



SAFETY DATA SHEET

Doc. ID: VDM-4-75 Rev. AA
Issued (year/month/day) 2015/05/21

Section 1 Identification of the Substance/mixture and of the Company/undertaking

1.1 Product Identifier

Product Name Lumigen VDM

Part Number VDM-4

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

Product Use For laboratory use only. See product literature for details.

1.3 Details of the supplier of the safety data sheet

Manufacturer

Lumigen, Inc. (A Beckman Coulter company)
22900 W. Eight Mile Road
Southfield, MI 48033, U.S.A.
Tel: 248-351-5600

e-mail address ksrashid@beckman.com

1.4 Emergency telephone number

Telephone number (24H) ChemTel Expert Assistance
Hotline/MSDS Fax Access by dialing 800-255-3924 or for
International +01-813-248-0585

Section 2 Hazards Identification

2.1 Classification of substance or mixture

Product Description Compound
White to yellow; Opaque; Solid; Odorless

Classification according to EC 1272/2008 (CLP/GHS)

Not classified as hazardous per EC 1272/2008 (CLP/GHS)

Classification according to EC Directives 1999/45/EC and 67/548/EEC

Not classified as dangerous per EC Directives (1999/45/EC and 67/548 EEC)

Classification according to US-OSHA (HCS 29 CFR 1910.1200) and UN GHS

Not classified as hazardous per US-OSHA HCS 2012 and UN GHS

2.2 Label Elements

According to EC 1272/2008 (CLP/GHS), US-OSHA and UN GHS

Not classified as hazardous per EC 1272/2008 (CLP/GHS)

2.3 Other hazards

Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

See Section 11 Toxicological Information for more detailed health information.

Section 3 Composition and Information on Ingredients

3.2 Mixtures

Hazardous Ingredients: None

Section 4 First Aid Measures

4.1 Description of first aid measures

| | |
|---------------------|---|
| Inhalation | If powder is inhaled, move exposed individual to fresh air. If individual is not breathing, begin artificial respiration immediately and obtain medical attention. |
| Eye Contact | If product enters eyes, wash eyes gently under running water for 15 minutes or longer, making sure that the eyelids are held open. If pain or irritation occur, obtain medical attention. |
| Skin Contact | In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. If pain or irritation occur, obtain medical attention. |
| Ingestion | If ingested, wash mouth out with water. If irritation or discomfort occurs, seek medical attention. |

4.2 Most important symptoms and effects, both acute and delayed

See Section 11 Toxicological Information for more detailed health information.

4.3 Indication of any immediate medical attention and special treatment needed

No specific medical attention or treatment required.

Section 5 Fire Fighting Measures

Flammable Properties Nonflammable

5.1 Extinguishing Media In case of fire use carbon dioxide (CO₂), dry chemical, water spray or foam. For large fires use extinguishing media suitable for surrounding fire.

5.2 Special hazards arising from the substance or mixture

Special Fire and Explosion Hazards

No special hazards determined.

Hazardous Combustion Products

No combustion products posing significant hazards are expected from this product.

5.3 Advice for fire fighters

Protective Equipment Self-contained breathing apparatus is recommended for firefighters in all chemical fire situations.

5.4 Additional information No further relevant information available.

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Section 6 Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Precautions Observe general safety guidelines for protection; avoid eye and skin contact.
Wear protective gloves, protective clothing and eye/face protection.

6.2 Environmental Precautions No special requirements.

6.3 Methods and material for containment and cleaning up

Spill and Leak Procedures Carefully sweep up spilled material and place in a container suitable for disposal.
Avoid generating dust.

6.4 Reference to other sections Refer sections 8 and 13.

Section 7 Handling and Storage

7.1 Precautions for safe handling Use good laboratory procedures; avoid eye and skin contact.

7.2 Conditions for safe storage, including any incompatibilities

Keep away from incompatible material (see Section 10).
To maintain efficacy, store according to the instructions in the product labeling.

7.3 Specific end uses No further relevant information available.

Section 8 Exposure Controls and Personal Protection

8.1 Control parameters

Exposure Limits

US OSHA None established

ACGIH None established

DFG MAK None established

Ireland None established

IOELVs None established

NIOSH None established

Japan None established

8.2 Exposure controls

Engineering Controls No special engineering controls are required. Use with good general ventilation.

Eye Protection Safety glasses or chemical goggles should be worn to prevent eye contact.
Refer U.S. OSHA 29 CFR 1910.133, European Standard EN166 or appropriate government standards.

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Section 8 Exposure Controls and Personal Protection (Continued)

| | |
|-------------------------------|---|
| Skin Protection | Impervious gloves, such as Nitrile or equivalent, should be worn to prevent skin contact. Refer U.S. OSHA 29 CFR 1910.138, European Standard EN374 or appropriate government standards. |
| Respiratory Protection | Under normal conditions, the use of this product should not require respiratory protection. If overexposure should occur and ventilation is not adequate to maintain airborne concentrations at acceptable levels, the use of respiratory protection should be evaluated by a qualified professional. |

Section 9 Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

| | | | |
|----------------------------------|-----------------|---|-----------------|
| Physical State | Solid | Specific Gravity (Water=1.0) | None determined |
| Color | White to yellow | Solubility | |
| Transparency | Opaque | Water | Not determined |
| Odor | Odorless | Organic | Soluble |
| pH | Not determined | Partition coefficient: n-octanol/water | Not determined |
| Melting Point | Not determined | Auto-ignition Temp. | Not applicable |
| Boiling Point | Not determined | Decomposition Temperature | Not determined |
| Flash Point | Not applicable | Percent Volatiles | Not available |
| Evaporation Rate | Not determined | Vapor Pressure | Not determined |
| Flammability (Solid, Gas) | Not available | Viscosity | Not determined |
| Flammability Limits | Not applicable | Explosive Properties | Not applicable |
| Vapor Density | Not determined | Oxidizing Properties | Not determined |
| Odor Threshold | Not applicable | | |

9.2 Other Information No further relevant information available.

Section 10 Stability and Reactivity

- 10.1 Reactivity** No data available.
- 10.2 Chemical Stability** Stable under normal temperatures and pressures.
- 10.3 Possibility of hazardous reactions** No further relevant information available.

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Section 10 Stability and Reactivity (Continued)

- 10.4 Conditions to Avoid** To maintain product performance keep away from strong acids, strong bases, strong oxidizers.
Avoid exposure to heat and direct sunlight.
- 10.5 Incompatible materials** No further relevant information available.
- 10.6 Hazardous Decomposition Products**
No decomposition products posing significant hazards would be expected from this product (an aqueous solution).

Section 11 Toxicological Information

11.1 Information on toxicological effects

Toxicity Data for Hazardous Ingredients

Not applicable

Primary Routes of Exposure Eye contact, ingestion, inhalation, and skin contact.

Skin Corrosion/Irritation No data available.

Serious eye damage/eye irritation No data available.

Respiratory/skin sensitization No data available.

Carcinogenicity No ingredients in this product are listed as carcinogens by ACGIH, IARC, NTP, OSHA or 67/548/EEC Annex I.

Germ cell mutagenicity No data available

Reproductive Toxicity No data available.

Specific target organ toxicity – single exposure

No data available.

Specific target organ toxicity – repeated exposure

No data available.

Aspiration hazard No data available.

Other Information No further relevant information available.

Section 12 Ecological Information

12.1 Ecotoxicity

Fresh Water Species No information available.

Microtox No information available.

Water Flea No information available.

Fresh Water Algae No information available.

12.2 Persistence and degradability No information available.

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Section 12 Ecological Information (Continued)

| | |
|--|--|
| 12.3 Bioaccumulation | No information available. |
| 12.4 Mobility in soil | No information available. |
| 12.5 Results of PBT and vPvB assessment | Not determined for the product. PBT: Not applicable, vPvB: Not applicable. |
| 12.6 Other Adverse Effects | No further relevant information available. |

Section 13 Disposal Considerations

| | |
|-------------------------------------|--|
| 13.1 Waste treatment methods | |
| Product Waste Disposal | Chemical residues and remains should be routinely handled as special waste. This must be disposed of in compliance with anti-pollution and other laws of the country concerned. To ensure compliance we recommend that you contact the relevant (local) authorities and/or an approved waste-disposal company for information. |
| Package disposal | Dispose of waste product, unused product and contaminated packaging in compliance with federal, state and local regulations. If unsure of the applicable requirements, contact the authorities for information. |
| 13.2 Additional information | Suggested European waste catalogue 18 01 07 - chemicals other than those mentioned in 18 01 06. Dispose in accordance with national, state and local waste regulations. |

Section 14 Transport Information

Transportation of this product is not regulated under ICAO, IMDG, US DOT, European ADR or Canadian TDG.

Section 15 Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture US Federal and State Regulations

SARA 313 No ingredients listed.

California Proposition 65 No ingredients listed.

Massachusetts MSL No ingredients listed.

New Jersey Dept. of Health RTK List

No ingredients listed.

Pennsylvania RTK No ingredients listed.

EU Regulations

This SDS complies with EC Regulations 1907/2006 (REACH) and amendments.

REACH 1907/2006 EC - Annex XIV - list of substances subject to authorization.

No ingredients listed.

According to EC Directives (1999/45/EC and 67/548 EEC)

Not classified as dangerous per EC Directives (1999/45/EC and 67/548 EEC)

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Section 15 Regulatory Information (Continued)

Canada

This product does not meet WHMIS criteria for hazardous materials.

PIN Not applicable

Ingredients on Ingredient Disclosure List

None

Ingredients with unknown toxicological properties

None

15.2 Chemical Safety Assessment

A Chemical Safety Assessment has not been carried out.

Some hazardous ingredients listed in Section 15 are below OSHAs and WHMIS' 1.0% w/w (0.1% for carcinogens) or EU's ingredient specific concentrations required for reporting in Section 3.

Section 16 Other Information

| | | |
|-----------------------------------|--|---|
| Safety Ratings | Flammability: 0 Health: 1 Reactivity with Water: 0 Contact: 1 | Code 0=None 1=Slight 2=Caution 3=Severe |
| Revision Changes | New document | |
| Abbreviations and Acronyms | ACGIH - American Conference of Governmental Industrial Hygienists ADR - European Agreement Concerning The International Carriage Of Dangerous Goods By Road CERCLA - The Comprehensive Environmental Response, Compensation, and Liability Act CLP - Classification, Labeling and Packaging DFGMAK - Republic Germany's maximum exposure limit GHS - Globally Harmonized System HCS - Hazard Communication Standard IARC - International Agency for Research on Cancer IATA - International Air Transport Association ICAO - International Civil Aviation Organization IMDG - International Maritime Dangerous Goods IOELVs - European Unions' Indicative Occupational Exposure Limit Values NIOSH - National Institute for Occupational Safety and Health NTP - National Toxicology Program OSHA - Occupational Safety and Health Administration PBT - Persistent bioaccumulative and toxic substances SARA - Superfund Amendments and Reauthorization Act TDG - Canadian Transportation Of Dangerous Goods Regulations. UN GHS - United Nations Globally Harmonized System US DOT - United States Department of Transportation WHMIS - Workplace Hazardous Material Information System | |

Section 16 Other Information (Continued)

vPvB - Very persistent and very bioaccumulative substances

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