

Reference Number:  
C1-110

## Material Safety Data Sheet

KBK E919B  
10/06/2003  
C1-110  
Creation/Revision 10/06/2003

### 1. Product and Company Information

**Product Identification:** KBK E919B (curing agent)

**Manufacturer's Name:** National Starch and Chemical Company

**Manufacturer's Address:** 1-6-5 Semba Nishi Minoo, Osaka

**Responsible Department:** Safety and Product Assurance Division

**Telephone Number:** 072-728-1719

**Fax Number:** 072-728-3519

**Preparing Department:** Engineering Headquarters

**Telephone Number:** 072-728-1701

### 2. Composition/Information on Ingredients

**Pure/Composite:** Composite

**Chemical Name:** Polymercaptan Compound (Curing Agent)

**Composition:**

Ingredient	Weight %	CAS Number	Regulation Number
Polymercaptan	40 – 50%	---	(7)-334
Filler	50 – 60%	14080-60-7	(1)-548
Solvent	1 – 5%	Unlisted	(4)-38

**PRTR:**

Unlisted

**Occupational Health and Safety Material Information:**

(311) Silica 0 – 5%

**Poison Designation:**

Unlisted

The number in parenthesis is the material enforcement number.

### 3. Hazards and Toxicology

**Classification:**

Not classified.

**Hazards:**

Rapid temperature increase will result from mixing with a large amount of an epoxy resin.

**Toxicology:**

Skin and eye irritant.

### 4. First Aid Measures

**Inhalation:**

Seek prompt medical attention if irritation or other abnormalities develop after inhalation of fumes.

**Skin Contact:**

Remove any material from the skin and wash thoroughly with a neutral soap. Seek prompt medical attention if irritation or inflammation develops.

**Eye Contact:**

Flush eyes with copious amounts of water for at least 15 minutes. Seek medical treatment if any abnormalities develop.

**Ingestion:**

Do not induce vomiting. Seek prompt medical attention. Do not give anything by mouth to an unconscious person.

**5. Fire Fighting Measures****Extinguishing Media:**

Use water, foam, powder, carbon dioxide or sand.

**Fire Fighting Procedures:**

Direct the extinguishing media at the base of the fire. Move flammable materials to a safe location. When movement is not possible, cool flammable materials with water.

**Protective Equipment:**

Fight the fire from upwind wearing protective goggles, clothing and a self-contained breathing apparatus as conditions dictate.

**6. Accidental Release Measures**

Soak up spilled material with rags, sand, or other absorbent material and place in a covered container.

**7. Handling and Storage Precautions****Handling:**

- Avoid direct contact with the hands during use.
- Thoroughly wash hands and gargle after use.
- Take necessary precautions to prevent ingestion and contact with eyes, skin or clothing.
- Ensure that the work area is sufficiently ventilated. Close container after use.
- Work to avoid spills, overflow, splattering and the production of excessive fumes.
- Work to prevent static electricity buildup and wear electrically conductive clothing and footwear.
- Do not drop, spill, drag or mishandle the container.

**Storage:**

- Use well-secured, explosion-proof electrical equipment in the storage facility.
- Store tightly sealed in a cool, dark location away from direct sunlight.

**Other Information:**

- Follow all local occupational safety and fire regulations.

**8. Exposure Controls and Personal Protection****Standard Control Concentration:**

Work Environment Standard: Not Established

**Permissible Concentration:**

ACGIH (TLV) Not Established

**Facilities Countermeasures:**

- Provide adequate ventilation when working in confined spaces.
- Provide clearly labeled emergency showers, and hand and eye washing stations close to the work site.

**Protective Equipment:**

Gas masks approved for use with organics, self-contained breathing apparatus, protective goggles, gloves, clothing and footwear.

**9. Physical and Chemical Properties**

**Appearance:** Paste

**Odor:** Characteristic Mercaptan Odor

**Vapor Density:** No Data Available

**Boiling Point (C):** No Data Available

**Vapor Pressure:** No Data Available

**Melting Point:** No Data Available

**Specific Gravity:** 1.3 – 2.0 (at 20° C)

**Solubility:** Insoluble in Water

**10. Stability and Reactivity Information**

**Ignition Point:** 247° C

**Explosive Range:** No Data Available

**Explosion Point:** No Data Available

(in air)

**Stability/Reactivity:**

Stable at room temperature. However, mixing with the base resin or other epoxy resins will cause an exothermic reaction and hardening.

**11. Toxicological Information**

**Acute Toxicity:**

No data available.

**Dermal Corrosivity:**

Persistent skin contact may cause inflammation.

**Irritant (Skin, Eyes):**

Inhalation of fumes may cause irritation to the respiratory tract. Temporary eye irritant.

**Sensitization:**

Undetermined at this time.

**Mutagenicity:**

Undetermined at this time.

**Carcinogenicity:**

Undetermined at this time. The following notice from the Labor Ministry addresses epoxies and curing agents.

Labor Ministry and Labor Standards Bureau Notice entitled "Preventing Health Problems associated with Epoxy Resins and Curing Agents" No. 477 6/23/1976

**12. Ecological Information**

No information available at this time.

**13. Disposal Considerations**

Follow all applicable regulations and dispose of material with an approved facility. Follow the same procedure for disposal of containers and rags.

## **14. Transportation Information**

### **Transportation Safety Precautions:**

Take measures to prevent falling, dropping, or damage to containers during shipment. Follow applicable fire prevention and related laws.

## **15. Regulatory Information**

### **Industrial Safety and Health Law:**

Law 57 Section 2 (Statute 13 Section 2) Acknowledgement of Hazardous Materials (No. 311)

While not a law, the following notice from the Labor Ministry contains information regarding mixtures of epoxy resins and curing agents.

Labor Ministry Public Welfare Notice No. 33, 3/29/1996 "Labor Ministry Standards regarding Chemical Hygiene"

### **Fire Prevention Law:**

Not Regulated

### **Poisonous and Deleterious Substances Control Law:**

Not Regulated

### **PRTR Law:**

Not Regulated

## **16. Other Information**

Always be cautious in handling and use of this material as hazard and toxicological assessment may be incomplete or inadequate.

### **Contact:**

Same as preparing department at the beginning of this document.

### **Reference Material:**

- The Japan Chemical Industry Association MSDS Preparation Guidelines
- The Labor Ministry and Labor Standards Bureau Notice entitled "Preventing Health Problems associated with Epoxy Resins and Curing Agents" No. 477 6/23/1976