



SAFETY DATA SHEET

1. Identification

Name of the substance or mixture (trade name)	Mowital
Synonyms	Product grades covered by this safety data sheet see below: G 13, G 16, G 36
SDS No.	-
Major recommended uses for the substance or mixture	For industrial use only. Additive/binder for primer. Coatings. Lacquer. Printing ink.
Specific restrictions for use of the substance or mixture	Not available.
Manufacturer/Importer/Distributor information	
Manufacturer / Importer / Supplier / Distributor information	
Company name	Kuraray America, Inc.
Address	2625 Bay Area Blvd, Suite 600 Houston, TX 77058-1551 USA
Telephone	1-800-423-9762 (within USA) +1-281-283-1711 (International)
E-mail	info@kurarayamerica.com
Emergency phone number	For chemical emergency spill, leak, fire, exposure or accident Call CHEMTREC day or night Within USA and Canada: 1-800-424-9300 CCN706984 or +1 703-527-3887 (collect calls accepted)

2. Hazards identification

Classification of the substance or mixture

The classification of the substance or mixture has been performed in accordance with ABNT NBR 14725-2. The substance has been assessed and/or tested for its physical, health and environmental hazards and the following classification applies.

Physical hazards	Not classified.
Health hazards	Not classified.
Environmental hazards	Not classified.

GHS labeling elements, including precautionary statements

Hazard symbol(s)	None.
Signal word	None.
Hazard statement(s)	The substance does not meet the criteria for classification.
Precautionary statement(s)	
Prevention	Use personal protective equipment as required.
Response	No specific first aid measures noted.
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.

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.

Supplemental information None.

3. Composition/information on ingredients

Substance

Common chemical name or technical name	CAS number	Concentration or concentration range
Polyvinyl Butyral	68648-78-2	> 97.5
Water (Impurity)	7732-18-5	< 2.5
Butyraldehyde (Impurity)	123-72-8	< 0.05
Sodium chloride (Impurity)	7647-14-5	< 0.05

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.

4. First-aid measures

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/effects, acute and delayed

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

Means of fire extinguishing

Suitable 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.

Unsuitable extinguishing media

Do not use a solid water stream as it may scatter and spread fire.

Specific hazards arising from the chemical

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.

Protective measures taken by firefighting crews

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. Control measures for spills and leaks

Personal precautions, protective equipment and emergency procedures

To be taken by those who are not involved in rendering emergency services

Wear appropriate personal protective equipment.

To be taken by those who are involved in rendering emergency services

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.

Methods and materials 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.

Other issues relating to spills and releases

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.

Emergency procedures

Wear appropriate protective equipment and clothing during clean-up.

7. Handling and storage

Precautions for safe 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.

Conditions for safe storage, including any incompatibilities

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.

8. Exposure controls/personal protection

Control parameters Follow standard monitoring procedures.

Occupational exposure limits

ACGIH Components	Type	Value	Form
Dust	TWA	10 mg/m3	Inhalable particles.
US. ACGIH Threshold Limit Values Components	Type	Value	Form
Dust	TWA	3 mg/m3	Respirable particles.

Biological limit values

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

Appropriate engineering controls

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 measures

Eyes and face protection

Risk of contact: Wear approved safety goggles.

Skin protection

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.

Other

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

Respiratory protection

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

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

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

Granules.

Physical state

Solid.

Form

Granules.

Color

Colorless.

Odor

Odorless.

Odor threshold

Not available.

pH

Not available.

Melting point/freezing point

275 - 410 °F (135 - 210 °C)

Initial boiling point and boiling temperature range	Not applicable.
Flash point	Not applicable.
Evaporation rate	Not applicable.
Flammability (solid, gas)	Not flammable. However: May form combustible dust concentrations in air.
Upper/lower flammability or explosive limits	
Explosive limit - lower (%)	Not applicable.
Explosive limit - upper (%)	Not applicable.
Vapor pressure	Not applicable.
Vapor density	Not applicable.
Solubility(ies)	
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	No data available.
Auto-ignition temperature	> 716 °F (> 380 °C)
Decomposition temperature	Not applicable.
Viscosity	Not applicable.
Other physical and chemical parameters	
Explosive properties	Not explosive.
Molecular formula	(C4H8O.C4H6O2.C2H4O)x
Molecular weight	234.25 g/mol
Oxidizing properties	Not oxidizing.
Percent volatile	< 1 % w/w

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical 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.

11. Toxicological information

Information on likely routes of exposure

Inhalation	Dust irritates the respiratory system, and may cause coughing and difficulties in breathing. Prolonged inhalation may be harmful.
Skin contact	Dust may irritate skin.
Eye contact	Dust may irritate the eyes.
Ingestion	May cause discomfort if swallowed. However, ingestion is not likely to be a primary route of occupational exposure.

Symptoms	Dust may irritate throat and respiratory system and cause coughing. Direct contact with eyes may cause temporary irritation.
Acute toxicity	Not expected to be acutely toxic.
Skin irritation and corrosion	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 sensitization	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 - single exposure	Based on available data, the classification criteria are not met.
Specific target organ toxicity - 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 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.

12. Ecological information

Ecotoxicity	Based on available data, the classification criteria are not met for hazardous to the aquatic environment.
Persistence and degradability	No data is available on the degradability of this product.
Bioaccumulative potential	The product is not expected to bioaccumulate.
Partition coefficient n-octanol / water (log Kow)	No data available.
Bioconcentration factor (BCF)	Not available.
Mobility in soil	No data available.
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.

13. Considerations on final disposal

Recommended methods for final destination

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.

14. Transport information

National regulations

ANTT

Not regulated as dangerous goods.

International regulations

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

Federal regulations This chemical product safety data sheet was prepared in accordance with the Brazilian Standard (ABNT NBR 14725-4: (Safety data sheet for chemicals (SDS))).

Chemical Products Controlled by the Federal Police (Ordinance No. 240)

Not applicable.

Chemical Products for the Manufacture and Synthesis of Narcotics and Psychotropic Subject to Control of the Ministry of Justice (Resolution No. 169 of 15 August 2017, Annex I, List D2)

Not listed.

Controlled products that must be reported to the Army (Decree No. 3655, Annex 1, as amended)

Not applicable.

Ozone depleting substances (Decree No. 99.280, Annexes A, B, C and E, as amended)

Not applicable.

POPs (Decree No. 5.472 promulgates the Stockholm Convention on persistent organic pollutants)

Not listed.

Use and physiological effects of chemical products (Decree No. 3665, Annex 3)

Not applicable.

International regulations

Montreal Protocol

Not applicable.

Stockholm Convention

Not applicable.

Rotterdam Convention

Not applicable.

Kyoto protocol

Not applicable.

Basel Convention

Not applicable.

16. Other information

Significant information, yet not specifically related to the previous sections None known.

References

ACGIH Documentation of the Threshold Limit Values and Biological Exposure Indices
EPA: AQUIRE database
HSDB® - Hazardous Substances Data Bank
IARC Monographs. Overall Evaluation of Carcinogenicity (Volumes 1-106)

Legends and abbreviations

LD50: Lethal Dose, 50%.
LC50: Lethal Concentration, 50%.
EC50: Effective Concentration, 50%.
TWA: Time weighted average.
ANTT: National Agency of Land Transport.
IATA: International Air Transport Association.
IMDG Code: International Maritime Dangerous Goods Code.
MARPOL: International Convention for the Prevention of Pollution from Ships.
STEL: Short term exposure limit.

Disclaimer

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