

# KUMHO PETROCHEMICAL

## SAFETY DATA SHEET KTR-101, KTR-101P

According to Regulation (EC) No 1907/2006, Annex II, as amended by Regulation (EU) No 453/2010, COMMISSION REGULATION (EU) 2015/830 of 28 May 2015.

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

Product name	KTR-101, KTR-101P
REACH registration number	-
REACH registration notes	Monomer is registered instead of Styrene-Butadiene-Styrene copolymer. (Registration number of monomer: 1,3-Butadiene; 01-2119471988-16-****, Styrene; 01-2119457861-32-****)

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses	Not available.
Uses advised against	Not available.

#### 1.3. Details of the supplier of the safety data sheet

Supplier	OR of KOREA KUMHO Petrochemical Co., Ltd. KIST Europe Forschungsgesellschaft mbH Campus E71 66123 Saarbruecken Germany  Tel: +49 681 9382 334 Fax: +49 681 9382 319 e-mail: reach.it@kist-europe.de
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Manufacturer	Korea Kumho Petrochemical Co., Ltd. 118, Yeosusandan 3-ro, Yeosu-si, Jeollanam-do, 59612, Korea Tel: +82 61 688 3060-9 Fax: +82 61 688 3168
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#### 1.4. Emergency telephone number

Emergency telephone	+49 551 19240 GIZ-Nord, Goettingen, Germany (English only)
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### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### Classification (EC/1272/2008)

Physical hazards	Not Classified
Health hazards	Not Classified
Environmental hazards	Not Classified

#### 2.2. Label elements

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**Hazard statements**                      NC Not Classified

### 2.3. Other hazards

#### SECTION 3: Composition/information on ingredients

##### 3.2. Mixtures

<b>Styrene-Butadiene Copolymer</b>	<b>98 - 99 %</b>
CAS number: 9003-55-8	

**Classification**  
Not Classified

<b>Additives</b>	<b>1-2 %</b>
CAS number: —	

**Classification**  
Not Classified

The full text for all hazard statements is displayed in Section 16.

#### SECTION 4: First aid measures

##### 4.1. Description of first aid measures

<b>General information</b>	Get medical attention.
<b>Inhalation</b>	Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Get medical attention if any discomfort continues. If breathing stops, provide artificial respiration.
<b>Ingestion</b>	Rinse mouth. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if any discomfort continues.
<b>Skin contact</b>	Remove contaminated clothing and rinse skin thoroughly with water. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.
<b>Eye contact</b>	Do not rub eye. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical attention if irritation persists after washing.

##### 4.2. Most important symptoms and effects, both acute and delayed

##### 4.3. Indication of any immediate medical attention and special treatment needed

**Notes for the doctor**                      Treatment may vary with condition of victim and specifics of incident.

#### SECTION 5: Firefighting measures

##### 5.1. Extinguishing media

**Suitable extinguishing media**      Extinguish with dry sand. Alcohol-resistant foam. Carbon dioxide (CO<sub>2</sub>). Dry chemicals. Water spray.

**Unsuitable extinguishing media**      Do not use water jet as an extinguisher, as this will spread the fire.

##### 5.2. Special hazards arising from the substance or mixture

**Specific hazards**                      Irritating gases or vapours. Dust or gas may ignite by flames. Dust may form explosive mixture with air. May explode when heated or when exposed to flames or sparks. Containers can burst violently or explode when heated, due to excessive pressure build-up.

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**Hazardous combustion products** Oxides of carbon. Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

### 5.3. Advice for firefighters

**Protective actions during firefighting** Keep up-wind to avoid fumes. Fight advanced or massive fires from safe distance or protected location. Avoid inhalation of materials or combustion by-products. Cool containers exposed to flames with water until well after the fire is out. Move containers from fire area if it can be done without risk.

**Special protective equipment for firefighters** Use protective equipment appropriate for surrounding materials.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

**Personal precautions** Wear protective clothing as described in Section 8 of this safety data sheet. Avoid heat, flames and other sources of ignition. Keep upwind. Do not handle broken packages without protective equipment. Provide adequate ventilation. Avoid generation and spreading of dust.

### 6.2. Environmental precautions

**Environmental precautions** Store away from waterwork or drainage system. Prevent run-off from entering ground, storm sewers and ditches which lead to natural waterways. If large spills, call emergency services to get advice.

### 6.3. Methods and material for containment and cleaning up

**Methods for cleaning up** Small Spillages: Collect spilled material in appropriate container for disposal. Large Spillages: Keep up-wind to avoid fumes. Build dikes to control spillage. Avoid lowland and keep upwind. Dispose of contents/containers in accordance with local / regional / national / international regulations.

### 6.4. Reference to other sections

**Reference to other sections** For personal protection, see Section 8. For waste disposal, see section 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

**Usage precautions** Wear protective clothing as described in Section 8 of this safety data sheet. Storage tanks and other containers must be earthed. Avoid heat, flames and other sources of ignition. Wash thoroughly after handling. Do not act pressure, cutting, welding, soldering, drilling, grinding, etc. All handling should only take place in well-ventilated areas. Avoid handling which leads to dust formation. Avoid inhalation of dust and contact with skin and eyes. Keep at temperature not exceeding 316°C.

### 7.2. Conditions for safe storage, including any incompatibilities

**Storage precautions** Store in accordance with national regulations. Keep container tightly sealed when not in use. Store in tightly-closed, original container in a dry, cool and well-ventilated place. Do not store near heat sources or expose to high temperatures. Protect against direct sunlight.

### 7.3. Specific end use(s)

**Specific end use(s)** Not available.

## SECTION 8: Exposure Controls/personal protection

### 8.1. Control parameters

#### Occupational exposure limits

ACGIH

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**Ingredient comments** No exposure limits known for ingredient(s).

### 8.2. Exposure controls

#### Protective equipment



#### Appropriate engineering controls

Provide adequate general and local exhaust ventilation.

#### Eye/face protection

The following protection should be worn: Chemical splash goggles.

#### Hand protection

Wear suitable gloves.

#### Other skin and body protection

Wear suitable protective clothing.

#### Hygiene measures

Use engineering controls to reduce air contamination to permissible exposure level. Provide eyewash station and safety shower. Wash hands after handling.

#### Respiratory protection

If ventilation is inadequate, suitable respiratory protection must be worn. Under frequent use or heavy exposure, respiratory protection may be needed. Respiratory protection complying with an approved standard should be worn if a risk assessment indicates inhalation of contaminants is possible. Wear a respirator fitted with the following cartridge: Dust and mist filter.

## SECTION 9: Physical and Chemical Properties

### 9.1. Information on basic physical and chemical properties

<b>Appearance</b>	Solid
<b>Colour</b>	White.
<b>Odour</b>	Not available.
<b>Odour threshold</b>	Not available. Not available.
<b>pH</b>	Not available. Not available.
<b>Melting point</b>	Not applicable.
<b>Initial boiling point and range</b>	Not applicable.
<b>Flash point</b>	Not available.
<b>Evaporation rate</b>	Not applicable.
<b>Upper/lower flammability or explosive limits</b>	Not available.
<b>Other flammability</b>	Not available.
<b>Vapour pressure</b>	Not applicable.
<b>Vapour density</b>	Not applicable.
<b>Relative density</b>	0.94 @ °C
<b>Solubility(ies)</b>	Insoluble in water.
<b>Partition coefficient</b>	Not applicable.
<b>Auto-ignition temperature</b>	Not available.

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<b>Decomposition Temperature</b>	Not available.
<b>Viscosity</b>	Not applicable.
<b>Explosive properties</b>	Not available.
<b>Oxidising properties</b>	Not available.

### 9.2. Other information

<b>Molecular weight</b>	Not available.
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## SECTION 10: Stability and reactivity

### 10.1. Reactivity

<b>Reactivity</b>	Not available.
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### 10.2. Chemical stability

<b>Stability</b>	Stable at normal ambient temperatures and when used as recommended. Will decompose at temperatures exceeding °C.
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### 10.3. Possibility of hazardous reactions

<b>Possibility of hazardous reactions</b>	Under normal conditions of storage and use, no hazardous reactions will occur.
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### 10.4. Conditions to avoid

<b>Conditions to avoid</b>	Avoid heat, flames and other sources of ignition. Avoid contact with incompatible materials.
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### 10.5. Incompatible materials

<b>Materials to avoid</b>	Flammable/combustible materials. Hydrocarbons - halogenated. Strong oxidising agents. Acids. Alkalis.
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### 10.6. Hazardous decomposition products

<b>Hazardous decomposition products</b>	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours. Oxides of carbon. Hydrocarbons. Hydrogen cyanide (HCN).
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## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

#### Acute toxicity - oral

<b>Notes (oral LD<sub>50</sub>)</b>	Not available.
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#### Acute toxicity - dermal

<b>Notes (dermal LD<sub>50</sub>)</b>	Not available.
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#### Acute toxicity - inhalation

<b>Notes (inhalation LC<sub>50</sub>)</b>	Not available.
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#### Skin corrosion/irritation

<b>Animal data</b>	Not available.
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#### Serious eye damage/irritation

<b>Serious eye damage/irritation</b>	Not available.
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#### Germ cell mutagenicity

<b>Genotoxicity - in vitro</b>	Not available.
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<b>Genotoxicity - in vivo</b>	Not available.
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#### Carcinogenicity

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**Carcinogenicity** Not available. Contains Styrene-Butadiene Copolymer classified as IARC Group 3 carcinogens.

### Reproductive toxicity

**Reproductive toxicity - fertility** Not available.

**Reproductive toxicity - development** Not available.

### Specific target organ toxicity - single exposure

**STOT - single exposure** Not available.

### Specific target organ toxicity - repeated exposure

**STOT - repeated exposure** Not available.

## SECTION 12: Ecological Information

**Ecotoxicity** There are no data on the ecotoxicity of this product.

### 12.1. Toxicity

**Acute toxicity - fish** Not available.

**Acute toxicity - aquatic invertebrates** Not available.

**Acute toxicity - aquatic plants** Not available.

**Acute toxicity - microorganisms** Not available.

**Acute toxicity - terrestrial** Not available.

**Chronic toxicity - fish early life stage** Not available.

**Short term toxicity - embryo and sac fry stages** Not available.

**Chronic toxicity - aquatic invertebrates** Not available.

### 12.2. Persistence and degradability

**Persistence and degradability** Not available.

**Biodegradation** Not available.

### 12.3. Bioaccumulative potential

**Partition coefficient** Not applicable.

### 12.4. Mobility in soil

**Mobility** Not available.

### 12.5. Results of PBT and vPvB assessment

**Results of PBT and vPvB assessment** This product does not contain any substances classified as PBT or vPvB.

### 12.6. Other adverse effects

**Other adverse effects** Not available.

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### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

##### **General information**

Dispose of contents/containers in accordance with local/regional/national/international regulations. Waste is suitable for incineration. If the waste contains designated waste and difficult to separate, incinerate it or reduce the volume following the similar way as incineration. If applicable, pretreat waste with oil/water separation.

##### **Disposal methods**

Confirm disposal procedures with environmental engineer and local regulations. Dispose of the waste by oneself or contact disposal company.

### SECTION 14: Transport information

##### **General**

The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).

#### 14.1. UN number

Not applicable.

#### 14.2. UN proper shipping name

Not applicable.

#### 14.3. Transport hazard class(es)

Not applicable.

#### 14.4. Packing group

Not applicable.

#### 14.5. Environmental hazards

##### **Environmentally hazardous substance/marine pollutant**

No.

#### 14.6. Special precautions for user

Not applicable.

#### 14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** Not applicable.

### SECTION 15: Regulatory information

#### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

##### **Authorisations (Title VII Regulation 1907/2006)**

No specific authorisations are known for this product.

##### **Restrictions (Title VIII Regulation 1907/2006)**

No specific restrictions on use are known for this product.

#### 15.2. Chemical safety assessment

### SECTION 16: Other information

<b>Issued by</b>	KIST Europe
<b>Revision date</b>	02/01/2018
<b>Revision</b>	3

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**SDS status**

Approved.

This information relates only 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 the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.