

Safety Data Sheet

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

according to Regulation (EU) No. 453/2010

Print date: 26.07.2017

Revision date: 26.07.2017

Valid from: 26.07.2017

Version: 4

Replaces version: 3

KAIFLEX® Reiniger / Cleaner

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

1.1 Product identifiers

Identification of the substance or mixture: Kaiflex Reiniger

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

1.3 Details of the supplier of the safety data sheet

Supplier

Kaimann GmbH

Address

Hansastraße 2-5
D-33161 Hövelhof

Information contact

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 [CLP]

This mixture is classified as hazardous according to regulation (EC) No. 1272/2008 [CLP].

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 [CLP]

The product is classified and labelled according to EC directives or corresponding national laws.

Hazard pictograms

Hazard pictograms:



Signal word: Danger

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.
P243	Take precautionary measures against static discharge.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P264	Wash hands thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release to the environment.
P280	Wear protective gloves and protective clothing.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P314	Get medical advice/attention if you feel unwell.
P337 + P313	If eye irritation persists: Get medical advice/attention.
P370 + P378	In case of fire: Use Extinguishing powder or sand to extinguish.
P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
P501	Dispose of contents/container to industrial incineration plant.

Contains:

ethyl acetate
butanone.

Supplemental Hazard information (EU)

EUH066 Repeated exposure may cause skin dryness or cracking.

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SECTION 3: Composition / information on ingredients

3.1 Substances

Not applicable.

3.2 Mixtures

Product description / chemical characterization

Description: Solvents/Thinner

Hazardous ingredients

Classification according to Regulation (EC) No. 1272/2008 [CLP]

ETHYL ACETATE	REACH No.: 01-2119475103-46 Index No.: 607-022-00-5 EC No.: 205-500-4; CAS No.: 141-78-6; Wt %: 50 – 100% Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336
BUTANONE	REACH No.: 01-2119457290-43 Index No.: 606-002-00-3 EC No.: 201-159-0; CAS No.: 78-93-3; Wt %: 12,5 - 20% Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336 REACH No.: 01-2119475515-33-xxxx EC No.: 927-510-4; CAS No.: 64742-49-0; Wt %: 2,5 - 5% Flam. Liq. 2, H225; Asp. Tox. 1, H304; Aquatic Chronic. 2, H411; Skin. Irrit. 2, H315; STOT SE 3, H336
HYDROCARBONS, C6, ISOALKANES, <5% N-HEXANE	REACH No.: 01-2119484651-34-xxxx EC No.: 931-254-9; CAS No.: 64742-49-0; Wt %: 2,5 - 5% Flam. Liq. 2, H225; Asp. Tox. 1, H304; Aquatic Chronic. 2, H411; Skin. Irrit. 2, H315; STOT SE 3, H336

Additional information:

Full text of classification: see section 16.

Hazardous ingredients

Labelling for contents according to regulation (EC) No. 648/2004:

Wt %	Ingredient (Designation)
5 - 15 %	aliphatic hydrocarbons

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SECTION 4: First aid measures

4.1 Description of first aid measures

General information:

Take off immediately all contaminated clothing. In case of unconsciousness give nothing by mouth, place in recovery position and seek medical advice. In all cases of doubt, or when symptoms persist, seek medical advice.

In case of inhalation:

Remove casualty to fresh air and keep warm and at rest. In case of irregular breathing or respiratory arrest provide artificial respiration. In case of respiratory tract irritation, consult a physician.

Following skin contact:

Remove contaminated, saturated clothing immediately. After contact with skin, wash immediately with plenty of water. In case of skin irritation, consult a physician.

After eye contact:

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. In case of eye irritation consult an ophthalmologist.

After ingestion:

If swallowed, rinse mouth with water (only if the person is conscious). Keep victim calm. Do NOT induce vomiting. Seek medical advice immediately. If medical advice is needed, have product container or label at hand.

4.2 Most important symptoms and effects, both acute and delayed

In all cases of doubt, or when symptoms persist, seek medical advice.

4.3 Indication of any immediate medical attention and special treatment needed

No data available.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media: alcohol resistant foam, carbon dioxide, powder, spray mist, (water).

Extinguishing media which must not be used for safety reasons: strong water jet.

5.2 Special hazards arising from the substance or mixture

Inhaling hazardous decomposing products can cause serious health damage.

5.3 Special protective equipment for firefighters

Provide a conveniently located respiratory protective device.

Additional information:

Cool closed containers that are near the source of the fire. Do not allow water used to extinguish fire to enter drains, ground or waterways. Treat runoff as hazardous.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Keep away from sources of ignition. Ventilate affected area. Do not breathe vapours. See protective measures under point 7 and 8.

6.2 Environmental precautions

Do not allow to enter into surface water or drains. If the product contaminates lakes, rivers or sewages, inform competent authorities in accordance with local regulations.

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6.3 Methods and material for containment and cleaning up

Isolate leaked material using non-flammable absorption agent (e.g. sand, earth, vermiculite, diatomaceous earth) and collect it for disposal in appropriate containers in accordance with the local regulations (see chapter 13). Clean using cleansing agents. Do not use solvents. Provide adequate ventilation.

6.4 Reference to other sections

Observe protective provisions (see chapter 7 and 8).

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advices on safe handling

Avoid formation of flammable and explosive vapour concentrations in the air and exceeding the exposure limit values. Keep container tightly closed. If handled uncovered, arrangements with local exhaust ventilation should be used if possible. Do not breathe mist. Thorough skin-cleansing after handling the product.

Precautions against fire and explosion

Vapours are heavier than air. Vapours form explosive mixtures with air.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Stable when applying the recommended regulations for storage and handling. Further information on correct storage: refer to chapter 7. Store carefully closed containers upright to prevent any leaks.

Hints on joint storage

Keep away from strongly acidic and alkaline materials as well as oxidizers.

Further information on storage conditions

Take care of instructions on label. Store in a well-ventilated and dry room at temperatures between 15 °C and 30 °C. Protect from heat and direct sunlight. Keep container tightly closed. Remove all sources of ignition.

Smoking is forbidden. Access only for authorized persons. Store carefully closed containers upright to prevent any leaks. German Ordinance on Industry Safety and Health (BetrSIVO): Flammable.

7.3 Specific end uses

Observe technical data sheet. Observe instructions for use. Notice the directions for use on the label.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values

BUTANONE WEL, TWA: 600 mg/m³; 200 ppm

INDEX No.: 606-002-00-3 WEL, STEL: 899 mg/m³; 300 ppm

EC No.: 201-159-0

CAS No.: 78-93-3

ETHYL ACETATE WEL, TWA: 730 mg/m³; 200 ppm

INDEX No.: 607-022-00-5 WEL, STEL: 1460 mg/m³; 400 ppm

EC No.: 205-500-4

CAS No.: 141-78-6

Additional information:

TWA: long-term occupational exposure limit value

STEL: short-term occupational exposure limit value

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Ceiling: peak limitation

DNEL

Workers:

BUTANONE
(CAS No.: 78-93-3)

Dermal:
DNEL w 1161 mg/kg bw/day (long-term, systemic effects)
Inhalative:
DNEL w: 600 mg/m³ (acute, systemic effects)

EC No. 927-510-4

Dermal:
DNEL w 4085 mg/kg bw/day (long-term, systemic effects)
Inhalative:
DNEL w 2085 mg/m³ (acute, systemic effects)

Consumer:

BUTANONE
(CAS No.: 78-93-3)

Oral:
DNEL c 31 mg/kg bw/day (long-term, systemic effects)
Dermal:
DNEL c 412 mg/kg bw/day (short-term, acute, local effects)
Inhalative:
DNEL c 106 mg/m³ (acute, systemic effects)

EC No. 927-510-4

Oral:
DNEL c 149 mg/kg bw/day (short-term, acute)
Dermal:
DNEL c 149 mg/kg bw/day (long-term, systemic effects)
Inhalative:
DNEL c 477 mg/m³ (long-term, local effects)

PNEC

BUTANONE
(CAS No.: 78-93-3)

PNEC soil 22,5 mg/kg (soil)
PNEC water 55,8 mg/l (freshwater)
PNEC water 55,8 mg/l (marine water)
PNEC water 55,8 mg/l (intermittent release)
PNEC water 709 mg/l (sewage treatment plant)
PNEC Secondary Poisoning: 1000 mg/kg

8.2 Exposure controls

Provide good ventilation.

Occupational exposure controls

Respiratory protection

If concentration of solvents is beyond the occupational exposure limit values, approved and suitable respiratory protection must be used. If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn.

Hand protection

For prolonged or repeated handling the following glove material must be used: NBR (Nitrile rubber) / NBR (Nitrile rubber). Barrier creams can help protecting exposed skin areas. In no case should they be used after contact. Recommended glove articles rubber gloves. Penetration time of glove material depending on intensity and duration of exposure to skin.

Eye protection

Wear closely fitting protective glasses in case of splashes.

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Protective clothing

Protective measures

After contact clean skin thoroughly with water and soap or use appropriate cleanser.

Environmental exposure controls

Do not allow to enter into surface water or drains. See chapter 7. No additional measures necessary.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance:	liquid
Physical state:	
Colour:	refer to label
Odour:	characteristic
Flash point:	-4 °C (Method DIN 53213)
Ignition temperature in °C:	200 °C
Lower explosion limit:	0,6 Vol-%
Upper explosion limit:	11,5 Vol-%
Vapour pressure at °C:	85,2017 mbar
Density at °C:	0,87 g/cm ³
Water solubility (g/L):	partially soluble
Viscosity at °C:	0,44 mPa·s
Solvent separation test (%):	< 3 %
Solvent content:	
Organic solvents:	100 Wt %
Water:	0 Wt %

9.2 Other information

No data available.

SECTION 10: Stability and reactivity

10.1 Reactivity

No data available.

10.2 Chemical stability

Stable when applying the recommended regulations for storage and handling. Further information on correct storage: refer to chapter 7.

10.3 Possibility of hazardous reactions

Keep away from strong acids, strong bases and strong oxidizing agents to avoid exothermic reactions.

10.4 Conditions to avoid

Stable when applying the recommended regulations for storage and handling. Further information on correct storage: refer to chapter 7.

10.5 Incompatible materials

No data available.

10.6 Hazardous decomposition products

None. Hazardous decomposition byproducts may form with exposure to high temperatures, e.g.: carbon dioxide, carbon monoxide, smoke, nitrogen oxides.

SECTION 11: Toxicological information

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Classification according to Regulation (EC) No. 1272/2008 [CLP]

No data on preparation itself available.

11.1 Information on toxicological effects

Acute toxicity:

Toxicological data are not available.

skin corrosion/irritation; Serious eye damage/eye irritation:

Toxicological data are not available.

Respiratory or skin sensitization:

Toxicological data are not available.

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

Toxicological data are not available.

Specific target organ toxicity:

Toxicological data are not available.

Aspiration hazard:

Toxicological data are not available.

Practical experience/human evidence

Other observations:

Inhaling of solvent components above the MWC-value can lead to health damage, e.g. irritation of the mucous membrane and respiratory organs, as well as damage to the liver, kidneys and the central nerve system.

Indications for this are: headache, dizziness, fatigue, amyosthenia, drowsiness, in serious cases:

unconsciousness. Solvents may cause some of the aforementioned effects through skin resorption. Repeated

or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in non-

allergic contact dermatitis and/or absorption through skin. Splashing may cause eye irritation and reversible

damage. Frequently or prolonged contact with skin may cause dermal irritation.

Overall Assessment on CMR properties

The ingredients in this mixture do not meet the criteria for classification as CMR category 1A or 1B according to CLP.

Remark

There is no information available on the preparation itself.

SECTION 12: Ecological information

Overall evaluation

Classification according to Regulation (EC) No. 1272/2008 [CLP]

There is no information available on the preparation itself.

Do not allow to enter into surface water or drains.

12.1 Toxicity

No information available.

Long-term Ecotoxicity

Toxicological data are not available.

12.2 Persistence and degradability

Toxicological data are not available.

12.3 Bioaccumulative potential

Toxicological data are not available.

Bioconcentration factor (BCF)

Toxicological data are not available.

12.4 Mobility in soil

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Toxicological data are not available.

12.5 Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Appropriate disposal / Product Recommendation

Do not allow to enter into surface water or drains. This material and its container must be disposed of in a safe way. Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.

List of proposed waste codes/waste designations in accordance with EWC

080111: Waste paint and varnish containing organic solvents or other dangerous substances.

Packaging

Recommendation

Non-contaminated packages may be recycled. Vessels not properly emptied are special waste.

SECTION 14: Transport information

14.1 UN number

1993

14.2 UN proper shipping name

Land transport (ADR/RID)

Flammable liquid, n.o.s.

Sea transport (IMDG)

FLAMMABLE LIQUID, N.O.S.

Air transport (ICAO-TI / IATA-DGR)

Flammable liquid, n.o.s.

14.3 Transport hazard class(es)

3

14.4 Packing group

II

14.5 Environmental hazards

Land transport (ADR/RID)

Marine pollutant: not applicable.

14.6 Special precautions for user

Transport always in closed, upright and safe containers. Make sure that persons transporting the product know what to do in case of an accident or leakage. Advices on safe handling see parts 6 - 8.

Additional information

Land transport (ADR/RID)

tunnel restriction code

D/E

SONDERVORSCHRIFT 640D

Sea transport (IMDG)

EmS-No.:

F-E, S-E

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

Not applicable.

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SECTION 15: Regulatory information

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

EU regulations

Regulation (EC) No. 648/2004 (Detergents regulation)

Information according to 1999/13/EC about limitation of emissions of volatile organic compounds (VOC-guideline)

VOC-value (in g/l) ISO 11890-2: 868

VOC-value (in g/l) ASTM D 2369: 868

National regulations

Restrictions of occupation

Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers. Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC).

15.2 Chemical Safety Assessment

For the following substances of this preparation a chemical safety assessment has been carried out:

BUTANONE EC No.: 201-159-0
REACH No.: 01-2119457290-43 CAS No.: 78-93-3

ETHYL ACETATE EC No.: 205-500-4
REACH No.: 01-2119475103-46 CAS No.: 141-78-6

REACH No.: 01-2119475515-33-xxxx EC No.: 927-510-4

HYDROCARBONS, C6, ISOALKANES, <5% n- EC No.: 931-254-9
HEXANE
REACH No.: 01-211-9484651-34-xxxx

SECTION 16: Other information

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)

Asp. Tox. 1: Aspiration hazard, Hazard Category 1

Aquatic Chronic 2: Hazardous to the aquatic environment - Chronic Hazard, Category 2

BCF: Biological Concentration Factor

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

CMR: Cancerogenic-mutagenic-reproductive toxic

DNEL: Derived No-Effect Level

EAK: Europäischer Abfallkatalog

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

Eye Irrit.: Serious eye damage/eye irritation

Flam. Liq.: Flammable liquids

GefStoffV: Gefahrstoffverordnung (Ordinance on Hazardous Substances, Germany)

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

IATA: International Air Transport Association

ICAO: International Civil Aviation Organization

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IMDG: International Maritime Code for Dangerous Goods

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

NOEC: No Observed Effect Concentration

NOEL: No Observed Effect Level

OEL: Occupational Exposure Limits

PBT: Persistent, bioaccumulative, toxic

PNEC: Predicted No-Effect Concentration (REACH)

Repr.: Reproductive toxicity

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

Skin Irrit.: Skin corrosion/irritation

Skin Sens.: Sensitisation – Skin

STOT: Specific target organ toxicity

STOT SE: Specific target organ toxicity - Single exposure

STOT RE: Specific target organ toxicity - Repeated exposure

SVHC: Substance of Very High Concern

vPvB: very Persistent, very Bioaccumulative

16.2 Full text of classification in section 3:

Flam. Liq. 2 / H225	Flammable liquids.	Highly flammable liquid and vapour.
Eye Irrit. 2 / H319	Serious eye damage/eye irritation.	Causes serious eye irritation.
STOT SE. 3 / H336	Specific target organ toxicity (single exposure).	May cause drowsiness or dizziness.
Skin Irrit. 2 / H315	Skin corrosion/irritation.	Causes skin irritation.
Asp. Tox. 1 / H304	Aspiration hazard.	May be fatal if swallowed and enters airways.
Aquatic Chronic 2 / H411	Hazardous to the aquatic environment.	Toxic to aquatic life with long lasting effects.

Additional information

Classification according to Regulation (EC) No. 1272/2008 [CLP].

The information supplied on this safety data sheet complies with our current level of knowledge as well as with national and EU regulations. Without written approval, the product must not be used for purposes different from those mentioned in chapter 1. It is always the user's duty to take any necessary measures for meeting the requirements laid down by local rules and regulations. The details in this safety data sheet describe the safety requirements of our product and are not to be regarded as guaranteed attributes of the product.