Telefax: +49 (0)2774/705-66



Safety Data Sheet

Universal Adhesive

Revision date: 31.07.2023 Product code: 14200_Series Page 1 of 9

1. Identification

Product identifier

Universal Adhesive

Further trade names

Universal Adhesive (14206)

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

Use of the substance/mixture

Adhesive for Kettenbach addition-curing impression material and reline impression materials. Medical device for use in dentistry, observe instructions for use.

Details of the supplier of the safety data sheet

Company name: Kettenbach GmbH & Co. KG

 Street:
 Im Heerfeld 7

 Place:
 D-35713 Eschenburg

 Telephone:
 + 49(0) 2774/705-0

e-mail: info@kettenbach.com Internet: www.kettenbach.com

Responsible Department: R&D

Further Information

The product is intended for professional use.

2. Hazard identification

Classification of the substance or mixture

Regulation (EC) No 1272/2008

Flam. Liq. 2; H225 Eye Irrit. 2; H319 STOT SE 3; H336

Full text of hazard statements: see SECTION 16.

The information in the safety data sheet applies only to the product described in connection with its intended use. The information is based on the current state of our knowledge. In particular, they serve to describe our product with regard to the hazards it presents and the safety precautions to be taken. They do not represent any assurance of product and quality properties. The information in this safety data sheet is not required according to Article 31 and Annex II of Regulation (EC) No 1907/2006. It serves to provide sufficient information on a voluntary basis to ensure safe use of the substance/mixture/our product.

Label elements

Regulation (EC) No 1272/2008

Hazard components for labelling

ethyl acetate

Signal word: Danger

Pictograms:





Hazard statements

H225 Highly flammable liquid and vapour.
 H319 Causes serious eye irritation.
 H336 May cause drowsiness or dizziness.



Universal Adhesive

Revision date: 31.07.2023 Product code: 14200_Series Page 2 of 9

Precautionary statements

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

smoking.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if

present and easy to do. Continue rinsing.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

Special labelling of certain mixtures

EUH066 Repeated exposure may cause skin dryness or cracking.

Other hazards

Formation of potentially explosive vapor/air mixtures is possible.

3. Composition/information on ingredients

Mixtures

Chemical characterization

Preparation based on silicone resin in organic solvents.

Hazardous components

| CAS No | Chemical name | | | Quantity |
|----------|--|--------------|------------------|----------|
| | EC No | Index No | REACH No | |
| | Classification (Regulation (EC) No 1272/2008) | | | |
| 141-78-6 | ethyl acetate | | | 40-70 % |
| | 205-500-4 | 607-022-00-5 | 01-2119475103-46 | |
| | Flam. Liq. 2, Eye Irrit. 2, STOT SE 3; H225 H319 H336 EUH066 | | | |

Full text of H statements: see section 16.

Specific Conc. Limits, M-factors and ATE

| CAS No | EC No | Chemical name | Quantity |
|----------|--|---------------|----------|
| | Specific Conc. Limits, M-factors and ATE | | |
| 141-78-6 | 205-500-4 | ethyl acetate | |
| | inhalation: Data lacking (gases); dermal: LD50 = >20000 mg/kg; oral: LD50 = 5620 mg/kg | | |

4. First-aid measures

Description of first aid measures

General information

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

After inhalation

Provide fresh air.

After contact with skin

After contact with skin, wash immediately with plenty of water and soap.

After contact with eyes

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

After ingestion

If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention.

Most important symptoms and effects, whether acute or delayed

No known symptoms to date.

Indication of immediate medical attention and special treatment needed



Universal Adhesive

Revision date: 31.07.2023 Product code: 14200_Series Page 3 of 9

No data available

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media

Extinguishing powder

Foam

Carbon dioxide (CO2)

Unsuitable extinguishing media

Water

Special protective equipment and precautions for fire-fighters

Co-ordinate fire-fighting measures to the fire surroundings.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

General advice

Remove all sources of ignition.

Use personal protection equipment.

Environmental precautions

Do not allow to enter into surface water or drains.

Methods and material for containment and cleaning up

For containment

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

Reference to other sections

No release of hazardous substances.

Personal protection equipment: see section 8

7. Handling and storage

Precautions for safe handling

Advice on safe handling

Keep away from sources of ignition - No smoking.

Wear personal protection equipment (refer to section 8).

Advice on protection against fire and explosion

Take precautionary measures against static discharges.

Advice on general occupational hygiene

Avoid contact with skin, eyes and clothes.

When using do not eat, drink, smoke, sniff.

Further information on handling

Keep locked up and out of reach of children.

Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed and store in a cool place.

Store in the original container only.

Hints on joint storage

Keep away from food and drink.

Further information on storage conditions

Please pay attention to the information on the package!

Specific end use(s)



Universal Adhesive

Revision date: 31.07.2023 Product code: 14200_Series Page 4 of 9

Not applicable.

8. Exposure controls/Personal protection

Control parameters

Exposure controls

Individual protection measures, such as personal protective equipment

Eye/face protection

Safety glasses.

Hand protection

Disposable gloves

Suitable material: Butyl caoutchouc (butyl rubber)

Wash hands before breaks and after work.

Skin protection

Protective clothing.

Avoid contact with skin, eyes and clothes.

Take off contaminated clothing and wash it before reuse.

Respiratory protection

Respiratory protection is not required when used properly and under normal conditions.

Provide adequate ventilation.

Environmental exposure controls

Do not allow to enter into surface water or drains.

9. Physical and chemical properties

Information on basic physical and chemical properties

Physical state:

Colour:

Odour:

Odour:

Odour threshold:

No data available

Test method

Melting point/freezing point:

-84 °C °C

Boiling point or initial boiling point and

77 °C

boiling range:

Flammability:

Lower explosive limits:

Upper explosive limits:

11,5 vol. %

Flash point: -4 °C DIN EN ISO 2719

Auto-ignition temperature:

Decomposition temperature:

PH-Value:

No data available

No data available

No data available

No data available

Viscosity / kinematic:

No data available

Water solubility:

No data available

Solubility in other solvents

No data available

Dissolution rate:

Partition coefficient n-octanol/water:

Dispersion stability:

Vapour pressure:

Vapour pressure:

No data available

Vapour pressure:

No data available

Vapour pressure:

No data available

No data available

No data available

No data available

Pensity:

No data available

Relative density (at 20 °C):

>0,9



Universal Adhesive

Revision date: 31.07.2023 Product code: 14200_Series Page 5 of 9

Bulk density: not applicable
Relative vapour density: No data available
Particle characteristics: not applicable

Other information

Information with regard to physical hazard classes

Explosive properties

Formation of potentially explosive vapor/air mixtures is possible.

Sustaining combustion: No data available

Self-ignition temperature

Solid: not applicable
Gas: not applicable

Oxidizing properties not applicable

10. Stability and reactivity

Reactivity

Vapours can form explosive mixtures with air.

Chemical stability

The product is chemically stable under recommended conditions of storage, use and temperature.

Possibility of hazardous reactions

None by intended use.

Conditions to avoid

Keep away from sources of heat (e.g. hot surfaces), sparks and open flames.

Incompatible materials

None by intended use.

Oxidizing agent

Hazardous decomposition products

Formaldehyde

Further information

Heating may cause a fire.

11. Toxicological information

Information on toxicological effects

Acute toxicity

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

| CAS No | Chemical name | Chemical name | | | | | |
|----------|-------------------|----------------------|---------|--------|--------|--|--|
| | Route of exposure | Dose | Species | Source | Method | | |
| 141-78-6 | ethyl acetate | ethyl acetate | | | | | |
| | oral | LD50 5620 mg/kg | Rat | | | | |
| | dermal | LD50 >20000 mg/kg | Rabit | | | | |
| | inhalation | Data lacking | | | | | |

Irritation and corrosivity

Causes serious eye irritation.

Skin corrosion/irritation: Based on available data, the classification criteria are not met.



Universal Adhesive

Revision date: 31.07.2023 Product code: 14200_Series Page 6 of 9

Sensitizing effects

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

Carcinogenic/mutagenic/toxic effects for reproduction

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

STOT-single exposure

May cause drowsiness or dizziness. (ethyl acetate)

STOT-repeated exposure

Repeated exposure may cause skin dryness or cracking.

Aspiration hazard

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

12. Ecological information

Ecotoxicity

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

| CAS No | Chemical name | | | | | | |
|----------|----------------------|---------------|----------|-----------|-------------------------|--------|--------|
| | Aquatic toxicity | Dose | | [h] [d] | Species | Source | Method |
| 141-78-6 | ethyl acetate | | | | | | |
| | Acute fish toxicity | LC50 | 230 mg/l | 96 h | Pimephales promelas | | |
| | Acute algae toxicity | ErC50 mg/l | >100 | | Desmodesmus subspicatus | | |

Persistence and degradability

The product has not been tested.

Bioaccumulative potential

The product has not been tested.

BCF

| CAS No | Chemical name | BCF | Species | Source |
|----------|---------------|-----|---------|--------|
| 141-78-6 | ethyl acetate | 30 | | |

Mobility in soil

The product has not been tested.

Results of PBT and vPvB assessment

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

Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

Other adverse effects

None known.

13. Disposal considerations

Waste treatment methods

Disposal recommendations

Do not remove with domestic waste.

List of Wastes Code - residues/unused products

180106 WASTES FROM HU

WASTES FROM HUMAN OR ANIMAL HEALTH CARE AND/OR RELATED RESEARCH (EXCEPT KITCHEN AND RESTAURANT WASTES NOT ARISING FROM IMMEDIATE HEALTH CARE); wastes from natal care, diagnosis, treatment or prevention of disease in humans; chemicals consisting of or containing hazardous substances; hazardous waste



Universal Adhesive

Revision date: 31.07.2023 Product code: 14200_Series Page 7 of 9

List of Wastes Code - used product

150110 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND

PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by

hazardous substances; hazardous waste

List of Wastes Code - contaminated packaging

150110 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND

PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by

hazardous substances; hazardous waste

Contaminated packaging

Non-contaminated packages may be recycled.

14. Transport information

Land transport (ADR/RID)

UN number or ID number: UN 1866

United Nations proper shipping RESIN SOLUTION

name:

Transport hazard class(es):

Packing group:

Hazard label:

3



Classification Code: F1
Special Provisions: 640D
Limited quantity: 5 L
Excepted quantity: E2
Transport category: 2
Hazard No: 33
Tunnel restriction code: D/E

Inland waterways transport (ADN)

<u>UN number or ID number:</u> UN 1866 <u>United Nations proper shipping</u> Resin solution

name:

Transport hazard class(es):

Packing group:

Hazard label:

3



Classification Code: F1
Special Provisions: 640D
Limited quantity: 5 L
Excepted quantity: E2

Marine transport (IMDG)

UN 1866

United Nations proper shipping RESIN SOLUTION

name:

Transport hazard class(es): 3
Packing group: II



Universal Adhesive

Revision date: 31.07.2023 Product code: 14200_Series Page 8 of 9

Hazard label:



Special Provisions:

Limited quantity:

Excepted quantity:

E2

EmS:

F-E, S-E

Air transport (ICAO-TI/IATA-DGR)

UN number or ID number: UN 1866

United Nations proper shipping RESIN SOLUTION

name:

Transport hazard class(es):

Packing group:

Hazard label:

3



Special Provisions:

Limited quantity Passenger:

Passenger LQ:

Excepted quantity:

A3

1 L

Y341

Excepted quantity:

E2

IATA-packing instructions - Passenger: 353
IATA-max. quantity - Passenger: 5 L
IATA-packing instructions - Cargo: 364
IATA-max. quantity - Cargo: 60 L

Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

Danger releasing substance: not applicable

Special precautions for user

not applicable

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

not applicable

15. Regulatory information

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

EU Regulatory information

Restrictions on use (REACH, annex XVII):

Entry 3, Entry 40, Entry 75

National regulatory information

Water hazard class (D): 1 - slightly hazardous to water

Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

16. Other information

Changes

Date of preparation / Revised on: 31/07/2023

Version number: 1,01



Universal Adhesive

Revision date: 31.07.2023 Product code: 14200_Series Page 9 of 9

Replaces version number: 1,00 (01/06/2023)

Abbreviations and acronyms

ATE: Acute toxicity estimate. CAS: Chemical abstracts service. CFR: Code of Federal Regulations. DNEL: Derived No Effect Level EC50: 50% of maximal effective concentration. FDA: Food and Drug Administration. GHS: Globally Harmonised System. IATA: International air transport association. ICAO: Technical instructions for the safe transport of dangerous goods by air. I MDG: International maritime dangerous goods. LC50: Lethal concentration to 50 % of a test population. LD50: Lethal dose to 50% of a test population (median lethal dose). NOAEL: No Observed Adverse Effect Level. PBT: Persistent, bioaccumulative and toxic substance. PNEC: Predicted No Effect Concentration. STOT RE: Specific Target Organ Toxicity – Single Exposure. STOT SE: Specific Target Organ Toxicity – Repeated Exposure. US OSHA: US Occupational Safety and Health Administration. vPvB: Very persistent and very bioaccumulative.

Classification for mixtures and used evaluation method according to GHS

| Classification | Classification procedure |
|--------------------|--------------------------|
| Flam. Liq. 2; H225 | On basis of test data |
| Eye Irrit. 2; H319 | Calculation method |
| STOT SE 3; H336 | Calculation method |

Relevant H statements (number and full text)

H225 Highly flammable liquid and vapour.
 H319 Causes serious eye irritation.
 H336 May cause drowsiness or dizziness.

EUH066 Repeated exposure may cause skin dryness or cracking.

Further Information

Training Advice: Use only by dental professionals.

Disclaimer: The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)