

SECTION 1: Product identifier

1.1. GHS Product identifier

Product form : Substance
Trade name : Mowital® B
Chemical name : polyvinyl butyral
CAS-No. : 68648-78-2 or 63148-65-2
Product code : 200002

1.2. Other means of identification

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

1.3. Recommended use of the chemical and restrictions on use

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

1.4. Details of manufacturer or importer

Manufacturer/Supplier

Kuraray Europe GmbH
Philipp-Reis-Str. 4
Hattersheim am Main 65795
Germany
T +49 (0)69 305 35835; access code for 3E Company: 334674
product-safety@kuraray.com

Email competent person

product-safety@kuraray.com

Importer

Kuraray Asia Pacific Pte. Ltd.
331 North Bridge Road
#18-02 Odeon Towers 188720
Singapore
T +65 68677088 Ext. 201; +65 68677108

1.5. Emergency phone number

Emergency number : +61 1 800 686 951 (Access Code: 334674)

Country	Organisation/Company	Address	Emergency number	Comment
Australia	Poisons Information Centre		13 11 26	

SECTION 2: Hazard identification

2.1. Classification of the hazardous chemical

Classification according to the model Work Health and Safety Regulations (WHS Regulations)

Not classified

2.2. GHS Label elements, including precautionary statements

No labelling applicable

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according to the Work Health and Safety (WHS) Regulations

2.3. 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.

SECTION 3: Composition and information on ingredients

Name	CAS-No.	%	Classification according to the model Work Health and Safety Regulations (WHS Regulations)
polyvinyl butyral (Main constituent)	63148-65-2 / 68648-78-2	> 97.5	Not classified
water (Impurity)	7732-18-5	< 2.4	Not classified
butyraldehyde (Impurity)	123-72-8	< 0.05	Flam. Liq. 2, H225 Eye Irrit. 2B, H320
sodium chloride (Impurity)	7647-14-5	< 0.05	Not classified

SECTION 4: First aid measures

4.1. Description of necessary 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.

4.2. Symptoms caused by exposure

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

4.3. Medical attention and special treatment

Other medical advice or treatment : Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Extinguishing media

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

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

5.2. Specific hazards arising from the chemical

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.

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

Hazardous decomposition products in case of fire : Toxic fumes may be released. Carbon dioxide. Carbon monoxide.

5.3. Special protective equipment and precautions for fire-fighters

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

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Other information : Do not allow run-off from fire fighting to enter drains or water courses. Disposal must be done according to official regulations.

SECTION 6: Accidental release measures

6.1. 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.

6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area.

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 manager must be informed of all releases.

6.3. Methods and materials 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.

SECTION 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. 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.

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. Keep container tightly closed. Store in original tightly closed container.

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

SECTION 8: Exposure controls and personal protection

8.1. Control parameters - exposure standards

No additional information available

8.2. Biological Monitoring

No additional information available

8.3. Engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.

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8.4. Individual protection measures, such as personal protective equipment (PPE)

Hand protection : In case of repeated or prolonged contact wear gloves. 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 ISO 13688

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

Environmental exposure controls : Avoid release to the environment.

SECTION 9: Physical and chemical properties

Physical state : Solid
Appearance : Powder.
Colour : colourless
Odour : odourless
Odour threshold : No data available
pH : No data available
pH solution : No data available
Relative evaporation rate (butylacetate=1) : Not applicable
Melting point / Freezing point : Freezing point: Not applicable
Boiling point : No data available
Flash point : Not applicable
Auto-ignition temperature : Not applicable.
Flammability : No data available
Vapour pressure : Vapour pressure: Not applicable
Relative density : Relative vapour density at 20°C: Not applicable
Relative gas density: Not specifically applicable
Density : Relative density: Not specifically applicable
Solubility : No data available
Partition coefficient n-octanol/water (Log Pow) : No data available
Viscosity, kinematic : Not applicable
Viscosity, dynamic : Not applicable
Explosive properties : Product is not explosive.
Oxidising properties : Non oxidizing
Explosive limits : No data available
Minimum ignition energy : No data available
VOC content : < 2.5 %
Fat solubility : No data available
Additional information : Vicat softening temperature 50 - 63 °C DIN EN ISO 306

SECTION 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.

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SECTION 11: Toxicological information

Acute toxicity (oral)	: Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (dermal)	: Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (inhalation)	: Not classified (Based on available data, the classification criteria are not met)
Skin corrosion/irritation	: Not classified (Based on available data, the classification criteria are not met)
Serious eye damage/irritation	: Not classified (Based on available data, the classification criteria are not met)
Respiratory or skin sensitisation	: Not classified (Based on available data, the classification criteria are not met)
Germ cell mutagenicity	: Not classified (Based on available data, the classification criteria are not met)
Carcinogenicity	: Not classified (Based on available data, the classification criteria are not met)
Reproductive toxicity	: Not classified (Based on available data, the classification criteria are not met)
STOT-single exposure	: Not classified (Based on available data, the classification criteria are not met)
STOT-repeated exposure	: Not classified (Based on available data, the classification criteria are not met)
Aspiration hazard	: Not classified (Not relevant)

polyvinyl butyral (68648-78-2 or 63148-65-2)	
Viscosity, kinematic	Not applicable
(63148-65-2)	
Animal studies and expert judgment for classification	False
water (7732-18-5)	
Animal studies and expert judgment for classification	False
butyraldehyde (123-72-8)	
Animal studies and expert judgment for classification	False
sodium chloride (7647-14-5)	
Animal studies and expert judgment for classification	False

Potential adverse human health effects and : Dust may irritate the respiratory tract, skin and eyes

SECTION 12: Ecological information

According to the National Code of Practice for the Preparation of Material Safety Data Sheets, Environmental classification information is not mandatory. Information relevant for GHS classification is available on request

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

No additional information available

12.3. Bioaccumulative potential

butyraldehyde (123-72-8)	
Bioconcentration factor (BCF REACH)	3.162 (calculated value)
Partition coefficient n-octanol/water (Log Pow)	1.3 (20 °C; pH 4.4 - 4.7; (OECD 107 method))
sodium chloride (7647-14-5)	
Partition coefficient n-octanol/water (Log Pow)	-3
Bioaccumulative potential	Not applicable for inorganic substances.

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12.4. Mobility in soil

butyraldehyde (123-72-8)	
Surface tension	70 mN/m (20 °C; 1 g/L; (OECD 115 method))
Partition coefficient n-octanol/water (Log Pow)	1.3 (20 °C; pH 4.4 - 4.7; (OECD 107 method))
sodium chloride (7647-14-5)	
Ecology - soil	Not applicable.
Partition coefficient n-octanol/water (Log Pow)	-3

12.5. Other adverse effects

Ozone	: Not classified (Based on available data, the classification criteria are not met)
Other adverse effects	: No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

polyvinyl butyral (68648-78-2 or 63148-65-2)	
Fluorinated greenhouse gases	False
(63148-65-2)	
Fluorinated greenhouse gases	False
water (7732-18-5)	
Fluorinated greenhouse gases	False
butyraldehyde (123-72-8)	
Fluorinated greenhouse gases	False
sodium chloride (7647-14-5)	
Fluorinated greenhouse gases	False

SECTION 13: Disposal considerations

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

SECTION 14: Transport information

14.1. UN number

UN-No. (ADG)	: Not applicable
UN-No. (IMDG)	: Not applicable
UN-No. (IATA)	: Not applicable

14.2. UN Proper Shipping Name

Proper Shipping Name (ADG)	: Not applicable
Proper Shipping Name (IMDG)	: Not applicable
Proper Shipping Name (IATA)	: Not applicable

14.3. Transport hazard class(es)

ADG	
Transport hazard class(es) (ADG)	: Not applicable

IMDG	
Transport hazard class(es) (IMDG)	: Not applicable

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IATA

Transport hazard class(es) (IATA) : Not applicable

14.4. Packing group

Packing group (ADG) : Not applicable

Packing group (IMDG) : Not applicable

Packing group (IATA) : Not applicable

14.5. Environmental hazards

Marine pollutant : No

Dangerous for the environment : No

Other information : No supplementary information available

14.6. Special precautions for user

Specific storage requirement : No data available

Shock sensitivity : No data available

14.7. Additional information

Other information : No supplementary information available

Transport by road and rail

Not applicable

Transport by sea

Not applicable

Air transport

Not applicable

14.8. Hazchem or Emergency Action Code

Hazchem Code : Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations specific for the product in question

Other information on relevant regulations : A safety data sheet is not required for this product in accordance with national legal requirements. This document has been created on a voluntary basis following the format of the safety data sheet.

15.2. International agreements

No additional information available

SECTION 16: Other information

Data sources : Information provided by the manufacturer.

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

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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 CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008 DMEL - Derived Minimal Effect level DNEL - Derived-No Effect Level EC50 - Median effective concentration 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 PBT - Persistent Bioaccumulative Toxic PNEC - Predicted No-Effect Concentration REACH - Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006 RID - Regulations concerning the International Carriage of Dangerous Goods by Rail SDS - Safety Data Sheet STP - Sewage treatment plant TLM - Median Tolerance Limit vPvB - Very Persistent and Very Bioaccumulative
Revision date	: 06/03/2023

Full text of H-statements	
Eye Irrit. 2B	Serious eye damage/eye irritation, Category 2B
Flam. Liq. 2	Flammable liquids, Category 2
H225	Highly flammable liquid and vapour
H320	Causes eye irritation

KFT SDS AU 00

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.