

SAFETY DATA SHEET KUMHO KHS 68

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 KHS 68
REACH Registration number -

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

Identified uses Raw materials for rubber products (tires, rubber shoes, sneakers, rubber hoses, 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 SBR (Styrene-Butadiene Copolymer)
Resin acids and Rosin acids, potassium salts
Facid

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

No pictogram required.

2.3. Other hazards

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

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SBR (Styrene-Butadiene Copolymer)

94-96%

CAS-No.: 9003-55-8

EC No.:

Classification (EC 1272/2008)
Not classified.

Classification (67/548/EEC)
Not classified.

Resin acids and Rosin acids, potassium salts

1-5%

CAS-No.: 61790-50-9

EC No.: 263-142-4

Classification (EC 1272/2008)
Not classified.

Classification (67/548/EEC)
Not classified.

Facid

1-5%

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

Rinse mouth.

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.

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

General information

Not available.

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.

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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

Dust may form explosive mixture with air. May explode when heated or when exposed to flames or sparks.

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. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out. Move container from fire area if it can be done without risk. Cool containers exposed to flames with water until well after the fire is out. Keep unnecessary people away, isolate hazard and deny entry. Fight advanced or massive fires from safe distance or protected location.

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. Do not handle broken packages without protective equipment. Stop leak if possible 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

Large Spillages: Build dikes to control spillage. Avoid lowland and keep upwind. Small Spillages: Collect spilled material in appropriate container for disposal. 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.

7.2. Conditions for safe storage, including any incompatibilities

Keep container tightly sealed when not in use. Keep in original container. Store and handle in accordance with all current regulations and standards.

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.

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Respiratory equipment

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

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

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

9.2. Other information

Mol. Weight	≈ 500, 000
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SECTION 10: STABILITY AND REACTIVITY

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10.1. Reactivity

Not available.

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.

10.5. Incompatible materials**Materials To Avoid**

Not available.

10.6. Hazardous decomposition products

During fire, toxic gases (CO, CO₂) are formed. Hydrocarbons.

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:

KUMHO KHS 68**STOT - Repeated exposure**

Not available.

Toxicological information on ingredients.**Facid (CAS: 67701-06-8)****Acute toxicity:****Acute Toxicity (Oral LD50)**

> 2000 mg/kg Rat

Acute Toxicity (Dermal LD50)

> 2000 mg/kg Rabbit

Acute Toxicity (Inhalation LC50)

> 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)**

> 2000 mg/kg Rat

Acute Toxicity (Dermal LD50)

> 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.

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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

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.

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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**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

Issued By	KIST Europe
Safety Data Sheet Status	Approved.
Date	22.08.2013
Risk Phrases In Full	
NC	Not classified.
Hazard Statements In Full	

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.