

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

Product form : Mixture
Trade name : KUMHO 1739

1.2. Relevant identified uses of the substance or mixture and uses advised against**1.2.1. Relevant identified uses**

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
Landwehrplatz 6, 66111 Saarbruecken, Germany
T +49 177 9166175
tsg@tsafeg.com

1.4. Emergency telephone number

Country/Area	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	

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture****Classification according to Regulation (EC) No. 1272/2008 [CLP]**

Hazardous to the aquatic environment – Chronic Hazard, H412
Category 3
Full text of H- and EUH-statements: see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements**Labelling according to Regulation (EC) No. 1272/2008 [CLP]**

Signal word (CLP) : -
Hazard statements (CLP) : H412 - Harmful to aquatic life with long lasting effects.
Precautionary statements (CLP) : P273 - Avoid release to the environment.
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.
EUH-statements : EUH208 - Contains N-1,3-dimethylbutyl-N'-phenyl-p-phenylenediamine (793-24-8). May produce an allergic reaction.
Extra phrases : Restricted to professional users.

2.3. Other hazards

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

KUMHO 1739

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or substance(s) are not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

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]
STYRENE/BUTADIENE COPOLYMER	CAS-No.: 9003-55-8	66 – 70	Not classified
Distillates (petroleum), solvent-refined heavy paraffinic	CAS-No.: 64741-88-4 EC-No.: 265-090-8 EC Index-No.: 649-454-00-7	26 – 28	Not classified
Fatty acids, C14-18 and C16-18-unsatd.	CAS-No.: 67701-06-8 EC-No.: 266-930-6	1 – 5	Not classified
Resin acids and Rosin acids, potassium salts	CAS-No.: 61790-50-9 EC-No.: 263-142-4	1 – 5	Eye Irrit. 2, H319
N-1,3-dimethylbutyl-N'-phenyl-p-phenylenediamine	CAS-No.: 793-24-8 EC-No.: 212-344-0	< 0.2	Acute Tox. 4 (Oral), H302 (ATE=893 mg/kg bodyweight) Skin Sens. 1, H317 Repr. 1B, H360 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410 (M=10)

Full text of H- and EUH-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: Get medical advice/attention if you feel unwell.
First-aid measures after inhalation	: Move the affected person away from the contaminated area and into the fresh air. If breathing is difficult, give oxygen.
First-aid measures after skin contact	: Immediately rinse with plenty of water (for at least 15 minutes). Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Get medical advice/attention if you feel unwell.
First-aid measures after eye contact	: Immediately rinse with plenty of water (for at least 15 minutes). Get medical advice/attention.
First-aid measures after ingestion	: Get medical advice/attention. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs.

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.

KUMHO 1739

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : For a minor fire : Dry chemical, CO₂, dry sand, or alcohol-resistant foam. Water spray. Foam. For a significant fire : Water spray. foam.
- 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. Vapours may cause fire/explosion if source of ignition is present. 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.

5.3. Advice for firefighters

- Firefighting instructions : Cool containers with flooding quantities of water until well after fire is out. Move containers from fire area if it can be done without personal risk. Keep upwind. Do not breathe fumes. Avoid ignition sources. Fight fire from safe distance and protected location.
- Protection during firefighting : Use personal protective equipment as required.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

- Emergency procedures : Avoid inhalation of vapours. Avoid contact with skin and eyes. Keep away from sources of ignition - No smoking. Evacuate area. Do not enter without an appropriate protective equipment. Do not attempt to take action without suitable protective equipment.

6.1.2. For emergency responders

- Protective equipment : Wear protective clothing. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Do not allow to enter drains or water courses. Relevant water authorities should be notified of any large spillage to water course or drain.

6.3. Methods and material for containment and cleaning up

- Methods for cleaning up : Significant spillages: Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Stay upwind/keep distance from source. Notify environmental authorities. Keep in suitable, closed containers for disposal. See Section 13 for disposal information. Small spillages: Take up mechanically (sweeping, shovelling) and collect in suitable container for disposal. Wash thoroughly after handling.

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. Store according to local legislation. Take precautionary measures against static discharge. antistatic boots. Antistatic clothing.
- Hygiene measures : Appropriate engineering controls. Eyewash station. Safety shower.

KUMHO 1739

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a well-ventilated place. Keep cool. Keep container tightly closed. Keep out of direct sunlight. Keep away from ignition sources.

Germany

Storage class (LGK, TRGS 510)

: LGK 13 - Non-combustible solids

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

Switzerland

Storage class (LK)

: LK 11/13 - Solids

7.3. Specific end use(s)

For further information see section 1.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

N-1,3-Dimethylbutyl-N'-phenyl-p-phenylendiamin (793-24-8)	
Germany - Occupational Exposure Limits (TRGS 900)	
Local name	N-1,3-Dimethylbutyl-N'-phenyl-p-phenylendiamin
AGW (OEL TWA)	2 mg/m ³ (E)
Peak exposure limitation factor	2(II)
Remark	DFG - Senatskommission zur Prüfung gesundheitsschädlicher Arbeitsstoffe der DFG (MAK-Kommission); Y - Ein Risiko der Fruchtschädigung braucht bei Einhaltung des Arbeitsplatzgrenzwertes und des biologischen Grenzwertes (BGW) nicht befürchtet zu werden; Sh - Hautsensibilisierender Stoff
Regulatory reference	TRGS900

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

8.1.5. Control banding

No additional information available

KUMHO 1739

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:

General ventilation. with local exhaust ventilation. Do not exceed the occupational exposure limits (OEL).

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

8.2.2.3. Respiratory protection

Respiratory protection:

[In case of inadequate ventilation] wear respiratory protection. 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

Environmental exposure controls:

Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Colour	: dark brown.
Odour	: mild.
Odour threshold	: Not available
Melting point	: Not available
Freezing point	: Not available
Boiling point	: Not available
Flammability	: Not available
Lower explosion limit	: Not applicable
Upper explosion limit	: 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

KUMHO 1739

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Solubility	: insoluble in water.
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: Not available
Vapour pressure at 50°C	: Not available
Density	: Not available
Relative density	: Not available
Relative vapour density at 20°C	: Not applicable
Particle size	: 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.

10.5. Incompatible materials

Not available.

10.6. Hazardous decomposition products

Carbon dioxide. Carbon monoxide. smokes. Hydrocarbons.

SECTION 11: Toxicological information

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

Acute toxicity (oral)	: Not available
Acute toxicity (dermal)	: Not available
Acute toxicity (inhalation)	: Not available

Fatty acids, C14-18 and C16-18-unsatd. (67701-06-8)

LD50 oral rat	> 2000 mg/kg bodyweight Source: ECHA, sex: male/female
LD50 dermal rabbit	> 2000 mg/kg bodyweight Source: ECHA
LC50 Inhalation - Rat	> 0.162 mg/l air Source: ECHA

Distillates (petroleum), solvent-refined heavy paraffinic (64741-88-4)

LD50 oral rat	> 5000 mg/kg bodyweight Species: Rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity)
LD50 dermal rabbit	> 2000 mg/kg Species: Rabbit, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)

KUMHO 1739

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Distillates (petroleum), solvent-refined heavy paraffinic (64741-88-4)

LC50 Inhalation - Rat	2.18 mg/l air Species: Rat, Exp. duration: 4 h, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity)
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Resin acids and Rosin acids, potassium salts (61790-50-9)

LD50 oral rat	> 2000 mg/kg bodyweight Source: ECHA
LD50 dermal rat	> 2000 mg/kg bodyweight Source: ECHA

N-1,3-dimethylbutyl-N'-phenyl-p-phenylenediamine (793-24-8)

LD50 oral rat	893 mg/kg bodyweight Source: ECHA, sex: female
LD50 oral	1005 mg/kg bodyweight Source: ECHA, sex: male
LD50 dermal rabbit	> 7940 mg/kg bodyweight Source: ECHA

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

N-1,3-dimethylbutyl-N'-phenyl-p-phenylenediamine (793-24-8)

NOAEL (chronic, oral, animal/male, 2 years)	84.8 – 109.5 mg/kg bodyweight Source: ECHA
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Reproductive toxicity : Not available

Distillates (petroleum), solvent-refined heavy paraffinic (64741-88-4)

NOAEL (animal/male, F0/P)	≥ 1000 mg/kg bw/day Species: CrI:CD BR Sprague Dawley, Guideline: OECD Guideline 421 (Reproduction / Developmental Toxicity Screening Test)
NOAEL (animal/female, F0/P)	≥ 1000 mg/kg bw/day Species: CrI:CD BR Sprague Dawley, Guideline: OECD Guideline 421 (Reproduction / Developmental Toxicity Screening Test)
NOAEL (animal/male, F1)	≥ 1000 mg/kg bw/day Species: CrI:CD BR Sprague Dawley, Guideline: OECD Guideline 421 (Reproduction / Developmental Toxicity Screening Test)
NOAEL (animal/female, F1)	≥ 1000 mg/kg bw/day Species: CrI:CD BR Sprague Dawley, Guideline: OECD Guideline 421 (Reproduction / Developmental Toxicity Screening Test)

N-1,3-dimethylbutyl-N'-phenyl-p-phenylenediamine (793-24-8)

NOAEL (animal/male, F0/P)	60 mg/kg Source: ECHA
NOAEL (animal/female, F0/P)	7 mg/kg Source: ECHA
NOAEL (animal/male, F1)	20 mg/kg bodyweight Source: ECHA
NOAEL (animal/female, F1)	20 mg/kg bodyweight Source: ECHA

STOT-single exposure : Not available

STOT-repeated exposure : Not available

Fatty acids, C14-18 and C16-18-unsatd. (67701-06-8)

NOAEL (oral, rat, 90 days)	1000 mg/kg bodyweight/day Source: ECHA
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Distillates (petroleum), solvent-refined heavy paraffinic (64741-88-4)

LOAEL (oral, rat, 90 days)	125 mg/kg bodyweight/day Source: ECHA
NOAEL (dermal, rat/rabbit, 90 days)	≈ 1000 mg/kg bodyweight/day Source: ECHA

KUMHO 1739

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

N-1,3-dimethylbutyl-N'-phenyl-p-phenylenediamine (793-24-8)

LOAEL (oral, rat, 90 days)	100 mg/kg bodyweight/day Source: ECHA, Guideline: other:Guideline for 28-day Repeat Dose
NOAEL (oral, rat, 90 days)	20 mg/kg bw/day Source: ECHA, Guideline: other:Guideline for 28-day Repeat Dose

Aspiration hazard : Not available

11.2. Information on other hazards

No additional information available

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.

Hazardous to the aquatic environment, short-term (acute) : Not available

Hazardous to the aquatic environment, long-term (chronic) : Harmful to aquatic life with long lasting effects.

Fatty acids, C14-18 and C16-18-unsatd. (67701-06-8)

LC50 - Fish [1]	> 1000 mg/l Source: ECHA
EC50 - Crustacea [1]	> 4.8 mg/l Source: ECHA
EC50 72h - Algae [1]	> 0.9 mg/l Source: ECHA
NOEC chronic crustacea	> 0.22 mg/l Source: ECHA

Resin acids and Rosin acids, potassium salts (61790-50-9)

LC50 - Fish [1]	> 1.7 mg/l Source: ECHA
EC50 72h - Algae [1]	16.6 mg/l Source: ECHA

N-1,3-dimethylbutyl-N'-phenyl-p-phenylenediamine (793-24-8)

LC50 - Fish [1]	0.028 mg/l Source: ECHA
EC50 - Crustacea [1]	0.13 mg/l Source: ECHA
EC50 72h - Algae [1]	0.335 mg/l Source: ECHA
NOEC chronic fish	0.004 mg/l Source: ECHA
NOEC chronic crustacea	0.003 mg/l Source: ECHA
NOEC chronic algae	0.23 mg/l Source: ECHA

12.2. Persistence and degradability

Fatty acids, C14-18 and C16-18-unsatd. (67701-06-8)

Persistence and degradability : Not rapidly degradable

STYRENE/BUTADIENE COPOLYMER (9003-55-8)

Persistence and degradability : Not rapidly degradable

Distillates (petroleum), solvent-refined heavy paraffinic (64741-88-4)

Persistence and degradability : Not readily biodegraded.

Resin acids and Rosin acids, potassium salts (61790-50-9)

Persistence and degradability : Not rapidly degradable

KUMHO 1739

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

N-1,3-dimethylbutyl-N'-phenyl-p-phenylenediamine (793-24-8)

Persistence and degradability	Not rapidly degradable
Biodegradation	2 % Source: ECHA

12.3. Bioaccumulative potential

N-1,3-dimethylbutyl-N'-phenyl-p-phenylenediamine (793-24-8)

BCF - Fish [1]	1.2 – 23 Source: ECHA, Cyprinus carpio (Common carp)
Bioconcentration factor (BCF REACH)	568.7

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

KUMHO 1739

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

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority. Incinerate. Oil from oil/water separators. Dispose of contents/container in accordance with licensed collector's sorting instructions. Waste treatment and disposal.

SECTION 14: Transport information

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

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

KUMHO 1739

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

14.6. Special precautions for user

Overland transport

Not regulated

Transport by sea

Not regulated

Air transport

Not regulated

Inland waterway transport

Not regulated

Rail transport

Not regulated

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

REACH Annex XVII (Restriction List)

EU restriction list (REACH Annex XVII)

Reference code	Applicable on	Entry title or description
28.	Distillates (petroleum), solvent-refined heavy paraffinic	Substances which are classified as carcinogen category 1A or 1B in Part 3 of Annex VI to Regulation (EC) No 1272/2008 and are listed in Appendix 1 or Appendix 2, respectively.

REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

Dual-Use Regulation (428/2009)

Contains no substance subject to the COUNCIL REGULATION (EC) No 428/2009 of 5 May 2009 setting up a Community regime for the control of exports, transfer, brokering and transit of dual-use items.

Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

KUMHO 1739

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

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 1, Slightly hazardous to water (Classification according to AwSV, Annex 1).
- Hazardous Incident Ordinance (12. BImSchV) : Is not subject to the Hazardous Incident Ordinance (12. BImSchV)

Netherlands

- ABM category : Z(1) - non biodegradable substances with hazardous properties for humans and the environment (carcinogenicity/ mutagenicity/ reprotoxicity/bioacumulative potential/ toxicity or persistence)
- SZW list of carcinogens : Fatty acids, C14-18 and C16-18-unsatd.,Distillates (petroleum), solvent-refined heavy paraffinic,Resin acids and Rosin acids, potassium salts are listed
- SZW list of mutagens : Fatty acids, C14-18 and C16-18-unsatd.,Distillates (petroleum), solvent-refined heavy paraffinic are listed
- SZW list of reprotoxic substances – Breastfeeding : None of the components are listed
- SZW list of reprotoxic substances – Fertility : None of the components are listed
- SZW list of reprotoxic substances – Development : None of the components are listed

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Abbreviations and acronyms:	
NOAEL	No-Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
N.O.S.	Not Otherwise Specified
LOAEL	Lowest Observed Adverse Effect Level
LD50	Median lethal dose
LC50	Median lethal concentration
IOELV	Indicative Occupational Exposure Limit Value
IMDG	International Maritime Dangerous Goods
IATA	International Air Transport Association
IARC	International Agency for Research on Cancer
EN	European Standard
ED	Endocrine disruptor
EC50	Median effective concentration
EC-No.	European Community number
DNEL	Derived-No Effect Level
DMEL	Derived Minimal Effect level
COD	Chemical oxygen demand (COD)
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
BOD	Biochemical oxygen demand (BOD)
BLV	Biological limit value
BCF	Bioconcentration factor

KUMHO 1739

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Abbreviations and acronyms:	
ATE	Acute Toxicity Estimate
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
CAS-No.	Chemical Abstract Service number
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
OEL	Occupational Exposure Limit
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STP	Sewage treatment plant
TLM	Median Tolerance Limit
TRGS	Technical Rules for Hazardous Substances
ThOD	Theoretical oxygen demand (ThOD)
VOC	Volatile Organic Compounds
WGK	Water Hazard Class
vPvB	Very Persistent and Very Bioaccumulative

Full text of H- and EUH-statements:	
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Acute 1	Hazardous to the aquatic environment – Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment – Chronic Hazard, Category 1
Aquatic Chronic 3	Hazardous to the aquatic environment – Chronic Hazard, Category 3
EUH208	Contains N-1,3-dimethylbutyl-N'-phenyl-p-phenylenediamine (793-24-8). May produce an allergic reaction.
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
H302	Harmful if swallowed.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H360	May damage fertility or the unborn child.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
Repr. 1B	Reproductive toxicity, Category 1B
Skin Sens. 1	Skin sensitisation, Category 1

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.