



Safety Data Sheet (SDS)

Revision / Review Date: 4/8/14

1. Chemical Product and Company Identification

Product Name: KEP Oil Extended Ethylene Propylene Rubber
Applicable Grade: KEP960, KEP960F, KEP901
Distributed By: HB Chemical
1665 Enterprise Parkway
Twinsburg Oh 44087
Phone - 330-920-8023
MSDS Prepared By (w Suppliers Input): HB Chemical
Chemical Name / Family: Oil Extended Ethylene Propylene Rubber
Regulation: In accordance with Regulation (EU) 453/2010 (REACH), Annex II
Product Use: Parts of automobile, Cables, Roofing Sheet, General industrial parts etc.
OSHA Status: Not Hazardous

For emergency health, safety, and environmental information, calls 330-920-8023

For emergency transportation information, in the United States: call CHEMTREC at 800-424-9300

2. Hazard(s) Identification

Classification of the substance or mixture: KEP Oil Extended Ethylene Propylene rubber is not classified according to Regulation (EC) No 1272/2008 [CLP] and Directive 1999/45/EC.
Label elements Hazard pictograms : Not applicable
Signal word : Not applicable
Hazard statements : Not applicable
Additional precautionary statements : Not applicable
Other hazards : No information available

3. Composition / Information on Ingredients

Substances

	Distillates (Petroleum) hydrotreated heavy paraffinic	Ethylene propylene 5-ethylidene-2-norbornene terpolymer
Other Name/s	Hydrotreated (mild) heavy paraffinic distillate	2-norbornene, 5-ethylidene polymer with ethylene and propene
CAS No	64742-54-7	25038-36-2

HB Chemical 1665 Enterprise Parkway Twinsburg, Ohio 44087

Phone 330-920-8023 Fax 330-920-0971

www.hbchemical.com

EC No.	265-157-1	618-455-4
Classification	See section.15 ※ Note L: The carcinogen classification does not apply because the substance contains less than 3 % (m/m) of dimethyl sulphoxide (DMSO) measured using the IP 346 method.	See section.15

	Distillates (Petroleum) hydrotreated heavy paraffinic	Ethylene propylene 5-ethylidene-2-norbornene terpolymer	Applicable Grade/s
Content(%)	11 ~ 15	85 ~ 89	KEP1030EF

	21 ~ 25	75 ~ 79	KEP2733
	32 ~ 35	65 ~ 68	KEP960, KEP960F, KEP960N, KEP960NF
	42 ~ 44	56 ~ 58	KEP980, KEP980NT
	49 ~ 51	49 ~ 51	KEP901, KEP902N

* Monomers of the polymer have been registered under EU REACH regulation in compliance with the Article 6 of the regulation. Below is the information on the Registration.

Component	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

4. First Aid Measures

Inhalation:

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

Eyes:

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.

Skin:

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.

Ingestion:

First aid is normally not required.

Most important symptoms and effects:

Acute effects: None known-Delayed effects: None known

Indication of immediate medical attention and Notes for physician:

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

5. Fire-Fighting Measures

Suitable Extinguishing Media:

Foam, Carbon dioxide, Water spray.

Unsuitable Extinguishing Media:

No information available.

Special Fire Fighting Procedures:

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

Hazardous Combustion Products:

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.

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures:

Wear protective gloves.

Environmental precautions:

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

Methods and material for containment and cleaning up:

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

Reference to other sections:

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

7. Handling and Storage:

Precautions for safe handling:

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

Conditions for safe storage, including any Incompatibilities:

Keep away from heat, 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

Specific end use(s):

None

8. Exposure Controls / Personal Protection

Control parameters

Occupational Exposure Limits:

	Distillates (Petroleum) hydrotreated heavy paraffinic	Ethylene propylene 5-ethylidene-2-norbornene terpolymer.
ACGIH regulation	No information available	No information available
Biological exposure index	No information available	No information available
OSHA regulation	TWA = 5 mg/m ³ (oil mist (mineral))	No information available
NIOSH regulation	TWA = 5 mg/m ³ , STEL = 10 mg/m ³ (oil mist (mineral))	No information available
EU regulation	No information available	No information available

Occupational Exposure Controls:

Exposure route of relevance	DNELs, DMELs, PNECs											
	Industrial				Professional				Consumer			
	Long term, local effects	Long term, systemic effects	Short term, local effects	Short term, systemic effect	Long term, local effects	Long term, systemic effects	Short term, local effects	Short term, systemic effects	Long term, local effects	Long term, systemic effects	Short term, local effects	Short term, systemic effects
Human: oral	-	-	-	-	-	-	-	-	-	-	-	-
Human: inhalation	-	-	-	-	-	-	-	-	-	-	-	-
Human: dermal	-	-	-	-	-	-	-	-	-	-	-	-
Environment: water	-											
Environment: air	-											
Environment: soil	-											
Environment: sediment	-											
Environment: STP	-											
Environment: oral	Distillates (Petroleum) hydrotreated heavy paraffinic: PNEC = 9.33 mg/kg food											

Exposure controls

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.

Respiratory Protection:

Use a protective mask as required.

Protective Gloves:

Use protective gloves as required.

Eye Protection:

Install equipment to wash hands and eyes nearby.

Skin and Body Protection:

Use work clothes and safety shoes as required.

Environmental exposure controls:

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

Decontamination Facilities:

eye bath, washing facilities (sinks / showers)

9. Physical and Chemical Properties

Information on basic physical and chemical properties:

	Distillates (Petroleum) hydrotreated heavy paraffinic	Ethylene propylene 5-ethylidene- 2-norbornene terpolymer.
Appearance		
Description :	liquid	Solid
Color :	White or Yellow	White or yellow-Green
Odor :	Slight odor	Slight odor
Odor threshold :	Not applicable	Not applicable
pH :	Not applicable	Not applicable
Melting point/freezing point :	Not applicable	Not applicable
Initial boiling point and boiling range :	> 204 °C	Not applicable
Flash point :	> 270 °C	250 °C
Evaporation rate :	0.01 (Butyl Acetate=1)	Not applicable
Flammability (solid, gas) :	Not applicable	Not applicable
Upper/lower flammability or explosive limits :	7 / 0.9 %	Not applicable
Vapor pressure :	5 mmHg	Not applicable

Solubility (ies) :	Insoluble	Insoluble in water
Vapor density :	5	Not applicable
Specific gravity :	0.88	0.86 ~ 0.89
Partition coefficient: n-octanol/water :	Not applicable	Not applicable
Auto ignition temperature :	Not applicable	Not applicable
Decomposition temperature :	Not applicable	250 °C
Viscosity :	Not applicable	Not applicable
Explosive properties :	Not applicable	Not applicable
Oxidizing properties :	Not applicable	Not applicable
Molecular weight :	Not applicable	100,000 ~ 600,000

Other information: no information available.

10. Stability and Reactivity

Reactivity/Chemical stability/Possibility of hazardous reactions:

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

Conditions to avoid:

Not applicable

Incompatible materials:

Not applicable

Hazardous decomposition products:

Not applicable

11. Toxicological Information

Information on toxicological effects

	Distillates (Petroleum) hydrotreated heavy paraffinic	Ethylene propylene 5-ethylidene-2-norbornene terpolymer.
Acute toxicity;		
Oral	Rat, LD ₅₀ = 15,000 mg/kg	Not applicable
Dermal	Rabbit, LD ₅₀ = 5,000 mg/kg	Not applicable
Inhalation	Not applicable	Not applicable
Skin Corrosion/ Irritation;	Non irritation (rabbit)	Not applicable
Serious Eye Damage/ Irritation;	Non irritation (rabbit)	Not applicable
Respiratory sensitization;	Not applicable	Not applicable
Skin Sensitization;	Not applicable	Not applicable
Carcinogenicity;	Not applicable	Not applicable
Mutagenicity;	Not applicable	Not applicable
Reproductive toxicity;	Not applicable	Not applicable
Specific target organ toxicity (single exposure);	Not applicable	Not applicable
Specific target organ toxicity (repeat exposure);	Not applicable	Not applicable
Aspiration Hazard;	Not applicable	Not applicable

12. Ecological Information

	Distillates (Petroleum) hydrotreated heavy paraffinic	Ethylene propylene 5-ethylidene-2-norbornene terpolymer.
12.1 Toxicity		
Acute toxicity	No information available	No information available
Chronic toxicity	No information available	No information available
12.2 Persistence and degradability	No information available	No information available
12.3 Bioaccumulative potential	6% biodegradation was observed after 28 days.	No information available
12.4 Mobility in soil	No information available	No information available
12.5 Results of PBT and vPvB assessment	No information available	No information available
12.6 Other adverse effects	No information available	No information available

13. Disposal Considerations

Reclaim or Dispose of material in accordance with all applicable local, state, and federal regulations.

14. Transport Information

<u>D.O.T. Shipping Name</u>	Not applicable to the criteria for classification.
<u>Air - ICAO (international Civil Aviation Organization)</u>	Not applicable to the criteria for classification.
<u>Sea - IMDG (International Maritime Dangerous Goods)</u>	Not applicable to the criteria for classification.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code : Not applicable

15. Regulatory Information

Safety, health and environmental regulation/legislation specific for the substance or mixture.

	Distillates (Petroleum) hydrotreated heavy paraffinic	Ethylene propylene 5-ethylidene- 2-norbornene terpolymer
EU Regulatory Information		
EU classification		
Annex I of Directive 67/548/EEC :		
Classification :	Not classified	Not regulated
Risk phrases :	Not applicable	Not regulated
Safety phrases :	Not applicable	Not regulated
EU CLP 2008 :		
Classification :	Not classified	Not regulated
Hazard statement codes :	Not applicable	Not regulated
Precautionary statement codes :	Not applicable	Not regulated
EU SVHC list :	Not regulated	Not regulated
EU Authorisation List :	Not regulated	Not regulated
EU Restriction list :	Not regulated	Not regulated
Foreign Regulatory Information		
Korea management information :	Existing Chemical Substance (KE-12546)	Existing Chemical Substance (KE-13881)

Chemical Safety assessment:

No chemical safety assessment has been carried out for this Product by the supplier.

16. Other Information

Product safety data sheet for KEP Oil Extended Ethylene Propylene rubber prepared in accordance with Regulation (EU) 453/2010 (REACH), Annex II

Abbreviations and acronyms:

CLP = Classification Labelling Packaging Regulation ; Regulation (EC) No 1272/2008

CAS No. = Chemical Abstracts Service number

DNEL = Derived No Effect Level

EC Number = EINECS and ELINCS Number (see also EINECS and ELINCS)

EU = European Union

OSHA = European Agency for Safety and Health at work

PBT = Persistent, Bioaccumulative and Toxic substance

PNEC(s) = Predicted No Effect Concentration(s)

REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006

SVHC = Substances of Very High Concern

vPvB = Very Persistent and Very Bioaccumulative

Key literature reference and sources for data:

Distillates (Petroleum) hydrotreated heavy paraffinic
Corporate Solution From Thomson Micromedex
(<http://csi.micromedex.com>)
ECB-ESIS (European chemical Substances Information System)
(<http://ecb.jrc.it/esis>)
ECOTOX Database, EPA (<http://cfpub.epa.gov/ecotox>)
IUCLID Chemical Data Sheet, EC-ECB
ICSC (International Chemical Safety Cards)
NLM (United States National Library of Medicine)
The Chemical Database, The Department of Chemistry at the
University of Akron (<http://ull.chemistry.uakron.edu/erd>)

National Emergency Management Agency-Korea dangerous material inventory management system
<http://www.nema.go.kr/hazmat/main/main.jsp>
NCIS (National Chemicals Information System of South Korea)
REACH information on registered substances
<http://apps.echa.europa.eu/registered/registered-sub.aspx>

Ethylene propylene 5-ethylidene-2-norbornene terpolymer

HSDB (Hazardous Substances Data Bank)
ICSC (International Chemical Safety Cards)
NLM (United States National Library of Medicine)
IUCLID (International Uniform Chemical Information Database)
NCIS (National Chemicals Information System of South Korea)

Classification and procedure used to derive the
Classification for mixture according to Regulation
(EC) 1272/2008 (CLP):

Not Applicable

Relevant R-phrases and/or H-statements
(number and full text):

Not applicable

The above information has been compiled from what we believe to be credible sources. To our knowledge the information is accurate and reliable, however, it is not guaranteed. Any recommendations issued by HB Chemical personnel or literature is derived from experience and by no means should be taken as fact or construed as a recommendation to violate of any law, regulation or patent. It is the users responsibility to determine the suitability of any HB supplied material in their application. The individual conditions of each customer are well outside of our control and we cannot be held liable for its functionality and use. Please contact our office should you need specific information beyond what is supplied above. As with all Chemical usage safety precautions beyond the stated are highly recommended.