

1010190012

# MATERIAL SAFETY DATA SHEET

MSDS No.

76125-E-3

Issue Date:

18/Nov./2003

## 1. Product and Company Identification

Product Name : EPOXY MOLDING COMPOUND for IC:  
**MP-8000AN**  
 Supplier Name : NITTO DENKO CORPORATION  
 Address : 919, FUKU, KAMEYAMA, MIE, 519-0193,  
 Japan  
 Responsibility : QA Department  
 Person in charge : H. Kouyama  
 Telephone number : 05958-4-2835 (EMERGENCY)  
 05958-2-1151)  
 Fax number : 05958-2-8613

## 2. Composition / Information in ingredients

Substance/Mixture : Mixture material

Component	CAS No.	Content (%)
Hazardous		
Solid Epoxy Resin	---	2 - 20%
not restricted		
Phenol Resin	---	2 - 20%
not restricted		
Antimony Trioxide	1309-64-4	2.0%
Yes		
Carbon Black	1333-86-4	< 1%
not restricted		
Fused Silica	60676-86-0	60 - 95%
not restricted		
Crystalline Silica	14808-60-7	< 5%
Yes		

## 3. Hazards Identification

Human Health Effect

Harmful if ingested and inhaled after molding..

Physical and chemical hazards

May occur abrupt exothermic reaction with heating, strong alkali or acid.

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**Material to Avoid:**

Strong acid, oxidizers.

**Hazardous Decomposition Product:**

CO, CO<sub>2</sub>, NO<sub>x</sub>, Vapor

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**11. Toxicological Information**

**Carcinogenic Toxicity:**

Fused Silica: IARC(USA) Level 3

Crystalline Silica: IARC(USA) Level 1

**Irritation Data:** Irritation persists if attach to skin often or for a long time.

**Special Effect:** Need caution for silicosis if inhale plenty of crystal silica for a long time.

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**12. Ecological Information**

**Possible Environmental Effects:** No information

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**13. Disposal Considerations**

**Waste Disposal methods:**

Burn in a chemical incinerator equipped with an afterburner and scrubber in accordance with all applicable regulations. Any disposal must be in compliance with country, local, state and federal laws and regulations (contact country, local or state environmental agency specific rules).

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**14. Transport Information**

**Transportation Methods (land route, by water and sea):**

Must be transported without damage, load shifting and leakage by packing, under dark at below 5 degrees C.

**Transportation Methods (by air):**

Must be transported without damage, load shifting and leakage by packing, with adding sufficient dry ice.

**UNITED NATION No.:** Not applicable

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**15. Regulatory Information**

**US Regulations**

CAA: Listed (Sb<sub>2</sub>O<sub>3</sub>)

IARC: Level 1 (Crystalline Silica), Level 3 (Fused Silica)

ACGIH: Level A2 (Sb<sub>2</sub>O<sub>3</sub>)

EPA: Not listed

**EU Regulations**

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**Storage:** Store away from sunlight in well-ventilated and darkroom at below 5 degrees C. Keep container tightly closed not touch with strong alkali and acid. Protect against physical damage. Isolate from any source of heat or ignition. Isolate from incompatible substances.

## 8. Exposure Controls / Personal Protection

**Engineering Control:** Use exhaust ventilation to keep airborne concentrations below exposure limits. Use only with adequate ventilation.

**Control Parameters:**

OSHA (1998) PEL-TWA 3.5 mg/m<sup>3</sup>  
ACGIH (1998) TLV-TWA 3.5 mg/m<sup>3</sup>

**Personal Protective Equipment:**

Respiratory protection: Mask with active carbon  
Hand protection: Chemical resistant gloves  
Eye protection: Safety glasses (goggles)  
Skin protection: Protective clothes with long sleeve

## 9. Physical and chemical properties

**Form:** Tablet or Powder

**Color:** Black

**Odor:** Epoxy, acid

**pH:** no data

**Boiling Point:** Not available

**Melting Point:** 70 - 110 degrees C

**Flash Point:** > 200 degrees C

**Autoignition Temperature:** > 200 degrees C

**Solubility :** Insoluble in water, Soluble in ketone

**Specific Gravity:** 1.8 - 2.0

**Vapor Density (Air=1):** Not available

**Vapor Pressure (mm Hg):** Not available

## 10. Stability and Reactivity

**Stability:**

Stable under unopened conditions at below 5 degrees C in the dark for 10 months.

**Possible Hazardous Reactions:**

May occur hazardous gas if react with strong acid, oxidizers.

**Condition to Avoid:**

Sunlight, heat, high humidity

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#### 4. First-Aid Measures

**Inhalation:**

Move victim to fresh air if victim breathes gas after molding. If breathing is difficult, give oxygen. If headache, nausea persists, consult a physician.

**Ingestion:**

Give plenty of water and try to spit out the substance. Never give anything by mouth to an unconscious person. Consult a physician.

**Skin Contact:**

Remove the attached substance using gauze, and wash using soap. If irritation persists, consult a physician.

**Eye Contact:**

Immediately flush eyes with plenty of water for at least 15 minutes, lifting upper and lower eyelids occasionally. Consult a physician.

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#### 5. Fire-Fighting Measures

**Fire Extinguishing Media:** Dry chemical powder, Foam, Carbon dioxide, Water.

**Fire & Explosion Hazards:** During fire case, may occur black smoke.

**Specific Methods:** Break off the root of fire. Fire fighting must be done from windward.

**Protection of Firefighters:** Firefighters should wear normal protective equipment (full bunker gear) and positive-pressure self-contained breathing apparatus.

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#### 6. Accidental Release Measures

**Personal Precautions:** Wear suitable protective equipment to avoid contact with skin and eye, and inhale gas.

**Environmental Precautions:** Prevent spills from entering sewers, watercourses or low area.

**Method for clean up:** Waste materials using a broom or cleaning machine not to raise dust.

Consult a waste disposal company for optimum treatment, or abandon by fire according to the local regulation.

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#### 7. Handling and Storage

**Handling:** Handle material with suitable protection like gloves, mask and protective clothes.

Ventilate the mold area and local ventilation on mold machine to avoid outer gas after molding.

