

Trade name: Protector Adhesive

Substance number: 45231

Version: 2 / GB

Date revised: 16.10.2023

Replaces Version: 1 / GB

Print date: 16.10.2023

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

1.1. Product identifier

Protector Adhesive

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

Use of the substance/preparation

For connecting the first Drufosoft blank with a 3D Protector insert

1.3. Details of the supplier of the safety data sheet

Address/Manufacturer

Dreve Dentamid GmbH

Max-Planck-Straße 31

59423 Unna

Telephone no.

+49 2303 8807-0

Fax no.

+49 2303 8807-29

Information provided

Department Research & Development: Fax: +49 2303 8807-562

by / telephone

E-mail address of

sicherheitsdatenblatt@dreve.com

person responsible

for this SDS

1.4. Emergency telephone number

Henkel Fire Department / 24h-Emergency-Contact-No.: +49 211 797-3350

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (Regulation (EC) No. 1272/2008)

Classification (Regulation (EC) No. 1272/2008)

Flam. Liq. 2 H225

Eye Irrit. 2 H319

STOT SE 3 H336

The product is classified and labelled in accordance with Regulation (EC) No 1272/2008

For explanation of abbreviations see section 16.

2.2. Label elements

Labelling according to regulation (EC) No 1272/2008

Hazard pictograms



Signal word

Danger



Trade name: Protector Adhesive

Substance number: 45231

Version: 2 / GB

Date revised: 16.10.2023

Replaces Version: 1 / GB

Print date: 16.10.2023

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.
 P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
 P280 Wear protective gloves/protective clothing/eye protection/face protection.
 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.
 P501.1 Dispose of contents/container to industrial incineration plant.

Hazardous component(s) to be indicated on label (Regulation (EC) No. 1272/2008)

contains Ethyl acetate

Supplemental information

EUH066 Repeated exposure may cause skin dryness or cracking.

2.3. Other hazards

No special hazards have to be mentioned.

The product contains no PBT substances. The product contains no vPvB substances. This product does not contain a substance that has endocrine disrupting properties with respect to human. The product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms.

SECTION 3: Composition/information on ingredients**3.2. Mixtures****Hazardous ingredients****Ethyl acetate**

CAS No.	141-78-6				
EINECS no.	205-500-4				
Registration no.	01-2119475103-46				
Concentration	>= 25	<	50	%	
Classification (Regulation (EC) No. 1272/2008)	Flam. Liq. 2				H225
	Eye Irrit. 2				H319
	STOT SE 3				H336

SECTION 4: First aid measures**4.1. Description of first aid measures****General information**

Remove contaminated clothing immediately and dispose of safely. Adhere to personal protective measures when giving first aid



Trade name: Protector Adhesive

Substance number: 45231

Version: 2 / GB

Date revised: 16.10.2023

Replaces Version: 1 / GB

Print date: 16.10.2023

After inhalation

Remove the casualty into fresh air and keep him calm. In the event of symptoms take medical treatment.

After skin contact

After contact with skin, wash immediately with plenty of water and soap. Consult a doctor if skin irritation persists.

After eye contact

Separate eyelids, wash the eyes thoroughly with water (15 min.). Take medical treatment.

After ingestion

Call in a physician immediately and show him the Safety Data Sheet. Rinse mouth thoroughly with water. Let plenty of water be drunk in small gulps. Do not induce vomiting.

Adhere to personal protective measures when giving first aid

First aider: Pay attention to self-protection!

4.2. Most important symptoms and effects, both acute and delayed

Until now no symptoms known so far.

4.3. Indication of any immediate medical attention and special treatment needed**Hints for the physician / hazards**

In the case of swallowing with subsequent vomiting, aspiration of the lungs can occur which can lead to chemical pneumonia or asphyxiation.

SECTION 5: Firefighting measures**5.1. Extinguishing media****Suitable extinguishing media**

Recommended: alcohol resistant foam, CO₂, powders, water spray/mist, Extinguishing measures to suit surroundings

Non suitable extinguishing media

Full water jet

5.2. Special hazards arising from the substance or mixture

In case of combustion evolution of dangerous gases possible.

5.3. Advice for firefighters**Special protective equipment for fire-fighting**

Do not inhale explosion and/or combustion gases. In case of combustion use a suitable breathing apparatus. Wear full protective suit.

Other information

Collect contaminated fire-fighting water separately, must not be discharged into the drains. Fire residues and contaminated fire-fighting water must be disposed of in accordance with the local regulations. Observe manufacturer's / distributor's instructions.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures**

Keep away sources of ignition. Ensure adequate ventilation. Use breathing apparatus if exposed to vapours/dust/aerosol. Avoid contact with skin, eyes and clothing. Use personal protective clothing. Refer to protective measures listed in Sections 7 and 8.



Trade name: Protector Adhesive

Substance number: 45231

Version: 2 / GB

Date revised: 16.10.2023

Replaces Version: 1 / GB

Print date: 16.10.2023

6.2. Environmental precautions

Prevent spread over a wide area (e.g. by containment or oil barriers). Do not discharge into the drains/surface waters/groundwater. Do not discharge into the subsoil/soil. Retain and dispose of contaminated wash water. In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

6.3. Methods and material for containment and cleaning up

Pick up rest with suitable absorbent materials. Do not pick up with the help of saw-dust or other combustible substances. Clean contaminated floors and objects thoroughly, observing environmental regulations. Containers in which spilt substance has been collected must be adequately labelled. Dispose of as prescribed.

6.4. Reference to other sections

Refer to protective measures listed in Sections 7 and 8.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Provide good ventilation of working area (local exhaust ventilation if necessary). Avoid formation of aerosols. Avoid impact, friction and electro-static loading; risk of ignition!. Keep container tightly closed.

Advice on protection against fire and explosion

Keep away from sources of heat and ignition. No smoking. Take action to prevent static discharges. Avoid impact and friction. Use only explosion-proof equipment. Keep away from combustible material. Wear shoes with conductive soles.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep in original packaging, tightly closed. Storage rooms must be properly ventilated. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Hints on storage assembly

Do not store together with foodstuffs. Do not store with strong oxidizing agents.

Further information on storage conditions

Keep under lock and key or accessible only to specialists or people who are authorized. Keep container tightly closed and in a well-ventilated place. Keep in a cool place

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limit values

Ethyl acetate

List	TRGS 900		
Value	730	mg/m ³	200 ppm(V)
Maximum limit value: 2(l) Pregnancy group: Y; Status: 11/16; Remarks: DGF/EU			

Other information

Contains no substances with occupational exposure limit values.

Derived No/Minimal Effect Levels (DNEL/DMEL)



Trade name: Protector Adhesive

Substance number: 45231

Version: 2 / GB

Date revised: 16.10.2023

Replaces Version: 1 / GB

Print date: 16.10.2023

Ethyl acetate

Type of value Derived No Effect Level (DNEL)
 Duration of exposure Long term
 Route of exposure dermal
 Mode of action Systemic effects
 Concentration 63 mg/kg

Type of value Derived No Effect Level (DNEL)
 Duration of exposure Acute
 Route of exposure inhalative
 Mode of action Local effects
 Concentration 1468 mg/m³

Type of value Derived No Effect Level (DNEL)
 Duration of exposure Acute
 Route of exposure inhalative
 Mode of action Systemic effects
 Concentration 1468 mg/m³

Type of value Derived No Effect Level (DNEL)
 Duration of exposure Long term
 Route of exposure inhalative
 Mode of action Local effects
 Concentration 734 mg/m³

Type of value Derived No Effect Level (DNEL)
 Duration of exposure Long term
 Route of exposure inhalative
 Mode of action Systemic effects
 Concentration 734 mg/m³

Predicted No Effect Concentration (PNEC)

Ethyl acetate

Type of value PNEC
 Type Freshwater
 Concentration 63 mg/l

Type of value PNEC
 Type Freshwater sediment
 Concentration 0,34 mg/kg

Type of value PNEC
 Type Saltwater
 Concentration 0,026 mg/l

Type of value PNEC
 Type Marine sediment
 Concentration 0,034 mg/kg

Type of value PNEC
 Type Sewage treatment plant (STP)
 Concentration 650 mg/l

Type of value PNEC
 Type Soil
 Concentration 0,22 mg/kg



Trade name: Protector Adhesive

Substance number: 45231

Version: 2 / GB

Date revised: 16.10.2023

Replaces Version: 1 / GB

Print date: 16.10.2023

8.2. Exposure controls

General protective and hygiene measures

Do not smoke during work time. Hold emergency shower available. Hold eye wash fountain available. Do not inhale gases/vapours/aerosols. Avoid contact with skin and eyes. Take off immediately all contaminated clothing. Do not eat or drink during work time. Storage of foodstuffs in work rooms is forbidden. Wash hands before breaks and after work. Clean skin thoroughly after work; apply skin cream.

Respiratory protection

Do not inhale vapours; Use suitable respiratory protective device in case of insufficient ventilation

Hand protection

There is no one glove material or combination of materials that will give unlimited resistance to any individual or combination of chemicals.

The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed.

Gloves should be replaced regularly and if there is any sign of damage to the glove material.

Hand protection must comply with EN 374.

Appropriate Material nitrile

Eye protection

Safety glasses

Body protection

Clothing as usual in the chemical industry.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	liquid
Colour	colourless, clear
Odour	characteristic
Melting point	
Remarks	not determined
Freezing point	
Remarks	not determined
Boiling point or initial boiling point and boiling range	
Value	76 to 78 °C
Flammability	
evaluation	not determined
Upper and lower explosive limits	
Lower explosion limit	2,1 %(V)
Upper explosion limit	11,5 %(V)
Flash point	
Value	-4 °C
Method	closed cup
Ignition temperature	
Remarks	not determined
Decomposition temperature	



Trade name: Protector Adhesive

Substance number: 45231

Version: 2 / GB

Date revised: 16.10.2023

Replaces Version: 1 / GB

Print date: 16.10.2023

Remarks not determined

pH value

Remarks not determined

Viscosity**dynamic**Value appr. 0,165 Pa.s
Temperature 23 °C**Solubility(ies)**

Remarks not determined

Partition coefficient n-octanol/water (log value)

Remarks not determined

Vapour pressure

Value 100 hPa

Density and/or relative density

Remarks not determined

Relative vapour density

Remarks not determined

9.2. Other information**Odour threshold**

Remarks not determined

Evaporation rate (ether = 1) :

Remarks not determined

Solubility in water

Remarks immiscible

Explosive properties

evaluation not determined

Oxidising properties

Remarks not determined

Other information

None known

SECTION 10: Stability and reactivity**10.1. Reactivity**

No hazardous reactions when stored and handled according to prescribed instructions.

10.2. Chemical stability

No hazardous reactions known.

10.3. Possibility of hazardous reactions

No hazardous reactions known.

10.4. Conditions to avoid

Protect from heat and direct sunlight

10.5. Incompatible materials

None known



Trade name: Protector Adhesive

Substance number: 45231

Version: 2 / GB

Date revised: 16.10.2023

Replaces Version: 1 / GB

Print date: 16.10.2023

10.6. Hazardous decomposition products

Irritant gases/vapours

SECTION 11: Toxicological information**11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008****Acute oral toxicity**

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

Acute oral toxicity (Components)**Ethyl acetate**

Species	rat		
LD50		5620	mg/kg

Acute dermal toxicity

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

Acute dermal toxicity (Components)**Ethyl acetate**

Species	rabbit		
LD50	>	20000	mg/kg

Acute inhalational toxicity

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

Acute inhalative toxicity (Components)**Ethyl acetate**

Species	rat		
LC0	>	22,5	mg/l
Duration of exposure		6	h
Administration/Form	Vapors		

Skin corrosion/irritation

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

Skin corrosion/irritation (Components)**Ethyl acetate**

Species	rabbit		
evaluation	slight irritant effect - does not require labelling		
Method	OECD 404		
Remarks	Regular contacts specially after drying, can lead to skin and eye irritation.		

Serious eye damage/irritation

evaluation	irritant
Remarks	The classification criteria are met.

Sensitization

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

Subacute, subchronic, chronic toxicity

Remarks not determined

Mutagenicity

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

Reproductive toxicity

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



Trade name: Protector Adhesive

Substance number: 45231

Version: 2 / GB

Date revised: 16.10.2023

Replaces Version: 1 / GB

Print date: 16.10.2023

Carcinogenicity

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

Specific Target Organ Toxicity (STOT)**Single exposure**Remarks The classification criteria are met.
evaluation May cause drowsiness or dizziness.**Repeated exposure**

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

Specific Target Organ Toxicity (STOT) (Components)**Ethyl acetate****Single exposure**

evaluation May cause drowsiness or dizziness.

Aspiration hazard

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

11.2 Information on other hazards**Endocrine disrupting properties with respect to humans**

The product does not contain a substance that has endocrine disrupting properties with respect to humans.

Experience in practice

Inhalation may lead to irritation of the respiratory tract.

Other information

No toxicological data are available.

SECTION 12: Ecological information**12.1. Toxicity****General information**

not determined

Fish toxicity (Components)**Ethyl acetate**Species Fathead minnow (*Pimephales promelas*)
LC50 230 mg/l
Duration of exposure 96 h**Daphnia toxicity (Components)****Ethyl acetate**LC50 165 mg/l
Duration of exposure 48 h**Algae toxicity (Components)****Ethyl acetate**Species *Desmodesmus subspicatus*
NOEC > 100 mg/l
Duration of exposure 72 h
Method OECD 201**12.2. Persistence and degradability**



Trade name: Protector Adhesive

Substance number: 45231

Version: 2 / GB

Date revised: 16.10.2023

Replaces Version: 1 / GB

Print date: 16.10.2023

General information

not determined

Ready degradability (Components)

Ethyl acetate

12.3. Bioaccumulative potential**General information**

not determined

Partition coefficient n-octanol/water (log value)

Remarks not determined

Octanol/water partition coefficient (log Pow) (Components)

Ethyl acetate

log Pow 0,68

12.4. Mobility in soil**General information**

not determined

12.5. Results of PBT and vPvB assessment**General information**

not determined

Results of PBT and vPvB assessment

The product contains no PBT substances

The product contains no vPvB substances.

12.6 Endocrine disrupting properties**Endocrine disrupting properties with respect to the environment**

The product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms.

12.7. Other adverse effects**General information**

not determined

General information / ecology

Do not allow to enter soil, waterways or waste water canal. Avoid release into the atmosphere.

SECTION 13: Disposal considerations**13.1. Waste treatment methods****Disposal recommendations for the product**

Must not be disposed together with household garbage.

Dispose of waste according to applicable legislation.

Disposal recommendations for packaging

Packaging that cannot be cleaned should be disposed off as product waste.

SECTION 14: Transport information



Trade name: Protector Adhesive




Substance number: 45231

Version: 2 / GB

Date revised: 16.10.2023

Replaces Version: 1 / GB

Print date: 16.10.2023

	Land transport ADR/RID	Marine transport IMDG/GGVSee	Air transport ICAO/IATA
14.1. UN number or ID number	1173	1173	1173
14.2. UN proper shipping name	ETHYL ACETATE, Solution	ETHYL ACETATE, Solution	ETHYL ACETATE, Solution
14.3. Transport hazard class(es)	3	3	3
Label			
14.4. Packing group	II	II	II
Limited Quantity	1 I	1 I	
Transport category	2		
14.5. Environmental hazards	-		
Tunnel restriction code	D/E		

SECTION 15: Regulatory information

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

Major-accident categories acc. 2012/18/EU

Category	P5c	FLAMMABLE LIQUID	5000	tonne	50000	tonne
				s		s

Other regulations, restrictions and prohibition regulations

Observe employment restrictions for child bearing mothers and nursing mothers.
Observe employment restrictions for young people.

Other information

All components are contained in the TSCA inventory or exempted.

15.2. Chemical safety assessment

For this preparation a chemical safety assessment has not been carried out.

SECTION 16: Other information

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Classification (Regulation (EC) No. 1272/2008)

Flam. Liq. 2	H225	On basis of test data
Eye Irrit. 2	H319	Calculation method



Trade name: Protector Adhesive

Substance number: 45231

Version: 2 / GB

Date revised: 16.10.2023

Replaces Version: 1 / GB

Print date: 16.10.2023

STOT SE 3

H336

Calculation method

Hazard statements listed in Chapter 2/3

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

CLP categories listed in Chapter 2/3

Eye Irrit. 2	Eye irritation, Category 2
Flam. Liq. 2	Flammable liquid, Category 2
STOT SE 3	Specific target organ toxicity - single exposure, Category 3

Supplemental information

Relevant changes compared with the previous version of the safety data sheet are marked with: ***
This information is based on our present state of knowledge. However, it should not constitute a guarantee for any specific product properties and shall not establish a legally valid relationship.