

#### 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: 25/11/2022 Supersedes version of: 19/06/2020 Version: 4.0

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

#### 1.1. Product identifier

: Substance
: Mowital® BA
: Polyvinyl butyral acetal
: 70775-95-0
: 200003
: BA 20 S, BA 55 HH
: 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 Use of the substance/mixture	<ul> <li>For industrial use only</li> <li>Temporary binder for ceramics; Coating; Adhesives; 3D Printing; Additive/binder for primer; Printing ink</li> </ul>
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: +49-69-305-6201 E-mail: product-safety@kuraray.com

#### 1.4. Emergency telephone number

Emergency number

: +44 20 35147487 or 0 800 680 0425 - 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

#### z.s. Other nazarus

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  $\geq$  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	: If you feel unwell, seek medical advice.		
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. Call a doctor if symptoms 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.		

Symptoms/effects

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 air.			
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	: Do not attempt to take action without suitable protective equipment. For further information 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.				
C.2. Matheda and material for containment and cleaning up				

#### 6.3. Methods and material for containment and cleaning up

Methods for cleaning up

: 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 Hygiene measures	<ul> <li>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.</li> <li>Do not eat, drink or smoke when using this product. Always wash hands after handling the product.</li> </ul>			
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

#### 8.1.2. Recommended monitoring procedures

Monitoring methods	
Monitoring methods	Follow standard monitoring procedures.

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#### 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.

#### 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 ar	nd chemical properties	
9.1. Information on basic	physical and chemical properties	
Physical state	: Solid	

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Colour	: Colourless, Appearance white.
Appearance	: Powders.
Odour	: odourless.
Odour threshold	: Not available
Melting point	: Not available
Freezing point	: Not available
Boiling point	: Not available
Flammability	: Not available
Explosive limits	: Not applicable
Lower explosion limit	: No data available
Upper explosion limit	: No data available
Flash point	: Not applicable
Auto-ignition temperature	: Not applicable
Decomposition temperature	: Not available
рН	: 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
Density	: Not available
Relative density	: Not available
Relative vapour density at 20°C	: Not applicable
Particle size	: Not available
Particle size distribution	: Not available
Particle shape	: Not available
Particle aspect ratio	: Not available
Particle aggregation state	: Not available
Particle agglomeration state	: Not available
Particle specific surface area	: Not available
Particle dustiness	: Not available

#### Water

Boiling point	100 °C
Vapour pressure	23.8 mm Hg

#### 9.2. Other information

## 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

### 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.

#### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

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#### 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) Acute toxicity (dermal) Acute toxicity (inhalation) Skin corrosion/irritation Additional information Serious eye damage/irritation Additional information Respiratory or skin sensitisation Germ cell mutagenicity Carcinogenicity	<ul> <li>Not classified</li> <li>Not classified</li> <li>Not classified</li> <li>Not classified</li> <li>Dust can irritate the respiratory tract, skin and eyes</li> <li>Not classified</li> <li>Dust can irritate the respiratory tract, skin and eyes</li> <li>Not classified</li> <li>Not classified</li> <li>Not classified</li> <li>Not classified</li> <li>Not classified</li> <li>Not classified</li> </ul>
Reproductive toxicity STOT-single exposure	: Not classified : Not classified
STOT-repeated exposure Aspiration hazard	<ul><li>Not classified</li><li>Not classified</li></ul>
Mowital® BA (70775-95-0)	
Viscosity, kinematic	Not applicable

#### 11.2. Information on other hazards

#### 11.2.1. Endocrine disrupting properties

#### 11.2.2. Other information

Potential adverse human health effects and :	Existing skin and respiratory conditions, including skin inflammation, asthma and chronic
symptoms	lung disease may be exacerbated by exposure

SECTION 12: Ecological information		
42.4 Tovición		
12.1. Toxicity		
Hazardous to the aquatic environment, short-term : (acute)	Not classified	
Hazardous to the aquatic environment, long-term : (chronic)	Not classified	
Not rapidly degradable		
12.2. Persistence and degradability		
Mowital® BA (70775-95-0)		
Persistence and degradability	No data is available on the degradability of this product.	

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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) Waste treatment methods European List of Waste (LoW) code	<ul> <li>Disposal must be done according to official regulations.</li> <li>Dispose of contents/container in accordance with licensed collector's sorting instructions.</li> <li>07 02 13 - waste plastic</li> </ul>		

#### **SECTION 14: Transport information** In accordance with ADR / IMDG / IATA / ADN / RID ADR IMDG ΙΑΤΑ ADN RID 14.1. UN number or ID number Not applicable Not applicable Not applicable Not applicable Not applicable 14.2. UN proper shipping name Not regulated as dangerous goods. goods. goods. goods. goods. 14.3. Transport hazard class(es) Not applicable Not applicable Not applicable Not applicable Not applicable 14.4. Packing group Not applicable Not applicable Not applicable Not applicable Not applicable 14.5. Environmental hazards Dangerous for the environment: No environment: No environment: No environment: No environment: No Marine pollutant: No

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ADR	IMDG	ΙΑΤΑ	ADN	RID
No supplementary information 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)

#### 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

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#### 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) Derived Minimal Effect level	
DMEL		
DNEL	Derived-No Effect Level	
EC-No.	European Community number	
EC50	Median effective concentration	
EN	European Standard	
IARC	International Agency for Research on Cancer	
ΙΑΤΑ	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	
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	

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Data sources	: Supplier's safety documents. Source: European Chemicals Agency, http://echa.europa.eu/.
The classification complies with	: ATP 12
Cofety Data Chast (CDC) EU	

Safety Data Sheet (SDS), EU

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