

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: 30/06/2025 Supersedes version of: 15/07/2024 Version: 4.4

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 |
| CAS-No. | : 70775-95-0 |
| 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 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

Manufacturer/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

: +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]

Extra phrases

: The synthetic polymer microparticles supplied are subject to conditions laid down by entry 78 of Annex XVII to Regulation (EC) No 1907/2006 of the European Parliament and of the Council.

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

| 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 and/or vPvB substances \geq 0.1% assessed in accordance with REACH Annex XIII.

The product is not listed for endocrine disrupting properties in accordance with REACH Article 59(1) or has been determined not to have endocrine disrupting properties in accordance with the criteria set out in Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

SECTION 3: Composition/information on ingredients

3.1. Substances

| Comments | : This product contains microplastics. (100%) |
|----------|---|
| 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 |

| SECTION 4: First aid measures | | |
|--|--|--|
| 4.1. Description of first aid measures | 5 | |
| 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. | |

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. |

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

| 5.2. Special hazards arising from the substance or mixture | |
|--|--|
| Fire hazard | : Could burn but do not ignite readily. 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. |
| 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. During use and disposal, appropriate measures must be taken in accordance with Entry 78, paragraphs 7 and 8, of Annex XVII of REACH to prevent the release of synthetic polymer microparticles into the environment.

| 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.

| 7.1. Precautions for safe handling | |
|--|--|
| Additional hazards when processed Precautions for safe handling | This product contains microplastics. During use and disposal, appropriate measures must be taken in accordance with Entry 78, paragraphs 7 and 8, of Annex XVII of REACH to prevent the release of synthetic polymer microparticles into the environment. Avoid creating or spreading dust. The material must no 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 o 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. |

Storage conditions

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

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. |
| 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:

Wear protective gloves

| 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.

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

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 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 |
| Boiling point | : Not available |
| Flammability | : Could burn but do not ignite readily |
| 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 |
| | |

| Polyvinyl acetal (70775-95-0) | |
|-------------------------------|----------------|
| Auto-ignition temperature | Not applicable |

| Water (7732-18-5) | |
|-------------------|------------|
| Boiling point | 100 °C |
| Vapour pressure | 23.8 mm Hg |

| 9.2. Other information | | |
|---------------------------------------|---|--|
| 9.2.1. Information with regard to phy | vsical hazard classes | |
| Dust explosion category | : St 1 - Weak explosion | |
| 9.2.2. Other safety characteristics | | |
| VOC content | : < 0.1 % | |
| Additional information | : Vicat softening temperature 75 - 85 °C DIN EN ISO 306 | |

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

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.

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 | Not classified Not classified Not classified Not classified Dust can irritate the respiratory tract, skin and eyes |
| Water (7732-18-5) | |
| pН | 7 |
| Serious eye damage/irritation Additional information | Not classified 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 | The substance is not included in the list established in accordance with Article 59(1) of |

Adverse health effects caused by endocrine: 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.

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

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 | : Not classified |
|--|------------------|
| (acute) | |
| 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. | |
| Polyvinyl acetal (70775-95-0) | | |
| Persistence and degradability | No data available. | |
| Water (7732-18-5) | | |
| Persistence and degradability | No data available. | |
| | | |

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. | | |
|---|--|--|
| | | |
| 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 waste regulation | : Disposal must be done according to official regulations. | |

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

| Waste treatment methods | : Dispose of contents/container in accordance with licensed collector's sorting instructions. Do not allow to enter into surface water or drains. Do not rinse out packaging or container before disposal. Product residues and contaminated packaging should be disposed of as hazardous or special waste, in accordance with local, regional, and national regulations Disposal should be carried out by licensed waste management companies. |
|---|---|
| Sewage disposal recommendations | : This product contains microplastics. Avoid release to the environment. Refer to special instructions/safety data sheets. Do not allow to enter into surface water or drains. |
| Additional information | : During use and disposal, appropriate measures must be taken in accordance with Entry 78, paragraphs 7 and 8, of Annex XVII of REACH to prevent the release of synthetic polymer microparticles into the environment. |
| European List of Waste (LoW, EC 2000/532) | : 07 02 13 - waste plastic |

SECTION 14: Transport information

| ADR | IMDG | ΙΑΤΑ | ADN | RID |
|-----------------------------------|--|-----------------------------------|-----------------------------------|-----------------------------------|
| 14.1. UN number or ID n | umber | | | |
| Not applicable | Not applicable | Not applicable | Not applicable | Not applicable |
| 14.2. UN proper shipping | g name | | | |
| Not regulated as dangerous goods. | Not regulated as dangerous goods. | Not regulated as dangerous goods. | Not regulated as dangerous goods. | Not regulated as dangerous goods. |
| 14.3. Transport hazard c | lass(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 haz | ards | | | |
| 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 |

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

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

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)

| EU restriction list (REACH Annex XVII) | | |
|---|-------------|--|
| Reference code Applicable on Entry title or description | | |
| 78. | MOWITAL® BA | Synthetic polymer microparticles according to the criteria for Annex XVII entry 78 |

REACH Annex XIV (Authorisation List)

Not listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

Ozone Regulation (2024/590)

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

Council Regulation (EC) for the control of dual-use items

Contains no substance subject to the COUNCIL REGULATION (EC) for the control of dual-use items

VOC Directive (2004/42)

VOC content

: < 0.1 %

Explosives Precursors Regulation (EU 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 (EC 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

Ensure all national/local regulations are observed

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

| Indication of changes | | |
|-----------------------|----------------------------------|----------|
| Section | Changed item | Comments |
| | Revision date | Modified |
| | Supersedes version of | Modified |
| 1.1 | Trade name | Modified |
| 1.1 | Name | Modified |
| 2.2 | Extra phrases | Added |
| 3 | Comments (on top of composition) | Added |

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

| Indication of changes | | |
|-----------------------|-----------------------------------|----------|
| Section | Changed item | Comments |
| 6.2 | Environmental precautions | Modified |
| 7.1 | Additional hazards when processed | Added |
| 7.1 | Precautions for safe handling | Modified |
| 13.1 | Sewage disposal recommendations | Added |
| 13.1 | Waste treatment methods | Modified |
| 13.1 | Additional information | Added |
| 15.1 | REACH Annex XVII | Added |
| 15.1 | Regulatory reference | Added |

| 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 |
| 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 |

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

| Abbreviations and acronyms: | |
|-----------------------------|--|
| 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 disruptor |

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.