

1. Chemical product and company identification

1.1. Product identifier

Product form	: Substance
Trade name	: Mowital® BA
Chemical name	: polyvinyl butyral acetal
CAS-No.	: 70775-95-0
Product code	: 200003
Type of product	: Polymer
KECI-No.	: KE-35319
Synonyms	: BA 20 S, BA 55 HH

1.2. Recommended uses and restrictions

Use Categories

No data available

1.2.1. Recommended use

Industrial use. Temporary binder for ceramics; Coating; Adhesives; 3D Printing; Additive/binder for primer; Printing ink.

1.2.2. Restrictions on use

No data available

1.3. Supplier information

- Manufacturer/Supplier

Company	: Kuraray Europe GmbH
Address	: Philipp-Reis-Str. 4, 65795 Hattersheim am Main, Germany.
Tel.	: +49 (0)69 305 35835
E-mail	: product-safety@kuraray.com

- Email competent person

Company	: product-safety@kuraray.com
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- Distributor

Company	: Kuraray Co., Ltd.
Address	: Japan Tokyo 100-8115 Otemachi, Chiyoda-ku Tokiwabashi Tower 2-6-4
Tel.	: +81-3-6701-1422; +81-3-6701-1716
Emergency telephone number	: +82 02 64339507 (Access Code: 334674) +080 822 1365 +080 880 0455
E-mail	: https://www.kuraray.co.jp/inquiry

2. Hazards identification

2.1. Classification of the substance or mixture

No data available

2.2. Label elements

2.2.1. Hazard pictograms (GHS KR)

Not applicable

2.2.2. Signal word (GHS KR)

Not applicable

2.2.3. Hazard statements (GHS KR)

Not applicable

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2.2.4. Precautionary statements (GHS KR)

Not applicable

2.3. Hazards - Other hazards which do not result in classification - Hazard Risk

Fine particles can form explosive mixtures with air. Avoid creating or spreading dust.

Difficult to ignite. Possible precautions against a dust explosion recommended.

3. Composition/information on ingredients

Product form : Substance
Comments : > 97.5 % Polyvinyl butyral acetal (CAS: 70775-95-0).

Substance name	Other Names	Product identifier number	Concentration (%)
polyvinyl butyral acetal (Main constituent)	-	CAS-No.: 70775-95-0 KECI-No.: KE-35319	> 97.5
water (Impurity)	-	CAS-No.: 7732-18-5 KECI-No.: KE-35400	< 2.4

4. First-aid measures

4.1. First-aid measures after eye contact

Rinse eyes with water as a precaution.

4.2. First-aid measures after skin contact

Wash skin with plenty of water.

4.3. First-aid measures after inhalation

Remove person to fresh air and keep comfortable for breathing.

4.4. First-aid measures after ingestion

Call a poison center or a doctor if you feel unwell.

4.5. Other medical advice or treatment

Treat symptomatically.

5. Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Use extinguishing media appropriate for surrounding fire. Water spray. Dry powder. Foam. Carbon dioxide.

Unsuitable extinguishing media : Do not use a solid water stream as it may scatter and spread fire.

5.2. Special hazards arising from the substance or mixture

Fire hazard : The product is not flammable. The product may form dust and build up electrostatic charges, which may produce an electric spark (ignition source). Proper grounding procedures to avoid static electricity should be followed.

Reactivity in case of fire : Avoid formation of dust. Risk of dust explosion if enriched with fine dust in the presence of air.

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5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions	: Use ordinary fire-fighting measures, taking into account the hazards from other materials involved. Move containers away from the fire area if this can be done without risk.
Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.
Other information	: Do not allow run-off from fire fighting to enter drains or water courses. Disposal must be done according to official regulations.

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Ventilate spillage area.
Avoid inhalation of dust and contact with skin and eyes.
Do not attempt to take action without suitable protective equipment.
For further information refer to section 8: "Exposure controls/personal protection".
Disposal must be done according to official regulations.

6.2. Environmental precautions and protective procedures

Environmental manager must be informed of all releases.

6.3. Methods and material for containment and cleaning up

Take up mechanically (sweeping, shovelling) and collect in suitable container for disposal.
Avoid formation of dust. Pick up dust with a vacuum cleaner with HEPA filter. Do not use compressed air for cleaning.

7. Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling	: Ensure good ventilation of the work station. Wear personal protective equipment. Avoid creating or spreading dust. The material must not be deposited in large quantities, especially on horizontal surfaces, as it could become released into the air from there, form flammable dust clouds and contribute to secondary explosions. Any unavoidable deposit of dust must be regularly removed. Prevent build-up of electrostatic charges (e.g. by grounding). Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Provide appropriate exhaust ventilation at places of dust forming. Use only in well-ventilated areas. Observe recognised industrial hygiene measures. Avoid prolonged and repeated contact with skin.
Hygiene measures	: Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage

Storage conditions	: Store in a well-ventilated place. Keep cool. Keep container tightly closed. Store in original tightly closed container.
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8. Exposure controls/personal protection

8.1. Occupational Exposure Limits

polyvinyl butyral acetal (70775-95-0)

No additional information available

8.2. Appropriate engineering controls

Appropriate engineering controls	: Ensure good ventilation of the work station.
Environmental exposure controls	: Avoid release to the environment.

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8.3. Personal protection

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment. Dust production: dust mask with filter type P2. EN 143. Short term exposure. Breathing equipment is only to be used in order to handle the residual risk of short term jobs if all other risk minimizing measures have been carried out e.g. retention and/or local exhaust

Eye protection:

Wear closed safety glasses. ISO 16321-1

Hand protection:

In case of repeated or prolonged contact wear gloves. Nitrile rubber. ISO 374-1. Choosing the proper glove is a decision that depends not only on the type of material, but also on other quality features, which differ for each manufacturer. Please follow the instructions related to the permeability and the penetration time provided by the manufacturer. Gloves must be replaced after each use and whenever signs of wear or perforation appear

Skin and body protection:

Wear suitable protective clothing. EN ISO 13688

9. Physical and chemical properties

a) Appearance	: Powder.
Physical state	: Solid
Colour	: colourless. appearance white.
b) Odour	: odourless.
c) Odour threshold	: No data available
d) pH	: No data available
e) Melting / freezing point	: No data available
f) Initial boiling point and boiling range	: No data available
g) Flash point	: Not applicable
h) Evaporation rate	: No data available
i) Flammability (solid, gas)	: No data available
j) Upper / lower flammability or explosive limits	: No data available
k) Vapour pressure	: Not applicable
l) Solubility	: No data available
m) Vapour density	: Not applicable
n) Relative density	: No data available
o) Partition coefficient n-octanol/water	: No data available
p) Auto-ignition temperature	: No data available
q) Decomposition temperature	: No data available
r) Viscosity, kinematic	: Not applicable
Viscosity, dynamic	: Not applicable
s) Molecular mass	: No data available

Other information

Dust explosion category : St 1 - Weak explosion

VOC content : < 2.5 %

Vicat softening temperature 75 - 85 °C (DIN EN ISO 306)

10. Stability and reactivity

10.1. Chemical stability and Possibility of hazardous reactions

The product is non-reactive under normal conditions of use, storage and transport.
Stable under normal conditions.

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No dangerous reactions known under normal conditions of use.

10.2. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.3. Incompatible materials

Strong acids.
Strong oxidizing agent.

10.4. Hazardous decomposition products

Carbon dioxide.
Carbon monoxide.

11. Toxicological information

11.1. Information on exposure routes

Oral : Not classified
Skin and eyes contact : Not classified
Inhalation : Not classified

11.2. Health hazards

Acute toxicity (oral):

Not classified
- Reason for no classification : Based on available data, the classification criteria are not met.

Acute toxicity (dermal):

Not classified
- Reason for no classification : Based on available data, the classification criteria are not met.

Acute toxicity (inhalation):

Not classified
- Reason for no classification : Based on available data, the classification criteria are not met.
Based on available data, the classification criteria are not met.

Skin corrosion/irritation:

Not classified
- Reason for no classification : Based on available data, the classification criteria are not met.

Serious eye damage/irritation:

Not classified
- Reason for no classification : Based on available data, the classification criteria are not met.

Respiratory sensitization:

Not classified
- Reason for no classification : Based on available data, the classification criteria are not met.

Skin sensitization:

Not classified
- Reason for no classification : Based on available data, the classification criteria are not met.

Carcinogenicity:

Not classified
- Reason for no classification : Based on available data, the classification criteria are not met.

Mutagenicity:

Not classified
- Reason for no classification : Based on available data, the classification criteria are not met.

Reproductive toxicity:

Not classified

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- Reason for no classification : Based on available data, the classification criteria are not met.

STOT-single exposure:

Not classified

- Reason for no classification : Based on available data, the classification criteria are not met.

STOT-repeated exposure:

Not classified

- Reason for no classification : Based on available data, the classification criteria are not met.

Aspiration hazard:

Not classified

polyvinyl butyral acetal (70775-95-0)	
Viscosity, kinematic	Not applicable

polyvinyl butyral acetal (70775-95-0)	
Animal studies and expert judgment for classification	False

polyvinyl butyral acetal (70775-95-0)	
Viscosity, kinematic (calculated value) (40 °C)	Not applicable
Viscosity, kinematic	Not applicable
Viscosity, dynamic	Not applicable
Animal studies and expert judgment for classification	False

12. Ecological information

12.1. Ecotoxicity

Hazardous to the aquatic environment, short-term (acute) : Not classified. Based on available data, the classification criteria are not met.

Hazardous to the aquatic environment, long-term (chronic) : Not classified. Based on available data, the classification criteria are not met.

12.2. Persistence and degradability

polyvinyl butyral acetal (70775-95-0)	
Persistence and degradability	No data available.

12.3. Bioaccumulative potential

No data available

12.4. Mobility in soil

No data available

12.5. Other adverse effects

Ozone : Not classified
Other adverse effects : No additional information available
Other information : No other adverse effects on the environment (e.g. ozone depletion, photochemical ozone formation potential, global warming potential) are expected from this constituent.

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13. Disposal considerations

13.1. Disposal method

Disposal must be done according to official regulations.

Do not discharge into drains or the environment.

Do not dispose of with domestic waste.

13.2. Disposal precaution

Recycle or dispose of in compliance with current legislation.

14. Transport information

UN RTDG	ADR	IMDG	IATA
14.1. UN number			
Not regulated for transport			
14.2. UN proper shipping name			
Not applicable	Not applicable	Not applicable	Not applicable
14.3. Transport hazard class(es)			
Not applicable	Not applicable	Not applicable	Not applicable
Not applicable	Not applicable	Not applicable	Not applicable
14.4. Packing group			
Not applicable	Not applicable	Not applicable	Not applicable
14.5. Marine pollutant			
Dangerous for the environment: No	Dangerous for the environment: No	Dangerous for the environment: No Marine pollutant: No	Dangerous for the environment: No
No supplementary information available			

14.6. Special precautions for user

No data available

15. Regulatory information

15.1. Occupational Safety and Health Act

Hazardous Substances Prohibited for Manufacturing	Not applicable
Hazardous Substances Requiring Permission	Not applicable
Threshold Limit Values Chemicals	Not applicable
Hazardous Substances Below Permissible Level	Not applicable
Hazardous Substances Subject to Working Environment Measurement	Not applicable
Hazardous Substances Subject to Workers Requiring Health Examination	Not applicable
Hazardous Substances Subject to Control	Not applicable
Substance Subject to Submission of PSM	Not applicable

15.2. Chemicals Control Act

Toxic Chemicals	Not applicable
Prohibited Chemicals	Not applicable
Restricted Chemicals	Not applicable
Substance requiring preparation for accidents	Not applicable

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15.3. ACT ON REGISTRATION, EVALUATION, ETC. OF CHEMICALS (K-REACH)

Korea Existing Chemicals Inventory (MOE, Korea)	Applicable	70775-95-0: Vinyl acetal polymers, acetals butyrals (KECI-No. : KE-35319) 7732-18-5: Water (KECI-No. : KE-35400)
Priority Existing Chemical ('PEC') – subject to registration	Not applicable	
Substances Subject to Intensive Control (MOE, Korea) (Korea)	Not applicable	
CMR Substances (Korea)	Not applicable	

15.4. Safety Control of Dangerous Substances Act

Safety Control of Dangerous Substances Act	Not applicable
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15.5. Wastes Control Act

Hazardous Substances in Designated wastes	Not applicable
Types of wastes	No data available

15.6. Other Domestic and International Regulatory Information

Domestic

Persistent Organic Pollutants(POPs) Control Act	Not applicable
Ozone Depleting Substances(ODS)	Not applicable

International

EU Regulatory Information

EU Candidate list (SVHC)	Not listed on the REACH Candidate List
EU authorization list (REACH Annex XIV)	Not listed on REACH Annex XIV (Authorisation List)
EU restriction list (REACH Annex XVII)	Not applicable

US Regulatory Information

CERCLA Section 103 (40CFR302.4)	Not applicable
EPCRA Section 302 (40CFR355.30)	Not applicable
EPCRA Section 304 (40CFR355.40)	Not applicable
EPCRA Section 313 (40CFR372.65)	Not applicable

International agreements

No data available

16. Other information

16.1. Data sources:	Information provided by the manufacturer, Supplier Safety Data Sheet.
Department issuing data specification sheet:	KFT Chemieservice GmbH Im Leuschnerpark 3 D-64347 Griesheim Phone: +49 6155-8981-400 Fax: +49 6155 8981-500 SDS Service: +49 6155 8981-522
Contact person	Dr. Christian Rank
16.2. Issue date:	3/20/2023
16.3. Revision number and date:	1.00, 20/03/2023
16.4. Other information:	No data available
16.5. Indication of changes:	No data available

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.