



Safety Data Sheet (SDS)

Revision / Review Date: 4/8/14

1. Chemical Product and Company Identification

Product Name:	KEP Ethylene Propylene Rubber
Applicable Grades:	KEP210, KEP220, KEP240, KEP270, KEP330 KEP350, KEP370F, KEP570P, KEP430H, KEP435 KEP510, KEP570C, KEP570F KEP650, KEP650L KEP281F, KEP2371, KEP1030F, KEP7141 KEP2320, KEP2380, KEP2480
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:	Ethylene propylene 5-ethylidene-2-norbornene terpolymer
CAS:	25038-36-2
REACH:	In accordance with Regulation (EU) 453/2010 (REACH), Annex II
Product Use:	Parts of automobile, Cables, Roofing Sheets, 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

<u>Classification of the Substance or mixture:</u>	KEP Ethylene Propylene Rubber is not classified according to Regulation (EC) No 1272/2008 [CLP] and Directive 67/548/EEC.
<u>Label elements</u>	
<u>Hazard pictograms:</u>	Not Applicable.
<u>Signal word:</u>	Not Applicable.
<u>Hazard Statement:</u>	Not Applicable.
<u>Other hazards:</u>	No information available.
<u>Additional precautionary statements:</u>	Not Applicable.

3. Composition / Information on Ingredients

Substances:

	Ethylene propylene 5-ethylidene-2-norbornene terpolymer	Ethylene propylene Copolymer
Other Name/s	2-norbornene, 5-ethylidene polymer with ethylene and propene	1-propene, polymer with ethene
Content(%)	100	100

* Monomers of the polymers 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.	EU REACH 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-Etylidene-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 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 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:

None known.

Indication of immediate medical attention and Notes for physician:

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

5. Fire-Fighting Measures

Suitable Extinguishing Media:

Foam, Carbon Dioxide, Water spray.

<u>Unsuitable Extinguishing Media:</u>	No information available.
<u>Special Fire Fighting Procedures:</u>	Depending on the situation, protective equipment such as chemical cartridge respirator for fire-fighting and protective clothing shall be worn.
<u>Hazardous Combustion Products:</u>	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:

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

Reference to other sections:

See also sections 8 & 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

Occupational Exposure Limits:

ACGIH regulation: No information available
Biological exposure index: No information available
OSHA regulation: No information available
NIOSH regulation: No information available
EU regulation: 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	-											

Exposure Controls:

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

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

Appearance

Description :

Solid

Color :

White or yellow-Green

Odor :

Slight Odor

Odor threshold :

Not applicable

pH :

Not applicable

<u>Melting point/freezing point :</u>	Not applicable
<u>Initial boiling point and boiling range :</u>	Not applicable
<u>Flash point :</u>	250 °C
<u>Evaporation rate :</u>	Not applicable
<u>Flammability (solid, gas) :</u>	Not applicable
<u>Upper/lower flammability or explosive limits :</u>	Not applicable
<u>Vapor pressure :</u>	Not applicable
<u>Solubility (ies) :</u>	Insoluble in water
<u>Vapor density :</u>	Not applicable
<u>Specific gravity :</u>	0.86 ~ 0.89
<u>Partition coefficient: n-octanol/water :</u>	Not applicable
<u>Auto ignition temperature :</u>	Not applicable
<u>Decomposition temperature :</u>	250 °C
<u>Viscosity :</u>	Not applicable
<u>Explosive properties :</u>	Not applicable
<u>Oxidizing properties :</u>	Not applicable
<u>Molecular weight :</u>	100,000 ~ 600,000
<u>Other information :</u>	No information available

10. Stability and Reactivity

<u>Reactivity/Stability/Possibility of hazardous reactions:</u>	Polymerization does not occur. Stable at normal temperature and pressure.
<u>Incompatibility (Materials to Avoid):</u>	Not applicable.
<u>Conditions to Avoid:</u>	Not applicable.
<u>Hazardous decomposition:</u>	Not applicable.

11. Toxicological Information

Information on toxicology effects

<u>Acute toxicity:</u>	Oral Not applicable-Dermal Not applicable-Inhalation Not Applicable
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<u>Skin Corrosion/ Irritation:</u>	Not applicable.
<u>Serious Eye Damage/ Irritation:</u>	Not applicable
<u>Respiratory sensitization:</u>	Not applicable
<u>Skin Sensitization:</u>	Not applicable
<u>Carcinogenicity:</u>	Not applicable
<u>Mutagenicity:</u>	Not applicable
<u>Reproductive toxicity:</u>	Not applicable
<u>Specific target organ toxicity (single exposure):</u>	Not applicable
<u>Specific target organ toxicity (repeat exposure):</u>	Not applicable
<u>Aspiration Hazard:</u>	Not applicable

12. Ecological Information

<u>Toxicity:</u>	Acute toxicity No information available Chronic toxicity No information available
<u>Persistence and degradability:</u>	No information available
<u>Bioaccumulative potential :</u>	No information available
<u>Mobility in soil :</u>	No information available
<u>Results of PBT and vPvB assessment :</u>	No information available
<u>Other adverse effects:</u>	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 regulated to the criteria for classification.
<u>Air - ICAO (international Civil Aviation Organization)</u>	Not regulated to the criteria for classification.
<u>Sea - IMDG (International Maritime Dangerous Goods)</u>	Not regulated to the criteria for classification.
<u>Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code :</u>	Not applicable.

15. Regulatory Information

Safety, health and environmental regulations/legislation specific for the substance or mixture:

	Ethylene propylene 5-ethylidene-2-norbornene terpolymer	Ethylene propylene Copolymer
EU Regulatory Information		
EU classification		
Annex I of Directive 67/548/EEC :		
Classification :	Not regulated	Not regulated
Risk phrases :	Not regulated	Not regulated
Safety phrases :	Not regulated	Not regulated
EU CLP 2008 :		
Classification :	Not regulated	Not regulated
Hazard statement codes :	Not regulated	Not regulated
Precautionary statement codes :	Not regulated	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-13881)	Existing Chemical Substance (KE-29433)

Chemical Safety assessment:

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

16. Other Information

Product safety data sheet was prepared for KEP Ethylene Propylene Rubber 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:

- 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)

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.