

**SAFETY DATA SHEET**  
**Finished Product**



**Date-Issued: 8/4/2004**  
**SDS Ref. No: 26-331770, 26-331930**  
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**Revision No: 003**

**Paste Flux**  
**26-331770, 26-331930**

**SECTION 1. PRODUCT AND COMPANY IDENTIFICATION**

<b>Brand Name</b>	26-331770, 26-331930
<b>Product Description:</b>	Petroleum Based Soldering Flux
<b>Product Code</b>	26-331770, 26-331930
<b>Marketer Contact Information:</b>	NTE Electronics, Inc. 44 Farrand Street Bloomfield, NJ 07003 973-748-5089
<b>Emergency Phone:</b>	CHEMTREC 800-424-9300

**SECTION 2. HAZARDS IDENTIFICATION**

<b>Physical Hazards</b>	Not classified
<b>Health Hazards</b>	Acute Toxicity, Oral Category 4 Skin Corrosion/Irritation Category 1B Serious Eye Damage/Eye Irritation Category 1 Specific Target Organ Toxicity, Single Exposure Category 3 respiratory tract irritation
<b>Environmental Hazards</b>	Hazardous to the aquatic environment, acute hazard Category 1 Hazardous to the aquatic environment, long-term hazard Category 1
<b>OSHA/HCS Status</b>	Not classified

**GHS Label Elements**

<b>Hazard Pictograms</b>	
<b>Single Word</b>	Danger
<b>Hazard Statements</b>	Harmful if swallowed. Causes severe skin burns and eye damage. May cause respiratory irritation. Very toxic to aquatic life with long lasting effects.

**Precautionary Statements**

<b>Prevention</b>	Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Do not breathe dust/fume. Wear protective gloves/protective clothing/eye protection/face protection. Use only outdoors or in a well ventilated area. Avoid release to the environment.
<b>Response</b>	Immediately call a poison center/doctor. If swallowed: Call a poison center/doctor if you feel unwell. Rinse mouth. DO NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present an easy to do. Continue rinsing.

## SECTION 2. HAZARDS IDENTIFICATION (Cont'd)

### Precautionary Statements (Cont'd)

<b>Storage</b>	Store in a well-ventilated place. Keep container tightly closed. Store locked up.
<b>Disposal</b>	Dispose of contents/container in accordance with all local/regional/national/international regulations.

### Hazard(s) Not Otherwise Classified (HNOC)

<b>Conclusion/Summary</b>	Contact with eyes may cause irritation.
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## SECTION 3. COMPOSITION / INFORMATION OF INGREDIENTS

<b>Chemical Name</b>	<b>CAS Number</b>	<b>%</b>
Petrolatum	8009-03-8	70 - 75
Zinc Chloride	7646-85-7	25 - 30

### Composition Comments

<b>Conclusion/Summary</b>	All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume..
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## SECTION 4. FIRST-AID MEASURES

<b>Ingestion</b>	If swallowed, rinse mouth with water (only if the person is conscious). Never give anything by mouth to a victim who is unconscious or is having convulsions. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Do not use mouth-to-mouth method if victim ingested the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Get medical attention immediately.
<b>Inhalation</b>	Move to fresh air. If breathing is difficult, give oxygen. Do not use mouth-to-mouth method if victim inhaled the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Get medical attention immediately.
<b>Skin Contact</b>	Remove and isolate contaminated clothing and shoes. Immediately flush with plenty of water for at least 15 minutes. Get medical attention immediately. Wash clothing separately before reuse.
<b>Eye Contact</b>	Immediately flush eyes with plenty of water for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.

### Most Important Symptoms/Effects, Acute and Delayed

<b>Indication of Immediate Medical Attention and Special Treatment Needed</b>	Treat symptomatically.
<b>General Information</b>	Show this safety data sheet to the doctor in attendance.

## SECTION 5. FIRE FIGHTING MEASURES

<b>Suitable Extinguishing Media:</b>	Dry chemical, foam, carbon dioxide.
<b>Unsuitable Extinguishing Media:</b>	None known.
<b>Specific Hazards Arising from the Chemical:</b>	Fire may produce irritating, corrosive and/or toxic gases.
<b>Special Protective Equipment and Precautions for Firefighters</b>	Firefighters should wear full protective clothing including self-contained breathing apparatus.
<b>Fire Fighting Equipment/Instructions</b>	Move containers from fire area if you can do it without risk.
<b>Specific Methods</b>	Use standard firefighting procedures and consider the hazards of other involved materials.
<b>General Fire Hazards</b>	Will release small amounts of HCL upon decomposition.

## SECTION 6. ACCIDENTAL RELEASE MEASURES

<b>Personal Precautions, Protective Equipment and Emergency Procedures</b>	Keep unnecessary personnel away. Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Local authorities should be advised if significant spills cannot be contained.
<b>Methods and materials for Containment and Cleaning Up</b>	Stop the flow of material, if this is without risk. Dike far ahead of spill for later disposal. Neutralize with soda ash or sodium bicarbonate. Dilute with plenty of water. Dispose of in accordance with EPA regulations.
<b>Environmental Precautions</b>	Prevent further leakage or spillage if safe to do so. Do not contaminate water.

## SECTION 7. HANDLING AND STORAGE

<b>Precautions for Safe Handling</b>	Wear appropriate personal protective equipment (See Section 8). Use only with adequate ventilation. Do not breathe fumes and dusts. Avoid contact with eyes, skin, and clothing. Wash thoroughly after handling. Observe good industrial hygiene practices.
<b>Conditions for Safe Storage, Including any Incompatibilities</b>	Store in plastic containers in cool area away from heat. Store away from incompatible materials.

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### CONTROL PARAMETERS

#### Occupational Exposure Limits

#### US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value	Form
Zinc Chloride (CAS 7646-85-7)	PEL	1mg/m <sup>3</sup>	Fume

#### US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Zinc Chloride (CAS 7646-85-7)	STEL	2mg/m <sup>3</sup>	Fume
	TWA	1mg/m <sup>3</sup>	Fume

#### US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value	Form
Zinc Chloride (CAS 7646-85-7)	STEL	2mg/m <sup>3</sup>	Fume
	TWA	1mg/m <sup>3</sup>	Fume

<b>Biological Limit Values</b>	No biological exposure limits noted for ingredient(s)
<b>Exposure Guidelines</b>	Use personal protective equipment are required. Keep working clothes separately.
<b>Appropriate Engineering Controls</b>	Good general ventilation (typically 10 air changer per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. An eye wash and safety shower must be available in the immediate work area.

#### Individual Protection Measures, such as Personal Protective Equipment

<b>Eye/Face Protection</b>	Wear approved safety glasses or goggles.
<b>Skin Protection</b>	Hand Protection: Wear protective gloves. Other: Wear suitable protective equipment.

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION (Cont'd)

### CONTROL PARAMETERS (Cont'd)

#### **Individual Protection Measures, such as Personal Protective Equipment (Cont'd)**

<b>Respiratory Protection</b>	Use a respirator when local exhaust or ventilation is not adequate to keep exposures below the OEL. In a confined space a supplied respirator may be required. Selection and use of respiratory protective equipment should be in accordance with OSHA General Industry Standard 29 CFR 1910.134; or in Canada with CSA Standard Z94.4.
<b>Thermal Hazards</b>	Wear appropriate thermal protective clothing, when necessary.

#### **General Hygiene Considerations**

<b>Conclusion/Summary</b>	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants..
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## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance</b>	Reddish Brown Paste
<b>Physical State</b>	Semi-Solid
<b>Form</b>	Paste
<b>Color</b>	Reddish Brown
<b>Odor</b>	Slight Petroleum Odor.
<b>Odor Threshold</b>	Not Available.
<b>pH</b>	Not Available.
<b>Melting Point/Freezing Point</b>	+100°F (+37.78°C)
<b>Initial Boiling Point and Boiling Range</b>	Not Available.
<b>Flash Point</b>	+360.0° to +430.0°F (+182.2° to +221.1°C)
<b>Evaporation Rate</b>	Not Applicable.
<b>Flammability (Solid, Gas)</b>	Not Available.
<b>Lower and Upper Flammable Limits</b>	Not Available.
<b>Lower and Upper Explosive Limits</b>	Not Available.
<b>Vapor Pressure</b>	Not Available.
<b>Vapor Density</b>	Not Applicable.
<b>Relative Density</b>	0.9
<b>Solubility (Water)</b>	Not Soluble in Water
<b>Partition Coefficient: n-octanol/water</b>	Not Available.
<b>Auto-Ignition Temperature</b>	Not Available.
<b>Decomposition Temperature</b>	Not Available.
<b>Viscosity</b>	Not Available.

## SECTION 10. STABILITY AND REACTIVITY

<b>Reactivity</b>	The product is non-reactive under normal conditions of use, storage and transport.
<b>Chemical Stability</b>	Material is stable under normal conditions.
<b>Possibility of Hazardous Reactions</b>	Hazardous polymerization does not exist.
<b>Conditions to Avoid</b>	Avoid contact with incompatible materials.
<b>Incompatible Materials</b>	Strong oxidizing agents. Chlorine. Turpentine. Potassium. Cyanides. Sulfides. Powdered Zinc..
<b>Hazardous Decomposition Products</b>	Chlorine. Hydrogen Chloride. Carbon Monoxide.

## SECTION 11. TOXICOLOGICAL INFORMATION

### Information on Likely Routes of Exposure

<b>Inhalation</b>	Corrosive to the respiratory tract.
<b>Skin Contact</b>	Causes skin burns.
<b>Eye Contact</b>	Causes serious eye damage.
<b>Ingestion</b>	Harmful if swallowed. Ingestion may produce burns to the lips, oral cavity, upper airway, esophagus and possibly the digestive tract.

**SECTION 11. TOXICOLOGICAL INFORMATION (Cont'd)****Symptoms Related to the Physical, Chemical and Toxicological Characteristics**

<b>Conclusion/Summary</b>	Causes skin and eye burns.
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**Information on Toxicological Effects**

<b>Acute Toxicity</b>	Causes burns. Harmful if swallowed. Exposure to high levels of zinc chloride fume may cause pulmonary edema.
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<b>Components</b>	<b>Species</b>	<b>Test Results</b>
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Zinc Chloride (CAS 7646-85-7)

Acute

Oral/

LD50

Mouse

350mg/kg

**Skin Corrosion/Irritation**

<b>Conclusion/Summary</b>	Causes skin burns.
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**Serious Eye damage/Eye Irritation**

<b>Conclusion/Summary</b>	Causes serious eye damage.
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**Respiratory or Skin Sensitization**

<b>Respiratory Sensitization</b>	Not classified.
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<b>Skin Sensitization</b>	Not classified.
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**Germ Cell Mutagenicity**

<b>Conclusion/Summary</b>	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
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**Carcinogenicity**

<b>Conclusion/Summary</b>	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.
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**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

Not listed.

**Reproductive Toxicity**

<b>Conclusion/Summary</b>	Not classified.
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**Specific Target Organ Toxicity**

<b>Single Exposure</b>	May cause respiratory tract irritation.
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<b>Repeated Exposure</b>	Not classified.
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**Aspiration Hazard**

<b>Conclusion/Summary</b>	Not likely, due to the form of the product.
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**SECTION 12. ECOLOGICAL INFORMATION****Ecotoxicity**

<b>Conclusion/Summary</b>	Very toxic to aquatic life with long lasting effects.
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<b>Components</b>	<b>Species</b>	<b>Test Results</b>
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Zinc Chloride (CAS 7646-85-7)

Aquatic

Crustacea

EC50

American or Virginia Oyster  
(Crassostrea Virginica)

0.1511 – 0.2782mg/l, 48 hours

Fish

LC50

Rainbow Trout, Donaldson Trout  
(Oncorhynchus Mykiss)

0.101 – 0.197mg/l, 96 hours

**Persistence and Degradability**

<b>Conclusion/Summary</b>	No data is available on the degradability of this product.
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**SECTION 12. ECOLOGICAL INFORMATION (Cont'd)****Bioaccumulative Potential**

<b>Conclusion/Summary</b>	No data available.
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**Mobility in Soil**

<b>Conclusion/Summary</b>	No data available.
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**Other Adverse Effects**

<b>Conclusion/Summary</b>	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
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**SECTION 13. DISPOSAL CONSIDERATIONS**

<b>Disposal Instructions</b>	Dispose waste and residues in accordance with applicable federal, state, and local regulations.
<b>Local Disposal Regulations</b>	Dispose of in accordance with local regulations.
<b>Hazardous Waste Code</b>	D002: Waste Corrosive material [pH ≤2 or ≥12.5, or corrosive to steel]
<b>Waste from Residues/Unused Products</b>	Dispose in accordance with all applicable regulations.
<b>Contaminated Packaging</b>	Since emptied containers may retain product residue, follow label warnings even after container is emptied.

**SECTION 14. TRANSPORT INFORMATION**

	<b>DOT Classification</b>	<b>IMDG</b>	<b>IATA</b>
<b>UN Number</b>	UN1760	UN1760	UN1760
<b>UN Proper Shipping Name</b>	Corrosive liquids, n.o.s (Zinc Chloride RQ = 3953 LBS)	Corrosive liquids, n.o.s (Zinc Chloride)	Corrosive liquids, n.o.s (Zinc Chloride)
<b>Transport Hazard Class(es)</b>	8 	8 	8 
<b>Packing Group</b>	III	III	III
<b>Environmental Hazards</b>	Marine Pollutant: Yes	Marine Pollutant: Yes	Yes
<b>EmS</b>	-	F-A, S-B	-
<b>ERG Code</b>	-	8L	8L
<b>Special Provisions</b>	IB3, T7, TP1, TP28	-	-
<b>Packaging Exceptions</b>	154	-	-
<b>Packaging Non-Bulk</b>	203	-	-
<b>Packaging Bulk</b>	241	-	-

<b>Special Precautions for User</b>	Read safety instructions, SDS and emergency procedures before handling.
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<b>Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code</b>	Not Available
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**SECTION 15. REGULATORY INFORMATION****U.S. Federal Regulations**

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

<b>TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)</b>	Not regulated.
<b>OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)</b>	Not listed.
<b>CERCLA Hazardous Substance List (40 CFR 302.4)</b>	Zinc Chloride (CAS 7646-85-7) LISTED

**SECTION 15. REGULATORY INFORMATION (Cont'd)****Superfund Amendments and Reauthorization Act of 1986 (SARA)**

<b>Hazard Categories</b>	Immediate Hazard – Yes Delayed Hazard – No Fire Hazard – No Pressure Hazard – No Reactivity Hazard - No
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**SARA 302 Extremely Hazardous Substance**

<b>Classification</b>	Not Listed
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**SARA 311/312 Hazardous Chemical**

<b>Classification</b>	Yes
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**SARA 313 (TRI Reporting)**

<b>Chemical Name</b>	<b>CAS Number</b>	<b>% by wt.</b>
Zinc Chloride	7646-85-7	25 - 30

**Other Federal Regulations**

<b>Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List</b>	Not regulated.
<b>Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)</b>	Not regulated.
<b>Safe Drinking Water Act (SDWA)</b>	No regulated.

**US State Regulations**

<b>US. Massachusetts RTK – Substance List</b>	Zinc Chloride (CAS 7646-85-7)
<b>US. New Jersey Worker and Community Right-to-Know Act</b>	Zinc Chloride (CAS 7646-85-7)
<b>US. Pennsylvania Worker and Community Right-to-Know Law</b>	Zinc Chloride (CAS 7646-85-7)
<b>US. Rhode Island RTK</b>	Zinc Chloride (CAS 7646-85-7)
<b>US. California Proposition 65</b>	Not listed.

**International Inventories**

<b>Country(s) or Region</b>	<b>Inventory Name</b>	<b>On Inventory (Yes/No) *</b>
<b>Australia</b>	Australian Inventory of Chemical Substances (AICS)	Yes
<b>Canada</b>	Domestic Substances List (DSL)	Yes
<b>Canada</b>	Non-Domestic Substances List (NDSL)	No
<b>China</b>	Inventory of Existing Chemical Substances in China (IECSC)	Yes
<b>Europe</b>	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
<b>Europe</b>	European List of Notified Chemical Substances (ELINCS)	No
<b>Japan</b>	Inventory of Existing and New Chemical Substances (ENCS)	No
<b>Korea</b>	Existing Chemicals List (ECL)	Yes
<b>New Zealand</b>	New Zealand Inventory	Yes
<b>Philippines</b>	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
<b>United States &amp; Puerto Rico</b>	Toxic Substances Control Act (TSCA) Inventory	Yes

\* A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

## SECTION 16. OTHER INFORMATION

### Hazardous Material Information System (U.S.A.)

<b>Health</b>	3
<b>Flammability</b>	1
<b>Physical Hazards</b>	0

**Caution:** HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the national Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J.J. Keller (800) 327-6868. The customer is responsible for determining the PPE code for this material.

### National Fire Protection Association (U.S.A.)



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Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health, and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 system to classify chemicals does so at their own risk.

### Further Information

This information above is believed to be accurate and represents the best information currently available to us. However, neither NTE nor any of its subsidiaries make no warranty of merchantability or any other warranty, expressed or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigation to determine the suitability of the information for their particular purposes.