

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date: 26.07.2017

Revision: 26.07.2017

Version number: 3

KAIFLEX® EPDM-Kleber / EPDM Adhesive

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name: Kaiflex EPDM-Kleber.

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

No further relevant information available.

Application of the substance / the mixture:

Adhesives.

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:

Kaimann GmbH

Address

Hansastraße 2-5

D-33161 Hövelhof

Department issuing data specification sheet

Kaimann GmbH - Technik

Phone/Fax/E-Mail

+49 (0) 5257-9850-0 / +49 (0) 5257-9850-590/ E-Mail: msds@kaimann.de

1.4 Emergency telephone number

Advice Center for Poison Symptoms and Embryo Toxicology (Emergency Phone Line Berlin / Giftnotruf Berlin)

Tel.: +49 (0) 30 -1 92 40 · www.giftnotruf.de

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SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Flam. Liq. 2 H225 Highly flammable liquid and vapour.

Eye Irrit. 2 H319 Causes serious eye irritation.

STOT SE 3 H336 May cause drowsiness or dizziness.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the CLP regulation.

Hazard pictograms:



Signal word: Danger

Hazard-determining components of labelling:

ethyl acetate

acetone.

Hazard statements:

H225 Highly flammable liquid and vapour.

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

Precautionary statements:

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P370 + P378 In case of fire: Use for extinction: CO₂, powder or water spray.

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Additional information

EUH066 Repeated exposure may cause skin dryness or cracking.

Contains Rosin. May produce an allergic reaction.

2.3 Other hazards

Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

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3.2 Mixtures

Beschreibung: Adhesive. Polyurethane resin.

Dangerous components

ethyl acetate	registration number: 01-2119475103-46 EINECS: 205-500-4; CAS: 141-78-6; Percentage: 35-< 50% Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336
acetone	registration number: 01-2119471330-49 EINECS: 200-662-2; CAS: 67-64-1; Percentage: 25-< 35% Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336
Rosin	registration number: 01-2119480418-32 EINECS: 232-475-7; CAS:8050-09-7; Percentage: 0,1-< 0,5% Skin Sens. 1, H317

Additional information:

If any R-phrases (risk-phrases) are listed, please refer for the exact wording to section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General information:

Take affected persons into the open air.

After inhalation:

Supply fresh air; consult physician in case of symptoms.

After skin contact:

Instantly wash with water and soap and rinse thoroughly.

After eye contact:

Rinse opened eye for several minutes under running water. If symptoms persist, consult physician.

After swallowing:

In case of persistent symptoms consult physician.

4.2 Most important symptoms and effects, both acute and delayed

No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed

If swallowed or in case of vomiting, danger of entering the lungs.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing agents: CO₂, sand, extinguishing powder. Do not use water.

For safety reasons unsuitable extinguishing agents: Water. Water with a full water jet.

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5.2 Special hazards arising from the substance or mixture

Formation of toxic gases is possible during heating or in case of fire.
Can be released in case of fire: Carbon monoxide (CO).

5.3 Advice for firefighters

Protective equipment:

Wear self-contained breathing apparatus.
Do not inhale explosion gases or combustion gases.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Wear protective clothing.

6.2 Environmental precautions

Do not allow product to reach sewage system or water bodies.
Prevent material from reaching sewage system, holes and cellars.
Prevent from spreading (e.g. by damming-in or oil barriers).

6.3 Methods and material for containment and cleaning up

Mit Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Ensure adequate ventilation.
Do not flush with water or aqueous cleansing agents.

6.4 Reference to other sections

See Section 7 for information on safe handling
See Section 8 for information on personal protection equipment.
See Section 13 for information on disposal.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Store in cool, dry place in tightly closed containers.
Ensure good ventilation/extraction system at the workplace.
Open and handle container with care.
Ensure good interior ventilation, especially at floor level. (Fumes are heavier than air).

Information about protection against explosions and fires:

Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
Use only in explosion-proof area.
Highly volatile, flammable constituents are released during processing.
Fumes can combine with air to form an explosive mixture.
Flammable mixtures may be formed in empty containers.

7.2 Conditions for safe storage, including any incompatibilities

Storage

Requirements to be met by storerooms and containers: Store in cool location.

Information about storage in one common storage facility: Not required.

Further information about storage conditions:

Keep container tightly sealed.
Store in cool, dry conditions in well sealed containers.
Storage class: 3

7.3 Specific end use(s)

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No further relevant information available.

SECTION 8: Exposure controls/personal protection

Additional information about design of technical systems:

No further data; see item 7.

8.1 Control parameters

Components with critical values that require monitoring in the workplace

ethyl acetate
(CAS: 141-78-6) WEL: Short-term value: 400 ppm
Long-term value: 200 ppm

acetone
(CAS: 67-64-1) WEL: Short-term value: 3620 mg/m³, 1500 ppm
Long-term value: 1210 mg/m³, 500 ppm

Rosin
(CAS: 8050-09-7) WEL: Short-term value: 0.15 mg/m³
Long-term value: 0.05 mg/m³

derived no-effect level (DNELs)

Worker:

ethyl acetate
(CAS: 141-78-6) Dermal:
DNEL w 63 mg/kg bw/day (long-term, systemic effects)
Inhalative:
DNEL w 1468 mg/m³ (acute, local effects)
DNEL w 1468 mg/m³ (acute, systemic effects)
DNEL w 734 mg/m³ (long-term, local effects)
DNEL w 734 mg/m³ (long-term, systemic effects)

acetone
(CAS: 67-64-1) Dermal:
DNEL w 186 mg/kg bw/day (long-term, systemic effects)
Inhalative:
DNEL w 2420 mg/m³ (acute, systemic effects)
DNEL w 1210 mg/m³ (long-term, systemic effects)

Consumer:

ethyl acetate
(CAS: 141-78-6) Oral:
DNEL c 4.5 mg/kg bw/day (long-term, systemic effects)
Dermal:
DNEL c 37 mg/kg bw/day (long-term, systemic effects)
Inhalativ:
DNEL c 734 mg/m³ (acute, local effects)
DNEL c 734 mg/m³ (acute, systemic effects)
DNEL c 367 mg/m³ (long-term, local effects)
DNEL c 367 mg/m³ (long-term, systemic effects)

acetone
(CAS: 67-64-1) Oral:
DNEL c 62 mg/kg bw/day (long-term, systemic effects)
Dermal:
DNEL c 62 mg/kg bw/day (long-term, systemic effects)
Inhalativ:
DNEL c 200 mg/m³ (long-term, systemic effects)

predicted no-effect concentration (PNECs)

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ethyl acetate
(CAS: 141-78-6)

Oral:

PNEC oral 0.2 mg/kg food (n.a.)
PNEC sediment 1.25 mg/kg (sediment, freshwater)
PNEC sediment 0.125 mg/kg (sediment, marine water)
PNEC soil 0.24 mg/kg (soil)
PNEC water 0.26 mg/l (freshwater)
PNEC water 1.65 mg/l (intermittent releases)
PNEC water 0.026 mg/l (marine water)
PNEC water 650 mg/l (sewage treatment plant)

acetone
(CAS: 67-64-1)

PNEC sediment 30.4 mg/kg (sediment, freshwater)
PNEC sediment 3.04 mg/kg (sediment, marine water)
PNEC soil 29.5 mg/kg (soil)
PNEC water 10.6 mg/l (freshwater)
PNEC water 21 mg/l (intermittent releases)
PNEC water 1.06 mg/l (marine water)
PNEC water 100 mg/l (sewage treatment plant)

Additional information: The lists that were valid during the compilation were used as basis.

8.2 Exposure controls

Additional information about design of technical systems:

No further data; see item 7.

Personal protective equipment

Personal protective equipment:

Standard precautionary measures for handling chemicals are to be observed.

Keep away from food, beverages and animal feed.

Instantly remove any soiled and impregnated garments.

Wash hands during breaks and at the end of work.

Do not inhale gases / fumes / aerosols.

Avoid contact with the eyes and skin.

Do not eat or drink while working.

Breathing equipment

Use breathing protection in case of insufficient ventilation (EN 14387).

Short term filter device:

Filter AX (boiling point < 61 °C); Filter A (boiling point > 60 °C).

Only when applied by spray methods, if no adequate extraction system is in place (EN 149).

Filter A/P2.

Protection of hands

Impervious gloves (EN 374).

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Material of gloves: Butyl rubber, BR.

Penetration time of glove material

The exact time limit until penetration has to be found out from the manufacturer of the protective gloves; please ensure that this value is not exceeded.

Gloves made of the following material are suitable for the permanent contact with this material in work areas which do not have an above-average risk of injury (e.g. laboratories):

LLDPE gloves.

For the permanent contact gloves made of the following materials are suitable: LLDPE gloves.

For permanent contact of max. 15 minutes, gloves made of the following materials are suitable: Butyl rubber, BR.

To protect against splashing, gloves made of the following materials are suitable:

Chloroprene rubber, CR.

Not suitable are gloves made of the following materials:

Leather gloves

Strong gloves.

Eye protection

Safety glasses recommended during refilling and spraying.

Safety glasses.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

General Information

Appearance:

Form:	Fluid
Colour:	According to product specification
Smell:	Characteristic
Odour threshold:	Not determined.
pH-value:	Not determined.
Change in condition:	
Melting point/freezing point:	Not determined.
Initial boiling point and boiling range:	55 °C
Flash point:	-18 °C
Inflammability (solid, gaseous):	Not applicable.
Ignition temperature:	425 °C
Decomposition temperature:	Not determined.
Spontaneous combustion:	Product does not undergo spontaneous combustion.
Explosive properties:	Product is not explosive. However, formation of explosive air/steam mixtures is possible.

Critical values for explosion:

Lower:	2.1 Vol %
Upper:	13.0 Vol %
Vapour pressure at 20 °C:	247 hPa
Density at 20 °C:	0.92 g/cm ³
Relative density:	Not determined.
Vapour density:	Not determined.
Evaporation rate:	Not determined.
Solubility in / Miscibility with water:	Not miscible or difficult to mix.
Distribution ratio n-octanol/water:	Not determined.
Viscosity:	
Dynamic at 20 °C:	3.000 mPas
Kinematic:	Not determined.
Solvent content:	

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Organic solvents: 74,6 %

Solid content: 24,0 %

9.2 Other information

No further relevant information available.

VOC - Volatile Organic Compounds

European Union: 74.63 %

Schweiz / Suisse / Switzerland: 74.63 %

U.S.A (less water and less exempts): 622.6 g/l / 5.20 lb/gl

SECTION 10: Stability and reactivity

10.1 Reactivity

No further relevant information available.

10.2 Chemical stability

Thermal decomposition / conditions to be avoided:

No decomposition if used according to specifications.

10.3 Possibility of hazardous reactions

Forms explosive gas mixture with air

Develops readily flammable gases / fumes

Reacts with strong acids and alkali

Used empty containers may contain product gases which form explosive mixtures with air

Forms explosive gas mixture with air

Can form explosive mixtures in air if heated above flash point and/or when sprayed or atomised.

10.4 Conditions to avoid

No further relevant information available.

10.5 Incompatible materials

No further relevant information available.

10.6 Hazardous decomposition products

Hydrocarbons

Inflammable gases/vapours

Carbon monoxide and carbon dioxide

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity: Based on available data, the classification criteria are not met.

LD/LC50 values that are relevant for classification

ethyl acetate
(CAS: 141-78-6)

Oral:

LD50 oral 5620 mg/kg (rabbit)

Dermal:

LD50 dermal 18000 mg/kg (rabbit)

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acetone
(CAS: 67-64-1)

Oral:
LD50 oral 3592 mg/kg (rat)
Dermal:
LD50 dermal 15688 mg/kg (rabbit)
Inhalative:
LC50 / 4 h 76 mg/l (rat)

Primary irritant effect:

to the skin:

Based on available data, the classification criteria are not met.

to the eye:

Causes serious eye irritation.

Respiratory or skin sensitisation:

Based on available data, the classification criteria are not met.

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction):

Germ cell mutagenicity: Based on available data, the classification criteria are not met.

Carcinogenicity: Based on available data, the classification criteria are not met.

Reproductive toxicity: Based on available data, the classification criteria are not met.

STOT-single exposure:

May cause drowsiness or dizziness.

STOT-repeated exposure:

Based on available data, the classification criteria are not met.

Aspiration hazard:

Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity

ethyl acetate
(CAS: 141-78-6)

LC50 / 96 h: 431 mg/l (zebrafish)
LC50 / 96 h: 230 mg/l (rainbow trout)
LC50 / 96 h: 230 mg/l (fathead minnow)
LC50 / 48 h: 350 mg/l (orfe (ide))
LC50: 200 mg/l (rat)
EC50 / 48 h: 3300 mg/l (green algae)
EC50 / 48 h: 165 mg/l (water flea)
EC50 / 24 h: 724 mg/l (water flea)
EC50: 17.9 mg/l (green algae)

acetone
(CAS: 67-64-1)

LC50 / 96 h: 5540 mg/l (rainbow trout)
LC50 / 48 h: 7500 mg/l (orfe (ide))
EC50 / 48 h: 8800 mg/l (water flea)
EC50 / 16 h: 1700 mg/l (activated sludge)
NOEC: 3400 mg/l (green algae)

12.2 Persistence and degradability

No further relevant information available.

12.3 Bioaccumulative potential

No further relevant information available.

12.4 Mobility in soil

No further relevant information available.

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Ecotoxicological effects

Behaviour in sewage plants

ethyl acetate (CAS: 141-78-6)

EC10 / 16 h: 2900 mg/l (pseudomonas putida)

Additional ecological information

CSB-value

acetone (CAS: 67-64-1)

CSB: 2210 mg/g (n.a.)

General notes:

Water hazard class 1 (Self-assessment): slightly hazardous for water.

Do not allow the product to reach ground water, open water or the sewer system, undiluted or in large quantities.

12.5 Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

12.6 Other adverse effects

No further relevant information available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Recommendation

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

Hand over to disposers of hazardous waste.

European waste catalogue

08 04 09: waste adhesives and sealants containing organic solvents or other hazardous substances.

Uncleaned containers/packaging material

Recommendation:

Dispose of packaging according to regulations on the disposal of packagings.

Empty contaminated packagings thoroughly. They can be recycled after thorough and proper cleaning.

Packagings that cannot be cleaned are to be disposed of in the same manner as the product.

Recommended cleaning agent: Solvent naphtha.

SECTION 14: Transport information

14.1 UN-Number

ADR, IMDG, IATA

UN 1133

14.2 UN proper shipping name

ADR

1133 ADHESIVES

IMDG, IATA

ADHESIVES

14.3 Transport hazard class(es)

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ADR:



Class: 3 (F1) Flammable liquids

Label: 3

IMDG, IATA:



Class: 3 Flammable liquids

Label: 3

14.4 Packing group

ADR, IMDG, IATA

II

14.5 Environmental hazards

Not applicable.

14.6 Special precautions for user

Warning: Flammable liquids

Kemler Number:

33

EMS Number:

F-E,S-D

Stowage Category:

B

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable.

Transport/Additional information:

ADR

Limited quantities (LQ)

5L

Excepted quantities (EQ)

Code: E2

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 500 ml

Transport category

2

Tunnel restriction code

D/E

IMDG

Limited quantities (LQ)

5L

Excepted quantities (EQ)

Code: E2

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 500 ml

UN "Model Regulation"

UN 1133 ADHESIVES, 3, II

SECTION 15: Regulatory information

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

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Directive 2012/18/EU

Named dangerous substances – ANNEX I None of the ingredients is listed.

Seveso category

P5c P5c FLAMMABLE LIQUIDS

Qualifying quantity (tonnes) for the application of lower-tier requirements 5,000 t

Qualifying quantity (tonnes) for the application of upper-tier requirements 50,000 t

15.2 Chemical safety assessment

Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

These data are based on our present knowledge. They shall, however, not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

All standard industrial precautions apply, concerning protection of health, and safe handling. The recommendations have to be examined in the context of the application for which the product is intended, and observed as necessary.

16.1 Abbreviations and acronyms

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations

Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organisation

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the

International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

PNEC: Predicted No-Effect Concentration (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Flam. Liq. 2: Flammable liquids – Category 2

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

Skin Sens. 1: Skin sensitisation – Category 1

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

16.2 Relevant phrases

H225 Highly flammable liquid and vapour.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.
