CHEMICAL PRODUCT SAFETY DATA SHEET

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

Product name: Mowital

Issue date: 28-October-2015
Revision date: 16-June-2021
Version #: 07

SECTION 1 Chemical product and company identification

Chinese name of chemical	**Mowital (聚乙烯醇缩丁醛)**
English name of chemical	**Mowital**
Synonyms	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 60 H, B 60 HH, B 60 T, B 75 H,
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 (24 hour)

Recommended use and Limitations on use

Recommended use	For industrial use only. Additive/binder for primer. Coatings. Lacquer. Printing ink.
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SECTION 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.

GHS hazard categories

Not classified.

Label elements

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

Precautionary statement

Prevention	Use personal protective equipment as required.
Response	No specific first aid measures noted.
Safety storage	Store in a dry area. Store in a closed container. Store away from incompatible materials.
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. Prolonged inhalation may be harmful. Dust or powder may irritate the skin. 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	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.
Supplemental information	None.

SECTION 3 Composition/information on ingredients

Substance/mixture Substance

Chemical name	Concentration (%)	CAS Number
聚乙烯醇缩丁醛 Polyvinyl butyral	> 97.5	68648-78-2
水(杂质) Water (Impurity)	< 2.5	7732-18-5
丁醛(杂质) Butyraldehyde (Impurity)	< 0.05	123-72-8
氯化钠(杂质) Sodium chloride (Impurity)	< 0.05	7647-14-5

Composition comments All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.
Polyvinyl butyral can also have CAS no 63148-65-2.

SECTION 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 eyes. 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.

SECTION 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. Move containers from fire area if you can do so without risk.

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.

SECTION 6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel Wear appropriate personal protective equipment.

For emergency responders Keep unnecessary personnel away. Avoid inhalation of dust and contact with skin and eyes. Wear appropriate personal protective equipment.

Environmental precautions Environmental manager must be informed of all releases.

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 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.

SECTION 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. Provide appropriate exhaust ventilation at places where dust is formed. Explosion-proof general and local exhaust ventilation. Take precautionary measures against static discharges when there is a risk of dust explosion.

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.

Storage

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

SECTION 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).

Monitoring methods

Follow standard monitoring procedures.

Engineering measures

Provide sufficient ventilation for operations causing dust formation. Explosion-proof general and local exhaust ventilation. Good general ventilation 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.

Personal protective equipment

Respiratory protection

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

Hand protection

Wear protective gloves.
In full contact: Glove material: Nitrile rubber. Layer thickness: 0.12 mm. Breakthrough time: >=480 min.
In splash contact: Glove material: Nitrile rubber Layer thickness: 0.12 mm Breakthrough time: >=480 min.

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.

SECTION 9 Physical and chemical properties

Appearance

Physical state: Solid.

Form: Powder.

Color: Colorless.

Odor: Odorless.

pH: Not applicable.

Melting point/freezing point: 275 - 410 °F (135 - 210 °C)

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	Not available.
Solubility(ies)	
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	No data available.
Auto-ignition temperature	> 716 °F (> 380 °C)
Decomposition temperature	Not available.
Evaporation rate	Not applicable.
Other data	
Dust explosion properties	
St class	1
Molecular formula	(C4H8O.C4H6O2.C2H4O)x
Molecular weight	234.25 g/mol
Oxidizing properties	Not oxidizing.
Percent volatile	< 2.5 % w/w

SECTION 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	Keep away from heat, sparks and open flame. Contact with incompatible materials. Minimize dust generation and accumulation.
Incompatible materials	Strong acids. Strong oxidizing agents.
Hazardous decomposition products	Carbon oxides.

SECTION 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	Based on available data, the classification criteria are not met.
Serious eye damage/eye irritation	Based on available data, the classification criteria are not met.
Respiratory or skin sensitization	
Respiratory sensitization	Due to partial or complete lack of data the classification is not possible.
Skin sensitizer	Based on available data, the classification criteria are not met.
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	No other specific chronic health impact noted.
Other information	Pre-existing skin and respiratory conditions including dermatitis, asthma and chronic lung disease might be aggravated by exposure.

SECTION 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	No data is available on the degradability of this product.

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.

SECTION 13 Disposal considerations

Residual waste Dispose in accordance with local regulations.

Contaminated packaging Dispose of in accordance with local regulations.

Local disposal regulations Dispose of in accordance with local regulations.

SECTION 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.

SECTION 15 Regulatory information

Law of the People's Republic of China on Prevention and Control of Occupational Diseases

Not regulated.

Regulations on the Control over Safety of Dangerous Chemicals

Not regulated.

Provision on the Environmental Administration of New Chemical Substances

China Inventory of Existing Chemical Substances

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

*A "Yes" indicates that all components of this product comply 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).

Other regulations This safety data sheet conforms to the following laws, regulations and standards:
Measures for the Safe Use of Chemicals in Workplaces
General Rules for Preparation of Precautionary Labels for Chemicals (GB15258-2009)
Regulations on Labor Protection in Workplaces Where Toxic Products Are Used
Packing Symbol of Dangerous Goods(GB190-2009)
Regulations on the Control over Safety of Dangerous Chemicals
Safety Data Sheet for Chemical Products - Content and Order of Sections (GB/T 16483-2008)
Packing - Pictorial Marking for Handling of Goods (GB/T191-2008)

International regulations

Stockholm Convention

Not applicable.

Rotterdam Convention

Not applicable.

Montreal Protocol

Not applicable.

Kyoto protocol

Not applicable.

Basel Convention

Not applicable.

SECTION 16 Other information

References ACGIH Documentation of the Threshold Limit Values and Biological Exposure Indices
EPA: AQUIRE database
HSDB® - Hazardous Substances Data Bank
NLM: Hazardous Substances Data Base

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