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

· 1.1 Product identifier

· Trade name: <u>Retention adhesive, white</u>

• Article number: 540 0071 1

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

No further relevant information available.

· Application of the substance / the mixture: Retention adhesive.

· 1.3 Details of the supplier of the safety data sheet

• Manufacturer/Supplier: bredent GmbH & Co.KG Weißenhorner Straße 2 89250 Senden Tel: +49 (0) 7309/872-0 Fax: +49 (0) 7309/872-24

Further information obtainable from: R & D e-mail: R.D@bredent.com
1.4 Emergency telephone number: (001) 352 323 3500

SECTION 2: Hazards identification

· 2.1 Classification of the substance or mixture · Classification according to Regulation (EC) No 1272/2008

flame

Flam. Liq. 2 H225 Highly flammable liquid and vapour.



Skin Irrit. 2 H315 Causes skin irritation. 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:

acetone • Hazard statements

H225 Highly flammable liquid and vapour.

H315 Causes skin irritation.

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.

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].

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.

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

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P403+P235 Store in a well-ventilated place. Keep cool.

• Additional information:

Product contains: Reportable explosives precursors. Making available, introduction, possession and use according to Regulation (EU) 2019/1148, Article 9.

· 2.3 Other hazards

· Results of PBT and vPvB assessment

• **PBT:** Not applicable.

• **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

· 3.2 Chemical characterisation: Mixtures

· Description: Mixture of substances listed below with nonhazardous additions.

 Dangerous compone 	ents:	
	acetone	50-100%
EINECS: 200-662-2	 Flam. Liq. 2, H225 Eye Irrit. 2, H319; STOT SE 3, H336 	
	Benzyl alcohol	2.5-10%
EINECS: 202-859-9	♦ Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332	
· Additional informati	ion: For the wording of the listed hazard phrases refer to section 16.	

SECTION 4: First aid measures

• 4.1 Description of first aid measures

• After inhalation:

Supply fresh air and to be sure call for a doctor.

In case of unconsciousness place patient stably in side position for transportation.

• After skin contact:

If skin irritation continues, consult a doctor.

Immediately wash with water and soap and rinse thoroughly.

• After eye contact:

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

· After swallowing: Call a doctor immediately.

• 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.

- 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 Ensure adequate ventilation

Use respiratory protective device against the effects of fumes/dust/aerosol. Wear protective equipment. Keep unprotected persons away.

• **6.2 Environmental precautions:** Dilute with plenty of water.

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Do not allow to enter sewers/ surface or ground water.	
6.3 Methods and material for containment and cleaning up:	
Absorb with liquid-binding material (sand, diatomite, acid binders, universal b	inders, sawdust).
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.	
Ensure good interior ventilation, especially at floor level. (Fumes are heavier t Ensure good ventilation/exhaustion at the workplace. Prevent formation of aerosols.	han air).
Information about fire - and explosion protection:	
Keep ignition sources away - Do not smoke.	
Protect against electrostatic charges.	
7.2 Conditions for safe storage, including any incompatibilities	
Storage:	
Requirements to be met by storerooms and receptacles: Store in a cool location	n.
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.	
$7.2 G_{\text{max}} (G_{\text{max}}) M (G_{\text{max}}) = 1 (1)$	

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

SECTION 8: Exposure controls/personal protection

· 8.1 Control parameters

• Additional information about design of technical facilities: No further data; see item 7.

· Ingredients with limit values that require monitoring at the workplace:

67-64-1 acetone

WEL Short-term value: 3620 mg/m³, 1500 ppm

Long-term value: 1210 mg/m³, 500 ppm

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

· 8.2 Exposure controls

- · Personal protective equipment:
- General protective and hygienic measures:

The usual precautionary measures are to be adhered to when handling chemicals.

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 necessary if room is well-ventilated. In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

Protection of hands:



Protective gloves



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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

Butyl rubber, BR

Recommended thickness of the material: $\geq 0.5 \text{ mm}$

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 can not be calculated in advance and has therefore to be checked prior to the application.

· Penetration time of glove material

The penetration time has to be at least 240 minutes (Permeation according to EN 374 Part 3: Level 5). The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

• Eye protection:



Tightly sealed goggles

· Body protection: Protective work clothing

9.1 Information on basic physical and cl General Information	nemical properties
Appearance:	
Form:	Fluid
Colour:	White
Odour:	Characteristic
Odour threshold:	Not determined.
pH-value at 20 °C:	7
Change in condition	
Melting point/freezing point:	Undetermined.
Initial boiling point and boiling range:	55 °C
Flash point:	-19 °C
Flammability (solid, gas):	Not applicable.
Ignition temperature:	>400 °C
Decomposition temperature:	Not determined.
Auto-ignition temperature:	Product is not selfigniting.
Explosive properties:	Product is not explosive. However, formation of explosive air vapour mixtures are possible.
Explosion limits:	
Lower:	2.6 Vol %
Upper:	13 Vol %
Vapour pressure at 20 °C:	233 hPa
Density at 20 °C:	$0.79 \ g/cm^3$
Relative density	Not determined.
Vapour density	Not determined.



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· Evaporation rate	Not determined.	
· Solubility in / Miscibility with		
water:	Partly miscible.	
· Partition coefficient: n-octanol/water:	Not determined.	
· Viscosity:		
Dynamic:	Not determined.	
Kinematic:	Not determined.	
· Solvent content:		
Organic solvents:	80 - 90 %	
VOC (EC)	80 - 90 %	
Solids content:	10 - 20 %	
· 9.2 Other information	No further relevant information available.	

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 Reacts with strong acids and oxidising agents.
- \cdot 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 toxicological effects

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

· LD/LC50 values relevant for classification:

67-64-1 acetone

Oral LD50 5,800 mg/kg (rat)

Dermal LD50 20,000 mg/kg (rabbit)

- Primary irritant effect:
- · Skin corrosion/irritation
- Causes skin irritation.
- · Serious eye damage/irritation
- Causes serious eye irritation.
- Respiratory or skin sensitisation Based on available data, the classification criteria are not met.
- Additional toxicological information:
- · CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
- · Germ cell mutagenicity Based on available data, the classification criteria are not met.
- · Carcinogenicity Based on available data, the classification criteria are not met.
- *Reproductive toxicity Based on available data, the classification criteria are not met.*
- STOT-single exposure
- May cause drowsiness or dizziness.
- STOT-repeated exposure Based on available data, the classification criteria are not met.
- Aspiration hazard Based on available data, the classification criteria are not met.

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SECTION 12: Ecological information

- · 12.1 Toxicity
- Aquatic toxicity:
- 67-64-1 acetone
- LC50 8.12 mg/l (fish)
- · 12.2 Persistence and degradability No further relevant information available.
- 12.3 Bioaccumulative potential No further relevant information available.
- 12.4 Mobility in soil No further relevant information available.
- Additional ecological information:
- · General notes:

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.

- · 12.5 Results of PBT and vPvB assessment
- **PBT:** Not applicable.
- · vPvB: Not applicable.
- · 12.6 Other adverse effects No further relevant information available.

SECTION 13: Disposal considerations

- 13.1 Waste treatment methods
- · Recommendation

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

- · Uncleaned packaging:
- · Recommendation: Disposal must be made according to official regulations.
- *Recommended cleansing agents: Water, if necessary together with cleansing agents.*

SECTION 14: Transport information

14.1 UN-Number ADR, IMDG, IATA	UN1090	
14.2 UN proper shipping name		
ADR	1090 ACETONE	
IMDG, IATA	ACETONE	
14.3 Transport hazard class(es)		
ADR, IMDG, IATA		
Class	3 Flammable liquids.	
Label	3	
14.4 Packing group		
ADR, IMDĞ, IATA	II	
14.5 Environmental hazards:		
Marine pollutant:	No	
14.6 Special precautions for user	Warning: Flammable liquids.	
Hazard identification number (Kemler code):	33	
EMS Number:	F-E,S-D	

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Stowage Category	Ε
· 14.7 Transport in bulk according to Ann Marpol and the IBC Code	nex II of Not applicable.
Transport/Additional information:	
· ADR	
· Limited quantities (LQ)	1L
Excepted quantities $(\widetilde{E}Q)$	Code: E2
	Maximum net quantity per inner packaging: 30 ml
	Maximum net quantity per outer packaging: 500 ml
Transport category	2
Tunnel restriction code	D/E
· IMDG	
Limited quantities (LQ)	1L
Excepted quantities $(\widetilde{E}Q)$	Code: E2
	Maximum net quantity per inner packaging: 30 ml
	Maximum net quantity per outer packaging: 500 ml
UN "Model Regulation":	UN 1090 ACETONE, 3, II

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 The product is classified and labelled according to the CLP regulation. · Hazard pictograms GHS02, GHS07 · Signal word Danger · Hazard-determining components of labelling: acetone · Hazard statements H225 Highly flammable liquid and vapour. H315 Causes skin irritation. H319 Causes serious eye irritation. H336 May cause drowsiness or dizziness. · Precautionary statements Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No P210 smoking. Avoid breathing dust/fume/gas/mist/vapours/spray. P261 P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]. *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. P403+P233 Store in a well-ventilated place. Keep container tightly closed. P403+P235 Store in a well-ventilated place. Keep cool. · Directive 2012/18/EU · Named dangerous substances - ANNEX I None of the ingredients is listed. • 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 not been carried out.

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	knowledge. However, this shall not constitute a guarantee for iblish a legally valid contractual relationship.
Relevant phrases H225 Highly flammable liquid and vapour H302 Harmful if swallowed. H312 Harmful in contact with skin. H319 Causes serious eye irritation. H332 Harmful if inhaled. H336 May cause drowsiness or dizziness.	
Department issuing SDS: R & D Contact: R & D	
International Transport of Dangerous Goods by Rai ICAO: International Civil Aviation Organisation	es marchandises dangereuses par route (European Agreement Concernin d) Goods and Labelling of Chemicals al Chemical Substances nces
VOC: Volatile Organic Compounds (USA, EU)	
LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative Flam. Liq. 2: Flammable liquids – Category 2 Anuto Tox. 4: Anuto toxicity. Category 4	
Acute Tox. 4: Acute toxicity – Category 4 Skin Irrit. 2: Skin corrosion/irritation – Category 2 Eye Irrit. 2: Serious eye damage/eye irritation – Cat	egory 2
STOT SE 3: Specific target organ toxicity (single exp	
* Data compared to the previous version of	altered. ety data sheet has completely been revised.