Material Safety Data Sheet

Revision Date: 10/16/2003 **Issue date:** 10/20/2003

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Kit Number: AS9297000

Product name: EA 9394S PART B
Product type: Adhesive for the Aerospace Industry
Company address:
Henkel Loctite Aerospace
2850 Willow Pass Road
Bay Point, California 94565

Item number: AB9297000
Region: United States
Contact Information:
Telephone: 925.458.8000 Fax: 925.458.8030
For Chemical Emergency: Call CHEMTREC at 800.424.9300
Internet: www.loctite.com

2. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous components	%	ACGIH TLV	OSHA PEL	OTHER
Tetraethylenepentamine 112-57-2	30-60	None	None	None
Polyethylenepolyamines 29320-38-5	10-30	None	None	None
Silica, amorphous, fumed, crystalline-free 112945-52-5	1-5	6 mg/m^3 TWA	10 mg/m^3 TWA	3 mg/m^3 TWA respirable dust
Carbon black 1333-86-4	0.1-1	3.5 mg/m^3 TWA	3.5 mg/m^3 TWA	None

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

HMIS:

Physical state: Gel
Color: Black
Odor: Ammoniacal

HEALTH: 2
FLAMMABILITY: 1
PHYSICAL HAZARD: 1
Personal Protection: See Section 8

WARNING: MAY CAUSE EYE AND SKIN BURNS.
CAUSES RESPIRATORY TRACT IRRITATION.

Relevant routes of exposure: Skin, inhalation, eyes

Potential Health Effects

Inhalation: Vapors and mists will irritate nose and throat and possibly eyes. This product contains an ingredient that may be carcinogenic in its respirable form. However, since the ingredient is completely encapsulated by the epoxy resin, only if the cured product is dry sanded, ground, or abraded, might the carcinogenic material be released. In that case, wear a NIOSH approved respirator to protect against the potential release.
Skin contact: Possible burns to skin. Repeated or prolonged skin contact may result in allergic sensitization.
Eye contact: Severe eye irritation.
Ingestion: Not expected under normal conditions of use.

Existing conditions aggravated by exposure:	Determining whether product ingredients will aggravate a pre-existing medical condition requires case-by-case consideration of the exposed workers` medical condition and the nature of the exposures expected to occur in the specific workplace where the worker will be employed.

See Section 11 for additional toxicological information.

4. FIRST AID MEASURES

Inhalation:	Remove to fresh air. If discomfort persists seek medical attention.
Skin contact:	Immediately flush skin with plenty of water (using soap, if available). Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
Eye contact:	Immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.
Ingestion:	Drink water as a precaution. Get medical attention immediately.
Notes to physician:	Treat symptomatically and supportively.

5. FIRE-FIGHTING MEASURES

Flash point:	Decomposes before flashing.
Autoignition temperature:	Not determined
Flammable/Explosive limits-lower %:	Not determined
Flammable/Explosive limits-upper %:	Not determined
Extinguishing media:	Water spray (fog), foam, dry chemical or carbon dioxide.
Special fire fighting procedures:	Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear. Cartridge respirators do not provide adequate protection for fire fighters or exotherm mitigation.
Unusual fire or explosion hazards:	May liberate large quantities of dense, foul-smelling smoke which may contain unidentified toxic gasses.
Hazardous combustion products:	Oxides of carbon and nitrogen, aldehydes, acids and undetermined organics.

6. ACCIDENTAL RELEASE MEASURES

Environmental precautions:	No information available
Clean-up methods:	Wear protective clothing, gloves and safety glasses. Scrape up as much material as possible. Store in a closed container until ready for disposal.

7. HANDLING AND STORAGE

Handling: For the Part A plus Part B adhesive mixture, follow curing schedule as recommended in product literature. Do not heat Part B at temperatures greater than 100 ºC (212 ºF). This material may self-react at higher temperatures and cause an exotherm. The exotherm has the potential for release of excessive energy and toxic gasses. Empty containers retain product residue, so obey hazard warnings and handle empty containers as if they were full. Do not cut, grind, weld, or drill on or near this container.

Storage: This product may be stored at 25°C (77°F) for up to 12 months. Keep container closed.

Incompatible products: Keep away from strong oxidizing agents, strong Lewis or mineral acids.

For information on product shelf life, please review labels on container or check the Technical Data Sheet.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering controls: Work should be done in an adequately ventilated area (i.e., ventilation sufficient to maintain concentrations below one half of the PEL and other relevant standards). Local exhaust ventilation is recommended when general ventilation is not sufficient to control airborne contamination.

Respiratory protection: When workplace hazards warrant the use of a respirator, appropriate respirators must be used, and a program that follows 29 CFR 1910.134 must be followed.

Skin protection: Use chemical resistant, impermeable clothing including gloves and either an apron or body suit to prevent skin contact.

Eye/face protection: Wear appropriate goggles, face shields or other PPE which will be effective under the circumstances if the possibility of contact exists. A program meeting 29 CFR 1910.133 requirements must be followed when PPE is necessary.

See Section 2 for exposure limits.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Gel
Color:	Black
Odor:	Ammoniacal
Vapor pressure:	Less than 0.1 mm Hg at 20ºC (68ºF)
pH:	Not determined
Boiling point/range:	340°C (644°F)
Melting point/range:	Not determined
Specific gravity:	1.0
Vapor density:	8.6
Evaporation rate:	Not determined
Solubility in water:	Completely soluble
Partition coefficient (n-octanol/water):	Not determined
VOC content:	<10 g/l (estimate) per SCAQMD Rule 1124 [EPA Test Method 24/304-91]

10. STABILITY AND REACTIVITY

Stability: Stable.

Hazardous polymerization: May occur.

Hazardous decomposition products: Oxides of carbon and nitrogen, aldehydes, acids and undetermined organics.

Incompatability: Keep away from strong oxidizing agents, strong Lewis or mineral acids.

Conditions to avoid: Avoid mixing resin (Part A) and curing agent (Part B) in batches greater than 1 pound(s) (.454 kg) unless you plan to use immediately. Do not heat mixed adhesive above 52ºC (125ºF) unless curing surfaces to be bonded. Failure to observe these precautions may result in excessive heat build-up causing an exotherm. The exotherm has the potential for release of toxic gasses.

11. TOXICOLOGICAL INFORMATION

Product toxicity data: Loctite is not aware of any toxicity data on the specific mixture of chemical components contained in this product.

Carcinogen Status

Hazardous components	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen
Tetraethylenepentamine	No	No	No
Polyethylenepolyamines	No	No	No
Silica, amorphous, fumed, crystalline-free	No	No	No
Carbon black	No	Group 2B	No

Literature Referenced Target Organ & Other Health Effects

Hazardous components	Health Effects/Target Organs
Tetraethylenepentamine	Mutagen, Irritant, Allergen
Polyethylenepolyamines	No Target Organs
Silica, amorphous, fumed, crystalline-free	Nuisance dust
Carbon black	Respiratory, Some evidence of carcinogenicity

12. ECOLOGICAL INFORMATION

Ecological information: No specific studies have been conducted by Loctite on the ecotoxicity or environmental fate of this material; however, commonly available data on the material indicate that uncontrolled releases to soil, groundwater, or surface waters could entail acute and/or chronic ecological effects, depending on the quantity and concentration of such releases. Releases of volatile components to the atmosphere are not believed to entail significant ecological consequences provided such releases are within the exposure levels set forth in this document. Accordingly, all appropriate measures should be taken to avoid uncontrolled releases to the environment, and any spills or other uncontrolled releases which may occur should be contained and cleaned up immediately in accordance with Section 6.

13. DISPOSAL CONSIDERATIONS

Information provided is for unused product only.

Recommended method of disposal: Legal disposition of wastes is the responsibility of the owner/generator of the waste. Applicable federal, state and/or local regulaitons must be followed during treatment, storage, or disposal of waste containing this product.

EPA hazardous waste number: Not a RCRA hazardous waste.

14. TRANSPORT INFORMATION

U.S. Postal System: Postal regulations prohibit the shipment of this material through the U.S. mail.

U.S. Department of Transportation Ground (49 CFR):

Proper shipping name: AMINES, LIQUID, CORROSIVE, N.O.S. (Tetraethylenepentamine / Piperazine)
Hazard class or division: 8
Identification number: UN 2735
Packing group: III
Marine pollutant: None

International Air Transportation (ICAO/IATA):

Proper shipping name: AMINES, LIQUID, CORROSIVE, N.O.S. (Tetraethylenepentamine / Piperazine)
Hazard class or division: 8
Identification number: UN 2735
Packing group: III

WaterTransportation (IMO/IMDG):

Proper shipping name: AMINES, LIQUID, CORROSIVE, N.O.S. (Tetraethylenepentamine / Piperazine)
Hazard class or division: 8

Identification number:	UN 2735
Packing group:	III
Marine pollutant:	None

15. REGULATORY INFORMATION

United States Regulatory Information

TSCA 8 (b) Inventory Status:	All components are listed or are exempt from listing on the Toxic Substances Control Act Inventory.
TSCA 12 (b) Export Notification:	None.
CERCLA/SARA Section 302 EHS:	None.
CERCLA/SARA Section 311/312:	None.
CERCLA/SARA 313:	None.
California Proposition 65:	No California Proposition 65 listed chemicals are known to be present. If the cured material is to be dry sanded, ground or abraded then it becomes a Proposition 65 chemical which is known to the state of California to cause cancer. . Carbon black (CAS# 1333-86-4).

Canada Regulatory Information

CEPA DSL/NDSL Status:	All components are listed on or are exempt from listing on the Domestic Substances List.
WHMIS hazard class:	E, If the cured material is to be dry sanded, ground, or abraded, then the material becomes a D2A.

16. OTHER INFORMATION

This material safety data sheet contains changes from the previous version in sections:
Revised to new format. Added additional field to Section 1.

Prepared by: Environment, Health & Safety Department - Bay Point, CA

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