

MATERIAL SAFETY DATA SHEET



Product Name: **Bondline 7784**
Chemical Name: Epoxy-amine
Preparation Date: 6/10/1998
Revision Date: 3/20/2005
Revision: B

Section 1: Identification

Bondline Electronic Adhesives
756 N. Pastoria Ave.
Sunnyvale, CA 94085
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Section 2: Hazardous Ingredients & Section 313 Supplier Notification

| <u>Hazardous Material</u> | <u>Cas Number</u> | <u>%</u> | <u>TLV per ACGIH^{1,3}</u> | <u>Exposure Limit PEL^{2,3}</u> | <u>Codes</u> |
|---------------------------|-------------------|--------------|------------------------------------|---|--------------|
| Bisphenol F Epoxy Resin | 28064-14-4 | >12 | N/A | N/A | H |
| Cyanoguanidine | 461-58-5 | Trade Secret | N/A | N/A | H |

Hazard Codes

C = Carcinogen (OSHA,NTP,IARC)

H= Hazardous (OSHA)

P= California Prop 65 (Carcinogen)

A= Superfund Amendments Reauthorization Act(SARA)

1= TLV means threshold limit values.

2= PEL means Permitted exposure limit set fourth by OSHA.

3= All exposure limits in mg/m3 values for airborne dust.

a= mmpcf million particles per cubic foot of air.

b= respirable.

ACGIH= The American Conference of Governmental Industrial Hygienists

TWA= TWA means 8 hour time weighted average.

Section 3: Physical Data

| | |
|--------------------------------|-----------|
| Boiling point | N/A |
| Vapor pressure @ 25°C | <1 |
| Vapor density (Air = 1) | N/A |
| Solubility in H ² O | Insoluble |
| Appearance | Off White |
| Specific gravity | 1.8 |
| % Volatile by weight | >1 |
| Evaporation rate | N/A |
| Odor | Mild |

Section 4: Fire and Explosion Hazard Data

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|---------------------------------|--|
| Flash point | >280°C |
| Flammable Limits in Air | Not Tested |
| Extinguishing media | Carbon dioxide, dry chem, foam, water fog |
| Unusual fire & Explosion Hazd. | Toxic fumes may be evolved upon exposure to heat or open flame. Exothermic reaction can occur in large masses. |
| Special fire fighting procedure | Self contained breathing apparatus and protective clothing should be worn. |

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Section 5: Health and Hazard Information

Effects of overexposure

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| Inhalation | May be harmful if inhaled. Can cause irritation to the nose, throat and respiratory tract, and nausea. |
| Eye contact | Can cause severe irritation to the eyes. |
| Skin Contact | Irritation upon direct contact. Prolonged exposure may result in skin sensitization. Wash skin thoroughly with soap and water. |

First aid & Emergency procedure

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| Eye contact | Flush with water for at least 15 minutes, can cause severe irritation to the eyes. Seek medical attention. |
| Skin contact | Wash immediately with soap and water |
| Inhaled | Remove to fresh air immediately. |
| Ingestion | Seek medical attention immediately and show MSDS. |
| Suspected cancer agent | Product is not considered to be carcinogenic. |

Section 6: Reactivity Data

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| Stability | Stable when stored at -40°C or colder. Will harden at room temperature. |
| Incompatibility (materials to avoid) | Strong oxidizing agents |
| Conditions to avoid | Excessive heat or flames |
| Haz. decomposition products | Carbon monoxide, acids, aldehydes |
| Hazardous polymerization | Will not occur |

Section 7: Spill, leak and disposal procedures

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| Spill or leak | Use paper towels to wipe up epoxy. Epoxy will harden at room temperature. |
| Waste disposal method | Cure epoxy (see data sheet) Can be disposed in land fill. |

Section 8: Special protection information

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|------------------------|---|
| Ventilation | Local exhaust is preferred. Use material in a well ventilated work area. |
| Eye protection | Safety goggles. |
| Gloves | Rubber gloves or finger cottles. |
| Respiratory protection | Use NIOSH approved dust mask, or NIOSH approved organic respirator if needed. |
| Curing ovens | vent to outdoors |

Section 9: Special precautions

| | |
|----------------------|--|
| Storage and handling | Refrigerated storage at -40°C or colder is required. |
| Shelf life | 1 year when stored at -40°C or colder. |

Section 10: Regulatory Information

SARA/TITLE III-Toxic Chemicals List: N/A

Cas Number %

TSCA Inventory Status: Chemical components listed on TSCA Inventory
California Prop. 65: This product does not contain toxic chemicals currently on the California list of known carcinogens and reproductive toxins.

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