

# Safety Data Sheet

according to Regulation (EC) No 1907/2006 (REACH)

Print date: 05.06.2018  
Revision date: 05.06.2018  
Valid from: 05.06.2018  
Version: 5

Replaces version: 4

---

## KAIFLEX® Spezialkleber 494 HHF / Special glue 494 HHF

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

#### 1.1 Product identifier

Substances / Trade name: Kaiflex special glue 494 HHF

Index No.: Not applicable.

EC No.: Not applicable.

CAS No.: Not applicable.

REACH Registration No.: Not applicable.

**Other means of identification:** Glue 494, glue hexan-/ halogen-free

#### 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

##### **Information contact**

Kaimann GmbH - Technik

##### **Phone / Fax / E-Mail (competent person)**

+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

---

# Safety Data Sheet

according to Regulation (EC) No 1907/2006 (REACH)

Print date: 05.06.2018  
Revision date: 05.06.2018  
Valid from: 05.06.2018  
Version: 5

Replaces version: 4

## KAIFLEX® Spezialkleber 494 HHF / Special glue 494 HHF

### 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.  
Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.

#### 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.  
H412 Harmful to aquatic life with long lasting effects.

##### Precautionary statements:

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P241 Use explosion-proof [electrical/ventilating/lighting] equipment.  
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].  
P370 + P378 In case of fire: Use for extinction: CO<sub>2</sub>, 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 carbodiimide-based polymer. May produce an allergic reaction.

#### 2.3 Other hazards

##### Results of PBT and vPvB assessment

**PBT:** Not applicable.  
**vPvB:** Not applicable.

# Safety Data Sheet

according to Regulation (EC) No 1907/2006 (REACH)

Print date: 05.06.2018  
Revision date: 05.06.2018  
Valid from: 05.06.2018  
Version: 5

Replaces version: 4

## KAIFLEX® Spezialkleber 494 HHF / Special glue 494 HHF

### SECTION 3: Composition / information on ingredients

#### 3.2 Mixtures

**Description:** 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: 20-< 25 % Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336
propyl acetate	registration number: 01-2119484620-39 EINECS: 203-686-1; CAS: 109-60-4; Percentage: 10-< 15 % Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336
naphthene	registration number: 01-2119475515-33 EC number: 927-510-4; Percentage: 2.5-< 5 % Flam. Liq. 2, H225; Asp. Tox. 1, H304; Aquatic Chronic 2, H411; Skin Irrit. 2, H315; STOT SE 3, H336
naphtha, hydrotreated light	registration number: 01-2119484651-34 EC number: 931-254-9; Percentage: 2.5-< 5 % Flam. Liq. 2, H225; Asp. Tox. 1, H304; Aquatic Chronic 2, H411; Skin Irrit. 2, H315; STOT SE 3, H336
solvent naphtha	registration number: 01-2119486291-36 EC number: 926-605-8; Percentage: 1-< 2.5 % Flam. Liq. 2, H225; Asp. Tox. 1, H304; Aquatic Chronic 2, H411; STOT SE 3, H336
carbodiimide-based polymer	CAS: 1246080-54-5; Percentage: ≥0.1-< 0.5 % Skin Sens. 1, H317
n-hexane	registration number: 01-2119480412-44 EINECS: 203-777-6; CAS: 110-54-3; Percentage: ≥0.1-< 0.25 %

#### SVHC

Page: 3 / 15

The information supplied on this safety data sheet complies with our current level of knowledge and is not to be regarded as guaranteed attributes of the product.

# Safety Data Sheet

according to Regulation (EC) No 1907/2006 (REACH)

Print date: 05.06.2018  
Revision date: 05.06.2018  
Valid from: 05.06.2018  
Version: 5

Replaces version: 4

## KAIFLEX® Spezialkleber 494 HHF / Special glue 494 HHF

Not applicable.

### Additional information:

If any R-phrases (risk-phrases) are listed, please refer for the exact wording to section 16.  
Contains < 0.1 % benzene (Note P).

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

#### General information:

Instantly remove any clothing soiled by the product.  
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:** CO<sub>2</sub>, sand, extinguishing powder. Do not use water.  
Foam.

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

### 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 fire-fighters

#### 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.  
Inform respective authorities in case product reaches water or sewage system.  
Prevent from spreading (e.g. by damming-in or oil barriers).

# Safety Data Sheet

according to Regulation (EC) No 1907/2006 (REACH)

Print date: 05.06.2018  
Revision date: 05.06.2018  
Valid from: 05.06.2018  
Version: 5

Replaces version: 4

## KAIFLEX® Spezialkleber 494 HHF / Special glue 494 HHF

### 6.3 Methods and material for containment and cleaning up

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Ensure adequate ventilation.

### 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.  
Open and handle container with care.  
Ensure that suitable extractors are available on processing machines. In the context of the risk assessment, it is necessary to evaluate whether and to what extent protective measures are required. If necessary, a workplace measurement has to be carried out.  
Use only in well ventilated areas.  
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.  
Prevent any penetration into the ground.  
**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)

No further relevant information available.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### **Components with critical values that require monitoring in the workplace**

ethyl acetate	IOELV (European Union):
(CAS: 141-78-6)	Short-term value: 1468 mg/m <sup>3</sup> , 400 ppm
	Long-term value: 734 mg/m <sup>3</sup> , 200 ppm

# Safety Data Sheet

according to Regulation (EC) No 1907/2006 (REACH)

Print date: 05.06.2018  
Revision date: 05.06.2018  
Valid from: 05.06.2018  
Version: 5

Replaces version: 4

## KAIFLEX® Spezialkleber 494 HHF / Special glue 494 HHF

acetone  
(CAS: 67-64-1) IOELV (European Union):  
Long-term value: 1210 mg/m<sup>3</sup>, 500 ppm

n-hexane  
(CAS: 110-54-3) IOELV (European Union):  
Long-term value: 72 mg/m<sup>3</sup>, 20 ppm

### Regulatory information:

IOELV (European Union): (EU) 2017/164.

### 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/m<sup>3</sup> (acute, local effects)  
DNEL w 1468 mg/m<sup>3</sup> (acute, systemic effects)  
DNEL w 734 mg/m<sup>3</sup> (long-term, local effects)  
DNEL w 734 mg/m<sup>3</sup> (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/m<sup>3</sup> (acute, systemic effects)  
DNEL w 1210 mg/m<sup>3</sup> (long-term, systemic effects)

propyl acetate  
(CAS: 109-60-4) Inhalative:  
DNEL w 840 mg/m<sup>3</sup> (acute, local effects)  
DNEL w 840 mg/m<sup>3</sup> (acute, systemic effects)  
DNEL w 420 mg/m<sup>3</sup> (long-term, local effects)  
DNEL w 420 mg/m<sup>3</sup> (long-term, systemic effects)

naphthene Dermal:  
DNEL w 300 mg/kg bw/day (long-term, systemic effects)  
Inhalative:  
DNEL w 2085 mg/m<sup>3</sup> (long-term, systemic effects)

naphtha, hydrotreated light Dermal:  
DNEL w 13964 mg/kg bw/day (long-term, systemic effects)  
Inhalative:  
DNEL w 5306 mg/m<sup>3</sup> (long-term, systemic effects)

solvent naphtha Dermal:  
DNEL w 13964 mg/kg bw/day (long-term, systemic effects)  
Inhalative:  
DNEL w 5306 mg/m<sup>3</sup> (long-term, systemic effects)

n-hexane  
(CAS: 110-54-3) Dermal:  
DNEL w 11 mg/kg bw/day (long-term, systemic effects)  
Inhalative:  
DNEL w 75 mg/m<sup>3</sup> (long-term, systemic effects)

### DNEL

#### Consumer:

# Safety Data Sheet

according to Regulation (EC) No 1907/2006 (REACH)

Print date: 05.06.2018  
Revision date: 05.06.2018  
Valid from: 05.06.2018  
Version: 5

Replaces version: 4

## KAIFLEX® Spezialkleber 494 HHF / Special glue 494 HHF

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)  
Inhalative:  
DNEL c 734 mg/m<sup>3</sup> (acute, local effects)  
DNEL c 734 mg/m<sup>3</sup> (acute, systemic effects)  
DNEL c 367 mg/m<sup>3</sup> (long-term, local effects)  
DNEL c 367 mg/m<sup>3</sup> (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)  
Inhalative:  
DNEL c 200 mg/m<sup>3</sup> (long-term, systemic effects)

propyl acetate  
(CAS: 109-60-4)

Inhalative:  
DNEL c 298 mg/m<sup>3</sup> (acute, local effects)  
DNEL c 298 mg/m<sup>3</sup> (acute, systemic effects)  
DNEL c 149 mg/m<sup>3</sup> (long-term, local effects)  
DNEL c 149 mg/m<sup>3</sup> (long-term, systemic effects)

naphthene

Oral:  
DNEL c 149 mg/kg bw/day (long-term, systemic effects)  
Dermal:  
DNEL c 149 mg/kg bw/day (long-term, systemic effects)  
Inhalative:  
DNEL c 477 mg/m<sup>3</sup> (long-term, systemic effects)

naphtha, hydrotreated light

Oral:  
DNEL c 1301 mg/kg bw/day (long-term, systemic effects)  
Dermal:  
DNEL c 1377 mg/kg bw/day (long-term, systemic effects)  
Inhalative:  
DNEL c 1137 mg/m<sup>3</sup> (long-term, systemic effects)

solvent naphtha

Oral:  
DNEL c 1301 mg/kg bw/day (long-term, systemic effects)  
Dermal:  
DNEL c 1377 mg/kg bw/day (long-term, systemic effects)  
Inhalative:  
DNEL c 1131 mg/m<sup>3</sup> (long-term, systemic effects)

n-hexane  
(CAS: 110-54-3)

Oral:  
DNEL c 4 mg/kg bw/day (long-term, systemic effects)  
Dermal:  
DNEL c 5.3 mg/kg bw/day (long-term, systemic effects)  
Inhalative:  
DNEL c 16 mg/m<sup>3</sup> (long-term, systemic effects)

### predicted no-effect concentration (PNECs)



# Safety Data Sheet

according to Regulation (EC) No 1907/2006 (REACH)

Print date: 05.06.2018  
Revision date: 05.06.2018  
Valid from: 05.06.2018  
Version: 5

Replaces version: 4

## KAIFLEX® Spezialkleber 494 HHF / Special glue 494 HHF

ethyl acetate  
(CAS: 141-78-6)

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

acetone  
(CAS: 67-64-1)

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

propyl acetate  
(CAS: 109-60-4)

PNEC water 0.06 mg/l (freshwater)  
PNEC water 0.6 mg/l (intermittent releases)  
PNEC water 0.006 mg/l (marine water)  
PNEC water 1 mg/l (STP (sewage treatment plant))  
PNEC sediment 0.16 mg/kg (sediment, freshwater)  
PNEC sediment 0.016 mg/kg (sediment, marine water)

**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:

#### General protective and hygienic measures:

- 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.
- 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).
- 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).

#### Material of gloves:

- LLDPE gloves.
- Butyl rubber, BR.
- Chloroprene rubber, CR.

#### 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**



# Safety Data Sheet

according to Regulation (EC) No 1907/2006 (REACH)

Print date: 05.06.2018  
Revision date: 05.06.2018  
Valid from: 05.06.2018  
Version: 5

Replaces version: 4

## KAIFLEX® Spezialkleber 494 HHF / Special glue 494 HHF

**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

Not determined.

range:

Flash point:

- 25 °C

Inflammability (solid, gaseous):

Not applicable.

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:

Not determined.

Upper:

Not determined.

Vapour pressure:

Not determined

Density at 20 °C:

0.88 g/cm<sup>3</sup>

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:

2500 mPas

kinematic:

Not determined.

Solvent content:

Organic solvents:

81.6 %

Solid content:

18.0 %

Page: 9 / 15

The information supplied on this safety data sheet complies with our current level of knowledge and is not to be regarded as guaranteed attributes of the product.

# Safety Data Sheet

according to Regulation (EC) No 1907/2006 (REACH)

Print date: 05.06.2018  
Revision date: 05.06.2018  
Valid from: 05.06.2018  
Version: 5

Replaces version: 4

## KAIFLEX® Spezialkleber 494 HHF / Special glue 494 HHF

### 9.2 Other information

No further relevant information available.

#### VOC - Volatile Organic Compounds

European Union	81.60 %
Switzerland	81.60 %
U.S.A (less water and less exempts)	697.5 g/l / 5.82 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 atomized.

### 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)

# Safety Data Sheet

according to Regulation (EC) No 1907/2006 (REACH)

Print date: 05.06.2018  
Revision date: 05.06.2018  
Valid from: 05.06.2018  
Version: 5

Replaces version: 4

## KAIFLEX® Spezialkleber 494 HHF / Special glue 494 HHF

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)

propyl acetate  
(CAS: 109-60-4)

Oral:  
LD50 oral 8700 mg/kg (rat)  
Dermal:  
LD50 dermal 17800 mg/kg (rabbit)  
Inhalative:  
LC50 / 4 h 32 mg/l (rat)

Naphtha, hydrotreated light

Dermal:  
LD50 dermal >8000 mg/kg (rabbit)  
Inhalative:  
LC50 / 4 h 43.7 mg/l (rat)

Solvent naphtha

Oral:  
LD50 oral 5500 mg/kg (rat)  
Inhalative:  
LC50 / 4 h 50 mg/l (rat)

n-hexane  
(CAS: 110-54-3)

Oral:  
LD50 oral 28710 mg/kg (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

# Safety Data Sheet

according to Regulation (EC) No 1907/2006 (REACH)

Print date: 05.06.2018  
Revision date: 05.06.2018  
Valid from: 05.06.2018  
Version: 5

Replaces version: 4

## KAIFLEX® Spezialkleber 494 HHF / Special glue 494 HHF

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)
propyl acetate (CAS: 109-60-4)	LC50 / 96 h: 60 mg/l (fathead minnow) LC50 / 48 h (static): 194 mg/l (orfe (ide)) EC50 / 48 h: 91.5 mg/l (water flea) (oecd 202) EC50 / 24 h: 318 mg/l (water flea) EC50 / 24 h: >100 mg/l (scenedesmus subspicatus)
Naphtha, hydrotreated light	LC50 / 96 h: 14.1 mg/l (rainbow trout) LC50 / 48 h: 10 mg/l (orfe (ide)) EC50 / 48 h: 6.96 mg/l (water flea) EC50 / 72 h: 75.6 mg/l (green algae)
Solvent naphtha	LC50 / 96 h: 12 mg/l (rainbow trout) EC50 / 48 h: 3 mg/l (water flea) EC50 / 72 h: 55 mg/l (green microalgae)
n-hexane (CAS: 110-54-3)	LC0: 150-4280 mg/l (orfe (ide)) EC50 / 48 h (static): 45 mg/l (water flea) EC50 / 24 h: >50->1000 mg/l (water flea)

### 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.

#### Ecotoxicological effects:

Remark: Harmful to fish.

#### Behaviour in sewage plants:

ethyl acetat (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 2 (Self-assessment): hazardous for water.

Do not allow product to reach ground water, water bodies or sewage system.

Danger to drinking water if even small quantities leak into soil.

The product contains materials that are harmful to the environment.

Harmful to aquatic organisms.

# Safety Data Sheet

according to Regulation (EC) No 1907/2006 (REACH)

Print date: 05.06.2018  
Revision date: 05.06.2018  
Valid from: 05.06.2018  
Version: 5

Replaces version: 4

## KAIFLEX® Spezialkleber 494 HHF / Special glue 494 HHF

### 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  
IMDG, IATA

1133 ADHESIVES  
ADHESIVES

### 14.3 Transport hazard class(es)

ADR:



Class: 3 (F1) Flammable liquids

Label: 3

# Safety Data Sheet

according to Regulation (EC) No 1907/2006 (REACH)

Print date: 05.06.2018  
Revision date: 05.06.2018  
Valid from: 05.06.2018  
Version: 5

Replaces version: 4

## KAIFLEX® Spezialkleber 494 HHF / Special glue 494 HHF

IMDG, IATA:



Class: 3, Flammable liquids  
Label: 3

### 14.4 Packing group:

ADR, IMDG, IATA

III

### 14.5 Environmental hazards:

Not applicable.

### 14.6 Special precautions for user:

Warning: Flammable liquids.

**Kemler Number:**

-

**EMS Number:**

F-E, S-D

**Stowage Category:**

A

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

Not applicable.

**Transport/Additional information:**

**ADR**

Limited quantities (LQ)  
Excepted quantities (EQ)

5L

Code: E1

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000 ml

Transport category  
Tunnel restriction code

3

E

**IMDG**

Limited quantities (LQ)  
Excepted quantities (EQ)

5L

Code: E1

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000 ml

**UN "Model Regulation"**

UN 1133 ADHESIVES, 3, III

## SECTION 15: Regulatory information

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

#### Directive 2012/18/EU

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

**Seveso category** 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

**LIST OF SUBSTANCES SUBJECT TO AUTHORISATION (ANNEX XIV)**

None of the ingredients is listed.

**REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3, 40

# Safety Data Sheet

according to Regulation (EC) No 1907/2006 (REACH)

Print date: 05.06.2018  
Revision date: 05.06.2018  
Valid from: 05.06.2018  
Version: 5

Replaces version: 4

## KAIFLEX® Spezialkleber 494 HHF / Special glue 494 HHF

### 15.2 Chemical safety assessment

A 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

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  
SVHC: Substances of Very High Concern  
vPvB: very Persistent and very Bioaccumulative  
Flam. Liq. 2: Flammable liquids – Category 2  
Skin Irrit. 2: Skin corrosion/irritation – Category 2  
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2  
Skin Sens. 1: Skin sensitisation – Category 1  
Repr. 2: Reproductive toxicity – Category 2  
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3  
STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2  
Asp. Tox. 1: Aspiration hazard – Category 1  
Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2  
Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

### 16.2 Relevant phrases

H225 Highly flammable liquid and vapour.  
H304 May be fatal if swallowed and enters airways.  
H315 Causes skin irritation.  
H317 May cause an allergic skin reaction.  
H319 Causes serious eye irritation.  
H336 May cause drowsiness or dizziness.  
H361f Suspected of damaging fertility.  
H373 May cause damage to organs through prolonged or repeated exposure.  
H411 Toxic to aquatic life with long lasting effects.