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SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Product	MMB / 3-Methoxy-3-Methyl-1-Butanol	**Revision date**	2026-11-16
Version	1.0	**Brand**	Richest

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product name	MMB / 3-Methoxy-3-Methyl-1-Butanol
Synonyms	MMB; 3-Methoxy-3-methylbutan-1-ol; Methoxymethylbutanol
CAS No.	56539-66-3
EC No.	260-252-4
Molecular formula	C6H14O2
Molecular weight	118.17 g/mol
Relevant identified uses	Cleaning products and air fresheners; Printing-related applications; Agricultural chemical formulations; Electronics, automotive and household-product applications listed by the manufacturer
Uses advised against	No specific uses advised against were identified in the reviewed sources.
Company	Richest Group
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Telephone	0086 21 5017 5386
E-mail	inquiry@richest-group.com
Website	www.richest-group.com
Emergency telephone number	0086 21 5017 5386

SECTION 2: Hazards identification

GHS Classification	Flammable liquids Category 4
Pictogram(s)	None
Signal word	Warning
Hazard statement(s)	H227 Combustible liquid.
Precautionary statement(s)	P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.; P280 Wear protective gloves/protective clothing/eye protection/face protection.; P370+P378 In case of fire: use dry sand, dry chemical or alcohol-resistant foam for extinction.; P403+P235 Store in a well-ventilated place. Keep cool.; P501 Dispose of contents/container to an approved waste disposal plant.
Other hazards	IMAP assessments - 1-Butanol, 3-methoxy-3-methyl-: Human health tier I assessment

SECTION 3: Composition/information on ingredients

Component	MMB / 3-Methoxy-3-Methyl-1-Butanol
CAS No.	56539-66-3
EC No.	260-252-4
Classification	Flammable liquids Category 4

SECTION 3: Composition/information on ingredients

Concentration	min. 98.0% (GC), TCI M0695

SECTION 4: First-aid measures

If inhaled	Move to fresh air; give artificial respiration if not breathing; consult a physician.
In case of skin contact	Wash with soap and plenty of water and consult a physician.
In case of eye contact	Flush eyes with water as a precaution.
If swallowed	Do not induce vomiting; never give anything by mouth to an unconscious person; rinse mouth with water and consult a physician.
Most important symptoms and effects	No data available
Indication of immediate medical attention	No data available

SECTION 5: Fire-fighting measures

Suitable extinguishing media	Water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Unsuitable extinguishing media	No data available
Special hazards arising from the chemical	Carbon oxides.
Advice for firefighters	Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6: Accidental release measures

Personal precautions and emergency procedures	Avoid breathing vapours, mist or gas; remove ignition sources and prevent accumulation of vapours, including in low areas.
Environmental precautions	Prevent further leakage if safe and do not let product enter drains.
Methods for containment and cleaning up	Contain spillage and collect with an electrically protected vacuum cleaner or by wet brushing; place in suitable closed containers for disposal under local regulations.

SECTION 7: Handling and storage

Precautions for safe handling	Avoid inhalation of vapour or mist; keep away from ignition sources and do not smoke; take measures to prevent electrostatic charge buildup.
Conditions for safe storage, including incompatibilities	Keep container tightly closed in a dry, well-ventilated place; reseal opened containers and keep upright. GHS precaution P403+P235: store in a well-ventilated place and keep cool.

SECTION 8: Exposure controls/personal protection

Occupational exposure limit values	The pure MMB SDS states that the product contains no substances with occupational exposure limit values.
Biological limit values	No biological limit values were identified in the reviewed sources.
Appropriate engineering controls	Use good industrial hygiene and safety practice; wash hands before breaks and at the end of the workday.
Eye/face protection	Safety glasses with side shields conforming to EN 166 or equivalent approved protection.
Skin and body protection	Use inspected gloves and impervious clothing selected for workplace concentration and amount.

SECTION 8: Exposure controls/personal protection

Respiratory protection	Where risk assessment supports air-purifying respirators, use a full-face multipurpose combination (US) or ABEK (EN 14387) respirator as backup to engineering controls; use full-face supplied air if it is the sole protection.
Thermal hazards	No specific thermal hazards were identified in the reviewed sources; see Sections 5 and 10.

SECTION 9: Physical and chemical properties

Physical state	CBI; Liquid
Colour	Clear, colourless liquid.
Odour	Mild odour (Kuraray).
Melting point / freezing point	Freezing point <-50 °C; Sigma-Aldrich also lists melting point <-50 °C.
Boiling point / boiling range	173–175 °C, lit.
Flammability	Sigma-Aldrich storage class 10: combustible liquids; this is a storage designation.
Explosion / flammability limits	No data available
Flash point	71 °C, closed cup
Auto-ignition temperature	395 °C at 1,013 mbar; atmospheric pressure was assumed in the public SDS.
Decomposition temperature	No data available
pH	No data available
Viscosity	Dynamic viscosity 12.5 mPa·s at 20 °C and 10 mPa·s at 40 °C.
Solubility	Completely water-soluble/infinite miscibility according to Kuraray. The public SDS reports water solubility ≥ 100 g/L at 20 °C and pH 5.6.
Partition coefficient n-octanol/water	log Pow 0.18 at 24.8 °C (public SDS).
Vapour pressure	47 Pa at 20 °C and 80 Pa at 25 °C (public SDS). Sigma-Aldrich separately lists 0.66 hPa at 25 °C.
Density and/or relative density	0.926 g/mL at 20 °C (Sigma-Aldrich literature value); Kuraray lists specific gravity 0.91 g/cm³ at 20 °C, while the public SDS lists 0.93 g/cm³ at 25 °C.
Relative vapour density	No data available
Particle characteristics	Not applicable (liquid).
Melting freezing point	No data available
Relative density	0.926 g/cm³ at 20 °C
Water solubility	TCI product specification separately states completely miscible.
Other properties	No data available for odour threshold, evaporation rate, flammability limits, vapour pressure, vapour density, partition coefficient, auto-ignition temperature, decomposition temperature, viscosity, explosive properties and oxidizing properties.
Refractive index	1.43

SECTION 10: Stability and reactivity

Reactivity	Kuraray reports stability in in-house tests at pH 4 and pH 10 after 4 weeks at 50 °C; this is compatibility evidence under the stated test conditions, not a comprehensive reactivity assessment.
Chemical stability	Stable under recommended storage conditions.

SECTION 10: Stability and reactivity

Possibility of hazardous reactions	No decomposition if stored and applied as directed; vapours may form an explosive mixture with air (pure MMB SDS).
Conditions to avoid	Heat, flames and sparks.
Incompatible materials	Strong oxidizing agents, acid chlorides and acid anhydrides.
Hazardous decomposition products	Carbon monoxide, carbon dioxide and water are listed as hazardous combustion products in the PerfumersWorld MSDS.

SECTION 11: Toxicological information

Serious eye damage irritation	No data available
Carcinogenicity	No component present at ≥0.1% is identified as a probable, possible or confirmed human carcinogen by IARC, ACGIH, NTP or OSHA in the selected SDS.
Rtecs	Not available

SECTION 12: Ecological information

Pbt vpvb	Assessment not available because chemical safety assessment was not required/conducted.

SECTION 13: Disposal considerations

Product disposal methods	This combustible material may be burned in a chemical incinerator equipped with an afterburner and scrubber; offer surplus and non-recyclable solutions to a licensed disposal company.
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal in accordance with local regulations.

SECTION 14: Transport information

UN Number (ADR/RID, IMDG, IATA)	Not regulated as dangerous goods
UN Proper Shipping Name	Not regulated as dangerous goods
Transport hazard class(es)	Not regulated as dangerous goods
Packing group	Not regulated as dangerous goods
Environmental hazards / Marine pollutant	See cited public SDS
Special precautions for user	Not dangerous goods

SECTION 15: Regulatory information

Safety, health and environmental regulations specific for the product	SARA_302: No chemicals are subject to SARA Title III Section 302 reporting.; SARA_313: No components with known CAS numbers exceed the De Minimis reporting levels.; SARA_311_312: Fire Hazard.; Massachusetts_Right_to_Know: No components are subject to the Act.; Pennsylvania_New_Jersey_Right_to_Know: 3-Methoxy-3-methylbutan-1-ol, CAS 56539-66-3, is listed in the SDS.; California_Proposition_65: The SDS states that the product does not contain chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

SECTION 16: Other information	
Full text of H-Statements	H227 Combustible liquid.
Revision date	2026-11-16
Version	1.0
References	Supplier technical documents, public SDS/COA/TDS and regulatory sources reviewed. Public data citations are listed below. Public data sources: Methoxymethylbutanol — PubChem CID 62118: https://pubchem.ncbi.nlm.nih.gov/compound/62118 | 3-Methoxy-3-methyl-1-butanol, M0695: https://www.tcichemicals.com/US/en/p/M0695 | MMB manufacturer product and application information: https://isoprene.kuraray.com/en/products/mmb/ | Safety Data Sheet 408069 — 3-Methoxy-3-methyl-1-butanol: https://www.chemblink.com/MSDSFiles/56539-66-3Sigma-Aldrich.pdf | 3-Methoxy-3-methylbutanol for synthesis, product 814337: https://www.sigmaaldrich.com/US/en/product/mm/814337 | 3-Methoxy-3-methyl-1-butanol — Safety Data Sheet, CAS 56539-66-3: https://www.echemi.com/sds/3-methyl-3-methoxybutanol-pd181109106275.html | 3-Methyl-3-Methoxy Butanol (MMB) — pure substance SDS and MSDS: https://www.pwoil.com/document-list.php?pro_id=0ZH20962&tab=ifra
Abbreviations	CAS: Chemical Abstracts Service; ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road; IMDG: International Maritime Dangerous Goods; IATA: International Air Transport Association; SDS: Safety Data Sheet.
Disclaimer	The information in this SDS applies to the specified product and is provided in good faith based on information available to Richest Group at the date of issue. It describes health, safety and environmental requirements and does not constitute a guarantee of product properties. Users must assess suitability and comply with applicable regulations.