

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

Product form : Mixture  
Name : KNL 832

**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 : Latex

**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<br>Länder Bremen, Hamburg,<br>Niedersachsen und Schleswig-<br>Holstein (GIZ-Nord)<br>Universitätsmedizin Göttingen -<br>Georg-August-Universität | Robert-Koch Straße 40<br>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]**

EUH-statements : EUH210 - Safety data sheet available on request.

**2.3. Other hazards**

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

**SECTION 3: Composition/information on ingredients****3.1. Substances**

Not applicable

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

### 3.2. Mixtures

| Name  | Product identifier                         | %             | Classification according to Regulation (EC) No. 1272/2008 [CLP] |
|---|--|---------------|---|
| WATER   | (CAS-No.) 7732-18-5<br>(EC-No.) 231-791-2  | 50 – 60       | Not classified  |
| Acrylonitrile-butadiene-methacrylic acid copolymer                          | (CAS-No.) 9010-81-5<br>(EC-No.) 639-551-2  | 40 – 50       | Not classified  |
| Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene | (CAS-No.) 68610-51-5<br>(EC-No.) 271-867-2 | 0.251 – 0.253 | Repr. 2, H361<br>Aquatic Chronic 4, H413 (M=1)                  |

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 after inhalation   | : Remove person to fresh air and keep comfortable for breathing.   |
| First-aid measures after skin contact | : In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash contaminated clothing before reuse. |
| First-aid measures after eye contact  | : Do not rub affected area. Immediately rinse with plenty of water (for at least 15 minutes). Immediately call a POISON CENTER/doctor.   |
| First-aid measures after ingestion    | : Rinse mouth with water, do not induce vomiting, call a doctor.   |

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

|                  |                  |
|------------------|------------------|
| Symptoms/effects | : Not available. |
|------------------|------------------|

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

Treat symptomatically. Medical personnel should be made aware of substance(s) involved and take measures for self protection.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

|                                |  |
|--------------------------------|--|
| Suitable extinguishing media   | : Water spray. Use dry chemical, CO2, water spray or regular foam. Dry sand. |
| Unsuitable extinguishing media | : Do not use water jet to extinguish.  |

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

|  |   |
|--|---|
| Fire hazard                                      | : Not combustible.  |
| Explosion hazard                                 | : Containers could explode when heated.   |
| Reactivity in case of fire                       | : On exposure to high temperature, may decompose, releasing toxic gases. Inhalation of material could be harmful. |
| Hazardous decomposition products in case of fire | : Vapour could cause dizziness or suffocation.  |

### 5.3. Advice for firefighters

|                                |  |
|--------------------------------|--|
| Firefighting instructions      | : Get the package away from the fire if this can be done without risk. Inhalation of material could be harmful. No action shall be taken without appropriate training or involving any personal risk.  |
| Protection during firefighting | : NOTIFY POLICE AND FIRE BRIGADE IMMEDIATELY. Withdraw immediately in case of rising sound from venting devices or discolouration from tank. Avoid inhalation of the product. Cool down the containers exposed to heat with a water spray. Fire fighting measures. |

### SECTION 6: Accidental release measures

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

General measures : Avoid contact with skin and eyes. Keep upwind. Remove ignition sources. Wear suitable protective clothing, gloves and eye or face protection.

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

Emergency procedures : Use personal protective equipment (PPE). Notify fire brigade and environmental authorities.

##### 6.1.2. For emergency responders

Emergency procedures : Stay upwind/keep distance from source. Do not touch spilled material. Stop leak if safe to do so. Remove all sources of ignition.

#### 6.2. Environmental precautions

Prevent runoff from entering drains, sewers or waterways. 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

For containment : Clear spills immediately. Move the affected person away from the contaminated area.

Methods for cleaning up : In case of large spillages: Keep upwind. Take up mechanically (sweeping, shovelling) and collect in suitable container for disposal. Notify environmental authorities. Dispose of waste or used sacks/containers according to local regulations. Keep in suitable, closed containers for disposal. Small spillages: Take up liquid spill into absorbent material, e.g.: sand. Wipe off as much as possible (using a clean, soft, absorbent material).

Other information : Spill area may be slippery.

#### 6.4. Reference to other sections

None under recommended storage and handling conditions (see section 7). 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 : Read and follow the Safety Data Sheet (SDS) before use. Wear suitable protective clothing. Do not inhale vapour.

Hygiene measures : Always wash hands after handling the product.

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

Technical measures : Keep only in original container.

Storage conditions : Keep out of direct sunlight. Keep the container hermetically sealed. Avoid shock and friction. Protect from heat and direct sunlight.

Storage temperature : 5 – 40 °C

#### 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

No additional information available

##### 8.1.2. Recommended monitoring procedures

No additional information available

##### 8.1.3. Air contaminants formed

No additional information available

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### 8.1.4. DNEL and PNEC

No additional information available

### 8.1.5. Control banding

No additional information available

## 8.2. Exposure controls

### 8.2.1. Appropriate engineering controls

#### Appropriate engineering controls:

Ensure good ventilation of the work station. 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. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure

#### 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:

A suitable particle filter mask is recommended, depending on the expected exposure levels. Full face piece respirator (organic vapours). High efficiency particulate air filter (HEPA filter). Wear respiratory protection.

#### 8.2.2.4. Thermal hazards

No additional information available

### 8.2.3. Environmental exposure controls

#### Environmental exposure controls:

Avoid release to the environment. Ecological information (Section 12).

## SECTION 9: Physical and chemical properties

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

|                 |                 |
|-----------------|-----------------|
| Physical state  | : Liquid        |
| Colour          | : milky white.  |
| Molecular mass  | : Not available |
| Appearance      | : milky white.  |
| Odour           | : slight.       |
| Odour threshold | : Not available |
| Melting point   | : Not available |
| Freezing point  | : Not available |
| Boiling point   | : Not available |

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|   |                        |
|---|------------------------|
| Flammability                                    | : Not available        |
| Explosive limits                                | : Not available        |
| Lower explosion limit                           | : Not available        |
| Upper explosion limit                           | : Not available        |
| Flash point                                     | : Not available        |
| Auto-ignition temperature                       | : Not available        |
| Decomposition temperature                       | : Not available        |
| pH  | : 7.8 – 8.6            |
| Viscosity, kinematic                            | : Not available        |
| Viscosity, dynamic                              | : < 200 mPa.s at 20 °C |
| Solubility                                      | : Not available        |
| 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 available        |
| Particle size                                   | : Not available        |
| Particle size distribution                      | : Not available        |
| Particle shape                                  | : Not available        |
| Particle aspect ratio                           | : Not available        |
| Particle aggregation state                      | : Not available        |
|   | 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

Stable at normal ambient temperatures and when used as recommended.

### 10.2. Chemical stability

No additional information available

### 10.3. Possibility of hazardous reactions

Catches fire spontaneously if exposed to air.

### 10.4. Conditions to avoid

Metal articles.

### 10.5. Incompatible materials

Oxidising agents.

### 10.6. Hazardous decomposition products

smokes. Carbon oxides (CO, CO<sub>2</sub>).

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### 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

#### Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene (68610-51-5)

|                 |                                |
|-----------------|--------------------------------|
| LD50 oral rat   | > 5000 mg/kg male/female, ECHA |
| LD50 dermal rat | > 2000 mg/kg male/female, 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

Reproductive toxicity : Not available

#### Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene (68610-51-5)

|               |                  |
|---------------|------------------|
| NOAEL, rabbit | 150 mg/kg bw/day |
|---------------|------------------|

STOT-single exposure : Not available

STOT-repeated exposure : Not available

#### Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene (68610-51-5)

|                            |   |
|----------------------------|---|
| NOAEL (oral, rat, 90 days) | ≈ 32 mg/kg bodyweight/day male/female, ECHA |
|----------------------------|---|

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

#### Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene (68610-51-5)

|                        |  |
|------------------------|--|
| LC50 - Fish [1]        | > 0.2 mg/l Oncorhynchus mykiss (Rainbow trout) |
| EC50 - Crustacea [1]   | > 0.2 mg/l Daphnia magna (Water flea)          |
| ErC50 algae            | > 0.2 mg/l Pseudokirchneriella subcapitata     |
| NOEC chronic crustacea | 100 mg/l (ECHA)                                |
| NOEC chronic algae     | > 0.2 mg/l (ECHA)                              |

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### 12.2. Persistence and degradability

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|                               |                |
|-------------------------------|----------------|
| Persistence and degradability | Not available. |
|-------------------------------|----------------|

#### Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene (68610-51-5)

|                               |                          |
|-------------------------------|--------------------------|
| Persistence and degradability | Not readily biodegraded. |
|-------------------------------|--------------------------|

|                |     |
|----------------|-----|
| Biodegradation | 1 % |
|----------------|-----|

### 12.3. Bioaccumulative potential

#### KNL 832

|                           |                |
|---------------------------|----------------|
| Bioaccumulative potential | Not available. |
|---------------------------|----------------|

#### Phenol, 4-methyl-, reaction products with dicyclopentadiene and isobutylene (68610-51-5)

|                                   |               |
|-----------------------------------|---------------|
| BCF - Other aquatic organisms [1] | 4801.9 (ECHA) |
|-----------------------------------|---------------|

|                                   |                |
|-----------------------------------|----------------|
| BCF - Other aquatic organisms [2] | 12675.5 (ECHA) |
|-----------------------------------|----------------|

### 12.4. Mobility in soil

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|                  |               |
|------------------|---------------|
| Mobility in soil | Not 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

Adverse effects on the environment caused by endocrine disrupting properties : Not available

### 12.7. Other adverse effects

Other adverse effects : Not available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Waste treatment methods : Recycling is preferred to disposal or incineration. Oil-Water Separation. Dispose of in accordance with relevant local regulations. 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 |

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### 14.3. Transport hazard class(es)

Not applicable

Not applicable

Not applicable

Not applicable

Not applicable

### 14.4. Packing group

Not applicable

Not applicable

Not applicable

Not applicable

Not applicable

### 14.5. Environmental hazards

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

#### 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 12 - Non-combustible liquids

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 4.3, LGK 5.1C

Joint storage permitted for

: LGK 2A, LGK 2B, LGK 3, LGK 4.1B, LGK 4.2, 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

| Abbreviations and acronyms: |   |
|-----------------------------|---|
| REACH                       | Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006 |
| CLP                         | Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008                       |
| DNEL                        | Derived-No Effect Level   |
| PNEC                        | Predicted No-Effect Concentration   |
| ADN                         | European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways   |
| ADR                         | European Agreement concerning the International Carriage of Dangerous Goods by Road               |
| ATE                         | Acute Toxicity Estimate   |
| BCF                         | Bioconcentration factor   |
| BLV                         | Biological limit value  |
| BOD                         | Biochemical oxygen demand (BOD)   |
| COD                         | Chemical oxygen demand (COD)  |
| DMEL                        | Derived Minimal Effect level  |
| EC-No.                      | European Community number   |
| EC50                        | Median effective concentration  |
| EN                          | European Standard   |
| IARC                        | International Agency for Research on Cancer   |
| IATA                        | International Air Transport Association   |
| IMDG                        | International Maritime Dangerous Goods  |
| LC50                        | Median lethal concentration   |
| LD50                        | Median lethal dose  |
| LOAEL                       | Lowest Observed Adverse Effect Level  |
| NOAEC                       | No-Observed Adverse Effect Concentration  |
| NOAEL                       | No-Observed Adverse Effect Level  |
| NOEC                        | No-Observed Effect Concentration  |
| OECD                        | Organisation for Economic Co-operation and Development  |
| OEL                         | Occupational Exposure Limit   |
| PBT                         | Persistent Bioaccumulative Toxic  |
| RID                         | Regulations concerning the International Carriage of Dangerous Goods by Rail                      |
| SDS                         | Safety Data Sheet   |
| STP                         | Sewage treatment plant  |
| ThOD                        | Theoretical oxygen demand (ThOD)  |
| TLM                         | Median Tolerance Limit  |
| VOC                         | Volatile Organic Compounds  |
| CAS-No.                     | Chemical Abstract Service number  |

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|        |  |
|--------|--|
| N.O.S. | Not Otherwise Specified                  |
| vPvB   | Very Persistent and Very Bioaccumulative |
| ED     | Endocrine disrupting properties          |

Data sources : This safety data sheet was compiled with data and information from the following sources : RTECS, ECOSAR, HSDB, SIDS SIAP, ChemWATCH, CESAR, Chemical DB.

| Full text of H- and EUH-statements: |   |
|-------------------------------------|---|
| Aquatic Chronic 4                   | Hazardous to the aquatic environment – Chronic Hazard, Category 4 |
| EUH210                              | Safety data sheet available on request.                           |
| H361                                | Suspected of damaging fertility or the unborn child.              |
| H413                                | May cause long lasting harmful effects to aquatic life.           |
| Repr. 2                             | Reproductive toxicity, Category 2                                 |

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.