

SAFETY DATA SHEET (SDS)
TrailBio® Vascular Leptomeningeal Cell Kit

Product Name: TrailBio® Vascular Leptomeningeal Cell Kit
Product Code: KEC04000301

This kit contains the following components, each with its own Safety Data Sheet (SDS) appended

Product Name	Product Code(s)
TrailBio® Vascular Leptomeningeal Cells VLMC: Vascular Leptomeningeal Cells	EC040003010 EC4-007
TrailBio® Basal Medium A	BPS01020
TrailBio® Plating Supplement C	PPS03100
TrailBio® Vascular Leptomeningeal Cell Medium Supplement	DEC04400

For detailed safety, handling and storage instructions for each component, please refer to the respective Safety Data Sheets provided within this document.



SAFETY DATA SHEET (SDS)
TrailBio® Vascular Leptomeningeal Cells
1. Product and Company Identification

Product Name: TrailBio® Vascular Leptomeningeal Cells/VLMC: Vascular Leptomeningeal Cells
Product Codes: EC040003010, EC4-007
Product Use: For Research Use Only (RUO), Ultra low temperature (-70° to -196°C) storage of biological material
Manufacturer: Trailhead Biosystems Inc.
23215 Commerce Park Road, Beachwood, Ohio, 44122
SDSs are available at the following website: www.trailbio.com
Company Phone Number: 220-222-9142
Emergency Telephone Number: Medical Emergency (24 h): 1-800-222-1222
Email: sales@trailbio.com

2. Hazards Identification

Classification

Routes of Entry

Oral, Skin, Eyes

Potential Health Effects

Eyes: Irritation **Skin:** Not Applicable **Ingestion:** Nausea **Inhalation:** Not Applicable

Acute Health Hazards: Not Applicable

Chronic Health Hazards: Not Applicable

Medical Conditions Generally Aggravated by Exposure: Not known

Carcinogenicity: None of the components at concentrations equal or greater than 0.1% are listed by NTP, IARC, or OSHA as a carcinogen. To the best of our knowledge, the chemical, physical, toxicological, and carcinogenic properties of DMSO have not been thoroughly investigated.

Precautionary Statements

Prevention Not applicable.

Response

Not applicable.

Storage

Not applicable.

Disposal

Not applicable.

Hazards not otherwise classified (HNOC):

Not classified.

3. Composition/Information on Ingredients

Chemical Name	CAS No.	Weight %
Dimethyl Sulfoxide (DMSO)	67-68-5	7-15%**

**The exact percentage (concentration) of composition has been withheld as a trade secret.

4. First Aid Measures

First aid measures for different exposure routes:

General Advice

If symptoms persist call a physician.

Eye Contact

Rinse thoroughly with running water for >10 minutes, also under the eyelids. Get medical attention if irritation persists.

Skin Contact

Wash off immediately with soap and water. Get medical attention if irritation develops and persists.

Inhalation

Move to fresh air. If symptoms persist, call a physician.

Ingestion

If swallowed, give two glasses of water and induce vomiting. Never give anything to an unconscious person. Call a physician.

Most important symptoms/effects, acute, and delayed

None known.

Indication of immediate medical attention and special treatment needed if necessary

Treat symptomatically.

5. Fire-Fighting Measures

Suitable Extinguishing Media:

Dry chemical, CO₂, alcohol-resistant foam, or water spray.

Unsuitable Extinguishing Media:

None known.

Specific hazards arising from the chemical:

None known.

Hazardous Combustion Products

None known.

Explosion Data

Sensitivity to Mechanical Impact

None known.

Sensitivity to Static Discharge

None known.

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approval or equivalent) and full protective gear.

6. Accidental Release Measures

Personal precautions, protective equipment, and emergency procedures

Use personal protective equipment. Avoid contact with skin, eyes, or clothing.

Environmental precautions

Prevent product from entering drains.

Methods and materials for containment and cleaning up

Methods for Containment

Prevent further leakage or spillage if safe to do so.

Methods for Cleaning Up

Use personal protective equipment. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers. Clean contaminated surface thoroughly. After cleaning, flush away traces with water.

7. Handling and Storage

Precautions for safe handling

Wear personal protective equipment. Avoid contact with skin, eyes, or clothing. Avoid breathing vapors or mists. Ensure adequate ventilation.

Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place. Keep in properly labeled container. No known incompatible materials.

8. Exposure Controls/Personal Protection

Control parameters

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH	AIHA - Workplace Environmental Exposure Levels (WEELs) - TWAs
Dimethyl Sulfoxide (DMSO)				250 ppm TWA

Exposure controls

Engineering Measures

Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/face protection

If splashes are likely to occur, wear safety glasses with side-shields or full splash goggles.

Skin and body protection

Wear protective gloves/clothing. A disposable lab coat is suggested.

Respiratory protection

None required under normal usage. If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn.

General Hygiene Considerations

When using, do not eat, drink, or smoke. Take off contaminated clothing and wash before reuse. Regular cleaning of equipment, work area, and clothing is recommended.

9. Physical and Chemical Properties

Appearance: colorless
Odor Threshold: Not available
pH: Not available
Specific Gravity: Not available
Flash Point: Not available
Decomposition temperature: Not available
Melting point/melting range: 32 °F or 0 °C
Flammability Limit in Air: Not available
Oxidizing Properties: Not available **Solubility:**
Soluble in water **Evaporation Rate:** Not available
Vapor Density: Not available
VOC (lb/gal): None
Dynamic Viscosity: Not available
Odor: Slight
Physical State at 20 deg C: Liquid
Molecular Weight: Not available
Autoignition temperature: Not available
Boiling point/boiling range: Not available
Freezing Point: 24.8 °F or -4 °C
Explosive properties: Not available
Partition Coefficient: Not available
Vapor Pressure: Not available
Density: Not available
VOC (g/L): None

10. Stability and Reactivity

Reactivity

Stable under recommended storage conditions.

Chemical Stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

None under normal processing.

Conditions to avoid

Excessive heat. Freezing.

Incompatible Materials

Strong oxidizing agents, strong acids, strong bases, and acid chlorides.

Hazardous Decomposition Products

None known.

11. Toxicological Information

Information on likely routes of administration

Product Information

Acute toxicity

Inhalation	Non-irritating during normal use.
Eyes	Non-irritating during normal use.
Skin	Non-irritating during normal use.
Ingestion	Non-irritating during normal use.

Component Information

Chemical Name	Oral LD50	Dermal LD50	LC50 (lethal concentration)
Dimethyl Sulfoxide (DMSO)	28300 mg/kg (rat)	40 g/kg (rat)	> 5.33 mg/L (rat) 4 h

Information on toxicological effects

No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Irritation	Mild skin irritant.
Corrosivity	No information available.
Sensitization	No information available.
Mutagenic Effects	No information available.
Reproductive Toxicity	No information available.
Carcinogenicity	None known.
STOT – single exposure	No information available.
STOT – repeated exposure	No information available.
Target Organ Effects	Skin.
Aspiration hazard	No information available.

Numerical measures of toxicity – Product Information

ATEmix (oral)	>5000 mg/kg
ATEmix (dermal)	>5000 mg/kg

*ATE: acute toxicity estimate

12. Ecological Information

Ecotoxicity

The environmental impact of this product has not been fully investigated.

Chemical Name	Algae Toxicity	Toxicity to Fish	Toxicity to Microorganisms	Toxicity to daphnia and other aquatic invertebrates
Dimethyl Sulfoxide (DMSO)		Pimephales promelas: 34000 mg/L at 96 h		

Persistence and degradability

No information available.

Bioaccumulation

Chemical Name	Octanol Water Partition Coefficient (log pow)
Dimethyl Sulfoxide (DMSO)	-2.03

Mobility

No information available.

Other adverse effects

No information available.

13. Disposal Consideration

Waste disposal methods

Dispose of in accordance with local regulations.

Contaminated packaging

Do not re-use empty containers.

14. Transport Information

DOT: Not regulated.
TDG: Not regulated.
MEX: Not regulated.
ICAO: Not regulated.
IATA: Not regulated.
IMDG: Not regulated.
ADR/RID: Not regulated.
ADN: Not regulated.

15. Regulatory Information

International Inventories

TSCA Yes
DSL/NDSL Yes
PICCS Yes
EINECS/ELINCS Yes
ENCS Yes
IECSC Yes
KECL Yes
AICS Yes

***Yes – All component(s) of this product are included or are exempt from listing on the inventory.**

***No – Indicated the component(s) of this product are either not listed or have not been determined to be listed on the inventory.**

TSCA – United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL – Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS – European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS – Japan Existing and New Chemical Substances
IECSC – China Inventory of Existing Chemical Substances
KECL – Korean Existing and Evaluated Chemical Substances
PICCS – Philippines Inventory of Chemical and Chemical Substances
AICS – Australian Inventory of Chemical Substances

U.S. Federal Regulations

TSCA Sections 4, 5, and 12(b)

This product does not contain any chemicals regulated by TSCA Sections 4, 5, or 12(b)

SARA313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

Classification is shown in section 2 of this SDS

Clean Water Act

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals

US State Right to Know Regulations

Chemical Name	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Dimethyl Sulfoxide (DMSO)		X			

International Regulations

Canada – NDSL

This product does not contain any NDSL chemicals.

Mexico – Grade

No information available.

Mexico – Carcinogen Status and Exposure Limits

No information available.

Other Regulations

No information available.

16. Other Information

	Health Hazard	Flammability	Instability	Physical Hazard	Personal protection
NFPA	1	1	0	-	-
HMIS	1	1	-	0	B

Prepared By Trailhead Biosystems

Preparation Date 2025-01-10

Revision Date 2025-01-10

Revision Note No information available.

Disclaimer The information provided in this Safety Data Sheet (SDS) is correct to the best of our knowledge. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal, and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

END

SAFETY DATA SHEET (SDS)
TrailBio® Basal Medium A

1. Product and Company Identification

Product Name: TrailBio® Basal Medium A

Product Codes: BPS01020

Product Use: For Research Use Only (RUO)

Manufacturer: Trailhead Biosystems Inc.

23215 Commerce Park Road, Beachwood, Ohio, 44122

SDSs are available at the following website: www.trailbio.com

Company Phone Number: 220-222-9142

Emergency Telephone Number: Medical Emergency (24 h): 1-800-222-1222

Email: sales@trailbio.com

2. Hazards Identification

Classification

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Hazards not otherwise classified (HNOC) Not applicable

Not applicable

GHS Label elements, including precautionary statements:

Not classified.

Precautionary Statements

Prevention

Not applicable.

Response

Not applicable.

Storage

Not applicable.

Disposal

Not applicable.

3. Composition/Information on Ingredients

Substance

Not applicable

Mixture

Not a hazardous substance or mixture according to the Globally Harmonized System (GHS)

**The exact percentage (concentration) of composition has been withheld as a trade secret.

4. First Aid Measures

First aid measures for different exposure routes:

General Advice

If symptoms persist call a physician.

Eye Contact

Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.

Skin Contact

Wash off immediately with plenty of water. Get medical attention if irritation develops and persists.

Inhalation

Move to fresh air. If symptoms persist, call a physician.

Ingestion

Clean mouth with water and drink afterwards plenty of water

Most important symptoms/effects, acute, and delayed

None known.

Indication of immediate medical attention and special treatment needed if necessary

Treat symptomatically.

5. Fire-Fighting Measures

Suitable Extinguishing Media:

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media:

None known.

Specific hazards arising from the chemical:

None known.

Hazardous Combustion Products:

None known.

Explosion Data

Sensitivity to Mechanical Impact

None

Sensitivity to Static Discharge

None

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approval or equivalent) and full protective gear.

6. Accidental Release Measures

Personal precautions, protective equipment, and emergency procedures

Use personal protective equipment. Avoid contact with skin, eyes, or clothing.

Environmental precautions

Prevent product from entering drains.

Methods and materials for containment and cleaning up

Methods for Containment

Prevent further leakage or spillage if safe to do so.

Methods for Cleaning Up

Use personal protective equipment. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers. Clean contaminated surface thoroughly. After cleaning, flush away traces with water.

7. Handling and Storage

Precautions for safe handling

Wear personal protective equipment. Avoid contact with skin, eyes, or clothing. Avoid breathing vapors or mists. Ensure adequate ventilation.

Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place. Keep in properly labeled containers. No known incompatible materials.

Exposure Controls/Personal Protection

Control parameters

Exposure Guidelines

This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies

Exposure controls

Engineering Measures

Ventilation systems

Showers

Eyewash Stations

Individual protection measures, such as personal protective equipment

Eye/face protection

No special protective equipment required.

Skin and body protection

No special protective equipment required.

Respiratory protection

No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

General Hygiene Considerations

Handle in accordance with good industrial hygiene and safety practice.

8. Physical and Chemical Properties

Appearance: colorless
Odor Threshold: Not available
pH: Not available
Specific Gravity: Not available
Flash Point: Not available
Decomposition temperature: Not available
Melting point/melting range: 32 °F or 0 °C
Flammability Limit in Air: Not available
Oxidizing Properties: Not available
Solubility: Soluble in water
Evaporation Rate: Not available
Vapor Density: Not available
VOC (lb/gal): None
Dynamic Viscosity: Not available
Odor: Slight
Physical State at 20 deg C: Liquid
Molecular Weight: Not available
Autoignition temperature: Not available
Boiling point/boiling range: Not available
Freezing Point: 24.8 °F or -4 °C
Explosive properties: Not available
Partition Coefficient: Not available
Vapor Pressure: Not available
Density: Not available
VOC (g/L): None

9. Stability and Reactivity

Reactivity

Stable under recommended storage conditions.

Chemical Stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

None under normal processing.

Conditions to avoid

Excessive heat. Freezing.

Incompatible Materials

Strong oxidizing agents, strong acids, strong bases, and acid chlorides

Hazardous Decomposition Products

None known.

10. Toxicological Information

Information on likely routes of administration

Product Information

Acute toxicity

Inhalation	Unknown
Eyes	Unknown
Skin	Unknown
Ingestion	Unknown

Component Information

100 % of the mixture consists of ingredient(s) of unknown toxicity

Information on toxicological effects

No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Irritation No information available.

Corrosivity No information available.

Sensitization No information available.

Mutagenic Effects No information available.

Reproductive Toxicity No information available.

Carcinogenicity None known.

STOT – single exposure No information available.

STOT – repeated exposure No information available.

Target Organ Effects Skin.

Aspiration hazard No information available.

Numerical measures of toxicity – Product Information

ATEmix (oral) >5000 mg/kg

ATEmix (dermal) >5000 mg/kg

ATE: acute toxicity estimate

11. Ecological Information

Ecotoxicity

The environmental impact of this product has not been fully investigated.

Persistence and degradability

No information available.

Bioaccumulation

There is no data for this product.

Mobility

No information available.

Other adverse effects

No information available.

12. Disposal Consideration

Waste disposal methods

Dispose of in accordance with local regulations.

Contaminated packaging

Do not re-use empty containers.

13. Transport Information

DOT: Not regulated.

TDG: Not regulated.

MEX: Not regulated.

ICAO: Not regulated.

IATA: Not regulated.

IMDG: Not regulated.

ADR/RID: Not regulated.

ADN: Not regulated.

14. Regulatory Information

International Inventories

TSCA Yes

DSL/NDSL Yes

PICCS Yes

EINECS/ELINCS Yes

ENCS Yes

IECSC Yes

KECL Yes

AICS Yes

***Yes – All component(s) of this product are included or are exempt from listing on the inventory.**

***No – Indicated the component(s) of this product are either not listed or have not been determined to be listed on the inventory.**

TSCA – United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL – Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS – European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS – Japan Existing and New Chemical Substances

IECSC – China Inventory of Existing Chemical Substances

KECL – Korean Existing and Evaluated Chemical Substances

PICCS – Philippines Inventory of Chemical and Chemical Substances

AICS – Australian Inventory of Chemical Substances

U.S. Federal Regulations

TSCA Sections 4, 5, and 12(b)

This product does not contain any chemicals regulated by TSCA Sections 4, 5, or 12(b)

SARA313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations,

Clean Water Act

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

US State Regulations**California Proposition 65**

This product does not contain any Proposition 65 chemicals

US State Right to Know Regulations**International Regulations****Canada – NDSL**

This product does not contain any NDSL chemicals.

Mexico – Grade

No information available.

Mexico – Carcinogen Status and Exposure Limits

No information available.

Other Regulations

No information available.

15. Other Information

Prepared By	Trailhead Biosystems
Preparation Date	2025-01-10
Revision Date	2025-01-10
Revision Note	No information available.
Disclaimer	The information provided in this Safety Data Sheet (SDS) is correct to the best of our knowledge. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal, and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

END

SAFETY DATA SHEET (SDS)
TrailBio® Plating Supplement C

1. Product and Company Identification

Product Name: TrailBio® Plating Supplement C

Product Codes: PPS03100

Product Use: For Research Use Only (RUO)

Manufacturer: Trailhead Biosystems Inc.

23215 Commerce Park Road, Beachwood, Ohio, 44122

SDSs are available at the following website: www.trailbio.com

Company Phone Number: 220-222-9142

Emergency Telephone Number: Medical Emergency (24 h): 1-800-222-1222

Email: sales@trailbio.com

2. Hazards Identification

Classification

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Hazards not otherwise classified (HNOC) Not applicable

Not applicable

GHS Label elements, including precautionary statements:

Not classified.

Precautionary Statements

Prevention

Not applicable.

Response

Not applicable.

Storage

Not applicable.

Disposal

Not applicable.

3. Composition/Information on Ingredients

Substance

Not applicable

Mixture

Not a hazardous substance or mixture according to the Globally Harmonized System (GHS)

**The exact percentage (concentration) of composition has been withheld as a trade secret.

4. First Aid Measures

First aid measures for different exposure routes:

General Advice

If symptoms persist call a physician.

Eye Contact

Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.

Skin Contact

Wash off immediately with plenty of water. Get medical attention if irritation develops and persists.

Inhalation

Move to fresh air. If symptoms persist, call a physician.

Ingestion

Clean mouth with water and drink afterwards plenty of water

Most important symptoms/effects, acute, and delayed

None known.

Indication of immediate medical attention and special treatment needed if necessary

Treat symptomatically.

5. Fire-Fighting Measures

Suitable Extinguishing Media:

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media:

None known.

Specific hazards arising from the chemical:

None known.

Hazardous Combustion Products:

None known.

Explosion Data

Sensitivity to Mechanical Impact

None

Sensitivity to Static Discharge

None

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approval or equivalent) and full protective gear.

6. Accidental Release Measures

Personal precautions, protective equipment, and emergency procedures

Use personal protective equipment. Avoid contact with skin, eyes, or clothing.

Environmental precautions

Prevent product from entering drains.

Methods and materials for containment and cleaning up

Methods for Containment

Prevent further leakage or spillage if safe to do so.

Methods for Cleaning Up

Use personal protective equipment. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers. Clean contaminated surface thoroughly. After cleaning, flush away traces with water.

7. Handling and Storage

Precautions for safe handling

Wear personal protective equipment. Avoid contact with skin, eyes, or clothing. Avoid breathing vapors or mists. Ensure adequate ventilation.

Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place. Keep in properly labeled containers. No known incompatible materials.

Exposure Controls/Personal Protection

Control parameters

Exposure Guidelines

This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies

Exposure controls

Engineering Measures

Ventilation systems

Showers

Eyewash Stations

Individual protection measures, such as personal protective equipment

Eye/face protection

No special protective equipment required.

Skin and body protection

No special protective equipment required.

Respiratory protection

No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

General Hygiene Considerations

Handle in accordance with good industrial hygiene and safety practice.

8. Physical and Chemical Properties

Appearance: colorless
Odor Threshold: Not available
pH: Not available
Specific Gravity: Not available
Flash Point: Not available
Decomposition temperature: Not available
Melting point/melting range: 32 °F or 0 °C
Flammability Limit in Air: Not available
Oxidizing Properties: Not available
Solubility: Soluble in water
Evaporation Rate: Not available
Vapor Density: Not available
VOC (lb/gal): None
Dynamic Viscosity: Not available
Odor: Slight
Physical State at 20 deg C: Liquid
Molecular Weight: Not available
Autoignition temperature: Not available
Boiling point/boiling range: Not available
Freezing Point: 24.8 °F or -4 °C
Explosive properties: Not available
Partition Coefficient: Not available
Vapor Pressure: Not available
Density: Not available
VOC (g/L): None

9. Stability and Reactivity

Reactivity

Stable under recommended storage conditions.

Chemical Stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

None under normal processing.

Conditions to avoid

Excessive heat. Freezing.

Incompatible Materials

Strong oxidizing agents, strong acids, strong bases, and acid chlorides

Hazardous Decomposition Products

None known.

10. Toxicological Information

Information on likely routes of administration

Product Information

Acute toxicity

Inhalation	Unknown
Eyes	Unknown
Skin	Unknown
Ingestion	Unknown

Component Information

100 % of the mixture consists of ingredient(s) of unknown toxicity

Information on toxicological effects

No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Irritation	No information available.
Corrosivity	No information available.
Sensitization	No information available.
Mutagenic Effects	No information available.
Reproductive Toxicity	No information available.
Carcinogenicity	None known.
STOT – single exposure	No information available.
STOT – repeated exposure	No information available.
Target Organ Effects	Skin.
Aspiration hazard	No information available.

Numerical measures of toxicity – Product Information

ATEmix (oral)	>5000 mg/kg
ATEmix (dermal)	>5000 mg/kg
ATE: acute toxicity estimate	

11. Ecological Information

Ecotoxicity

The environmental impact of this product has not been fully investigated.

Persistence and degradability

No information available.

Bioaccumulation

There is no data for this product.

Mobility

No information available.

Other adverse effects

No information available.

12. Disposal Consideration

Waste disposal methods

Dispose of in accordance with local regulations.

Contaminated packaging

Do not re-use empty containers.

13. Transport Information

DOT: Not regulated.

TDG: Not regulated.

MEX: Not regulated.

ICAO: Not regulated.

IATA: Not regulated.

IMDG: Not regulated.

ADR/RID: Not regulated.

ADN: Not regulated.

14. Regulatory Information

International Inventories

TSCA Yes

DSL/NDSL Yes

PICCS Yes

EINECS/ELINCS Yes

ENCS Yes

IECSC Yes

KECL Yes

AICS Yes

***Yes – All component(s) of this product are included or are exempt from listing on the inventory.**

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KECL – Korean Existing and Evaluated Chemical Substances

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This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

US State Regulations**California Proposition 65**

This product does not contain any Proposition 65 chemicals

US State Right to Know Regulations**International Regulations****Canada – NDSL**

This product does not contain any NDSL chemicals.

Mexico – Grade

No information available.

Mexico – Carcinogen Status and Exposure Limits

No information available.

Other Regulations

No information available.

15. Other Information

Prepared By	Trailhead Biosystems
Preparation Date	2025-01-10
Revision Date	2025-01-10
Revision Note	No information available.
Disclaimer	The information provided in this Safety Data Sheet (SDS) is correct to the best of our knowledge. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal, and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

END

SAFETY DATA SHEET (SDS)
TrailBio® Vascular Leptomeningeal Cell Medium Supplement
1. Product and Company Identification

Product Name: TrailBio® Vascular Leptomeningeal Cell Medium Supplement

Product Codes: DEC04400

Product Use: For Research Use Only (RUO)

Manufacturer: Trailhead Biosystems Inc.

23215 Commerce Park Road, Beachwood, Ohio, 44122

SDSs are available at the following website: www.trailbio.com

Company Phone Number: 220-222-9142

Emergency Telephone Number: Medical Emergency (24 h): 1-800-222-1222

Email: sales@trailbio.com

2. Hazards Identification

Classification

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Hazards not otherwise classified (HNOC) Not applicable

Not applicable

GHS Label elements, including precautionary statements:

Not classified.

Precautionary Statements

Prevention

Not applicable.

Response

Not applicable.

Storage

Not applicable.

Disposal

Not applicable.

3. Composition/Information on Ingredients

Substance

Not applicable

Mixture

Not a hazardous substance or mixture according to the Globally Harmonized System (GHS)

**The exact percentage (concentration) of composition has been withheld as a trade secret.

4. First Aid Measures

First aid measures for different exposure routes:

General Advice

If symptoms persist call a physician.

Eye Contact

Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.

Skin Contact

Wash off immediately with plenty of water. Get medical attention if irritation develops and persists.

Inhalation

Move to fresh air. If symptoms persist, call a physician.

Ingestion

Clean mouth with water and drink afterwards plenty of water

Most important symptoms/effects, acute, and delayed

None known.

Indication of immediate medical attention and special treatment needed if necessary

Treat symptomatically.

5. Fire-Fighting Measures

Suitable Extinguishing Media:

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media:

None known.

Specific hazards arising from the chemical:

None known.

Hazardous Combustion Products:

None known.

Explosion Data

Sensitivity to Mechanical Impact

None

Sensitivity to Static Discharge

None

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approval or equivalent) and full protective gear.

6. Accidental Release Measures

Personal precautions, protective equipment, and emergency procedures

Use personal protective equipment. Avoid contact with skin, eyes, or clothing.

Environmental precautions

Prevent product from entering drains.

Methods and materials for containment and cleaning up

Methods for Containment

Prevent further leakage or spillage if safe to do so.

Methods for Cleaning Up

Use personal protective equipment. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers. Clean contaminated surface thoroughly. After cleaning, flush away traces with water.

7. Handling and Storage

Precautions for safe handling

Wear personal protective equipment. Avoid contact with skin, eyes, or clothing. Avoid breathing vapors or mists. Ensure adequate ventilation.

Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place. Keep in properly labeled containers. No known incompatible materials.

Exposure Controls/Personal Protection

Control parameters

Exposure Guidelines

This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies

Exposure controls

Engineering Measures

Ventilation systems
 Showers
 Eyewash Stations

Individual protection measures, such as personal protective equipment

Eye/face protection

No special protective equipment required.

Skin and body protection

No special protective equipment required.

Respiratory protection

No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

General Hygiene Considerations

Handle in accordance with good industrial hygiene and safety practice.

8. Physical and Chemical Properties

Appearance: colorless
Odor Threshold: Not available
pH: Not available
Specific Gravity: Not available
Flash Point: Not available
Decomposition temperature: Not available
Melting point/melting range: 32 °F or 0 °C
Flammability Limit in Air: Not available
Oxidizing Properties: Not available
Solubility: Soluble in water
Evaporation Rate: Not available
Vapor Density: Not available
VOC (lb/gal): None
Dynamic Viscosity: Not available
Odor: Slight
Physical State at 20 deg C: Liquid
Molecular Weight: Not available
Autoignition temperature: Not available
Boiling point/boiling range: Not available
Freezing Point: 24.8 °F or -4 °C
Explosive properties: Not available
Partition Coefficient: Not available
Vapor Pressure: Not available
Density: Not available
VOC (g/L): None

9. Stability and Reactivity

Reactivity

Stable under recommended storage conditions.

Chemical Stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

None under normal processing.

Conditions to avoid

Excessive heat. Freezing.

Incompatible Materials

Strong oxidizing agents, strong acids, strong bases, and acid chlorides

Hazardous Decomposition Products

None known.

10. Toxicological Information

Information on likely routes of administration

Product Information

Acute toxicity

Inhalation	Unknown
Eyes	Unknown
Skin	Unknown
Ingestion	Unknown

Component Information

100 % of the mixture consists of ingredient(s) of unknown toxicity

Information on toxicological effects

No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Irritation No information available.

Corrosivity No information available.

Sensitization No information available.

Mutagenic Effects No information available.

Reproductive Toxicity No information available.

Carcinogenicity None known.

STOT – single exposure No information available.

STOT – repeated exposure No information available.

Target Organ Effects Skin.

Aspiration hazard No information available.

Numerical measures of toxicity – Product Information

ATEmix (oral) >5000 mg/kg

ATEmix (dermal) >5000 mg/kg

ATE: acute toxicity estimate

11. Ecological Information

Ecotoxicity

The environmental impact of this product has not been fully investigated.

Persistence and degradability

No information available.

Bioaccumulation

There is no data for this product.

Mobility

No information available.

Other adverse effects

No information available.

12. Disposal Consideration

Waste disposal methods

Dispose of in accordance with local regulations.

Contaminated packaging

Do not re-use empty containers.

13. Transport Information

DOT: Not regulated.

TDG: Not regulated.

MEX: Not regulated.

ICAO: Not regulated.

IATA: Not regulated.

IMDG: Not regulated.

ADR/RID: Not regulated.

ADN: Not regulated.

14. Regulatory Information

International Inventories

TSCA Yes

DSL/NDSL Yes

PICCS Yes

EINECS/ELINCS Yes

ENCS Yes

IECSC Yes

KECL Yes

AICS Yes

***Yes – All component(s) of this product are included or are exempt from listing on the inventory.**

***No – Indicated the component(s) of this product are either not listed or have not been determined to be listed on the inventory.**

TSCA – United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL – Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS – European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS – Japan Existing and New Chemical Substances

IECSC – China Inventory of Existing Chemical Substances

KECL – Korean Existing and Evaluated Chemical Substances

PICCS – Philippines Inventory of Chemical and Chemical Substances

AICS – Australian Inventory of Chemical Substances

U.S. Federal Regulations

TSCA Sections 4, 5, and 12(b)

This product does not contain any chemicals regulated by TSCA Sections 4, 5, or 12(b)

SARA313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations,

Clean Water Act

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

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