

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

## 1.1. Product identifier

Product form : Mixture  
Product name : KUMHO KNB 0230L  
UFI : TG40-G0P4-E00C-70U6  
REACH registration No : Monomer is registered instead of Butadiene-Acrylonitrile polymer. (Registration number of monomer: Acrylonitrile: 01-2119474195-34-\*\*\*\*, Butadiene: 01-2119471988-16-\*\*\*\*)

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

## 1.2.1. Relevant identified uses

Main use category : Industrial use  
Use of the substance/mixture : Manufacture of tyres and general rubber articles, including processing of raw (uncured) rubber, handling and mixing of rubber additives, vulcanising, cooling and finishing

## 1.2.2. Uses advised against

Restrictions on use : Not available

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

## Manufacturer

Kumho Petrochemical Co. Ltd  
64, Sanggae-ro, Nam-gu, Ulsan, 44786, Republic of Korea  
T +82-52-259-6051~7 - F +82-52-259-6053

## Supplier

TsafeE GmbH  
Landwehrpl 6, 66111, Saarbruecken, Germany  
T +49 177 9166175  
[shkim@tsafeg.com](mailto:shkim@tsafeg.com)

## 1.4. Emergency telephone number

Country	Organisation/Company	Address	Emergency number	Comment
Germany	Giftinformationszentrum-Nord der Länder Bremen, Hamburg, Niedersachsen und Schleswig-Holstein (GIZ-Nord) Universitätsmedizin Göttingen - Georg-August-Universität	Robert-Koch Straße 40 37075 Göttingen	+49 (0) 551 19240	(English only)

## SECTION 2: Hazards identification

## 2.1. Classification of the substance or mixture

## Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

## Adverse physicochemical, human health and environmental effects

To our knowledge, this product does not present any particular risk, provided it is handled in accordance with good occupational hygiene and safety practice.

## 2.2. Label elements

## Labelling according to Regulation (EC) No. 1272/2008 [CLP]

No labelling applicable

## 2.3. Other hazards

Mixture does not contain substance (s) classified as PBT or vPvB in concentrations above 0,1%.

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### SECTION 3: Composition/information on ingredients

#### 3.1. Substances

Not applicable

#### 3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
BUTADIENE/ACRYLONITRILE COPOLYMER	(CAS-No.) 9003-18-3	99 – 100	Not classified

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

First-aid measures general	: Get medical attention.
First-aid measures after inhalation	: Move the affected person away from the contaminated area and into the fresh air. If breathing is difficult, trained personnel should give oxygen. Get medical advice/attention if you feel unwell.
First-aid measures after skin contact	: Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Wash contaminated clothing before reuse.
First-aid measures after eye contact	: Avoid direct eye contact with product, also via contamination on hands. Rinse immediately and thoroughly, pulling the eyelids well away from the eye (15 minutes minimum). Remove contact lenses, if present and easy to do. Continue rinsing.
First-aid measures after ingestion	: Rinse mouth. Do NOT induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical advice/attention if you feel unwell.

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

No additional information available

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

Treat symptomatically.

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

Suitable extinguishing media	: Water. Foam. Dry chemical.
Unsuitable extinguishing media	: Do not use a water jet since it may cause the fire to spread.

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

Fire hazard	: Thermal decomposition can lead to the release of irritating gases and vapours. Could burn but does not ignite readily. May ignite : dust. Gas. Pressurised container: May burst if heated.
Hazardous decomposition products in case of fire	: Carbon oxides (CO, CO2). Toxic gases are released. Toxic vapours are released. Hydrocarbons. Hydrogen cyanide. Sulphur oxides.

#### 5.3. Advice for firefighters

Firefighting instructions	: Keep upwind. Fight fire from safe distance and protected location. Withdraw immediately in case of rising sound from venting devices or discolouration from tank. Move containers away from the fire area if this can be done without risk. Avoid inhalation of the product. Do not breathe fumes.
Protection during firefighting	: Use personal protective equipment as required.

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### SECTION 6: Accidental release measures

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

##### 6.1.1. For non-emergency personnel

Emergency procedures : Keep upwind. Stop leak without risks if possible. Ventilate spillage area. Avoid ignition sources.

##### 6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

#### 6.2. Environmental precautions

Do not allow to enter drains or water courses. Prevent runoff from entering drains, sewers or waterways. In case of large spillages: Contact the emergency services.

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

Methods for cleaning up : Small spillages: Take up mechanically (sweeping, shovelling) and collect in suitable container for disposal. Significant spillages: High. Position. Stay upwind/keep distance from source. Shovel or sweep up and put in a closed container for disposal. Dispose of this material and its container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

#### 6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection". For further information refer to section 13.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Precautions for safe handling : Wear personal protective equipment. For further information refer to section 8: "Exposure controls/personal protection". Avoid contact with skin and eyes. Use only in well ventilated areas. Eliminate all ignition sources.

Hygiene measures : Eyewash station. Safety shower. Wash hands thoroughly after handling.

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

Storage conditions : Do not store near heat sources or expose to high temperatures. Keep out of direct sunlight. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep only in original container. Keep container tightly closed.

#### 7.3. Specific end use(s)

Not available.

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

##### 8.1.1 National occupational exposure and biological limit values

No additional information available

##### 8.1.2. Recommended monitoring procedures

No additional information available

##### 8.1.3. Air contaminants formed

No additional information available

##### 8.1.4. DNEL and PNEC

No additional information available

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### 8.1.5. Control banding

No additional information available

## 8.2. Exposure controls

### 8.2.1. Appropriate engineering controls

#### Appropriate engineering controls:

General ventilation. with local exhaust ventilation.

### 8.2.2. Personal protection equipment

#### Personal protective equipment symbol(s):



#### 8.2.2.1. Eye and face protection

##### Eye protection:

Safety glasses. Chemical goggles or safety glasses

#### 8.2.2.2. Skin protection

##### Skin and body protection:

Wear suitable protective clothing

##### Hand protection:

Protective gloves

##### Other skin protection

##### Materials for protective clothing:

Wash hands thoroughly after handling. Eyewash station

#### 8.2.2.3. Respiratory protection

##### Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment. Where exposure through inhalation may occur from use, respiratory protection equipment is recommended

#### 8.2.2.4. Thermal hazards

No additional information available

### 8.2.3. Environmental exposure controls

No additional information available

## SECTION 9: Physical and chemical properties

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

Physical state	: Solid
Colour	: Yellow. white.
Odour	: mild.
Odour threshold	: Not available
Melting point	: Not applicable
Freezing point	: Not applicable
Boiling point	: Not applicable
Flammability	: Non flammable.

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Explosive limits	: Not applicable
Lower explosive limit (LEL)	: Not applicable
Upper explosive limit (UEL)	: Not applicable
Flash point	: 246 °C
Auto-ignition temperature	: > 388 °C
Decomposition temperature	: Not available
pH	: Not available
pH solution	: Not available
Viscosity, kinematic	: Not applicable
Solubility	: insoluble in water.
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: Not applicable
Vapour pressure at 50 °C	: Not applicable
Density	: Not available
Relative density	: Not applicable
Relative vapour density at 20 °C	: Not applicable
Particle size	: Not available
Particle size distribution	: Not available
Particle shape	: Not available
Particle aspect ratio	: Not available
Particle aggregation state	: Not available
Particle agglomeration state	: Not available
Particle specific surface area	: Not available
Particle dustiness	: Not available

### 9.2. Other information

#### 9.2.1. Information with regard to physical hazard classes

No additional information available

#### 9.2.2. Other safety characteristics

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Not available.

### 10.2. Chemical stability

Stable at ambient temperature and under normal conditions of use.

### 10.3. Possibility of hazardous reactions

Will not occur.

### 10.4. Conditions to avoid

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep out of direct sunlight.

### 10.5. Incompatible materials

Not available.

### 10.6. Hazardous decomposition products

Hydrocarbons. Carbon oxides (CO, CO<sub>2</sub>). Toxic gases are released. Toxic vapours are released. Nitrogen oxides. Sulphur oxides. Hydrogen cyanide. Ammonia. Amines.

## SECTION 11: Toxicological information

### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral) : Not available

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Acute toxicity (dermal)	: Not available
Acute toxicity (inhalation)	: Not available
Skin corrosion/irritation	: Not available
Serious eye damage/irritation	: Not available
Respiratory or skin sensitisation	: Not available
Germ cell mutagenicity	: Not available
Carcinogenicity	: Not available
Reproductive toxicity	: Not available
STOT-single exposure	: Not available
STOT-repeated exposure	: Not available
Aspiration hazard	: Not available

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Viscosity, kinematic	Not applicable
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### 11.2. Information on other hazards

No additional information available

## SECTION 12: Ecological information

### 12.1. Toxicity

Hazardous to the aquatic environment, short-term (acute)	: Not available
Hazardous to the aquatic environment, long-term (chronic)	: Not available
Not rapidly degradable	

### 12.2. Persistence and degradability

No additional information available

### 12.3. Bioaccumulative potential

No additional information available

### 12.4. Mobility in soil

No additional information available

### 12.5. Results of PBT and vPvB assessment

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Mixture does not contain substance (s) classified as PBT or vPvB in concentrations above 0,1%.

### 12.6. Endocrine disrupting properties

No additional information available

### 12.7. Other adverse effects

No additional information available

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### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

Waste treatment methods : Dispose of this material and its container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation. Incineration. Oil-Water Separation. Dispose of contents/container in accordance with licensed collector's sorting instructions.

### SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

ADR	IMDG	IATA	ADN	RID
<b>14.1. UN number or ID number</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.2. UN proper shipping name</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.3. Transport hazard class(es)</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.4. Packing group</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.5. Environmental hazards</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
No supplementary information available				

#### 14.6. Special precautions for user

##### Overland transport

Not applicable

##### Transport by sea

Not applicable

##### Air transport

Not applicable

##### Inland waterway transport

Not applicable

##### Rail transport

Not applicable

#### 14.7. Maritime transport in bulk according to IMO instruments

Not applicable

### SECTION 15: Regulatory information

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

##### 15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

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### 15.1.2. National regulations

#### Germany

Employment restrictions

: Observe restrictions according Act on the Protection of Working Mothers (MuSchG)  
Observe restrictions according Act on the Protection of Young People in Employment (JArbSchG)

Water hazard class (WGK)

: WGK 3, Highly hazardous to water (Classification according to AwSV, Annex 1)

Hazardous Incident Ordinance (12. BImSchV)

: Is not subject of the Hazardous Incident Ordinance (12. BImSchV)

Storage class (LGK, TRGS 510)

: LGK 13 - Non-combustible solids that cannot be assigned to any of the above storage classes

Joint storage table

LGK 1	LGK 2A	LGK 2B	LGK 3	LGK 4.1A
LGK 4.1B	LGK 4.2	LGK 4.3	LGK 5.1A	LGK 5.1B
LGK 5.1C	LGK 5.2	LGK 6.1A	LGK 6.1B	LGK 6.1C
LGK 6.1D	LGK 6.2	LGK 7	LGK 8A	LGK 8B
LGK 10	LGK 11	LGK 12	LGK 13	LGK 10-13

Joint storage not permitted for

: LGK 1, LGK 6.2, LGK 7

Joint storage with restrictions permitted for

: LGK 4.1A, LGK 5.1C

Joint storage permitted for

: LGK 2A, LGK 2B, LGK 3, LGK 4.1B, LGK 4.2, LGK 4.3, LGK 5.1A, LGK 5.1B, LGK 5.2, LGK 6.1A, LGK 6.1B, LGK 6.1C, LGK 6.1D, LGK 8A, LGK 8B, LGK 10, LGK 11, LGK 12, LGK 13, LGK 10-13

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

## SECTION 16: Other information

The classification complies with : ATP 12

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.