

KUMHO PETROCHEMICAL

SAFETY DATA SHEET KTR-401, KTR-401P

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-401, KTR-401P
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	No specific uses advised against are identified.

1.3. Details of the supplier of the safety data sheet

Supplier	OR of KOREA KUMHO Petrochemical Co., Ltd. KIST Europe Universitaet des Saarlandes 66123, Saarbruecken, Germany Tel: +49 681 9382 334 Fax: +49 681 9382 319 e-mail: reach.it@kist-europe.de
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

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
Human health	Not classified.
Environmental	Not classified.

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Physicochemical Not classified.

2.2. Label elements

Hazard statements NC Not Classified

2.3. Other hazards

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Styrene-Butadiene Copolymer	98-99 %
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CAS number: 9003-55-8

Classification

Not Classified

Additives

1-2%

CAS number: Proprietary

EC number: Proprietary

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

General information Get medical attention.

Inhalation 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. Rinse nose, mouth and throat with water.

Ingestion Rinse mouth. Do not induce vomiting unless under the direction of a qualified medical professional or poison control center.

Skin contact Remove contaminated clothing and rinse skin thoroughly with water. Wash contaminated clothing before reuse.

Eye contact Do not rub eye. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Continue to rinse for at least 15 minutes.

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

General information Steam of the product may cause eye and respiratory irritation.

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 Water. Foam. Carbon dioxide (CO₂). Dry chemicals.

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

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Specific hazards	Dust may form explosive mixture with air. May explode when heated or when exposed to flames or sparks.
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. Move containers from fire area if it can be done without risk. Cool containers exposed to flames with water until well after the fire is out. Fight advanced or massive fires from safe distance or protected location. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tanks due to fire. Avoid inhalation of materials or combustion by-products. Contain and collect extinguishing water.

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. Use vapour suppression foam to reduce vapour. Stop leak if possible without risk. Avoid contact with skin and eyes.
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6.2. Environmental precautions

Environmental precautions	Prevent run-off from entering ground, storm sewers and ditches which lead to natural waterways. If large spills, call emergency services to get advice.
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6.3. Methods and material for containment and cleaning up

Methods for cleaning up	Avoid lowland and keep upwind. Collect spilled material in appropriate container for disposal. Dispose of contents/containers in accordance with local/regional/national/international regulations. Collect spillage with a shovel and broom, or similar and reuse, if possible.
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6.4. Reference to other sections

Reference to other sections	For personal protection, see Section 8. For waste disposal, see section 13.
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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. Provide adequate ventilation. Avoid contact with skin and eyes. Avoid heat, flames and other sources of ignition. Avoid generation and spreading of dust. Avoid above 316 °C. Avoid inhalation of dust. Storage tanks and other containers must be earthed. Do not act pressure, cutting, welding, soldering, drilling, grinding, etc.
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7.2. Conditions for safe storage, including any incompatibilities

Storage precautions	Store and handle in accordance with all current regulations and standards. Store in tightly-closed, original container in a dry and cool place. Keep container tightly closed. Protect against direct sunlight. Avoid above 49 °C.
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7.3. Specific end use(s)

Specific end use(s)	Not available.
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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

Wear safety glasses with side-shields conforming to EN166.

Hand protection

Wear suitable gloves.

Other skin and body protection

Wear appropriate chemical resistant 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

Under frequent use or heavy exposure, respiratory protection may be needed. Where protection from nuisance levels of dust are desired, use type P1 (EN 143) dust mask.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance	Pellets, Powder.
Colour	White.
Odour	Odourless.
pH	Not available.
Melting point	Not available.
Initial boiling point and range	Not available.
Flash point	Not available.
Evaporation rate	Not available.
Vapour pressure	Not available.
Vapour density	Not available.
Relative density	0.94 @ °C
Solubility(ies)	Insoluble in water.
Partition coefficient	Not available.
Auto-ignition temperature	Not available.
Decomposition Temperature	Not available.
Viscosity	Not available.
Oxidising properties	Not available.

9.2. Other information

Molecular weight	Not available.
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SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity Not available.

10.2. Chemical stability

Stability Stable at normal ambient temperatures and when used as recommended. Avoid above 316 °C.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions Will not occur.

10.4. Conditions to avoid

Conditions to avoid Avoid heat, flames and other sources of ignition. Avoid contact with incompatible materials.

10.5. Incompatible materials

Materials to avoid Strong oxidising agents. Halogen compounds. Halogens. Caustics. Acids and bases.

10.6. Hazardous decomposition products

Hazardous decomposition products Hazardous decomposition/Combustion products or by-products: Carbon oxides and Nitrogen oxides. Smoke. Hydrocarbons. Hydrogen cyanide (HCN).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

Notes (oral LD₅₀) Not available.

Acute toxicity - dermal

Notes (dermal LD₅₀) Not available.

Acute toxicity - inhalation

Notes (inhalation LC₅₀) Not available.

Skin corrosion/irritation

Animal data Not available.

Serious eye damage/irritation

Serious eye damage/irritation Not available.

Germ cell mutagenicity

Genotoxicity - in vitro Not available.

Genotoxicity - in vivo Not available.

Carcinogenicity

Carcinogenicity Not available. Butadiene Styrene : IARC group 3

Reproductive toxicity

Reproductive toxicity - fertility Not available.

Reproductive toxicity - development Not available.

Specific target organ toxicity - single exposure

STOT - single exposure Not available.

KTR-401, KTR-401P**Specific target organ toxicity - repeated exposure**

STOT - repeated exposure Not available.

Toxicological information on ingredients.**Styrene-Butadiene Copolymer****Carcinogenicity****Carcinogenicity**

Butadiene Styrene : IARC group 3

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 available.**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.**SECTION 13: Disposal considerations****13.1. Waste treatment methods****General information** Dispose of contents/containers in accordance with local/regional/national/international regulations. Dispose of the waste by oneself or contact disposal company.

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Disposal methods 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.

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 a dangerous goods.

14.2. UN proper shipping name

Not a dangerous goods.

14.3. Transport hazard class(es)

Not a dangerous goods.

14.4. Packing group

Not a dangerous goods.

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

No.

14.6. Special precautions for user

Not a dangerous goods.

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

Transport in bulk according to Not applicable.

Annex II of MARPOL 73/78

and the IBC Code

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

No chemical safety assessment has been carried out.

SECTION 16: Other information

Issued by KIST Europe

Revision date 02/01/2018

Revision 1

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.