



Wax adhesive

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

- 1.1 Product identifier**
Tradename: Wax adhesive
- 1.2 Relevant identified uses of the substance or mixture and uses advised against**
Life cycle stages: PW Widespread use by professional workers
Sector of Use: SU20 Health services
Technical function: Tackifier
Application of the substance / the mixture: Auxiliary for dental technology
- 1.3 Details of the supplier of the safety data sheet**
Manufacturer/Supplier: ERNST HINRICHS Dental GmbH
Street / mailbox: Borsigstr. 1
Country code. / postal code / city: D - 38644 Goslar
Phone: 0 53 21 / 5 06 24
Fax: 0 53 21 / 5 08 81
E-mail / Website: info@hinrichs-dental.de / www.hinrichs-dental.de
Further information obtainable from: ERNST HINRICHS Dental GmbH
- 1.4 Emergency telephone number**
ERNST HINRICHS Dental GmbH: +49 (0) 53 21 / 5 06 24 (Mon-Fri. 8 a.m. – 4 p.m.)

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:



GHS02



GHS07

Signal word: Danger

Hazard-determining components of labelling: methyl acetate
n-butyl acetate

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.
P280: Wear eye protection / face protection.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313: If eye irritation persists: Get medical advice/attention.



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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: Contains 2-(2-aminoethylamino) ethanol. 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 *

3.2 Mixtures

Description: Mixture of substances listed below with non-hazardous additions.

Dangerous components:		
CAS: 79-20-9 EINECS: 201-185-2 Index number: 607-021-00-X RTECS: AI 9100000 Reg.nr.: 01-2119459211-47-xxxx	methyl acetate Flam. Liq. 2, H225 Eye Irrit. 2, H319; STOT SE 3, H336	25-50%
CAS: 123-86-4 EINECS: 204-658-1 Index number: 607-025-00-1 RTECS: AF 7350000 Reg.nr.: 01-2119485493-29-xxxx	n-butyl acetate Flam. Liq. 3, H226 STOT SE 3, H336 EUH066	25-50%
CAS: 64-17-5 EINECS: 200-578-6 Index number: 603-002-00-5 RTECS: KQ 6300000 Reg.nr.: 01-2119457610-43-XXXX	ethanol Flam. Liq. 2, H225	10-25%
CAS: 111-41-1 EINECS: 203-867-5 Index number: 603-194-00-0 RTECS: KJ 6300000 Reg.nr.: 01-2119456894-24-XXXX	2-(2-aminoethylamino)ethanol Repr. 1B, H360Df Skin Corr. 1B, H314 Skin Sens. 1, H317 Specific concentration limit: STOT SE 3; H335: C ≥ 5 %	≤2.5%

Additional information: For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures *

4.1 Description of first aid measures

General information: Take affected persons out into the fresh air.

After inhalation: Supply fresh air; consult doctor in case of complaints.



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After skin contact:	If skin irritation continues, consult a doctor.
After eye contact:	Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
After swallowing:	If symptoms persist consult doctor.
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:	No further relevant information available.

SECTION 5: Firefighting measures

5.1 Extinguishing media	
Suitable extinguishing agents:	CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
For safety reasons unsuitable extinguishing agents:	Water with full jet.
5.2 Special hazards arising from the substance or mixture:	No further relevant information available.
5.3 Advice for firefighters	
Protective equipment:	No special measures required.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:	Use respiratory protective device against the effects of fumes/dust/aerosol. Wear protective equipment. Keep unprotected persons away.
6.2 Environmental precautions:	Do not allow to enter drainage system, surface or ground water.
6.3 Methods and material for containment and cleaning up:	Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Dispose contaminated material as waste according to item 13. 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 disposal information.

SECTION 7: Handling and storage

7.1 Precautions for safe handling	Keep receptacles tightly sealed.
Information about protection against explosions and fires:	Fumes can combine with air to form an explosive mixture. Keep ignition sources away - Do not smoke. Protect against electrostatic charges.
7.2 Conditions for safe storage, including any incompatibilities	
Requirements to be met by storerooms and receptacles:	Store in a cool location. Store only in the original receptacle.



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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 receptacles.

7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Ingredients with limit values that require monitoring at the workplace:	
79-20-9 methyl acetate	
WEL	Short-term value: 770 mg/m ³ , 250 ppm Long-term value: 616 mg/m ³ , 200 ppm
123-86-4 n-butyl acetate	
WEL	Short-term value: 966 mg/m ³ , 200 ppm Long-term value: 724 mg/m ³ , 150 ppm
64-17-5 ethanol	
WEL	Long-term value: 1920 mg/m ³ , 1000 ppm

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

8.2 Exposure controls:
Appropriate engineering controls: No further data; see item 7.

Individual protection measures, such as personal protective equipment
General protective and hygienic measures: Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Avoid contact with the eyes.
Avoid contact with the eyes and skin.

Respiratory protection: Not required.

Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

Material of gloves: The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material cannot be calculated in advance and has therefore to be checked prior to the application.

Penetration time of glove material: The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.



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For the permanent contact in work areas without heightened risk of injury (e.g. Laboratory) gloves made of the following material are suitable: Rubber gloves.

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

As protection from splashes gloves made of the following materials are suitable: Nitrile rubber, NBR
Butyl rubber, BR

Eye protection:



Tightly sealed goggles.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

General Information

Physical state:	Fluid
Colour:	Transparent
Odour:	Ester-like
Odour threshold:	Not determined.
Melting point/freezing point:	Undetermined.
Boiling point or initial boiling point and boiling range:	57 °C
Flammability:	Not applicable.
Lower and upper explosion limit	
Lower:	1.2 Vol %
Upper:	16 Vol %
Flash point:	-13 °C
Ignition temperature:	370 °C
Decomposition temperature:	Not determined.
pH:	Not determined.
Viscosity	
Kinematic viscosity:	Not determined.
Dynamic:	Not determined.
Solubility	
water:	Not miscible or difficult to mix.
Partition coefficient n-octanol/water (log value):	Not determined.
Vapour pressure at 20 °C:	220 hPa
Density and/or relative density	
Density at 20 °C:	0.92 g/cm ³
Relative density:	Not determined.
Vapour density:	Not determined.

9.2 Other information

Appearance:

Form: Fluid

Important information on protection of health and environment, and on safety

Auto-ignition temperature: Product is not selfigniting.

Explosive properties: Product is not explosive. However, formation of explosive air/vapour mixtures are possible.

Solvent content:



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Organic solvents:	83.0 %
VOC (EC):	80 %
Solids content:	17.4 %
Change in condition	
Evaporation rate:	Not determined.
Information with regard to physical hazard classes	
Explosives:	Void
Flammable gases:	Void
Aerosols:	Void
Oxidising gases:	Void
Gases under pressure:	Void
Flammable liquids:	Highly flammable liquid and vapour.
Flammable solids:	Void
Self-reactive substances and mixtures:	Void
Pyrophoric liquids:	Void
Pyrophoric solids:	Void
Self-heating substances and mixtures:	Void
Substances and mixtures, which emit flammable gases in contact with water:	Void
Oxidising liquids:	Void
Oxidising solids:	Void
Organic peroxides:	Void
Corrosive to metals:	Void
Desensitised explosives:	Void

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:	No dangerous reactions known.
10.4 Conditions to avoid:	No further relevant information available.
10.5 Incompatible materials:	No further relevant information available.
10.6 Hazardous decomposition products:	No dangerous decomposition products known.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008	
Acute toxicity:	Based on available data, the classification criteria are not met
Serious eye damage/irritation:	Causes serious eye irritation.
STOT-single exposure:	May cause drowsiness or dizziness.
11.2 Information on other hazards	
Endocrine disrupting properties:	None of the ingredients is listed.

SECTION 12: Ecological information

12.1 Toxicity	
Aquatic toxicity:	No further relevant information available.
12.2 Persistence and degradability:	No further relevant information available.



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12.3 Bioaccumulative potential:	No further relevant information available.
12.4 Mobility in soil:	No further relevant information available.
12.5 Results of PBT and vPvB assessment PBT: vPvB:	Not applicable. Not applicable.
12.6 Endocrine disrupting properties:	For information on endocrine disrupting properties see section 11.
12.7 Other adverse effects: Additional ecological information: General notes:	No further relevant information available. Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

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.
Uncleaned packaging: Recommendation:	Disposal must be made according to official regulations.

SECTION 14: Transport information *

14.1 UN number ADR, IMDG, IATA:	UN1993
14.2 UN proper shipping name ADR: IMDG, IATA:	1 9 9 3 F L A M M A B L E L I Q U I D, N. O. S. (METHYL ACETATE, ETHYL ACETATE) FLAMMABLE LIQUID, N.O.S. (METHYL ACETATE, ETHYL ACETATE)
14.3 Transport hazard class(es) ADR, IMDG, IATA  Class: Label:	3 Flammable liquids. 3
14.4 Packing group ADR, IMDG, IATA:	II
14.5 Environmental hazards Marine pollutant:	No
14.6 Special precautions for user Kemler Number: EMS Number:	Warning: Flammable liquids. 33 F-E, <u>S-E</u>



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14.7 Maritime transport in bulk according to IMO instruments:	Not applicable.
Transport/Additional information:	
ADR	
Limited quantities (LQ):	1L
Excepted quantities (EQ):	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
IMDG	
Limited quantities (LQ):	1L
Excepted quantities (EQ):	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml

SECTION 15: Regulatory information

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

Labelling according to Regulation (EC) No 1272/2008: GHS label elements
The product is classified and labelled according to the GB CLP regulation.

Hazard pictograms:



GHS02



GHS07

Signal word: Danger

Hazard-determining components of labelling: methyl acetate
n-butyl acetate

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.
P280 Wear eye protection / face protection.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313 If eye irritation persists: Get medical advice/attention.
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.

Directive 2012/18/EU

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

Seveso category: P5c FLAMMABLE LIQUIDS



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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: A Chemical Safety Assessment has been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Relevant phrases

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
H360Df	May damage the unborn child. Suspected of damaging fertility.
EUH066	Repeated exposure may cause skin dryness or cracking.

Recommended restriction of use: Product only for professional use

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)
IATA-DGR:	Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
ICAO:	International Civil Aviation Organisation
ICAO-TI:	Technical Instructions by the "International Civil Aviation Organisation" (ICAO)
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)
VOC:	Volatile Organic Compounds (USA, EU)
PBT:	Persistent, Bioaccumulative and Toxic
vPvB:	very Persistent and very Bioaccumulative
Flam. Liq. 2:	Flammable liquids – Category 2
Flam. Liq. 3:	Flammable liquids – Category 3
Skin Corr. 1B:	Skin corrosion/irritation – Category 1B
Eye Irrit. 2:	Serious eye damage/eye irritation – Category 2
Skin Sens. 1:	Skin sensitisation – Category 1
Repr. 1B:	Reproductive toxicity – Category 1B
STOT SE 3:	Specific target organ toxicity (single exposure) – Category 3

* Data compared to the previous version altered.