

**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

<b>Name of the substance</b>	Polyvinyl butyral
<b>Trade name of the substance</b>	Mowital
<b>Identification number</b>	68648-78-2 (CAS number)
<b>Registration number</b>	-
<b>Synonyms</b>	Product grades covered by this safety data sheet see below: * B 14 S, B 16 H, B 20 H, B 30 H, B 30 HH, B 30 T, * B 45 H, B 45 M, B 60 H, B 60 HH, B 60 T, B 75 H, * LP BX 860
<b>Issue date</b>	06-April-2011
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<b>Supersedes date</b>	02-October-2014

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

<b>Identified uses</b>	For industrial use only. Additive/binder for primer. Coatings. Lacquer. Printing ink.
<b>Uses advised against</b>	None known.

**1.3. Details of the supplier of the safety data sheet****Supplier:**

<b>Company name</b>	Kuraray Europe GmbH
<b>Address</b>	Philipp-Reis-Str. 4 D-65795 Hattersheim Germany
<b>Telephone</b>	+49-69-305-85300
<b>e-mail</b>	product-safety@kuraray.com
<b>Technical Contact:</b>	+49-69-305-85729

**1.4 Emergency telephone number** +49-69-305-6418

**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture**

The substance has been assessed and/or tested for its physical, health and environmental hazards and the following classification applies.

**Classification according to Regulation (EC) No 1272/2008 as amended**

This substance does not meet the criteria for classification according to Regulation (EC) 1272/2008 as amended.

**Hazard summary** Dusts may irritate the respiratory tract, skin and eyes. Exposed individuals may experience eye tearing, redness, and discomfort. Liberated dust may irritate throat and respiratory system and cause coughing. Prolonged contact may cause dryness of the skin.

**2.2. Label elements****Label according to Regulation (EC) No. 1272/2008 as amended**

<b>Contains:</b>	Polyvinyl butyral
<b>Hazard pictograms</b>	None.
<b>Signal word</b>	None.
<b>Hazard statements</b>	The product does not meet the criteria for classification.

**Precautionary statements**

<b>Prevention</b>	Use personal protective equipment as required.
<b>Response</b>	No specific first aid measures noted.
<b>Storage</b>	Store in a dry area. Store in a closed container.
<b>Disposal</b>	Dispose of waste and residues in accordance with local authority requirements.

**Supplemental label information** None.

**2.3. Other hazards** Fine particles may form explosive mixtures with air. This material does not ignite easily; however, feasible precautions against dust explosion are recommended. Not a PBT or vPvB substance or mixture.

**Substance(s) formed under the conditions of use** Not applicable.

### SECTION 3: Composition/information on ingredients

#### 3.1. Substances

##### General information

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	INDEX No.	Notes
Polyvinyl butyral	>97.5	68648-78-2	-	-	
<b>Classification:</b>	-				

**Composition comments** All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume. The full text for all H-statements is displayed in section 16. Polyvinyl butyral can also have CAS no 63148-65-2.

### SECTION 4: First aid measures

**General information** If you feel unwell, seek medical advice (show the label where possible).

#### 4.1. Description of first aid measures

**Inhalation** If dust from the material is inhaled, remove the affected person immediately to fresh air. Call a physician if symptoms develop or persist.

**Skin contact** Wash off with soap and water. Get medical attention if irritation develops and persists.

**Eye contact** Do not rub eye. Rinse with water. Get medical attention if irritation develops and persists.

**Ingestion** Rinse mouth. If ingestion of a large amount does occur, call a poison control centre immediately.

**4.2. Most important symptoms and effects, both acute and delayed** Contact with dust: Irritation of eyes and mucous membranes. Coughing.

**4.3. Indication of any immediate medical attention and special treatment needed** Provide general supportive measures and treat symptomatically.

### SECTION 5: Firefighting measures

**General fire hazards** The product is not flammable. The product may form dust and can accumulate electrostatic charges, which may cause an electrical spark (ignition source). Use proper grounding procedures.

#### 5.1. Extinguishing media

**Suitable extinguishing media** Water fog. Foam. Dry powder. Carbon dioxide (CO<sub>2</sub>). Apply extinguishing media carefully to avoid creating airborne dust. Use fire-extinguishing media appropriate for surrounding materials.

**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** Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard. During fire, gases hazardous to health may be formed.

#### 5.3. Advice for firefighters

**Special protective equipment for firefighters** Selection of respiratory protection for firefighting: follow the general fire precautions indicated in the workplace. Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

**Special fire fighting procedures** Use standard firefighting procedures and consider the hazards of other involved materials.

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

**For non-emergency personnel** Avoid inhalation of dust and contact with skin and eyes. Wear appropriate personal protective equipment.

**For emergency responders** Use personal protection recommended in Section 8 of the SDS.

**6.2. Environmental precautions** Environmental manager must be informed of all major spillages.

**6.3. Methods and material for containment and cleaning up** Avoid dust formation. Collect dust or particulates using a vacuum cleaner with a HEPA filter. Do not use compressed air when cleaning. For waste disposal, see section 13 of the SDS.

**6.4. Reference to other sections**

For personal protection, see section 8 of the SDS.  
For waste disposal, see section 13 of the SDS.

**SECTION 7: Handling and storage**

**7.1. Precautions for safe handling**

Minimise dust generation and accumulation. Avoid significant deposits of material, especially on horizontal surfaces, which may become airborne and form combustible dust clouds and may contribute to secondary explosions. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Explosion-proof general and local exhaust ventilation. Avoid prolonged exposure. Use only in well-ventilated areas. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. Avoid inhalation of dust and contact with skin and eyes. Wash hands after handling. Use work methods which minimise dust production. Take precautionary measures against static discharges when there is a risk of dust explosion.

**7.2. Conditions for safe storage, including any incompatibilities**

Store in original tightly closed container. Store in a well-ventilated place. Store away from incompatible materials (see section 10 of the SDS). Keep in original container. Store in a cool, dry, well-ventilated place. Store away from incompatible materials. Read and follow manufacturer's recommendations.

**7.3. Specific end use(s)**

Additive/binder for primer. Coatings. Lacquer. Printing ink.

**SECTION 8: Exposure controls/personal protection**

**8.1. Control parameters**

**Occupational exposure limits**

**Ireland. Occupational Exposure Limits**

Components	Type	Value	Form
Dust	TWA	4 mg/m3	Respirable dust.
		10 mg/m3	Total inhalable dust.

**Biological limit values**

No biological exposure limits noted for the ingredient(s).

**Recommended monitoring procedures**

Not available.

**Derived no effect levels (DNELs)**

Not available.

**Predicted no effect concentrations (PNECs)**

Not available.

**8.2. Exposure controls**

**Appropriate engineering controls**

Provide sufficient ventilation for operations causing dust formation. Follow above occupational exposure limit values for dusts. Ventilate as needed to control airborne dust. Use explosion-proof electrical equipment if airborne dust levels are high.

**Individual protection measures, such as personal protective equipment**

**General information**

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

**Eye/face protection**

Risk of contact: Wear approved safety goggles.

**Skin protection**

**- Hand protection**

It is a good industrial hygiene practice to minimise skin contact. For prolonged or repeated skin contact use suitable protective gloves.

**- Other**

Wear suitable protective clothing. It is a good industrial hygiene practice to minimise skin contact.

**Respiratory protection**

In case of inadequate ventilation or risk of inhalation of dust, use suitable respiratory equipment with particle filter (type P2).

**Thermal hazards**

Wear appropriate thermal protective clothing, when necessary.

**Hygiene measures**

Handle in accordance with good industrial hygiene and safety practices. Routinely wash work clothing and protective equipment to remove contaminants.

**Environmental exposure controls**

Contain spills and prevent releases and observe national regulations on emissions.

**SECTION 9: Physical and chemical properties**

**9.1. Information on basic physical and chemical properties**

**Appearance**

Powder.

**Physical state**

Solid.

**Form**

Powder.

**Colour**

Colourless.

**Odour**

Odourless.

<b>Odour threshold</b>	Not available.
<b>pH</b>	Not applicable.
<b>Melting point/freezing point</b>	135 - 210 °C (275 - 410 °F)
<b>Initial boiling point and boiling range</b>	Not applicable
<b>Flash point</b>	Not applicable.
<b>Evaporation rate</b>	Not applicable.
<b>Flammability (solid, gas)</b>	Combustible dust.
<b>Upper/lower flammability or explosive limits</b>	
<b>Explosive limit - lower (%)</b>	Not available.
<b>Explosive limit – upper (%)</b>	Not available.
<b>Vapour pressure</b>	Not applicable.
<b>Vapour density</b>	Not applicable.
<b>Relative density</b>	1.1 (20°C) Approximate.
<b>Solubility(ies)</b>	Not available.
<b>Partition coefficient (n-octanol/water)</b>	No data available.
<b>Auto-ignition temperature</b>	> 380 °C (> 716 °F)
<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	Not available.
<b>Explosive properties</b>	Not available.
<b>Oxidising properties</b>	Not oxidising. Not applicable.

## 9.2. Other information

### Dust explosion properties

<b>St class</b>	1
<b>Molecular formula</b>	(C4H8O.C4H6O2.C2H4O)x
<b>Percent volatile</b>	< 2.5 % w/w

## SECTION 10: Stability and reactivity

<b>10.1. Reactivity</b>	Stable at normal conditions.
<b>10.2. Chemical stability</b>	Material is stable under normal conditions.
<b>10.3. Possibility of hazardous reactions</b>	No dangerous reaction known under conditions of normal use.
<b>10.4. Conditions to avoid</b>	Avoid dust close to ignition sources. Keep away from heat, sparks and open flame. Contact with incompatible materials. Minimise dust generation and accumulation.
<b>10.5. Incompatible materials</b>	Strong oxidising agents. Strong acids.
<b>10.6. Hazardous decomposition products</b>	Carbon oxides.

## SECTION 11: Toxicological information

<b>General information</b>	Dusts or powder may irritate the respiratory tract, skin and eyes.
<b>Information on likely routes of exposure</b>	
<b>Inhalation</b>	Dust irritates the respiratory system, and may cause coughing and difficulties in breathing. May be harmful if inhaled.
<b>Skin contact</b>	Dust may irritate skin. Components of the product may be absorbed into the body through the skin.
<b>Eye contact</b>	Dust may irritate the eyes.
<b>Ingestion</b>	May be harmful if swallowed.
<b>Symptoms</b>	Dust may irritate throat and respiratory system and cause coughing. Direct contact with eyes may cause temporary irritation.
<b>11.1. Information on toxicological effects</b>	
<b>Acute toxicity</b>	Not expected to be acutely toxic.
<b>Skin corrosion/irritation</b>	Dust may irritate skin.
<b>Serious eye damage/eye irritation</b>	Dust may irritate the eyes. Exposed individuals may experience eye tearing, redness, and discomfort.
<b>Respiratory sensitisation</b>	Not classified.

<b>Skin sensitisation</b>	Not a skin sensitiser.
<b>Germ cell mutagenicity</b>	Not expected to be mutagenic.
<b>Carcinogenicity</b>	Not classified.
<b>Reproductive toxicity</b>	Not classified.
<b>Specific target organ toxicity - single exposure</b>	Not classified.
<b>Specific target organ toxicity - repeated exposure</b>	Not classified.
<b>Aspiration hazard</b>	Due to the physical form of the product it is not an aspiration hazard.
<b>Mixture versus substance information</b>	Not applicable.
<b>Other information</b>	Pre-existing skin and respiratory conditions including dermatitis, asthma and chronic lung disease might be aggravated by exposure.

## SECTION 12: Ecological information

<b>12.1. Toxicity</b>	The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.
<b>12.2. Persistence and degradability</b>	The product is not expected to be biodegradable.
<b>12.3. Bioaccumulative potential</b>	The product is not expected to bioaccumulate.
<b>Partition coefficient n-octanol/water (log Kow)</b>	No data available.
<b>Bioconcentration factor (BCF)</b>	Not available.
<b>12.4. Mobility in soil</b>	Not available.
<b>12.5. Results of PBT and vPvB assessment</b>	Not a PBT or vPvB substance or mixture.
<b>12.6. Other adverse effects</b>	Not available.

## SECTION 13: Disposal considerations

<b>13.1. Waste treatment methods</b>	
<b>Residual waste</b>	Dispose of in accordance with local regulations.
<b>Contaminated packaging</b>	Dispose of in accordance with local regulations.
<b>EU waste code</b>	07 02 13 Waste codes should be assigned by the user based on the application for which the product was used.
<b>Disposal methods/information</b>	Dispose of in accordance with local regulations.

## SECTION 14: Transport information

**ADR**  
14.1. - 14.6.: Not regulated as dangerous goods.

**RID**  
14.1. - 14.6.: Not regulated as dangerous goods.

**ADN**  
14.1. - 14.6.: Not regulated as dangerous goods.

**IATA**  
14.1. - 14.6.: Not regulated as dangerous goods.

**IMDG**  
14.1. - 14.6.: Not regulated as dangerous goods.

**14.7. Transport in bulk according to Annex II of Marpol and the IBC Code**  
Not applicable.

## SECTION 15: Regulatory information

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

**EU regulations**

**Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I and II, as amended**  
Not listed.

**Regulation (EC) No. 850/2004 On persistent organic pollutants, Annex I as amended**

Not listed.

**Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 1 as amended**

Not listed.

**Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 2 as amended**

Not listed.

**Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 3 as amended**

Not listed.

**Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex V as amended**

Not listed.

**Regulation (EC) No. 166/2006 Annex II Pollutant Release and Transfer Registry, as amended**

Not listed.

**Regulation (EC) No. 1907/2006, REACH Article 59(10) Candidate List as currently published by ECHA**

Not listed.

#### **Authorisations**

**Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorisation, as amended**

Not listed.

#### **Restrictions on use**

**Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use as amended**

Not listed.

**Directive 2004/37/EC: on the protection of workers from the risks related to exposure to carcinogens and mutagens at work, as amended.**

Not listed.

#### **Other EU regulations**

**Directive 2012/18/EU on major accident hazards involving dangerous substances, as amended**

Not listed.

#### **Other regulations**

The product is classified and labelled in accordance with EC directives or respective national laws. This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006 as amended.

#### **National regulations**

Follow national regulation for work with chemical agents.

#### **15.2. Chemical safety assessment**

No Chemical Safety Assessment has been carried out.

## **SECTION 16: Other information**

#### **List of abbreviations**

DNEL: Derived No-Effect Level.

PNEC: Predicted No-Effect Concentration.

CLP: Regulation No. 1272/2008.

PBT: Persistent, bioaccumulative, toxic.

vPvB: Very Persistent and very Bioaccumulative.

#### **References**

Not available.

#### **Information on evaluation method leading to the classification of mixture**

The classification for health and environmental hazards is derived by a combination of calculation methods and test data, if available.

#### **Full text of any H-statements not written out in full under Sections 2 to 15**

None.

#### **Training information**

Follow training instructions when handling this material.

#### **Further information**

The substance is classified based on test data for physical hazards. The classification for health and environmental hazards is derived by a combination of calculation methods and test data, if available. For details, refer to Sections 9, 11 and 12. This safety data sheet contains revisions in the following section(s): 1, 2, 3, 5, 7, 8, 9, 11, 12, 13, 15, 16

#### **Disclaimer**

This information is provided without warranty. The information is believed to be correct. This information should be used to make an independent determination of the methods to safeguard workers and the environment. Kuraray cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.