

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878 Issue date: 19/12/2016 Revision date: 15/08/2023 Supersedes version of: 24/01/2023 Version: 4.2

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

1.1. Product identifier

Product form : Substance Trade name : Mowital® BA

Chemical name : Polyvinyl butyral acetal

: 70775-95-0 CAS-No. SDS Number : 200003

Synonyms : BA 20 S, BA 55 HH Product group Trade product

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

1.2.1. Relevant identified uses

Main use category : For industrial use only

Use of the substance/mixture Temporary binder for ceramics; Coating; Adhesives; 3D Printing; Additive/binder for primer;

Printing ink

1.2.2. Uses advised against

Restrictions on use : Unknown

1.3. Details of the supplier of the safety data sheet

Supplier

Kuraray Europe GmbH Philipp-Reis-Str. 4 D-65795 Hattersheim

Germany

Telephone: +49-69-305-85300 Technical Contact: +49-69-305-13345 E-mail: product-safety@kuraray.com

1.4. Emergency telephone number

Emergency number : +1 760 476 3962 or +1 866 519 4752 (Access Code: 334674)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

No labelling applicable

2.3. Other hazards

Other hazards which do not result in classification : Fine particles can form explosive mixtures with air. Avoid creating or spreading dust.

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

This substance does not meet the criteria of Regulation (EC) No 1907/2006, Annex XIII for vPvB / PBT Contains no PBT/vPvB substances ≥ 0.1% assessed in accordance with REACH Annex XIII

The substance/mixture has no endocrine disrupting properties.

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SECTION 3: Composition/information on ingredients

3.1. Substances

 Name
 : Mowital® BA

 CAS-No.
 : 70775-95-0

Name	Product identifier		Classification according to Regulation (EC) No. 1272/2008 [CLP]
Polyvinyl acetal	CAS-No.: 70775-95-0	> 97.5	Not classified
Water (Impurity)	CAS-No.: 7732-18-5 EC-No.: 231-791-2	< 2.4	Not classified

3.2. Mixtures

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Call a doctor if symptoms

: If you feel unwell, seek medical advice.

occur or persist.

First-aid measures after skin contact : IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical

advice/attention.

First-aid measures after eye contact : Rinse eyes with water as a precaution. Do not rub the eye. If eye irritation persists: Get

medical advice/attention.

First-aid measures after ingestion : Rinse mouth thoroughly with water. If the quantity swallowed is significant : Call a physician

immediately or Poison centre.

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

Symptoms/effects : Irritation of the respiratory tract, skin, eyes and mucous membranes possible.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Water fog. Water spray. Dry powder. Foam. Carbon dioxide (CO2). When using the

extinguishing agent, make sure no dust is formed in the air.

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

aır.

Hazardous decomposition products in case of fire : In the event of fire, harmful gases may be produced.

5.3. Advice for firefighters

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.

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Protection during firefighting

: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Measures in case of dust release : Avoid inhalation of dust and contact with skin and eyes.

6.1.2. For emergency responders

Protective equipment

Methods for cleaning up

: Do not attempt to take action without suitable protective equipment. For further information $% \left(1\right) =\left(1\right) \left(1\right)$

refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment. Environmental officer must be informed of all releases.

6.3. Methods and material for containment and cleaning up

U I

: Avoid formation of dust. Pick up dust with a vacuum cleaner with HEPA filter. Do not use

compressed air for cleaning.

6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection". See Section 13 for disposal information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : 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, including any incompatibilities

Storage conditions : Store in a well-ventilated place. Keep cool. Store in the original container well sealed.

7.3. Specific end use(s)

Temporary binder for ceramics. Printing ink. For industrial use only. Additive/binder for primer. coatings.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

No additional information available

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8.1.2. Recommended monitoring procedures

Monitoring methods	
Monitoring methods	Follow standard monitoring procedures.

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

No additional information available

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

8.2.2. Personal protection equipment

Personal protective equipment:

Personal protective equipment should be chosen according to the CEN standards and in discussion with the supplier of the protective equipment.

Personal protective equipment symbol(s):







8.2.2.1. Eye and face protection

Eye protection:

Safety glasses (EN 166)

8.2.2.2. Skin protection

Skin and body protection:

Wear suitable protective clothing

Hand protection					
Туре	Material	Permeation	Thickness (mm)	Penetration	Standard
Disposable gloves	Nitrile rubber (NBR)	6 (> 480 minutes)	0.12		EN ISO 374

8.2.2.3. Respiratory protection

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment. In case of dust: Wear dust mask with filter type P2.

8.2.2.4. Thermal hazards

Thermal hazard protection:

Heatproof clothing.

8.2.3. Environmental exposure controls

Environmental exposure controls:

Avoid release to the environment.

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Other information:

Provide appropriate exhaust ventilation at places of dust forming. Ensure adequate air ventilation. Degree of ventilation must be adapted to the conditions. Where appropriate, use process chambers, local exhaust systems or other structural measures to control airborne concentrations to keep them below recommended exposure limits. If no exposure limits have been set, keep concentrations in the air at an acceptable level. If engineering measures are not sufficient to maintain concentrations of dust particulates below the OEL (occupational exposure limit), suitable respiratory protection must be worn.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Solid

Colour : Colourless, Appearance white.

Appearance : Powders. Odour : odourless. Odour threshold : Not available Melting point : Not available Freezing point : Not available : Not available **Boiling point** Flammability : Not available **Explosive limits** : Not applicable : No data available Lower explosion limit : No data available Upper explosion limit Flash point : Not applicable Auto-ignition temperature : Not applicable Decomposition temperature : Not available : Not available pH solution : Not available Viscosity, kinematic : Not applicable Solubility : Not available Partition coefficient n-octanol/water (Log Kow) : Not available Vapour pressure : Not available Vapour pressure at 50°C : Not available : Not available Density Relative density : Not available : Not applicable Relative vapour density at 20°C

Water	
Boiling point	100 °C
Vapour pressure	23.8 mm Hg

9.2. Other information

Particle size

9.2.1. Information with regard to physical hazard classes

Dust explosion category : St 1 - Weak explosion

9.2.2. Other safety characteristics

VOC content : < 2.5 %

Additional information : Vicat softening temperature 75 - 85 °C DIN EN ISO 306

: Not available

SECTION 10: Stability and reactivity

10.1. Reactivity

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

10.2. Chemical stability

Stable under normal conditions.

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10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

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

10.5. Incompatible materials

Strong acids. Strong oxidizing agents.

10.6. Hazardous decomposition products

Carbon oxides (CO, CO2).

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified
Skin corrosion/irritation : Not classified

Additional information : Dust can irritate the respiratory tract, skin and eyes

Water (7732-18-5)	
рН	7

Serious eye damage/irritation : Not classified

Additional information : Dust can irritate the respiratory tract, skin and eyes

Water (7732-18-5)	
РН	7

Respiratory or skin sensitisation : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified
Reproductive toxicity : Not classified
STOT-single exposure : Not classified
STOT-repeated exposure : Not classified
Aspiration hazard : Not classified

Mowital® BA (70775-95-0)	
Viscosity, kinematic	Not applicable

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

Adverse health effects caused by endocrine disrupting properties

: The substance/mixture has no endocrine disrupting properties.

11.2.2. Other information

Potential adverse human health effects and symptoms

: Existing skin and respiratory conditions, including skin inflammation, asthma and chronic lung disease may be exacerbated by exposure

SECTION 12: Ecological information

12.1. Toxicity

Hazardous to the aquatic environment, short-term

(acute)

: Not classified

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Hazardous to the aquatic environment, long-term

: Not classified

(chronic)

12.2. Persistence and degradability

Mowital® BA (70775-95-0)	
Persistence and degradability	No data is available on the degradability of this product.

12.3. Bioaccumulative potential

Mowital® BA (70775-95-0)	
Bioaccumulative potential No data available.	
Water (7732-18-5)	
Partition coefficient n-octanol/water (Log Pow) -1.38	

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

Mowital® BA (70775-95-0)

This substance does not meet the criteria of Regulation (EC) No 1907/2006, Annex XIII for vPvB / PBT

12.6. Endocrine disrupting properties

Adverse effects on the environment caused by endocrine disrupting properties

: The substance is not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

12.7. Other adverse effects

Other adverse effects

: No other adverse effects on the environment (e.g. ozone depletion, photochemical ozone formation potential, global warming potential) are expected from this constituent.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional legislation (waste) : Disposal must be done according to official regulations.

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

European List of Waste (LoW) code : 07 02 13 - waste plastic

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

ADR	IMDG	IATA	ADN	RID	
14.1. UN number or ID n	umber				
Not applicable					
14.2. UN proper shippin	14.2. UN proper shipping name				
Not regulated as dangerous goods.					
14.3. Transport hazard class(es)					
Not applicable					

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ADR	IMDG	IATA	ADN	RID
14.4. Packing group				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.5. Environmental haz	zards			
Dangerous for the environment: No	Dangerous for the environment: No Marine pollutant: No	Dangerous for the environment: No	Dangerous for the environment: No	Dangerous for the environment: No
No supplementary information	n available			

14.6. Special precautions for user

Overland transport

No data available

Transport by sea

No data available

Air transport

No data available

Inland waterway transport

No data available

Rail transport

No data available

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

REACH Annex XVII (Restriction List)

Not listed on REACH Annex XVII

REACH Annex XIV (Authorisation List)

Not listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Not listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Not listed on the PIC list (Regulation EU 649/2012)

POP Regulation (Persistent Organic Pollutants)

Not listed on the POP list (Regulation EU 2019/1021)

Ozone Regulation (1005/2009)

Not listed on the Ozone Depletion list (Regulation EU 1005/2009)

VOC Directive (2004/42)

VOC content : < 2.5 %

Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

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Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Abbreviations and acronyms:		
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways	
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road	
ATE	Acute Toxicity Estimate	
BCF	Bioconcentration factor	
BLV	Biological limit value	
BOD	Biochemical oxygen demand (BOD)	
COD	Chemical oxygen demand (COD)	
DMEL	Derived Minimal Effect level	
DNEL	Derived-No Effect Level	
EC-No.	European Community number	
EC50	Median effective concentration	
EN	European Standard	
IARC	International Agency for Research on Cancer	
IATA	International Air Transport Association	
IMDG	International Maritime Dangerous Goods	
LC50	Median lethal concentration	
LD50	Median lethal dose	
LOAEL	Lowest Observed Adverse Effect Level	
NOAEC	No-Observed Adverse Effect Concentration	
NOAEL	No-Observed Adverse Effect Level	
NOEC	No-Observed Effect Concentration	
OECD	Organisation for Economic Co-operation and Development	
OEL	Occupational Exposure Limit	
PBT	Persistent Bioaccumulative Toxic	
PNEC	Predicted No-Effect Concentration	
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail	
SDS	Safety Data Sheet	
STP	Sewage treatment plant	
ThOD	Theoretical oxygen demand (ThOD)	
TLM	Median Tolerance Limit	

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Abbreviations and acronyms:	
VOC	Volatile Organic Compounds
CAS-No.	Chemical Abstract Service number
N.O.S.	Not Otherwise Specified
vPvB	Very Persistent and Very Bioaccumulative
ED	Endocrine disrupting properties

Data sources : Supplier's safety documents. Source: European Chemicals Agency, http://echa.europa.eu/.

The classification complies with : ATP 12

Disclaimer: The accuracy of this information is not guaranteed. The information is believed to be accurate. This information must be used to make an independent determination of the measures necessary to ensure the safety of workers and the environment. Kuraray cannot anticipate all conditions under which this information and the product or other manufacturer's products may be used in conjunction with their product. It is the responsibility of the user to ensure safe conditions when handling, storing and disposing of the product and to accept liability for loss, injury, damage or expense due to improper use. The information in this data sheet is based on current knowledge.