CHEMICAL PRODUCT SAFETY DATA SHEET

Prepared in accordance with GB/T 16483 and GB/T 17519.

1. Chemical product and company identification

Product name	**Mowital**
Synonyms	Product grades covered by this safety data sheet see below: BA 20 S
Manufacturer/Supplier	Kuraray (Shanghai) Co., Ltd.
Address	Unit 2207 2 Grand Gateway 3 Hongqiao Road Xuhui District Shanghai 200030 China
Telephone	+86-21-6119-8111
Fax	Not available.
E-mail	pvb_inquiry@kuraray.co.jp
Emergency telephone number	+86-532-83889090 (24h)

Recommended use and Limitations on use

Recommended use	For industrial use only. Additive/binder for primer. Coatings. Lacquer. Printing ink.
Issue date	03-March-2017
Revision date	-
Supersedes date	-

2. Hazards identification

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

Emergency overview

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. May form combustible dust concentrations in air (during processing).

Hazard categories

Not classified.

Label elements

Pictograms	None.
Signal word	None.
Hazard statement	The product does not meet the criteria for classification.

Precautionary statement

Prevention	
P210	Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P240	Ground/bond container and receiving equipment.
Response	No specific first aid measures noted.
Storage	Store in a dry area. Store in a closed container.
Disposal	Dispose of waste and residues in accordance with local authority requirements.
Physical and chemical hazards	May form combustible dust concentrations in air. The product is stable and non-reactive under normal conditions of use, storage and transport.
Health hazards	Dust may irritate respiratory system. Dust or powder may irritate the skin. Expected to be a low ingestion hazard. Dust may irritate the eyes.
Environmental hazards	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.

Other hazards May present dust explosion hazard. Fine particles may form explosive mixtures with air. This material does not ignite easily; however, feasible precautions against dust explosion are recommended. Observe good industrial hygiene practices. Prevent dust accumulation to minimize explosion hazard.

Supplemental information None.

3. Composition/information on ingredients

Substance/mixture Substance

Chemical name	Concentration (%)	CAS Number
Polyvinyl acetal	>97	70775-95-0

Composition comments All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. 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 center immediately.

Most important symptoms and health effects Contact with dust: Irritation of eyes and mucous membranes. Coughing.

Personal protection for first-aid responders If you feel unwell, seek medical advice (show the label where possible).

Notes to physician Provide general supportive measures and treat symptomatically.

5. Fire-fighting measures

Extinguishing media Water fog. Foam. Dry powder. Carbon dioxide (CO2). Apply extinguishing media carefully to avoid creating airborne dust. Use fire-extinguishing media appropriate for surrounding materials.

Extinguishing media to avoid Do not use a solid water stream as it may scatter and spread fire.

Specific hazards 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.

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

Protection of fire-fighters 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.

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.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel Use only non-sparking tools. Keep unnecessary personnel away. Keep people away from and upwind of dust. Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Wear appropriate protective equipment and clothing during clean-up. Use a NIOSH/MSHA approved respirator if there is a risk of exposure to dust/fume at levels exceeding the exposure limits. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained.

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

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

Clean-up methods and materials and containment measures 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.

Prevention of secondary hazards Stop leak if you can do so without risk. Avoid release to the environment.

7. Handling and storage

Handling

Minimize 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 minimize dust production. Take precautionary measures against static discharges when there is a risk of dust explosion.

Storage

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.

8. Exposure controls/personal protection

Exposure limits

China

Components	Type	Value	Form
Dust	PC-TWA	8 mg/m3	Total dust.

Biological limit values

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

Exposure guidelines

In case of insufficient ventilation wear suitable respiratory equipment.

Monitoring methods

Not available.

Engineering measures

Explosion-proof general and local exhaust ventilation. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. If engineering measures are not sufficient to maintain concentrations of dust particulates below the Occupational Exposure Limit (OEL), suitable respiratory protection must be worn. 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.

Personal protective equipment

Respiratory protection

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

Hand protection

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

Eye protection

Risk of contact: Wear approved safety goggles.

Skin and body protection

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

Hygiene measures

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

9. Physical and chemical properties

Appearance

Powder.

Physical state

Solid.

Form

Powder.

Color

Colorless.

Odor

Odorless.

pH

Not applicable.

Melting point/freezing point

Not available.

Boiling point, initial boiling point, and boiling range

Not applicable

Flash point

Not applicable.

Explosive limit - lower (%)

Not available.

Explosive limit - upper (%)

Not available.

Vapor pressure

Not applicable.

Vapor density	Not applicable.
Relative density	1.1 (20°C) Approximate.
Density	1.10 (20°C) Approximate.
Solubility(ies)	
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	No data available.
Auto-ignition temperature	Not applicable.
Decomposition temperature	Not available.
Evaporation rate	Not applicable.
Flammability (solid, gas)	Combustible dust.
Other data	
Bulk density	Not available.
Dust explosion properties	
St class	1
Oxidizing properties	Not applicable.
Percent volatile	< 2.5 % w/w

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Avoid dust close to ignition sources. Keep away from heat, sparks and open flame. Contact with incompatible materials. Minimize dust generation and accumulation.
Incompatible materials	Strong oxidizing agents. Strong acids.
Hazardous decomposition products	Carbon oxides.
Other information	The product is stable and non reactive under normal conditions of use, storage and transport.

11. Toxicological information

Acute toxicity	Not expected to be acutely toxic.
Routes of exposure	Eye contact. Inhalation. Skin contact. Ingestion.
Symptoms	Dust may irritate throat and respiratory system and cause coughing. Direct contact with eyes may cause temporary irritation.
Skin corrosion/irritation	Dust may irritate skin.
Serious eye damage/eye irritation	Dust may irritate the eyes. Exposed individuals may experience eye tearing, redness, and discomfort.
Respiratory or skin sensitization	
Respiratory sensitization	Due to partial or complete lack of data the classification is not possible.
Skin sensitizer	Not a skin sensitizer.
Germ cell mutagenicity	Based on available data, the classification criteria are not met.
Carcinogenicity	Based on available data, the classification criteria are not met.
Toxic to reproduction	Based on available data, the classification criteria are not met.
Specific target organ toxicity following single exposure	Based on available data, the classification criteria are not met.
Specific target organ toxicity following repeated exposure	Based on available data, the classification criteria are not met.
Aspiration hazard	Due to the physical form of the product it is not an aspiration hazard.
Chronic effects	Frequent inhalation of dust over a long period of time increases the risk of developing lung diseases.
Other information	Pre-existing skin and respiratory conditions including dermatitis, asthma and chronic lung disease might be aggravated by exposure.

12. Ecological information

Ecotoxicity 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.

Persistence and degradability The product is not expected to be biodegradable.

Bioaccumulation The product is not expected to bioaccumulate.

Mobility in soil No data available.

Other hazardous effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Residual waste Dispose of in accordance with local regulations.

Contaminated packaging Dispose of in accordance with local regulations.

Local disposal regulations Dispose of in accordance with local regulations.

14. Transport information

CNDG

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

15. Regulatory information

Inventory of Existing Chemical Substances in China

Country(s) or region	Inventory name	On inventory (yes/no)*
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

Applicable regulations This safety data sheet conforms to the following laws, regulations and standards:
Guidance on the compilation of safety data sheet for chemical products (GB/T 17519–2013)
Inventory of Existing Chemical Substances in China
Regulations on the Control over Safety of Dangerous Chemicals
Regulations on Labor Protection in Workplaces Where Toxic Products Are Used
Measures for the Safe Use of Chemicals in Workplaces
Safety Data Sheet for Chemical Products Content and Order of Sections (GB16483-2008)
General Rules for Preparation of Precautionary Labels for Chemicals (GB15258-2009)
Packing Symbol of Dangerous Goods(GB190-2009)
Packing - Pictorial Marking for Handling of Goods (GB/T191-2009)
The Principle of Classification of Transport Packaging Groups of Dangerous Goods (GB/T15098-2008)
General Specifications for Transport Packages of Dangerous Goods (GB 12463-2009)
Dangerous Chemical Products
Very Toxic Chemicals
Highly Toxic Chemicals List
Regulation for Administration of Precursor Chemicals
Regulations on the Administration of Controlled Chemicals
Explosive Precursor Hazardous Chemicals
National List of Ozone Depleting Substances
Occupational exposure limits for hazardous agents in the workplace (GBZ 2.1-2007)
List of Dangerous Goods (GB 12268-2012)
Classification and code of dangerous goods (GB6944-2012)
Identification of Major Hazard Installations for Hazardous Chemicals (GB18218-2009)
Regulations on Road Transport of Dangerous Goods
Regulations on Rail Road Transport of Dangerous Goods
UN Recommendations on the Transport of Dangerous Goods (UN RTDG)
National Catalogue of Hazardous Wastes
National Catalogue of Hazardous Waste, Appendix A

Occupational exposure limits for hazardous agents in the workplace (GBZ 2.1-2007)

Not listed.

Restricted Import/Export Toxic Chemical List (MEP and GCA Announcement No. 2008-66, Dec. 1, 2008, amended through MEP and Customs Notice No. 2013-85, December 30, 2013)

Not regulated.

Classification and code of dangerous goods (GB 6944-2012)

Not regulated.

UN Recommendations on the Transport of Dangerous Goods (UN RTDG)

Not regulated.

16. Other information

References

EPA: AQUIRE database
IARC Monographs. Overall Evaluation of Carcinogenicity
NLM: Hazardous Substances Data Base

List of abbreviations

PBT: Persistent, bioaccumulative, toxic.
WEL-TWA: Workplace Exposure Limit-Long term exposure limit (8-hour TWA(=time weighted average)reference period).
OEL: Occupational Exposure Limit.
TWA: Time weighted average.

Issued by

Company name Kuraray Europe GmbH

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.

Disclaimer

This safety data sheet was prepared in accordance with JIS Z 7253:2012.

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.