

# MATERIAL SAFETY DATA SHEET

## Hampford Research, Inc.

### SECTION 1. -----CHEMICAL PRODUCT AND COMPANY IDENTIFICATION-----

#### EMK

**CHEMICAL FORMULA:** C21H28N2O

**CAS NUMBER:** 90-93-7

**CHEMICAL NAME:** 4-4' Bis(diethylamino)benzophenone

**REVISED:** 7/29/2003

**MANUFACTURER:** Hampford Research, Inc  
P.O. Box 1073  
54 Veterans Blvd.  
Stratford, CT 06615

**EMERGENCY TELEPHONE NUMBERS:** OFFICE (203) 375-1137  
CHEMTREC (800) 424-9300

### SECTION 2. -----COMPOSITION / INFORMATION ON INGREDIENTS-----

COMPONENT	CAS #	% BY WEIGHT	EXPOSURE LIMITS
4,4'-Bis(diethylamino)benzophenone	90-93-7	99.0	not established

### SECTION 3. -----HAZARDS IDENTIFICATION-----

**EYES:** Irritating to eyes.

**SKIN:** Irritating to skin.

**SWALLOWING:** Data not available.

**INHALATION:** Irritating to respiratory system.

### SECTION 4. -----FIRST AID MEASURES-----

**EYE CONTACT:**  
In case of contact, immediately flush eyes with plenty of water for at least 15 minutes, occassionally lifting the upper and lower lids.

**SKIN CONTACT:**  
In case of contact, wash skin with plenty of soap and water for at least 15 minutes. Remove and wash contaminated clothing before reuse.

**INGESTION:**  
If swallowed, do NOT induce vomiting. Allow the victim to rinse his mouth and then to drink 2-4 cupfuls of water. Seek medical attention.

**INHALATION:**  
If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

### SECTION 5. -----FIRE FIGHTING MEASURES-----

**UNUSUAL FIRE AND EXPLOSION HAZARDS:**  
Irritating and toxic gases may be generated by thermal decomposition or combustion.

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## FIRE EXTINGUISHING MEDIA:

Water spray, dry chemical, chemical foam or alcohol-resistant foam.

## SPECIAL FIREFIGHTING INSTRUCTIONS:

Wear self-contained breathing apparatus in pressure-demand, MSHA/NIOSH approved or equivalent and full protective gear.

## SECTION 6. -----ACCIDENTAL RELEASE MEASURES-----

### PERSONAL PROTECTIVE EQUIPMENT (PPE):

Wear respirator, chemical safety goggles, rubber boots and heavy rubber gloves.

### SPILL CLEANUP MEASURES:

Sweep up spills immediately then place into a suitable container for proper disposal. Ventilate area and wash spill site after material pickup is complete.

## SECTION 7. -----HANDLING AND STORAGE-----

### HANDLING AND STORAGE REQUIREMENTS:

Store in a cool, dry place. Keep container closed when not in use. Do not expose to light.

## SECTION 8. -----PERSONAL PROTECTION/EXPOSURE CONTROLS-----

**EYE/FACE PROTECTION:** Wear safety glasses and chemical goggles if splashing is possible. Eye bath available.

**SKIN PROTECTION:** Wear appropriate protective gloves and clothing to prevent skin exposure. Safety shower available.

**RESPIRATORY PROTECTION:** Wear a NIOSH/MSHA approved respirator.

**ENGINEERING CONTROLS:** Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits. Use process enclosure, local exhaust ventilation, or other engineering controls to control airborne levels.

## SECTION 9. -----PHYSICAL AND CHEMICAL PROPERTIES-----

**PHYSICAL STATE:** Powder

**MELTING POINT:** 91degrees C - 96 degrees C

**BOILING POINT:** N/A

**SPECIFIC GRAVITY:** N/A

**APPEARANCE:** Yellow-green

**ODOR:** Mild typical ester odor

**OTHER:** Solubility in water: insoluble

## SECTION 10. -----STABILITY AND REACTIVITY-----

### INCOMPATIBILITIES:

Incompatible materials, strong oxidants, sensitive to light.

### HAZARDOUS DECOMPOSITION:

Nitrogen oxides, carbon monoxide, irritating and toxic fumes and gases, carbon dioxide and nitrogen.

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**CHEMICAL STABILITY:**

Stable under normal temperatures and pressures.

**HAZARDOUS POLYMERIZATION:**

Polymerization will not occur.

**SECTION 11. -----TOXICOLOGICAL INFORMATION-----****TOXICOLOGICAL EFFECTS:**

Use appropriate procedures to prevent opportunities for direct contact with the skin or eyes and to prevent inhalation. The toxicological properties have not been investigated.

**SECTION 12. -----ECOLOGICAL INFORMATION-----****ECOLOGICAL EFFECTS:**

Data not yet available.

**SECTION 13. -----DISPOSAL INFORMATION-----****WASTE MANAGEMENT PROCEDURES:**

Dispose of in a manner consistent with Federal, State and Local environmental regulations.

**SECTION 14. -----TRANSPORT INFORMATION-----****TRANSPORTATION INFORMATION:**

Contact Hampford Research, Inc. for transportation information.

**-----DOT (DOMESTIC SURFACE)-----**

PROPER SHIPPING NAME: No classification assigned. Not Regulated.

HAZARD CLASS OR DIVISION:

UN / NA NUMBER:

PACKING GROUP:

DOT PRODUCT RQ lbs (kgs):

HAZARD LABEL (s):

HAZARD PLACARD (s):

**-----IMO / IMDG CODE (OCEAN)-----**

PROPER SHIPPING NAME: No classification assigned. Not Regulated.

HAZARD CLASS DIVISION NUMBER:

UN NUMBER:

PACKAGING GROUP:

HAZARD LABEL (s):

HAZARD PACKARD (s):

**-----ICAO / IATA (AIR)-----**

PROPER SHIPPING NAME: No classification assigned. Not Regulated.

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HAZARD CLASS DIVISION NUMBER:  
UN NUMBER:  
SUBSIDIARY RISK:  
PACKING GROUP:  
HAZARD LABEL (s):  
RADIOACTIVE?:  
PASSENGER AIR - MAX QTY:  
PASSENGER PACKING INSTRUCTION:  
CARGO AIR - MAX QTY:  
CARGO AIR PACKAGING INSTRUCTION:

## SECTION 15. -----REGULATORY INFORMATION-----

### REGULATORY INFORMATION:

CAS#90-93-7 is listed on the TSCA Inventory. None of the chemicals are on the Health and Safety Reporting List. None of the chemicals in this product are listed as Hazardous Substances or Priority or Toxic Pollutants under the Clean Water Act.

On TSCA Inventory

January 2003 Inventory Tape.

On DSL

Supplement to Canada Gazette, Part I, January 26, 1991

On EINECS

Annex to Official Journal of the European Communities, 15 June 1990.

On ENCS

Japanese Gazette. Contained within class: Low Molecular Carbo-polycyclic Organic Compounds.

On AICS

Australian Inventory of Chemical Substances, June 1996 Ed.

On ECL

Korean Existing Chemicals List, January 1997.

On PICCS

Philippines Inventory of Chemicals and Chemical Substances, 2000.

Regulatory List Number

EINECS No.: 202-025-4

ENCS No.: 4-893

ECL Serial No.: KE-03016

Confidentiality Status

Public

## SECTION 16. -----ADDITIONAL INFORMATION-----

### ADDITIONAL INFORMATION:

The data in this Material Safety Data Sheet relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process. The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. Hampford Research, Inc. shall not be held liable for any damage resulting from handling or from contact with the above product. Hampford Research grants permission to make unlimited paper copies for internal use only.

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