

Safety Data Sheet



Mowital® B

according to JIS Z 7253 : 2019

Issue date: 14/02/2024 Revision date: 07/11/2024 Version: 2.1

1. Chemical product and company identification

Substance name : Mowital® B
Type of product : Polymer
Product code : 200002
CAS-No. : 68648-78-2 or 63148-65-2

Recommended use of the chemical and restrictions on use

Recommended use : Industrial use,
Temporary binder for ceramics,
Adhesives,
Coating,
3d printing,
Printing inks

Company information

Supplier

Kuraray Co., Ltd.
Tokiwabashi Tower
2-6-4, Otemachi Chiyoda-ku
Tokyo 100-0004, Japan
T +81-3-6701-1422
pvb_inquiry@kuraray.co.jp

E-mail address of competent person responsible for the SDS

product-safety@kuraray.com

Emergency telephone number

Emergency number : +81-3-6701-1422 or + 81-3689-08677 (Access Code: 334674)

2. Hazards identification

No labelling applicable

Other hazards which do not result in classification

Other hazards which do not result in classification : Fine particles may form explosive mixtures with air. Prevent dust accumulation to minimize explosion hazard. This material does not ignite easily; however, feasible precautions against dust explosion are recommended.

3. Composition/information on ingredients

Distinction of substance or mixture : Substance
Chemical name : polyvinyl butyral
Synonyms : B 14 S, B 16 H, B 20 H, B 30 H, B 30 HH, B 30 T, B 45 H, B 60 H, B 60 HH, B 60 T, B 75 H

Name	Concentration (%)	Formula	Reference number in the gazette list		CAS-No.
			ENCNo.	ISHL No.	
polyvinyl butyral (Main constituent)	> 97.5	-	(6)-708	(6)-708	68648-78-2 or 63148-65-2

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Name	Concentration (%)	Formula	Reference number in the gazette list		CAS-No.
			ENCSTNo.	ISHL No.	
water (Impurity)	< 2.4	H ₂ O	2-(4)-1220	2-(4)-1220	7732-18-5
butyraldehyde (Impurity)	< 0.05	-	(2)-494	(2)-494	123-72-8
sodium chloride (Impurity)	< 0.05	NaCl	(1)-236	7-(3)-1053	7647-14-5

4. First aid measures

First aid measures

- First-aid measures general : In all cases of doubt, or when symptoms persist, seek medical attention.
Contact with dust: Irritating to eyes and mucous membranes.
- First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.
- First-aid measures after skin contact : Wash skin with plenty of water.
- First-aid measures after eye contact : Rinse eyes with water as a precaution.
- First-aid measures after ingestion : Call a poison center or a doctor if you feel unwell.

Most Important Symptoms/Effects

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

Notes to physician

- Other medical advice or treatment : Treat symptomatically.

5. Fire fighting measures

- Suitable extinguishing media : Use extinguishing media appropriate for surrounding fire, Water fog, Foam, Dry powder, Carbon dioxide
- Unsuitable extinguishing media : Do not use a solid water stream as it may scatter and spread fire
- 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.
- Hazardous decomposition products in case of fire : Toxic fumes may be released: Carbon dioxide, Carbon monoxide.
- 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.
Fine dust dispersed in air may ignite.
Use standard firefighting procedures and consider the hazards of other involved materials. Move containers from fire area if you can do so without risk.

6. Accidental release measures

Personal Precautions, Protective Equipment and Emergency Procedures

- General measures : Avoid contact with skin, eyes and clothing.
Concerning personal protective equipment to use, see section 8.

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For non-emergency personnel

Emergency procedures : Ventilate spillage area.

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".

Environmental precautions

Environmental precautions : Avoid release to the environment.
Environmental manager must be informed of all releases.

Methods and Equipment for Containment and Cleaning up

Methods for cleaning up : Take up mechanically (sweeping, shovelling) and collect in suitable container for disposal. Avoid dust formation. Collect dust or particulates using a vacuum cleaner with a HEPA filter.

Other information : Disposal must be done according to official regulations.

7. Handling and storage

Handling

Technical measures : Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres.

Precautions for safe handling : Ensure good ventilation of the work station.
Wear personal protective equipment.
Minimize dust generation/release and accumulation.
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.

Prevents handling of incompatible substances or mixtures : No data available

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

Storage

Storage conditions : Store in a well-ventilated place.
Keep cool.
Keep container tightly closed. Store in original tightly closed container.

Material used in packaging/containers : No data available

Incompatible materials : Keep away from strong acids and strong oxidizers.

8. Exposure controls / Personal protection equipment

Appropriate engineering controls : Ensure good ventilation of the work station

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Protective equipment

- 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
- 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

Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Nitrile rubber	Nitrile rubber	6 (> 480 minutes)	0,12		EN ISO 374

- Eye protection : Sealed safety goggles, ISO 16321-1
- Skin and body protection : Wear suitable protective clothing, EN 340
- Environmental exposure controls : Avoid release to the environment.

9. Physical and chemical properties

- Physical state : Solid
- Appearance : Powder
- Colour : colourless
- Odour : odourless
- pH : No data available
- Relative evaporation rate (butylacetate=1) : Not applicable
- Melting point : No data available
- Freezing point : Not applicable
- Boiling point : No data available
- Flash point : Not applicable
- Auto-ignition temperature : Not applicable.
- Decomposition temperature : No data available
- Flammability : Could burn but do not ignite readily.
- Vapour pressure : Not applicable
- Relative vapour density at 20° C : Not applicable
- Relative density : Not specifically applicable
- Density : No data available
- Relative gas density : Not specifically applicable
- Solubility : No data available
- Partition coefficient n-octanol/water (Log Pow) : No data available
- Explosive properties : Product is not explosive.
- Explosive limits (vol %) : No data available
- Oxidising properties : Non oxidizing
- Viscosity, dynamic : Not applicable
- Viscosity, kinematic : Not applicable
- VOC content : < 0.1 %
- Particle characteristics : No data available
- Additional information : Vicat softening temperature 50 - 63 ° C DIN EN ISO 306.

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10. Stability and reactivity

Reactivity	: The product is non-reactive under normal conditions of use, storage and transport.
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: No dangerous reactions known under normal conditions of use.
Conditions to avoid	: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Avoid creating or spreading dust.
Incompatible materials	: Strong acids. Strong oxidizing agent.
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11. Toxicological information

Acute toxicity (oral)	: Classification not possible (Based on available data, the classification criteria are not met)
Acute toxicity (dermal)	: Classification not possible (Based on available data, the classification criteria are not met)
Acute toxicity (inhalation)	: Not applicable (gas) Not applicable (Vapour) Classification not possible (dust, mist) (Based on available data, the classification criteria are not met)
Skin corrosion/irritation	: Classification not possible (Based on available data, the classification criteria are not met)

water (7732-18-5)	
pH	7
butyraldehyde (123-72-8)	
pH	3 (20 ° C; 50 g/L; (OECD 105 method))

Serious eye damage/irritation : classification not possible
(Based on available data, the classification criteria are not met)

water (7732-18-5)	
pH	7
butyraldehyde (123-72-8)	
pH	3 (20 ° C; 50 g/L; (OECD 105 method))

Respiratory sensitization	: Classification not possible
Skin sensitization	: Classification not possible
Respiratory or skin sensitisation	: (Based on available data, the classification criteria are not met)
Germ cell mutagenicity	: Classification not possible (Based on available data, the classification criteria are not met)
Carcinogenicity	: Classification not possible (Based on available data, the classification criteria are not met)
Reproductive toxicity	: Classification not possible (Based on available data, the classification criteria are not met)
STOT-single exposure	: Classification not possible (Based on available data, the classification criteria are not met)
STOT-repeated exposure	: Classification not possible (Based on available data, the classification criteria are not met)
Aspiration hazard	: Classification not possible

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polyvinyl butyral (68648-78-2 or 63148-65-2)	
Viscosity, kinematic	Not applicable
water (7732-18-5)	
Viscosity, kinematic	No data available
sodium chloride (7647-14-5)	
Viscosity, kinematic	Not applicable

12. Ecological information

Ecotoxicity

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

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

Persistence and degradability

polyvinyl butyral (68648-78-2 or 63148-65-2)	
Persistence and degradability	No data available

Bioaccumulative potential

polyvinyl butyral (68648-78-2 or 63148-65-2)	
Bioaccumulative potential	No data available

Mobility in soil

polyvinyl butyral (68648-78-2 or 63148-65-2)	
Mobility in soil	No data available

Hazardous to the ozone layer

Ozone : classification not possible

Other adverse effects

13. Disposal considerations

Product/Packaging disposal recommendations : Recycle or dispose of in compliance with current legislation.

Waste treatment methods : Disposal must be done according to official regulations.
Do not discharge into drains or the environment.
Do not dispose of with domestic waste.

14. Transport information

International Regulations

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United Nations Recommendations on the Transport of Dangerous Goods (UN RTDG)	Transport by sea (IMDG)	Air transport (IATA)
UN number		
Not applicable	Not applicable	Not applicable
UN proper shipping name		
Not applicable	Not applicable	Not applicable
Transport hazard class(es)		
Not applicable	Not applicable	Not applicable
Packing group		
Not applicable	Not applicable	Not applicable
Environmental hazards		
Not applicable	Not applicable	Not applicable

Marine pollutant : Not applicable

Regulations in Japan

Other information : No supplementary information available

15. Regulatory information

National law

Fire Service Act : Designated combustible material (Synthetic resins, others)
(Storage limit: 3000 kg)

Other regulatory Information

Other information, restriction and prohibition regulations : Listed on the Japanese ENCS (Existing New Chemical Substances) inventory

16. Other information

Data sources : Information provided by the manufacturer.

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