7440-50-8 | 0.1 mg/m³ | 0.2 mg/m ³ | 30-40 |
| Potassium Chloride | 7447-40-7 | Not Established | Not Established | 5-10 |
| Potassium Carbonate | 584-08-7 | Not Established | Not Established | 5-10 |
| Distillates (petroleum) | 64742-47-8 | Not Established | Not Established | 0-50 |
| Petroleum Jelly | 8009-03-8 | Not Established | Not Established | 0-50 |

SECTION 3 - HEALTH HAZARD INFORMATION

Primary Routes of Entry into Body: Fume inhalation, skin contact, eye contact, ingestion **Symptoms of Overexposure:** Nausea, vomiting, diarrhea, possibly with delayed effects. **Chemicals Listed as Carcinogen or Potential Carcinogen:** None **Osha Permissible Exposure Limit (PEL):** 15 mg/m³ **ACGIH Threshold Limit Value (TLV):** 15 mg/m³

SECTION 4 - FIRST AID MEASURES

| EYES: | Flush eyes with plenty of water for at least 15 minutes, lifting the upper and lower |
|-------------|---|
| | eyelids occassionally. Get medical attention if irritation develops. |
| SKIN: | Wash the skin using soap or a mild detergent and warm water. Get medical attention |
| | if irritation develops. |
| INHALATION: | Move the exposed person to fresh air at once. If breathing has stopped, perform |
| | artifical respiration. Get medical attention immediately. |
| INGESTION: | If person is conscious, give large quantities of water to drink. Induce vomiting. Get |
| | immediate medical attention. |
| | |

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Date: 11/21/2013



SECTION 5 - EXPOSURE CONTROL AND PERSONAL PROTECTION

- **VENTILATION:** Keep dust and fume levels below occupational exposure limits. Local exhaust ventilation may be necessary for some operations.
- **EYES:** Wear safety glasses. Goggles with welding shields should be used when working with high-temperature heated materials.
- **SKIN:** Avoid prolonged exposure with skin. Short term exposure should not present any hazards in most individuals.
- **INHALATION:** Use with adequate ventilation. If fumes are likely to be generated, use an approved respirator that will protect against fumes.
- **OTHER:** Eating and smoking should not be permitted in areas where dust or fume are present. Protective clothing and equipment worn at work should remain at work.

SECTION 6 - HANDLING, STORAGE AND DISPOSAL

Wash thoroughly after handling. Avoid dust generation. Store inside a dry area, at room temperatures. Disposal must be in accordance with applicable local, state and federal regulations. Contact your local, state or federal environmental agency for specific rules. Do not dump into sewers, on ground, or into any body of water.

SECTION 7 - FIRE FIGHTING MEASURES

| EXTINGUISING MEDIA: | Carbon dioxide, dry checmical, alcohol foam. Do NOT use water. |
|--|---|
| UNUSUAL FIRE AND EXPLOSION HAZARDS: | None identified |
| FIRE FIGHTING EQUIPMENT: | Wear full bunker gear including a positive pressure self-contained breathing apparatus. |
| PRECAUTIONS: HAZARDOUS DECOMPOSITION: | No unusual precautions required. None identified. |

SECTION 8 - ACCIDENTAL RELEASE MEASURES

- 1. For typical usage scenarios, quantities will be small and will not require special release measures. Clean up flux by wiping or scraping spilled materials off of surface. Finish cleaning surfaces with water, or soapy water. Dispose of all cleaning materials in accordance with local regulations.
- 2. For spills of powdered flux, take care not to agitate the flux when cleaning to prevent airborne dust concentrations. Respiratory protection may be required. Use a HEPA vacuum to safely remove powdered flux. Traces of powdered flux on surfaces can be wiped up with a damp cloth.
- 3. Keep out of sewers and waterways.
- 4. Cleaned-up material may be reused as long as it has not been significantly contaminated. Refine, Recycle or dispose of as a waste in accordance with local regulations.

Document: msds-nf_flux

Date: 11/21/2013



SECTION 9 - CHEMICAL AND PHYSICAL PROPERTIES

| FLAMMABILITY: Nonflammable |
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| |
| AUTOIGNITION: Not applicable |
| VAPOR PRESSURE: Not Applicable |
| MELTING POINT: >500°C |
| BOILING POINT: NA |
| SOLUBILITY IN H20 Partially Soluble |
| APPEARANCE: Yellow or brass-colored metallic wire, strip or foil. |

SECTION 10 - STABILITY AND REACTIVITY

STABILITY: Stable **HAZARDOUS POLYMERIZATION:** Will not occur **INCOMPATIBILITY:** Glass and porcelain **CONDITIONS TO AVOID:** Excessive heat during storage **HAZARDOUS DECOMPOSITION BYPRODUCTS:** Borates

SECTION 11 - TOXICOLOGICAL INFORMATION

This material as manufactured has not been tested for toxicological effects.

SECTION 12 - ECOLOGICAL INFORMATION

This material as manufactured has not been tested for environmental effects.

SECTION 13 - DISPOSAL CONSIDERATIONS

Dispose in accordance with federal, state and local regulations.

SECTION 14 - TRANSPORTATION

D.O.T. Proper Shipping Name: Non-Hazardous Hazard Class: NA Identification Number: NA Packing Group: NA D.O.T Label Required Information: NA

SECTION 15 - REGULATORY INFORMATION

HAZARDOUS MATERIAL IDENTIFICATION SYSTEM

| HEALTH HAZARD: | 2 - Moderate: | Moderately toxic, may be harmful if inhaled or absorbed. |
|----------------|---------------|--|
| FLAMMABILITY: | 0 - Minimal | Normally inflammable. |
| REACTIVITY: | 0 - Minimal | Normally Stable, does not react with water |
| PROTECTION: | В | Safety Glasses, Gloves |
| | | |

Document: msds-nf_flux

Date: 11/21/2013

Page 3 of 4

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OSHA Hazardous Chemical According to 29 CFR 1910.1200: NA Carcinogenicity Classification: (Components Present at 0.1% or More)

International Agency for Research on Cancer (IARC): No

American Conference of Governmental Industrial Hygienists (ACGIH): No

National Toxicology Program (NTP): No

Occupational Safety and Health Administration (OSHA): No

All Components of this Product are Listed on the U.S. Toxic Substances Control Act Inventory or Otherwise Comply with TSCA Pre-manufacture Notification Requirements

This Product is RoHS Compliant.

This Product is Compliant with the requirements of the Dodd-Frank Act.

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