

# MATERIAL SAFETY DATA SHEET

## PHENOSSET MICROSPHERES

DATE OF ISSUE : 18 JUNE 2001

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### 1.0 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY UNDERTAKING

#### 1.1 IDENTIFICATION OF THE SUBSTANCE

CHEMICAL NAME : Phenol formaldehyde resin  
CHEMICAL FAMILY : Phenolic resin  
FORMULA : Not applicable  
CAS AND NAME : 9003-35-4 Phenol, polymer with formaldehyde  
SYNONYMS, TRADE NAMES : BJO-0930, BJO-0840, EPO-0360

#### 1.2 COMPANY IDENTIFICATION : MANUFACTURER

ASIA PACIFIC MICROSPHERES SDN BHD  
NO 9, JALAN UTAS 15/7, 40200 SHAH ALAM  
SELANGOR DARUL EHSAN, MALAYSIA  
Tel : 603-55181188  
Fax : 603-55181122

#### 1.3 EMERGENCY TELEPHONE NUMBER

603-55191801 OR 603-55181188

### 2.0 COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT	CONCENTRATION BY % WEIGHT	HAZARD	DANGER SYMBOL(S)
Phenolic resin (CAS 9003-35-4)	100	See Section 3	None

### 3.0 HAZARDS IDENTIFICATION

#### 3.1 HEALTH HAZARD DATA

- 3.1.1 EFFECTS OF A SINGLE EXPOSURE : Swallowing - No evidence of harmful effects from available information.  
: Skin absorption - No evidence of harmful effects from available information.  
: Inhalation - Short term harmful effects are not expected from vapour generated at ambient temperature.  
: Skin contact - No evidence of harmful effects from available information.  
: Eye contact - May cause irritation, experienced as stinging with excess blinking and tear production. Redness and swelling of the conjunctiva may occur.
- 3.1.2 EFFECTS OF REPEATED EXPOSURE : This material may contain trace amount (<0.001%) of free formaldehyde, which is listed by IARC, NTP and OSHA as a carcinogen.  
There should be minimal risk when adequate ventilation is used due to the very low formaldehyde concentration.
- 3.1.3 MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE : A knowledge of the available toxicology information and of the physical and properties of the materials suggest that overexposure is unlikely to aggravate existing medical conditions.
- 3.1.4 OTHER EFFECTS OF OVEREXPOSURE : None known currently.

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### 4.0 FIRST AID MEASURES

<b>SWALLOWING</b>	: No emergency care anticipated.
<b>INHALATION</b>	: No emergency care anticipated.
<b>SKIN CONTACT</b>	: Remove contaminated clothing. Wash skin with soap and water. Obtain medical attention if irritation persists. Wash clothing before reuse.
<b>EYE CONTACT</b>	: Immediately flush eyes with water and continue washing several minutes. Obtain medical attention if discomfort persists.
<b>NOTES TO PHYSICIAN</b>	: There is no specific antidote. Treatment or overexposure should be directed at the control of symptoms and the clinical condition of the patient.

## 5.0 FIRE-FIGHTING MEASURES

### 5.1 EXTINGUISHING MEDIA

Apply alcohol type or all purpose type foams by manufacturer's recommended technique for large fires. Use carbon monoxide or dry chemical media for small fires.

### 5.2 EXTINGUISHING MEDIA TO BE AVOIDED

None

### 5.3 SPECIAL FIRE FIGHTING PROCEDURES

Do not direct a solid stream of water or foam into burning molten material; this may cause spattering and spread of fire.

### 5.4 SPECIAL PROTECTIVE EQUIPMENT FOR FIRE FIGHTERS

Use self-contained breathing apparatus and protective coating.

### 5.5 UNUSUAL FIRE AND EXPLOSION HAZARDS

Avoid dispersion of dust in air to reduce potential of dust ignition/explosions. Formaldehyde and phenol may form under fire conditions.

## 6.0 ACCIDENTAL RELEASE MEASURE

Wear suitable protective clothing. Collect for disposal.

## 7.0 HANDLING AND STORAGE

### 7.1 HANDLING

7.1.1	GENERAL PRECAUTION	: Avoid dispersion of dust in air. : Avoid sparks and flame under dust conditions. : Use with adequate ventilation. : Electrically bond and ground all equipment. : Avoid contact with skin. In case of contact with eyes, rinse immediately with plenty of water and call the physician if necessary.
7.1.2	VENTILATION	: Special, local ventilation is recommended in areas where containers are opened and their contents are discharged or in any other areas where dusting conditions may develop.
7.1.3	OTHER PRECAUTION	: [CAUTION] May undergo spontaneous smouldering if stored or heated in bulk above 35 C under conditions allowing air ingress to the product. Store package material in a cool, well ventilated area. : Do not store in the sun. : Do not dry in package - use special drying instructions as in 7.1.4. : Microspheres will undergo oxidation at elevated temperatures. Due to the microspheres' excellent insulating characteristics, the internal temperature of the mass can increase to the point where spontaneous ignition and smouldering can occur. The temperature at which this occur is a function of the geometry, amount of material being heated and available oxygen. Smouldering appears as a soft glow similar to burning charcoal.

7.1.4	DRYING INSTRUCTIONS FOR THERMOSET MICROSPHERES	: To reduce the moisture content of this product to less than 4%, dry a two inch layer or less of the product at a maximum temperature of 75 C for 24 hours. To
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prevent oven or product contamination, the metal drying tray should be covered with a cloth that will allow the product moisture to evaporate. While handling the microspheres, precaution should be taken to prevent dispensing of the material in air to form dust. Any finely divided organic material dispersed in air can be ignited and under some condition develop into dust explosion.

## 7.2 STORAGE

Keep container closed.

## 8.0 EXPOSURE CONTROLS AND PERSONAL PROTECTION

### 8.1 EXPOSURE LIMIT

No exposure limit has been established.

### 8.2 PERSONAL PROTECTION

- 8.2.1 RESPIRATORY PROTECTION : Dust respirator, if dusting condition exists.
- 8.2.2 HAND PROTECTION/PROTECTIVE GLOVES : General working gloves are acceptable.
- 8.2.3 EYE PROTECTION : Safety glasses.
- 8.2.4 OTHER PROTECTIVE EQUIPMENT : Eye bath and safety shower.

## 9.0 PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE	: Hollow spheres
COLOUR	: Red brown
ODOUR	: No odour specified
MOLECULAR WEIGHT	: > 10,000
BOILING POINT	: Does not boil
MELTING POINT	: Does not melt
AUTOIGNITIO TEMPERATURE	: 160 ± 5°C
SPECIFIC GRAVITY (WATER = 1)	: Not applicable
SOLUBILITY IN WATER (BY % WEIGHT)	: Not soluble
PERCENTAGE VOLATILES	: (maximum) 4 --- → water

## 10.0 STABILITY AND REACTIVITY

### 10.1 STABILITY

- 10.1.1 GENERAL : Stable
- 10.1.2 CONDITIONS TO AVOID : None known
- 10.1.3 INCOMPATIBLE MATERIALS : Strong oxidising agents  
: Strong acids  
: Strong alkalis  
: Halogens  
: Acyl halides
- 10.1.4 HAZARDOUS COMBUSTION PRODUCTS : Burning or thermal decomposition can produce the following combustion or decomposition products :  
• Phenol  
• Formaldehyde  
• Carbon monoxide and/or carbon dioxide. Carbon monoxide is highly toxic if inhaled : carbon dioxide in sufficient concentration can act as an asphyxiant.

### 10.2 POLYMERIZATION

10.2.1 GENERAL : Will not occur.

10.2.2 CONDITIONS TO AVOID : None known.

## 11.0 TOXICOLOGICAL INFORMATION

### 11.1 ACUTE TOXICOLOGICAL INFORMATION

All available information with relevance to human health hazard evaluation is indicated under Section 11.3

### 11.2 SUB-ACUTE/SUB-CHRONIC/CHRONIC TOXICOLOGICAL INFORMATION

All available information with relevance to human health hazard evaluation is indicated under Section 11.3

### 11.3 SIGNIFICANT DATA WITH POSSIBLE RELEVANCE TO HUMAN HEALTH

Formaldehyde has been shown to cause cancer in laboratory animals and mutations in a variety of in-vitro test systems. The relevance of these findings for human is unknown. Formaldehyde is listed as a carcinogen by IARC, NTP and OSHA.

### 11.4 ADDITIONAL INFORMATION

May cause skin and eyes irritation by contact.

## 12.0 ECOLOGICAL INFORMATION

### 12.1 PERSISTENCE AND DEGRADABILITY

All available ecological data have been taken into account for the development of the hazard and precautionary information contained in this Safety Data Sheet.

### 12.2 EFFECTS ON WASTE WATER TREATMENT SYSTEMS

No information currently available.

### 12.3 ENVIRONMENTAL RISKS

All available ecological data have been taken into account for the development of the hazard and precautionary information contained in this Safety Data Sheet.

## 13.0 DISPOSAL CONSIDERATIONS

### 13.1 METHODS

Incinerate in a furnace or otherwise dispose off in accordance with appropriate National and Local regulations.

## 14.0 TRANSPORT INFORMATION

### 14.1 TRANSPORT CLASSIFICATION

ADR/RD : This product is not submitted to the ADR regulations.  
MONT-BLANC : OK  
IMDG : This product is not submitted to the IMO regulations  
MARPOL : ANNEX II - Not evaluated at this moment  
ANNEX III - Not classified  
ICAO : This product is not submitted to the ICAO regulations

## 15.0 REGULATORY INFORMATION

The concentration shown are maximum or ceiling levels (weights %) to be used for calculations for regulations. Trade secrets are indicated by "TS".

### 15.1 FEDERAL EPA

#### **Comprehensive Environmental Response Concentration, and Liability Act of 1980 (CERCLA)**

requires notification of the National Response Center of release of quantities of Hazardous Substances equals to or greater than the reported quantities (RQs) in CFR 302.4

Component in this product at a level which could require reporting under the statute are :**None**

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#### **Superfunds Amendments and Reauthorization Act of 1986 (SARA) Title III**

(RQs) requires emergency planning based on threshold Planning Quantities (TPQs) and release reporting based on Reportable Quantities in 40 CFR 355 (used for SARA 02, 304, 311 and 312).

Component in this product at a level which could require reporting under the statute are :**None**

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#### **Superfunds Amendments and Reauthorization Act of 1986 (SARA) Title III**

be requires submission of annual reports of releases of toxic chemicals that appear in 40 CFR 372 (for SARA 313). This information must be included in all MSDS that are copied and distributed for this material.

Component in this product at a level which could require reporting under the statute are :**None**

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#### **Toxic substance control Acts (TSCA) Status :**

The ingredients of this product are on the TSCA inventory.

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### 15.2 STATE RIGHT-TO-KNOW

**CALIFORNIA Proposition 65** This product contain trace quantities of formaldehyde, which in the State of California has found to cause cancer.

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**MASSACHUSETTS** Hazardous Substances and Extraordinarily Hazardous Substances on the MSL must be identified when present in products.  
Right-to-know, Substance List (MSL)

Components present in this product at a level which could require reporting under the statute are :

EXTRAORDINARILY HAZARDOUS SUBSTANCES (=>0.0001 %)

CHEMICAL	CAS NUMBER	UPPER BOUND CONCENTRATION %
Phenol	108-95-2-	0.01
Formaldehyde	50-00-0	0.001

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**PENNSLYVANIA** Hazardous Substances and Special Hazardous Substances on the List must be identified when present in products.  
Right-to-know, Hazardous Substance List

Components present in this product at a level which could require reporting under the statute are:

SPECIAL HAZARDOUS SUBSTANCES (=0.01 %)

CHEMICAL	CAS NUMBER	UPPER BOUND CONCENTRATION %
Phenol	108-95-2-	0.01

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**CALIFORNIA SCAQMD RULE 443.1 VOC'S** None

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**OTHER REGULATORY INFORMATION** None

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## 16.0 OTHER INFORMATION

**16.1 RECOMMENDED USES AND RESTRICTIONS** : Please consult the product and/or applications information bulletins for this product.

**16.2 REVISED SECTIONS IN THIS ISSUE** : All sections in this issue have been revised

**Note** : The opinions expressed within this is current as of the date of this Material Safety Data Sheet. Since the use of this information and the conditions of the use of the product are not under the control of Asia Pacific Microspheres, it is the user's obligation to determine conditions of safe use of the products.