

# MATERIAL SAFETY DATA SHEET

KOREA KUMHO PETROCHEMICAL CO., LTD.

Quality Assurance Team

#680 Sangkae-Dong, Nam-ku, Ulsan-Si, Korea

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KOSYN KBR 01

REVISION DATE : DEC. 2005

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## 1. Identification of the substance/preparation and company

Product details :

Trade Name : KOSYN KBR 01

Supplier details : KOREA KUMHO PETROCHEMICAL CO., LTD.

#680 Sangkae-Dong, Nam-ku, Ulsan-Si, Korea

Information provided by : Kwang Ju Bank B/D., #70 Seolin -Dong, Chongno-Ku, Seoul, Korea

Emergency Telephone Number : +82-2-399-7612

## 2. Composition/information on ingredients

Chemical characterization : Poly-Butadiene Cold Emulsion Copolymer

Chemical family : (-CH=CH-CH=CH-)n

CAS No. : 9003-17-2

## 3. Hazards Identification

Plants, Preservatives, and Solvent	%	TLV (Units)	Alloys and Metallic Coatings	%	TLV (Units)
<b>Pigments</b> NONE			<b>Base Metal</b> NONE		
<b>Catalyst</b> (CAS NO. 7720-78-7) Fe	0.001	-	<b>Alloys</b> NONE		
<b>Vehicle</b> CONTAINER			<b>Metallic Coatings</b> NONE		
<b>Solvents</b> (CAS NO.64742-04-7) AROMATIC OIL	37.5				
<b>Additives</b> (CAS NO. 106-50-3) STYRENED PHENOLS	1.2	-	<b>Filler Metal</b> NONE		
			<b>Plus Coating or Core Flux</b> NONE		
<b>Others</b>			<b>Others</b>		

### Oral (Ingestion)

NOT ESTABLISHED

### LD50 (Skin Contact)

NOT ESTABLISHED

### Effects of Overexposure

Hot material can cause severe burns. Processing fumes may cause irritation to the eyes, skin, and respiratory tract, and in case of severe over-exposure, nausea and headache.

Ingestion, skin contact, eye contact, Inhalation of

Short term effects

NO INFORMATION IS AVAILABLE.

### LC50 (Inhalation)

NOT ESTABLISHED

### Threshold Limit Value (TLV)

NOT APPLICABLE

Long term effects

NO INFORMATION IS AVAILABLE.

## 4. First aid measures

Inhalation

Remove from exposure area to fresh air immediately. Perform artificial respiration if necessary.

Keep person warm and quiet. Treat symptomatically and supportively. Get medical attention.

Skin contact

Remove contaminated clothing and shoes. Wash with soap or mild detergent and large amounts of water until no evidence of chemical remains at least 15-20 minutes). Get medical attention.

Eye contact

Wash eyes with large amounts of water or normal saline, occasionally lifting upper and lower lids, until no evidence of chemical remains at least 15-20 minutes). Get medical attention.

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## Ingestion

If vomiting occurs keep head lower than hips to help prevent aspiration. Treat symptomatically and supportively. Get medical attention if needed.

All chemicals should be handled so as to prevent eye contact and excessive or repeated skin contact.

## 5. Fire-fighting measures

### Suitable extinguishing media :

WATER, DRY CHEMICAL, CO<sub>2</sub>,FOAM

### Flash Point:

None

### Flammable limits:

None

**Auto ignition Temperature:** 600° F 315.5° C

### Special Fire Fighting Procedures

Move container from fire area if you can do it without risk. Keep away from heat, sparks and flame. Avoid contamination by any source. Handle with caution.

### Unusual Fire and Explosion Hazards

When exposed to flame, emits acrid fumes. No explosive hazards expected.

**Hazardous Combustion Products:** Carbon Monoxide, Carbon Dioxide, Small amounts of aromatic aliphatic Hydrocarbons

## 6. Accidental spill / release measures

### Steps to be taken in case material is released or spilled

Sweep up and place in suitable containers for disposal or reuse. Do not flush spilled material into sewer.

Wastes are not hazardous as defined by the Resource Conservation and Recovery Act (RCRA; 40 CFR 261).

## 7. Handling and storage

### Precaution to be taken in Handling and Storage

Store away from incompatible substances.

Keep away from excessive heat and open flame

### Handling

Make efforts to keep the workplace clean and tidy

Since there is possibility of volatile matter generating during work, it may cause irritation to the eyes.

After work, before smoking or eating, wash the hands well, and gargle.

### Storage

In order to prevent deterioration, avoid the following

Exposure to the direct sun rays

High temperature, high humidity

Outdoor storage

Even in the case of indoor storage, avoid storing in high temperature area or near UV emitting lights such as the incandescent lamps and mercury lamps.

## 8. Exposure controls/personal protection

### Ventilation

Provide local exhaust ventilation. Ventilation equipment should be explosion - proof if explosive concentrations of dust, vapor or fume are present.

### Eye protection

Employee should wear splash - proof or dust - resistant safety goggles to prevent eye contact with this substance.

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## Clothing

Employee should wear appropriate protective clothing and equipment to prevent repeated or prolonged skin contact with this substance.

## Gloves

Employee should be wear appropriate protective gloves to prevent contact with this substance.

## Respirator

The respirators are recommended based on information found in the PHYSICAL DATA, TOXICITY and HEALTH EFFECTS section. They are ranked in order from minimum to maximum respiratory protection.

## 9. Physical and chemical properties

<b>Appearance</b> WHITE COLORED BALE	<b>Odor</b> NONE	<b>Freezing / Melt Point</b> NOT APPLICABLE	<b>Specific Gravity</b> 0.91
<b>Vapor Density (Air=1)</b> NOT APPLICABLE	<b>% Volatile by Volume</b> 0.2	<b>Bulk Density</b> NOT APPLICABLE	<b>Boiling Point</b> NOT APPLICABLE
<b>Vapor Pressure</b> NOT APPLICABLE	<b>%Solubility in Water</b> INSOLUBLE	<b>Flash Point</b> NOT APPLICABLE	<b>Evaporation Rate</b> NOT APPLICABLE

## 10. Stability and reactivity

### Condition causing stability & reactivity

Material is stable. Stable under normal temperature and pressure.

### Incompatibility (Materials to avoid)

UEL : NOT APPLICABLE

May burn but does not ignite readily. Avoid contact with strong oxidizers, excessive heat, sparks, or open flame.

### Hazardous decomposition products.

Thermal decomposition : more than 360°C (heating rate : 10°C/min 50 ~ 600°C, atmosphere : 100ml/min in air)

Thermal decomposition products may include toxic fume of styrene and toxic oxides of carbon and nitrogen

### Special sensitivity

NOT APPLICABLE

## 11. Toxicological information

Carcinogen status : No data available

Acute toxicity level : No data available

Target effects : No data available

Health effects :

Inhalation

Acute exposure : No data available

Chronic exposure : No data available

Eye contact

Acute exposure : No data available

Chronic exposure : No data available

Skin contact

Acute exposure : No data available

Chronic exposure : No data available

Ingestion

Acute exposure : No data available

Chronic exposure : No data available

## 12. Ecological information

Acute aquatic toxicity : No data available

Degradability : No data available

Log Bioconcentration factor : No data available

Log Octanol/Water partition coefficient : No data available

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## 13. Disposal considerations

Observe all federal, state and local regulations when disposing of this substance

Disposal must be in accordance with standards applicable to generators of hazardous waste.

## 14. Transport information

No classification currently assigned

## 15. Regulatory information

### U. S. REGULATIONS

#### Federal Regulations:

The Occupational Safety and Health Administration (OSHA), National Toxicology Program (NTP), International Agency for Research on Cancer (IARC), and American Conference of Governmental Industrial Hygienists (ACGIH) have not classified this product as a carcinogen.

The Permissible Exposure Limits (PELs) reported in this MSDS are from the air contaminants standard OSHA issued in 1989.

While an appeals court eventually vacated this standard, it was without authority to reverse state law under which states, operating with their own OSHA programs, had adopted the 1989 standard. Below is a list of states enforcing the 1989 standard. Please also refer to 29 CFR 1910.1000 and to relevant state statutes for other applicable exposure limits.

#### Environmental Regulations:

There are no components in this product regulated by the Environmental Protection Agency (EPA) under the Superfund Amendments and Reauthorization Act (SARA Title III); the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), or the Toxic Substance Control Act (TSCA).

Toxic Substances Control Act Inventory (TSCA 8(b)): This product and its components are listed.

### INTERNATIONAL REGULATIONS

Canada Environmental Protection Act Domestic Substance List (Section 25(1) DSL):

This product and its components are listed.

## 16. Other information

Final determination of safety and suitability of any material is the sole responsibility of the keeper and user.

All materials may present unknown hazards, and therefore should be handled with adequate caution.

Although certain hazards are described herein, they may not be the only hazards in relation to the products.

This information relates to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is to the best of our knowledge and belief, accurate and reliable as of the date compiled. However, no representation ; warranty or guarantee is made as to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability and completeness of such information for his own particular use. We do not accept liability for any loss or damage that may occur from the use of this information not do we offer warranty against patent infringement.