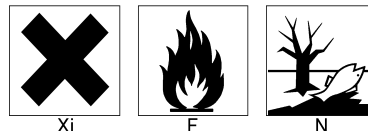


Safety Data Sheet

Kaiflex 414

**KAIMANN**

Safety Data Sheet dated 22/8/2007, version 2

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Commercial name: Kaiflex 414
Product type and use: Solvent based polychloroprene adhesive

Supplier:
KAIMANN GmbH
Hansastraße 2-5 - D-33161 Hövelhof
Tel.: +49 (0) 52 57 - 98 50 0 - Fax: +49 (0) 52 57 - 98 50 590
<http://www.kaimann.de>
e-mail: info@kaimann.de

Emergency telephone number of an authorised advisory centre:
Landesberatungsstelle für Vergiftungserscheinungen, Berlin
Tel.: +49 (0) 30 - 1 92 40 - Fax: +49 (0) 30 - 3 26 80 7 21

2. HAZARDS IDENTIFICATION

The product easily catches fire if it is exposed to an ignition source.
If brought into contact with the eyes, the product causes irritation that may last for over 24 hours, and if brought into contact with the skin it causes significant inflammation with erythema, scabs, and oedema.
Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous components within the meaning of EEC directive 67/548 and corresponding classification:

40% - 50% solvent naphtha (petroleum), hydrotreated light naphthenic
N.67/548/EEC: 649-341-00-2 CAS: 92062-15-2 EC: 295-529-9
F,Xn,Xi,N; R51-53-65-67-11-38

20% - 25% ethyl acetate
N.67/548/EEC: 607-022-00-5 CAS: 141-78-6 EC: 205-500-4
F,Xi; R11-36-66-67

12.5% - 15% acetone
N.67/548/EEC: 606-001-00-8 CAS: 67-64-1 EC: 200-662-2
F,Xi; R11-36-66-67

5% - 7% butanone
N.67/548/EEC: 606-002-00-3 CAS: 78-93-3 EC: 201-159-0
F,Xi; R11-36-66-67

0.25% - 0.5% Rosin
N.67/548/EEC: 650-015-00-7 CAS: 8050-09-7 EC: 232-475-7
Xi; R43

3 mg/kg formaldehyde ...%
N.67/548/EEC: 605-001-00-5 CAS: 50-00-0 EC: 200-001-8
Carc. Cat. 3,T,Xi,C; R23/24/25-34-40-43

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4. FIRST AID MEASURES

Contact with skin:

Immediately take off all contaminated clothing.

Areas of the body that have - or are only even suspected of having - come into contact with the product must be rinsed immediately with plenty of running water and possibly with soap.

Contact with eyes:

Wash immediately and thoroughly with running water, keeping eyelids raised, for at least 10 minutes. Following this, protect the eyes with sterile gauze or a clean, dry, handkerchief. OBTAIN A MEDICAL EXAMINATION.

Swallowing:

SEEK A MEDICAL EXAMINATION IMMEDIATELY and present the safety-data sheet.

A suspension of activated charcoal in water, or liquid paraffin may be administered.

Inhalation:

Ventilate the premises. The patient is to be removed immediately from the contaminated premises and made to rest in a well ventilated area. Should the patient feel unwell, OBTAIN MEDICAL ATTENTION.

5. FIRE-FIGHTING MEASURES

Recommended extinguishers:

Carbon dioxide, Foam, Chemical powders, according to the materials involved in the fire.

Extinguishers not to be used:

Risks arising from combustion:

Avoid inhaling the fumes.

Protective equipment:

Use protection for the respiratory tract.

Cool the containers exposed to the fire with water.

6. ACCIDENTAL RELEASE MEASURES

Measures for personal safety:

Use gloves and protective clothing.

Environmental measures:

Limit leakages with earth or sand.

Eliminate all unguarded flames and possible sources of ignition. Do not smoke.

If the product has escaped into a water course, into the drainage system, or has contaminated the ground or vegetation, notify the competent authorities.

Cleaning methods:

Rapidly recover the product. To do so, wear a mask and protective clothing.

If the product is in a liquid form, stop it from entering the drainage system.

Recover the product for re-use if possible, or for elimination. The product might, where appropriate, be absorbed by inert material.

After the product has been recovered, rinse the area and materials involved with water.

7. HANDLING AND STORAGE

Handling precautions:

Avoid contact and inhalation of the vapours. See, too, paragraph 8 below.

Do not eat or drink while working.

Do not smoke while working.

Storage conditions:

Always keep in a well ventilated place.

Keep away from unguarded flame, sparks, and heat sources. Avoid direct exposure to sunlight.

Keep away from flame and sparks. Avoid accumulating electrostatic charge.

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Instructions as regards storage premises:
Cool and adequately ventilated.
Safety electric system.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Precautionary measures:

Give adequate ventilation to the premises where the product is stored and/or handled.

Respiratory protection:

Use adequate protective respiratory equipment, e.g. CEN/FFP-2(S) or CEN/FFP-3(S).

Protection for hands:

Use protective gloves that provides comprehensive protection, e.g. butyl rubber - IIR:
thickness \geq 0.5mm; time \geq 480 min. DIN EN 374-3

Eye protection:

Not needed for normal use.

Protection for skin:

No special precaution must be adopted for normal use.

Exposure limit(s) (ACGIH):

solvent naphtha (petroleum), hydrotreated light naphthenic

TLV-TWA: 1000 mg/m³ (288 ppm)

ethyl acetate

TLV-TWA: 400 ppm - 1441,31 mg/m³

acetone

VLE 8h: 1210 mg/m³ - 500 ppm TLV-TWA: 500 ppm, A4 - 1187,12 mg/m³, A4 TLV-
STEL: 750 ppm, A4 - 1780,67 mg/m³, A4

butanone

VLE 8h: 600 mg/m³ - 200 ppm VLE short: 900 mg/m³ - 300 ppm TLV-TWA: 200 ppm -
589,78 mg/m³ TLV-STEL: 300 ppm - 884,66 mg/m³

Rosin

TLV-TWA: SEN TLV-STEL: SEN

formaldehyde ...%

TLV-TWA: A2 SEN TLV-STEL: C 0,3 ppm - C 0,37 mg/m³, A2 SEN

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance and colour:	Liquid viscous
Odour:	characteristic
Boiling point:	from 56 °C
Flash point:	18-21 °C
Vapour pressure:	< 110 Kpa (50 °C)
Relative density:	0,85 g/cm ³
Vapour density:	(air=1) >1

10. STABILITY AND REACTIVITY

Conditions to avoid:

Avoid accumulating electrostatic charge.

Substances to avoid:

Avoid contact with combustible materials. The product could catch fire.

Hazardous decomposition products:

It may catch fire on contact with oxidising mineral acids.

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11. TOXICOLOGICAL INFORMATION

The concentration of each substance should be borne in mind in assessing the toxicological effects deriving from the preparation.

Set out below is the toxicological information relating to the main substances in the preparation.

solvent naphtha (petroleum), hydrotreated light naphthenic

LD50 (RAT) ORAL: >2000 MG/KG

ethyl acetate

LD50 (RABBIT) ORAL: 4935 MG/KG

acetone

LD50 (RABBIT) ORAL: 5300 MG/KG

butanone

LD50 (RABBIT) SKIN: 13 G/KG (13000 MG/KG)

12. ECOLOGICAL INFORMATION

Adopt sound working practices, so that the product is not released into the environment.

List of substances dangerous for the environment and corresponding classification:

40% - 50% solvent naphtha (petroleum), hydrotreated light naphthenic

N.67/548/EEC: 649-341-00-2 CAS: 92062-15-2 EC: 295-529-9

R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

13. DISPOSAL CONSIDERATIONS

Recover, if possible. Send to authorised disposal plants or for incineration under controlled conditions. In so doing, comply with the local and national regulations currently in force.

14. TRANSPORT INFORMATION

ADR-UN number:	1133
ADR-Class:	3
ADR-Shipping Name:	ADHESIVES containing flammable liquid
ADR-Label:	3
ADR-Packing Group:	II, 640D
IATA-Class:	3
IATA-Technical name:	ADHESIVES containing flammable liquid
IATA-Packing group:	II
IMDG-Class:	3
IMDG-Technical name:	ADHESIVES containing flammable liquid
IMDG-EMS:	F-E ; S-D

15. REGULATORY INFORMATION

Council Directive 67/548/EEC (Classification, packaging and labelling of dangerous substances) and subsequent amendments. Commission Directive 1999/45/EC (Classification, packaging and labelling of dangerous preparation) and subsequent amendments. Commission Directive 98/24/EC (Protection of the health and safety of workers from the risk related to chemical agent). Commission Directive 2000/39/EC (Occupational exposure limit values). Regulation (EC) No 1907/2006 (REACH).

Symbols:

Xi Irritant

F Highly flammable

N Dangerous for the environment

R Phrases:

R11 Highly flammable.

R36/38 Irritating to eyes and skin.

R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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R66 Repeated exposure may cause skin dryness or cracking.
R67 Vapours may cause drowsiness and dizziness.

S Phrases:

S16 Keep away from sources of ignition - No smoking.
S24 Avoid contact with skin.
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S33 Take precautionary measures against static discharges.
S43 In case of fire, use foam, chemical powders or carbon dioxide. 'Never use water'.
S9 Keep container in a well-ventilated place.

Contents:

Rosin: May produce an allergic reaction.

Where applicable, refer to the following regulatory provisions :

Directive 2003/105/CE ('Activities linked to risks of serious accidents').
1999/13/EC (VOC directive)

16. OTHER INFORMATION

Main bibliographic sources:

NIOSH - Registry of toxic effects of chemical substances (1983)
I.N.R.S. - Fiche Toxicologique
ACGIH - Threshold Limit Values - 2004 edition

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality.

It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

This MSDS cancels and replaces any preceding release.

Text of R phrases referred to under heading 3:

R11 Highly flammable.
R23/24/25 Toxic by inhalation, in contact with skin and if swallowed.
R34 Causes burns.
R36 Irritating to eyes.
R38 Irritating to skin.
R40 Limited evidence of a carcinogenic effect.
R43 May cause sensitisation by skin contact.
R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R65 Harmful: may cause lung damage if swallowed.
R66 Repeated exposure may cause skin dryness or cracking.
R67 Vapours may cause drowsiness and dizziness.

Paragraphs modified from the previous revision:

2. HAZARDS IDENTIFICATION
3. COMPOSITION/INFORMATION ON INGREDIENTS
6. ACCIDENTAL RELEASE MEASURES
7. HANDLING AND STORAGE
8. EXPOSURE CONTROLS/PERSONAL PROTECTION
15. REGULATORY INFORMATION