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

· 1.1 Product identifier

· Trade name: <u>Exakto-Form Komponente A</u>

· Article number: 520 0017 4, 520 0017 5, 520 0017 6, 520 0017 7, 520 0017 8

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

• Application of the substance / the mixture: Model resin.

 \cdot 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



Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.



Eye Irrit. 2 H319 Causes serious eye irritation

Lye III. 2	11917 Causes serious eye irritation.
· 2.2 Label elem	<i>lents</i>
· Labelling acco	ording to Regulation (EC) No 1272/2008
The product is	classified and labelled according to the CLP regulation.
• Hazard pictog	rams GHS07, GHS09
· Signal word W	Varning
· Hazard statem	ents
H319 Causes s	erious eye irritation.
H411 Toxic to	aquatic life with long lasting effects.
· Precautionary	statements
P273	Avoid release to the environment.
P280	Wear eye protection / face protection.
P305+P351+I	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.
P391	Collect spillage.
P501	Dispose of contents/container in accordance with local/regional/national/international
	regulations.
· 2.3 Other haza	urds

2.3 Other hazards

· Results of PBT and vPvB assessment

· **PBT:** Not applicable.

· vPvB: Not applicable.

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SECTION 3: Composition/information on ingredients

· 3.2 Chemical characterisation: Mixtures

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

· Dangerous components:				
CAS: 38640-62-9	Bis(isopropyl)naphthalin	2.5-10%		
EINECS: 254-052-6	Asp. Tox. 1, H304 Aquatic Chronic 1, H410			
CAS: 25214-63-5	ethylenediamine, polymere with 1,2-propylenoxide	2.5-10%		
NLP: 500-035-6	♦ Eye Irrit. 2, H319			
	Reaction mass of 2-ethylpropane-1,3-diol and 5-ethyl-1,3-dioxane-5- methanol and propylidynetrimethanol	≤2.5%		
	♦ Eye Irrit. 2, H319			
· Additional information	For the wording of the listed hazard phrases refer to section 16.			

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

SECTION 4: First aid measures

• 4.1 Description of first aid measures

- After inhalation: Supply fresh air; consult doctor in case of complaints.
- *After skin contact: Generally the product does not irritate the skin.*
- After eye contact: Rinse opened eye for several minutes under running water.
- · 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.
- Use fire extinguishing methods suitable to surrounding conditions.
- 5.2 Special hazards arising from the substance or mixture

In case of fire, the following can be released:

- carbon dioxide
- Carbon monoxide (CO)
- Nitrogen oxides (NOx)
- 5.3 Advice for firefighters
- · Protective equipment: Wear self-contained respiratory protective device.
- Additional information

Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

SECTION 6: Accidental release measures

• 6.1 Personal precautions, protective equipment and emergency procedures Not required.

• 6.2 Environmental precautions:

Inform respective authorities in case of seepage into water course or sewage system. 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 binders, sawdust).

· 6.4 Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

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See Section 13 for disposal information.

SECTION 7: Handling and storage

- · 7.1 Precautions for safe handling
- The product may be used only by dentists, dental technicians or under their authority. • **Information about fire - and explosion protection:** No special measures required.
- 7.2 Conditions for safe storage, including any incompatibilities
- · Storage:
- Requirements to be met by storerooms and receptacles:
- Store only in the original receptacle.
- *Use only receptacles specifically permitted for this substance/product.*
- · Information about storage in one common storage facility: Store away from foodstuffs.
- · Further information about storage conditions:
- Protect from humidity and water.
- This product is hygroscopic.
- Storage class: 10
- 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:
- The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- Additional information: The lists valid during the making were used as basis.
- · 8.2 Exposure controls
- · Personal protective equipment:
- General protective and hygienic measures:
- Do not eat, drink, smoke or sniff while working.
- The usual precautionary measures are to be adhered to when handling chemicals.
- Wash hands before breaks and at the end of work.
- Respiratory protection:

Not necessary if room is well-ventilated.

- Filter A/P2
- **Protection of hands:**

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

- Penetration time of glove material
- The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.
- *Eye protection: Goggles recommended during refilling*

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· Body protection: Protective work clothing

SECTION 9: Physical and chemical properties				
• 9.1 Information on basic physical and c	hemical properties			
· General Information				
· Appearance:				
Form:	Fluid			
Colour: • Odour:	According to product specification Characteristic			
• Oaour: • Odour threshold:	Not determined.			
· pH-value:	Not determined.			
· Change in condition				
Melting point/freezing point:	Undetermined.			
Initial boiling point and boiling range	: Undetermined.			
· Flash point:	>110 °C			
· Flammability (solid, gas):	Not applicable.			
• Decomposition temperature:	Not determined.			
• Auto-ignition temperature:	Product is not selfigniting.			
• Explosive properties:	Product does not present an explosion hazard.			
· Explosion limits:				
Lower:	Not determined.			
Upper:	Not determined.			
· Vapour pressure:	Not determined.			
Density at 20 °C:	1.58 g/cm ³			
Relative density	Not determined.			
· Vapour density	Not determined.			
• Evaporation rate	Not determined.			
Solubility in / Miscibility with				
water:	Not miscible or difficult to mix.			
· Partition coefficient: n-octanol/water:	Not determined.			
· Viscosity:				
Dynamic:	Not determined.			
Kinematic at 40 °C:	$>20.5 \text{ mm}^{2}/\text{s}$			
• 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 oxidising agents.

• 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.

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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:

38640-62-9 Bis(isopropyl)naphthalin

Oral	LD50	>3,900 mg/kg (rat)
Dermal	LD50	>4,500 mg/kg (rat)

Inhalative LC50/4h >5.64 mg/l (rat) • **Primary irritant effect:**

- · Skin corrosion/irritation Based on available data, the classification criteria are not met.
- · 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 Based on available data, the classification criteria are not met.
- $\cdot \textit{STOT-repeated exposure Based on available data, the classification criteria are not met.}$
- Aspiration hazard Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

· 12.1 Toxicity

• Aquatic toxicity:

38640-62-9 Bis(isopropyl)naphthalin

LC50 mg/l (rat)

EC0 / 48 h 0.16 mg/l (daphnia)

LC0 / 96 h 0.5 mg/l (fish) (OECD 203)

- · 12.2 Persistence and degradability No further relevant information available.
- · Other information: The product is not easily biodegradable.
- 12.3 Bioaccumulative potential No further relevant information available.
- · 12.4 Mobility in soil No further relevant information available.
- Ecotoxical effects:
- Remark: Harmful to fish
- Additional ecological information:
- · General notes:

Water hazard class 3 (German Regulation) (Self-assessment): extremely hazardous for water Do not allow product to reach ground water, water course or sewage system, even in small quantities. Danger to drinking water if even extremely small quantities leak into the ground.

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

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SECTION 13: Disposal considerations

• 13.1 Waste treatment methods

· Recommendation

After prior treatment product has to be landfilled or incinerated adhering to the regulations pertaining to the disposal of especially hazardous waste.

Smaller quantities of cured material may be disposed off together with household waste.

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

· Uncleaned packaging:

· Recommendation:

Empty contaminated packagings thoroughly. They may be recycled after thorough and proper cleaning.

14 1 LIN Number	
14.1 UN-Number ADR, IMDG, IATA	UN3082
14.2 UN proper shipping name	
ADR	3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE
IMDG	LIQUID, N.O.S. (Bis(isopropyl)naphthalin) ENVIRONMENTALLY HAZARDOUS SUBSTANCE LIQUID, N.O.S. (Bis(isopropyl)naphthalin), MARIN
IATA	POLLUTANT ENVIRONMENTALLY HAZARDOUS SUBSTANCE LIQUID, N.O.S. (Bis(isopropyl)naphthalin)
14.3 Transport hazard class(es)	
ADR, IMDG, IATA	
Class Label	9 Miscellaneous dangerous substances and articles. 9
14.4 Packing group ADR, IMDG, IATA	III
14.5 Environmental hazards:	
Marine pollutant:	Yes
····· F ·····	Symbol (fish and tree)
Special marking (ADR):	Symbol (fish and tree)
Special marking (IATA):	Symbol (fish and tree)
14.6 Special precautions for user	Warning: Miscellaneous dangerous substances an
	articles.
Hazard identification number (Kemler code):	90 E 4 S E
EMS Number: Stowage Category	F-A,S-F A
0 01	
14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	f Not applicable.
Transport/Additional information:	
ADR	

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· Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· Transport category	3
• Tunnel restriction code	(-)
· IMDG	
· Limited quantities (LQ)	5L
Excepted quantities (EQ)	Code: El
	Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
UN "Model Regulation":	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (BIS(ISOPROPYL) NAPHTHALIN), 9, III

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 GHS07, GHS09
- · Signal word Warning
- · Hazard statements
- H319 Causes serious eye irritation.

H411 Toxic to aquatic life with long lasting effects.

· Precautionary statements

- *P273 Avoid release to the environment.*
- *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.
- P391 Collect spillage.

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 E2 Hazardous to the Aquatic Environment
- Qualifying quantity (tonnes) for the application of lower-tier requirements 200 t
- \cdot Qualifying quantity (tonnes) for the application of upper-tier requirements 500 t
- 15.2 Chemical safety assessment: A Chemical Safety Assessment has not 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 H304 May be fatal if swallowed and enters airways. H319 Causes serious eye irritation. H410 Very toxic to aquatic life with long lasting effects.

- Department issuing SDS: R & D
- · Contact: R & D
- 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) ICAO: International Civil Aviation Organisation

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(Contd. of page 7) ADR: Accord relatif au transport international 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)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
Asp. Tox. 1: Aspiration hazard – Category 1
Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1
Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2
* Data compared to the previous version altered.

