

# Material Safety Date Sheet (MSDS)

Prepared on :

2005/11/24

## 1. Product and company identification

Product name EPOXY MOLDING COMPOUND for IC

Name of product  
(chemical name, brand  
name, etc.) : MP-8000CH4-EN  
Supplier product code : ZF909511C

## Company identification

Name of the  
supplier : NITTO DENKO ELECTRONICS (MALAYSIA) SDN. BHD  
  
Address : NO.2, PERSIARAN BUDIMAN SEKSYEN 23, 40000 SHAH ALAM,  
SELANGOR DARUL EHSAN, MALAYSIA  
  
A section in  
Charge : Research & Development SECTION  
  
Telephone number : 60-3-5541-7733 FAX number : 60-3-5541-8160  
Emergency telephone number : 60-3-5541-7733

## 2. Composition / information on ingredients

Distinction between  
a substance and : Compound

The common Chemical name or the generic name	Solid Epoxy Resin	Phenol Resin	Fused Silica
Synonyms			
Chemical formula or structural formula			SiO <sub>2</sub>
Content (mass%)	2-20	2-20	60-95
The serial number of the notifications on the official gazette	-	-	-
CAS number	-	-	60676-86-0
The common Chemical name or the generic name	Antimony Trioxide	Carbon Black	Crystalline Silica
Synonyms			
Chemical formula or structural formula	Sb <sub>2</sub> O <sub>3</sub>	C	SiO <sub>2</sub>
Content (mass%)	1.2	below 1	below 5
The serial number of the notifications on the official gazette	-		-
CAS number	1309-64-4	1333-86-4	14808-60-7

### 3. Hazards identification

#### Most important hazards and effects of the product

Adverse human health effects : Dust or small particles abrade skin and irritate eyes.

Silica ; See section 11  
Crystalline Silica and Carbon Black are listed in US California Proposition 65 as chemical can cause cancer or reproductive toxicity.

Physical and chemical hazards : May occur extraordinary reaction and generate high temperature when contact with strong alkalis acids.

Specific hazards : May irritate skin and eyes with prolonged and repeated contact.

### 4. First-aid measures

#### Inhalation :

If affected, move victims to fresh air. Keep victims at rest.

#### Skin contact :

Wash exposed area with lots of soap and water. Remove contaminated clothing and launder before re-use.

#### Eye contact :

Immediately flush with large amounts of water for at least 15 minutes, lifting upper and lower eyelid occasionally. Get medical attention.

#### Ingestion :

Do not induce vomiting. Get immediate medical attention.

A brief description of the most important symptoms and effect :

Protection of first-aiders : NA

Special notes to a physician : NA

### 5. Fire-fighting measures

Extinguishing media : Dry chemical, carbon dioxide, water spray or foam.

NOT suitable extinguishing media : Water in a jet.

Specific hazards : May produce oxides of carbon if incomplete combustion occurs.

Specific methods : Keep personal removed from and upwind fire.

Protection of firefighters : Wear full protective clothing and self-contained breathing apparatus with full face-piece.

## 6. Accidental release measures

Personal precautions :	Person not Wearing protective equipment should be excluded from the area of the spill until clean-up has been completed.
Environmental precautions :	Prevent spills from entering sewers, watercourses or low areas.
Methods for Cleaning up	
Recovery :	In case of spill wipe up with wipers or vacuum cleaners, then put it into a chemical waste containers.
Neutralization :	
Disposal :	See section 13 for information in disposal.

## 7. Handling and storage

### Handling

Prevention of user exposure :	Avoid contact with skin, eye and clothing.
Precautions :	Avoid inhalation of vapors. Wash skin thoroughly after handling. Apply local ventilation over processing areas.

Safe handling advice : Avoid contact with strong acids or alkalis.

### Storage

Technical measures : Keep containers closed or covered and dry.

Incompatible products : Strong acids or alkalis.

### Storage conditions

Suitable storage conditions :	Keep unger 5 degreeC in covered containers and away from direct sunlight, heat and open flames when not in use.
Storage conditions to be avoided :	Avoid keeping in higher temperatures.
Recommended :	Use closed containers with impervious materials.
Not suitable :	Avoid overexposure in higher humidity.

## 8. Exposure controls / personal protection

Engineering measures :	established exposure limits or level of overexposure.
Control parameters :	Carbon ;

### Personal protective equipment

Respiratory protection :	Half mask respirator with an organic vapor cartridge. Wear impervious protective gloves such as polyethylene or certain synthetic rubbers (contact your safety equipment supplier).
Hand protection :	
Eye protection :	Dust-tight goggles.
Skin and body protection :	Impervious clothing and boots are recommended.

## 9. Physical and chemical properties

#### Physical state

Form: Tablet or Powder  
Color : Black  
Odour : Faint odor  
pH : NA  
Specific temperature / temperature ranges at which changes in physical state occur  
Boiling point : NA  
Fusing point : 70-110 dwgreeC  
Decomposition temperature : above 200 degreeC  
Flash point : above 200 degreeC  
Autoignition temperature : above 200 degreeC  
Explosion properties : No data  
Densy : No data  
Solubility, with indication of the solvert : Not miscible in water, miscible in Ketone.

#### 10. Stability and reactivity

Stability : Stable below 5 degreeC, in a closed container.  
Possible hazardous reactions occurring under specific condition : May occur extraordinary reaction when contacted with strong acids, alkalis or hardeners for epoxy resins.

Condition to avoid : Store in high temperature or humidity.

Materials to avoid : Strong acids, oxidizing agents or harderes for epoxy resins.

Hazardous decomposition products : Thermal decomposition may from carbon monoxide, carbon dioxide, nitrogen, nitrogen oxide and water vapor.

#### 11. Toxicological information

Acute toxicity :  
Local toxicity : Not cleared.  
Specific effects  
Carcinogenicity : Fused Silica ;  
Listed as Level 3 in IARC  
Crystalline Silica ;  
Listed as Level 1 in IARC

## 12. Ecological information

### Information on fate

Mobility : Sink in water.

## 13. Disposal considerations

Incineration is the recommended disposal method for chemical waste such as this product. Dispose to licensed disposal processor.

Product :  
Waste from residues :  
Contaminated packaging :

Dispose to licensed disposal processor.  
Remove all packaging for recovery or waste disposal.  
Dispose as industrial waste.

## 14. Transport information

### Information for Code and classification at international regulations

Land : Assure containers are not damaged to prevent leakage of product before loading.

The UN classification number : NA

## 15. Regulatory information

Regulations : It is necessary to follow all regulations in your country. US California proposition 65 All the ingredients are TSCA listed.

## 16. Other information

### Disclaimer;

This information is made based on data from such as raw material MSDS, and our current knowledge.

The information contained herein is believed to be accurate, and is intended to describe the product for the purposes of health, safety and environmental requirements only.

Therefore it should not be construed as guaranteeing any specific property of the product.

Recipient shall assume all responsibility for the use of this information and the use (alone or in combination with any other product), storage or disposal of the product, including any resultant personal injury or property damage.