SAFETY DATA SHEET

1. Identification of the substance or mixture and of the supplier

A. GHS product identifier : KEP Oil Extended Ethylene Propylene rubber

Applicable Grade : KEP960N, KEP960NF, KEP980N, KEP901N, KEP902N, EP4640E, KEP4640EP, KEP9570E

B. Recommended use of the chemical and restrictions on use

Recommended use : Parts of automobile, Cables, Roofing Sheet, General industrial parts etc.

Restrictions on use : Use for recommended use only.

C. Supplier

Company name : KUMHO POLYCHEM CO., LTD.

Address : 144-6, Weoulha-dong, Yeosu-City, Cheonranam-Do, Korea

Emergency phone number : +82-61-808-2551

Respondent : Seungryeol Kim

Fax : +82-61-808-2560

2. Hazards identification

A. GHS classification of the substance/mixture

Not classified according to OSHA 29 CFR 1910.1200

B. GHS label elements, including precautionary statements

Pictogram and symbol :

Not applicable

Signal word :

Not applicable

Hazard statements :

Not applicable

Precautionary statements

Precaution :

Not applicable

Treatment :

Not applicable

Storage :

Not applicable

Disposal :

Not applicable

C. Other hazard information not included in hazard classification (NFPA)

Health : Not available

Flammability : Not available

Reactivity : Not available

3. Composition/information on ingredients

Chemical Name	Common Name (Synonyms)	CAS No.	EC/List No.
Distillates (Petroleum) hydrotreated heavy paraffinic	Hydrotreated (mild) heavy paraffinic distillate	64742-54-7	265-157-1
Ethylene propylene 5-ethylidene-2-norbornene terpolymer	2-norbornene, 5-ethylidene polymer with ethylene and propene	25038-36-2	607-505-0

	Distillates (Petroleum) hydrotreated heavy paraffinic	Ethylene propylene 5-ethylidene-2-norbornene terpolymer	Applicable Grade/s
Content (%)	32 ~ 35	65 ~ 68	KEP960N, KEP960NF
	42 ~ 44	56 ~ 58	KEP980N, KEP4640E, KEP4640EP
	49 ~ 51	49 ~ 51	KEP901N KEP902N,
	16 ~ 18	82 ~ 84	KEP9570E

* Monomers of polymers are registered under EU REACH regulations in accordance with Article 6 of the Regulations. The information on the regulations is as follows.

Components	CAS No.	EC No.	(Pre-)Registration No.
Ethylene	74-85-1	200-815-3	01-2119462827-27-0116

Propylene	115-07-1	204-062-1	01-2119447103-50-0113
5-Ethylidene-2-norbornene	16219-75-3	240-347-7	01-2119494722-31-0002
Process Oil P-4K	64742-54-7	265-157-1	01-2119484627-25-0057

4. First aid measures

A. Eye contact

- If in an eye, remove in the same manner as one would when any solid object enters the eye since the product is an inert solid.

B. Skin contact

- If the skin is in contact with the heated product, immediately immerse in or flush the affected area with a large amount of cold water to dissipate heat. Cover with clean cotton sheet or gauze and get prompt medical attention.
- No attempt should be made to remove the heated product from the affected skin or to remove the contaminating clothing as the damaged flesh can easily be torn.

C. Inhalation

- Using proper respiratory protection, immediately remove the affected victim from exposure.
- Administer artificial respiration if breathing has stopped.
- Keep the affected victim at rest.
- Call for prompt medical attention

D. Ingestion

- First aid is normally not required

E. Indication of immediate medical attention and notes for physician

- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

F. Most important symptoms and effects, both acute and delayed

- Not available

5. Fire fighting measures

A. Suitable (and unsuitable) extinguishing media

- Suitable extinguishing media : Foam, Carbon dioxide, Water spray
- Unsuitable extinguishing media : Not available

B. Specific hazards arising from the chemical

- Due to thermal decomposition and incomplete combustion gases such as black smoke, carbon monoxide and other toxic gases, danger based on inhalation of such gases may

occur.

C. Special protective equipment and precautions for fire-fighters

- Depending on the situation, protective equipment such as chemical cartridge respirator for fire-fighting and protective clothing shall be worn.

6. Accidental release measures

A. Personal precautions, protective equipment and emergency procedures

- Wear protective gloves

B. Environmental precautions and protective procedures

- Pay attention so that product does not flow into the sewage or public water area.

C. The methods of purification and removal

- Sweep up the scattered product and recover into a suitable container.

D. Reference to other sections

- See also sections 8 and 13 of the Safety Data Sheet.

7. Handling and storage

A. Precautions for safe handling

- Do not handle until all safety precautions have been read and understood.

B. Conditions for safe storage

- Keep away from direct sunlight and ultraviolet rays. Exposure to direct sunlight and ultraviolet rays cause the polymer to generate light-induced crosslinked gel in the product.
- Avoid wetting and abrupt temperature change when storing this material.
- Please store product at room temperature, and keep it dry. Especially, high ethylene type EP(D)M should be stored in a warm room for more than 48hours prior to use and process.

8. Exposure controls/personal protection

A. Occupational Exposure limits

ACGIH regulation : Not available

Biological exposure index : Not available

OSHA regulation : Not available

NIOSH regulation : Not available

EU regulation : Not available

Other : Not available

B. Appropriate engineering controls

- Since volatile matters will be generated at the time of mixing, processing and molding work, install equipment to wash the hands and eyes nearby.

C. Personal protective equipment

Respiratory protection

- Use a protective mask as required.

Eye protection

- Install equipment to wash the hands and eyes nearly.

Hand protection

- Use protective gloves as required.

Body protection :

- Use work clothes and safety shoes as required.

D. Environmental exposure controls

- Prevent entry into waterways, sewers, basements or confined areas.

9. Physical and chemical properties

A. Appearance

Description : Solid

Color : White or yellow-Green

B. Odor : Slight Odor

C. Odor threshold : Not available

D. pH : Not available

E. Melting point/freezing point : Not available

F. Initial boiling point and boiling range : Not available

G. Flash point : > 250 ℃

H. Evaporation rate : Not available

I. Flammability (solid, gas) : Not available

J. Upper/lower flammability or explosive limits : Not available

K. Vapor pressure : Not available

L. Solubility (ies) : Insoluble in water

M. Vapor density : Not available

N. Specific gravity : 0.86 ~ 0.89

O. Partition coefficient: n-octanol/water : Not available

P. Auto ignition temperature : Not available

Q. Decomposition temperature : 250 ℃

R. Viscosity : Not available

S. Molecular weight : 100,000 ~ 600,000

10. Stability and reactivity

A. Chemical stability and Possibility of hazardous reactions

- Polymerization does not occur.
- Stable at normal temperature and pressure.

B. Conditions to avoid

- Not available

C. Incompatible materials

- Not available

D. Hazardous decomposition products

- Not available

11. Toxicological information

A. Information on the likely routes of exposure : Not available

B. Information of Health Hazardous

Acute toxicity

Oral : Not classified

- **Distillates (Petroleum) hydrotreated heavy paraffinic :** Rat, LD_{50} = 15,000 mg/kg

Dermal : Not classified

- **Distillates (Petroleum) hydrotreated heavy paraffinic :** Rabbit, LD_{50} = 5,000 mg/kg

Inhalation : Not available

Skin corrosion/ irritation : Not classified

- **Distillates (Petroleum) hydrotreated heavy paraffinic :** Non irritation (rabbit)

Serious eye damage/ irritation : Not classified

- **Distillates (Petroleum) hydrotreated heavy paraffinic :** Non irritation (rabbit)

Respiratory sensitization : Not available

Skin sensitization : Not available

Carcinogenicity : Not available

Mutagenicity : Not available

Reproductive toxicity : Not available

Specific target organ toxicity (single exposure) : Not available

Specific target organ toxicity (repeat exposure) : Not available

Aspiration Hazard : Not available

12. Ecological information

A. Ecological toxicity

- Acute toxicity : Not available

- Chronic toxicity : Not available

Fish : Not available

Crustacean : Not available

Algae : Not available

B. Persistence and degradability

Persistence : Not available

Degradability : Not available

C. Bioaccumulative potential

Bioaccumulation : Not available

Biodegradation :

- Distillates (Petroleum) hydrotreated heavy paraffinic : 6% biodegradation was observed after 28 days.

D. Mobility in soil : Not available

E. Other hazardous effect : Not available

F. Hazardous to the ozone layer : Not applicable

13. Disposal considerations

A. Disposal method

- Observe all regulations made by administration.

B. Disposal precaution

- Observe all regulations made by administration.

14. Transport information

A. UN Number : Not applicable

B. UN Proper shipping name : Not applicable

C. Transport Hazard class : Not applicable

D. Packing group : Not applicable

E. Environmental hazards : Not applicable

F. Special precautions

in case of fire : Not applicable

in case of leakage : Not applicable

15. Regulatory information

	Distillates (Petroleum) hydrotreated heavy paraffinic	**Ethylene propylene 5-ethylidene-2-norbornene terpolymer**
USA Regulatory Information		
U.S.A management information (OSHA Regulation)	Not regulated	Not regulated
U.S.A management information (CERCLA Regulation)	Not regulated	Not regulated
U.S.A management information (EPCRA 302 Regulation)	Not regulated	Not regulated
U.S.A management information (EPCRA 304 Regulation)	Not regulated	Not regulated
U.S.A management information (EPCRA 313 Regulation)	Not regulated	Not regulated
TSCA (Toxic Substances Control Act)	Present (ACTIVE)	Present [XU] (ACTIVE)
Other Regulation		
Substance of Rotterdam Convention	Not regulated	Not regulated
Substance of Stockholm Convention	Not regulated	Not regulated
Substance of Montreal Protocol	Not regulated	Not regulated

16. Other information

A. Information source and references :

- TOMES-LOLI®; http://www.rightanswerknowledge.com/loginRA.asp
- ECHA; https://echa.europa.eu/home
- American Conference of Governmental Industrial Hygienists TLVs and BEIs.
- NIOSH Pocket Guide; http://www.cdc.gov/niosh/npg/npgdcas.html
- National Toxicology Program; http://ntp.niehs.nih.gov/results/dbsearch/
- IARC Monographs on the Evaluation of Carcinogenic Risks to Humans; http://monographs.iarc.fr

B. Issuing date : 09. September, 2019

C. Revision number and date

revision number : Rev.(09)

date of the latest revision : Jan 07, 2026

D. Others :

• Revised Safety Data Sheet based on the amendments made on the Ministry of Employment and Labor Public Notice on Standard for Classification Labeling of Chemical Substance and Material Safety Data Sheet.

• This SDS is authored in pursuant to the Article 41 of the Occupational Safety and Health Act.

• The content is based on the latest information and knowledge that we currently possess.

• This SDS was authored to aid buyer, processor or any other third person who handles the chemical of subject in the SDS; additionally, it does not warrant suitability of the chemical for special purposes or the commercial use of statements that approves the use of it in combination with other chemicals as well as technical or legal liabilities.

• The content of the SDS may vary depending on the country or the region and may not coincide with the actual regulations. Therefore, the buyer or the processor of the chemical is responsible for observing responsible government's or the region's regulations.