

## SAFETY DATA SHEET KUMHO KNB 35LM

According to Regulation (EU) No 453/2010

### SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

#### 1.1. Product identifier

Product name KUMHO KNB 35LM  
REACH Registration number -

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

Identified uses Raw materials for rubber products needing oil-proof characteristic (automobile parts, rubber hoses, gaskets, belts)  
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  
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.  
680, Sanggae-dong, Nam-gu  
Ulsan, Korea  
680-180  
Tel : +82-52-259-6051~7  
Fax : +82-52-259-6053

#### 1.4. Emergency telephone number

### SECTION 2: HAZARDS IDENTIFICATION

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

Classification (EC 1272/2008)  
Physical and Chemical Hazards Not classified.  
Human health Not classified.  
Environment Not classified.

Classification (1999/45/EEC) Not classified.

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

#### 2.2. Label elements

Contains BUTADIENE-ACRYLONITRILE POLYMER  
Resin acids and Rosin acids, potassium salts  
Acid

Label In Accordance With (EC) No. 1272/2008

No pictogram required.

#### 2.3. Other hazards

### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

#### 3.2. Mixtures

**KUMHO KNB 35LM****BUTADIENE-ACRYLONITRILE POLYMER****97-99%****CAS-No.: 9003-18-3****EC No.:**Classification (EC 1272/2008)  
Not classified.Classification (67/548/EEC)  
Not classified.**Resin acids and Rosin acids, potassium salts****1-2%****CAS-No.: 61790-50-9****EC No.: 263-142-4**Classification (EC 1272/2008)  
Not classified.Classification (67/548/EEC)  
Not classified.**Facid****< 1%****CAS-No.: 67701-06-8****EC No.:**Classification (EC 1272/2008)  
Not classified.Classification (67/548/EEC)  
Not classified.

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

**REACH Registration number** -**SECTION 4: FIRST AID MEASURES****4.1. Description of first aid measures****General information**

Get medical attention.

**Inhalation**

Move into fresh air and keep at rest.

If respiratory problems, artificial respiration/oxygen.

Get medical attention if any discomfort continues.

**Ingestion**

Do not induce vomiting. If vomiting occurs, the head should be kept low so that stomach vomit doesn't enter the lungs.

Get medical attention if any discomfort continues.

Rinse mouth.

**Skin contact**

Promptly wash contaminated skin with water. Promptly remove clothing if soaked through and wash the skin with water.

Wash contaminated clothing before reuse.

Get medical attention if any discomfort continues.

**Eye contact**

Do not rub eye. Promptly wash eyes with plenty of water while lifting the eye lids. Make sure to remove any contact lenses from the eyes before rinsing.

**4.2. Most important symptoms and effects, both acute and delayed****Eye contact**

May cause minor irritation on eye.

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

Treatment may vary with condition of victim and specifics of incident.

**SECTION 5: FIREFIGHTING MEASURES****5.1. Extinguishing media****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.

## KUMHO KNB 35LM

**5.2. Special hazards arising from the substance or mixture****Hazardous combustion products**

Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

**Unusual Fire & Explosion Hazards**

Heat may cause the containers to explode.

**Specific hazards**

When heated and in case of fire, irritating vapours/gases may be formed. Dust or gas may ignite by flames.

**5.3. Advice for firefighters****Special Fire Fighting Procedures**

Keep up-wind to avoid fumes. 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

**Protective equipment for fire-fighters**

Use protective equipment appropriate for surrounding materials.

**SECTION 6: ACCIDENTAL RELEASE MEASURES****6.1. Personal precautions, protective equipment and emergency procedures**

Wear protective clothing as described in Section 8 of this safety data sheet. Avoid heat, flames and other sources of ignition. Keep upwind. Stop leak if possible without risk. Move container from fire area if it can be done without risk.

**6.2. 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**

Small Spillages: Collect spilled material in appropriate container for disposal. Avoid lowland and keep upwind. Large Spillages: Dispose of contents/containers in accordance with local/regional/national/international regulations.

**6.4. 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**

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. Wash thoroughly after handling. Handle and open container with care

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

Keep container tightly sealed when not in use. Store and handle in accordance with all current regulations and standards. Do not store near heat sources or expose to high temperatures. Protect against direct sunlight.

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

Not available.

**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION****8.1. Control parameters****Ingredient Comments**

No exposure limits noted for ingredient(s).

**8.2. Exposure controls****Protective equipment****Process conditions**

Use engineering controls to reduce air contamination to permissible exposure level. Provide eyewash, quick drench.

**Engineering measures**

Provide adequate general and local exhaust ventilation.

**Respiratory equipment**

Wear suitable respiratory protection. Under frequent use or heavy exposure, respiratory protection may be needed.

## KUMHO KNB 35LM

**Hand protection**

Wear suitable gloves.

**Eye protection**

Wear approved safety goggles.

**Hygiene measures**

Wash hands after handling.

**Skin protection**

Wear suitable protective clothing.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

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

<b>Appearance</b>	Solid
<b>Colour</b>	Yellow white
<b>Odour</b>	Mild.
<b>Solubility</b>	Insoluble in water
<b>Initial boiling point and boiling range</b>	Not applicable.
<b>Melting point (°C)</b>	Not applicable.
<b>Relative density</b>	Not available.
<b>Vapour density (air=1)</b>	Not available.
<b>Vapour pressure</b>	Not applicable.
<b>Evaporation rate</b>	Not available.
<b>pH-Value, Conc. Solution</b>	Not available.
<b>Viscosity</b>	Not available.
<b>Decomposition temperature (°C)</b>	Not available.
<b>Odour Threshold, Lower</b>	Not available.
<b>Odour Threshold, Upper</b>	Not available.
<b>Flash point</b>	246 °C
<b>Auto Ignition Temperature (°C)</b>	> 388 °C
<b>Flammability Limit - Lower(%)</b>	Not available.
<b>Flammability Limit - Upper(%)</b>	Not available.
<b>Partition Coefficient (N-Octanol/Water)</b>	Not applicable.
<b>Explosive properties</b>	Not applicable.
<b>Other Flammability</b>	Not available.
<b>Oxidising properties</b>	Not available.

### 9.2. Other information

**Mol. Weight**

Not available.

## SECTION 10: STABILITY AND REACTIVITY

### 10.1. Reactivity

Not available.

## KUMHO KNB 35LM

**10.2. Chemical stability**

Stable under normal temperature conditions and recommended use.

**10.3. Possibility of hazardous reactions**

Will not occur.

**10.4. Conditions to avoid**

Avoid heat, flames and other sources of ignition. Protect against direct sunlight.

**10.5. Incompatible materials****Materials To Avoid**

Not available.

**10.6. Hazardous decomposition products**

Hydrocarbons. In case of fire, toxic gases (CO, CO<sub>2</sub>, NO<sub>x</sub>) may be formed. Sulphurous gases (SO<sub>x</sub>). Hydrogen cyanide (HCN).

**SECTION 11: TOXICOLOGICAL INFORMATION****11.1. Information on toxicological effects****Acute toxicity:****Acute Toxicity (Oral LD50)**

Not available.

**Acute Toxicity (Dermal LD50)**

Not available.

**Acute Toxicity (Inhalation LC50)**

Not available.

**Skin Corrosion/Irritation:**

Not available.

**Serious eye damage/irritation:**

Not available.

**Respiratory or skin sensitisation:****Respiratory sensitisation**

Not available.

**Skin sensitisation**

Not available.

**Germ cell mutagenicity:****Genotoxicity - In Vitro**

Not available.

**Genotoxicity - In Vivo**

Not available.

**Carcinogenicity:****Carcinogenicity**

Not available.

**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.

**Toxicological information on ingredients.**

**KUMHO KNB 35LM****Facid (CAS: 67701-06-8)****Acute toxicity:****Acute Toxicity (Oral LD50)**

&gt; 2000 mg/kg Rat

**Acute Toxicity (Dermal LD50)**

&gt; 2000 mg/kg Rabbit

**Acute Toxicity (Inhalation LC50)**

&gt; 0.1621 mg/l (vapours) Rat 4 hours

**Resin acids and Rosin acids, potassium salts (CAS: 61790-50-9)****Acute toxicity:****Acute Toxicity (Oral LD50)**

&gt; 2000 mg/kg Rat

**Acute Toxicity (Dermal LD50)**

&gt; 2000 mg/kg Rat

**Acute Toxicity (Inhalation LC50)**

Endpoint waived according to REACH Annex VII, IX or XI.

**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.

**Chronic Toxicity - Fish Early life Stage**

Not available.

**Short Term Toxicity - Embryo and Sac Fry Stages**

Not available.

**Chronic Toxicity - Aquatic Invertebrates**

Not available.

**Acute Toxicity - Terrestrial**

Not available.

**Ecological information on ingredients.****Facid (CAS: 67701-06-8)****Acute Toxicity - Fish**LC50 96 hours 1354.4 mg/l *Lepomis macrochirus* (Bluegill)**Acute Toxicity - Aquatic Invertebrates**EC50 48 hours > 4.8 mg/l *Daphnia magna***Acute Toxicity - Aquatic Plants**EC50 72 hours > 0.9 mg/l *Selenastrum capricornutum*

( based on the growth rate )

**Resin acids and Rosin acids, potassium salts (CAS: 61790-50-9)****Acute Toxicity - Fish**LC50 96 hours 60.3 mg/l *Brachydanio rerio* (Zebra Fish)**Acute Toxicity - Aquatic Invertebrates**EC50 48 hours 3.8 mg/l *Daphnia magna***Acute Toxicity - Aquatic Plants**NOEC 96 hours 0.0125 mg/l *Scenedesmus subspicatus*

## KUMHO KNB 35LM

**12.2. Persistence and degradability**

Not available.

**Biodegradation**

Not available.

**12.3. Bioaccumulative potential****Bioaccumulation factor**

Not available.

**Partition coefficient**

Not applicable.

**12.4. Mobility in soil****Mobility:**

Not available.

**12.5. Results of PBT and vPvB assessment**

This product does not contain any PBT or vPvB substances.

**12.6. Other adverse effects**

Not available.

**SECTION 13: DISPOSAL CONSIDERATIONS****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 the waste by oil/water separation.

**13.1. Waste treatment 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 regulation 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 MARPOL73/78 and the IBC Code**

Not applicable.

**SECTION 15: REGULATORY INFORMATION**

**KUMHO KNB 35LM****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****Authorisations (Title VII Regulation 1907/2006)**

No specific authorisations are noted for this product.

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

No specific restrictions of use are noted for this product.

**15.2. Chemical Safety Assessment**

A chemical safety assessment has been carried out for Resin acids and Rosin acids, potassium salts (CAS:61790-50-9) and Facid (CAS:67701-06-8).

**SECTION 16: OTHER INFORMATION**

<b>Issued By</b>	KIST Europe
<b>Safety Data Sheet Status</b>	Approved.
<b>Date</b>	23.08.2013
<b>Risk Phrases In Full</b>	
NC	Not classified.
<b>Hazard Statements In Full</b>	

**Disclaimer**

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.