

KUMHO PETROCHEMICAL

SAFETY DATA SHEET KUMHO KNV 0072DM

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 KUMHO KNV 0072DM

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 Forschungsgesellschaft mbH
Campus E71
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.
64, Sanggae-ro, Nam-gu
Ulsan, Korea
680-180

Tel : +82-52-259-6051~7
Fax : +82-52-259-6053

1.4. Emergency telephone number

Emergency telephone +49 551 19240
GIZ-Nord, Goettingen, Germany (English only)

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

KUMHO KNV 0072DM

Hazard statements NC Not Classified

2.3. Other hazards

SECTION 3: Composition/information on ingredients

3.2. Mixtures

BUTADIENE-ACRYLONITRILE POLYMER	70 %
CAS number: 9003-18-3	

Classification
Not Classified

Polyvinyl Chloride	30%
CAS number: 9002-86-2	EC number: 618-338-8

Classification
Not Classified

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

Composition comments Monomer is registered instead of Butadiene-Acrylonitrile polymer. (Registration number of monomer: Acrylonitrile: 01-2119474195-34-****, Butadiene: 01-2119471988-16-****)

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. Get medical attention if any discomfort continues.
Ingestion	Rinse mouth. Do not induce vomiting unless under the direction of a qualified medical professional or poison control center. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if any discomfort continues.
Skin contact	Remove contaminated clothing and rinse skin thoroughly with water. Wash contaminated clothing before reuse. Get medical attention if any discomfort continues.
Eye contact	Do not rub eye. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes.

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

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

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

KUMHO KNV 0072DM

Specific hazards	Irritating gases or vapours. Dust or gas may ignite by flames. Containers can burst violently or explode when heated, due to excessive pressure build-up. Partly flammable but does not simply ignite.
Hazardous combustion products	Oxides of carbon. Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours. Hydrocarbons. Hydrogen cyanide (HCN). Ammonia.
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. Keep unnecessary people away, isolate hazard and deny entry.
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. Provide adequate ventilation. Avoid inhalation of dust and contact with skin and eyes.
-----------------------------	---

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: Avoid lowland and keep upwind. Sweep up and shovel. Keep in suitable, closed containers for disposal. Collect and place in suitable waste disposal containers and seal securely. For waste disposal, see Section 13.
--------------------------------	--

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. Provide adequate ventilation. Avoid contact with skin and eyes. Wash thoroughly after handling.
--------------------------	---

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions	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. Keep container tightly sealed when not in use. Earth container and transfer equipment to eliminate sparks from static electricity.
----------------------------	---

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

KUMHO KNV 0072DM

ACGIH

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. Wear safety glasses with side-shields conforming to EN166.

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. In case of dust formation, wear respirator with particle filter.

SECTION 9: Physical and Chemical Properties**9.1. Information on basic physical and chemical properties**

Appearance	Solid
Colour	Yellow-white.
Odour	Mild.
Odour threshold	Not available. Not available.
pH	Not available.
Melting point	Not applicable.
Initial boiling point and range	Not applicable.
Flash point	Not applicable.
Evaporation rate	Not applicable.
Upper/lower flammability or explosive limits	Not available.
Other flammability	Not available.
Vapour pressure	Not applicable.
Vapour density	Not applicable.
Relative density	Not applicable.
Solubility(ies)	Insoluble in water.
Partition coefficient	Not applicable.

KUMHO KNV 0072DM

Auto-ignition temperature	Not available.
Decomposition Temperature	Not available.
Viscosity	Not applicable.
Explosive properties	Not available.
Oxidising properties	Not available.

9.2. Other information

Molecular weight	Not available.
------------------	----------------

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.
-----------	---

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	Will not occur.
------------------------------------	-----------------

10.4. Conditions to avoid

Conditions to avoid	Avoid exposure to high temperatures or direct sunlight.
---------------------	---

10.5. Incompatible materials

Materials to avoid	Not available.
--------------------	----------------

10.6. Hazardous decomposition products

Hazardous decomposition products	Hydrocarbons. Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours. Oxides of carbon. Oxides of nitrogen. Sulphurous gases (SO _x). Hydrogen cyanide (HCN). Ammonia.
----------------------------------	--

SECTION 11: Toxicological information**11.1. Information on toxicological effects****Acute toxicity - oral**

Notes (oral LD ₅₀)	Not available.
--------------------------------	----------------

Acute toxicity - dermal

Notes (dermal LD ₅₀)	Not available.
----------------------------------	----------------

Acute toxicity - inhalation

Notes (inhalation LC ₅₀)	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.
------------------------	----------------

KUMHO KNV 0072DM**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.

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.

KUMHO KNV 0072DM**SECTION 13: Disposal considerations****13.1. Waste treatment methods****General information**

Waste is suitable for incineration. If applicable, pretreat waste with oil/water separation. Incinerate waste or reduce the volume following the similar way as incineration.

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 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

24/07/2017

Revision

2

KUMHO KNV 0072DM

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.