

SAFETY DATA SHEET (SDS)
TrailBio® A9 Dopaminergic Neurons Kit

Product Name: TrailBio® A9 Dopaminergic Neurons Kit
Product Code: KEC05010301

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

Product Name	Product Code(s)
TrailBio® A9 Dopaminergic Neurons	EC050103010
TrailBio® Basal Medium D	BPS04006
TrailBio® Plating Supplement E	PPS05030
TrailBio® A9 Dopaminergic Medium Supplement	DEC05401

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[®] A9 Dopaminergic Neurons

1. Product and Company Identification

Product Name: TrailBio[®] A9 Dopaminergic Neurons - Cell Vial

Product Codes: EC050103010

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.

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)

SARA13

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 contains 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 D

1. Product and Company Identification

Product Name: TrailBio[®] Basal Medium D
Product Codes: BPS04006
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 at these working concentrations (29 CFR 1910.1200)

Hazards not otherwise classified (HNOC) Not applicable

Not applicable

GHS Label elements, including precautionary statements:

Not classified.

Precautionary Statements

Prevention

Avoid direct contact. Wash thoroughly after handling.

Response

Not applicable.

Storage

Not applicable.

Disposal

Not applicable.

3. Composition/Information on Ingredients

Substance

Not applicable

Mixture

Not a hazardous substance or mixture at working concentrations 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 immediately and thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician if irritation persists

Skin Contact

Wash off immediately with soap and plenty of water. Remove contaminated clothing. 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 seek medical attention if feeling unwell

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:

Water spray, dry chemical, foam, carbon dioxide

Unsuitable Extinguishing Media:

Strong direct water jet

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 detergent and 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 the container tightly closed in a dry and well-ventilated place. Keep in properly labeled containers. Protect from light and prolonged exposure to air.

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

Standard eye protection required.

Skin and body protection

Lab coat and gloves 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

8. Physical and Chemical Properties

Appearance: Clear to slightly cloudy solution

Odor Threshold: Not available

pH: 6.8-7.4

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 aqueous solution; some components may form micelles.

Evaporation Rate: Not available

Vapor Density: Not available

VOC (lb/gal): None

Dynamic Viscosity: Not available

Odor: Mild to none

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.

Incompatible Materials

Strong oxidizing agents

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	Mild
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 and Eyes
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. Avoid large releases into the environment.

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)

SARA13

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 contains 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	2025-04-27
Revision Date	2025-04-27
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 E

1. Product and Company Identification

Product Name: TrailBio[®] Plating Supplement E

Product Codes: PPS05030

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. Seek medical attention if irritation persists.

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

Rinse mouth. Drink water. Do not induce vomiting. Seek medical attention if discomfort develops.

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:

Water spray, foam, dry chemical, CO₂. 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

Store as specified in user instructions. Keep container tightly closed in a dry and well-ventilated place. Keep in properly labeled containers.

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: None

Physical State at 20 deg C: Liquid

Molecular Weight: Not available

Autoignition temperature: Not available

Boiling point/boiling range: 100 °C

Freezing Point: 32 °F or 0 °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, acids and bases

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	No information available.
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

Not expected to pose significant risk at use concentrations.

Persistence and degradability

Biodegradable components.

Bioaccumulation

Not likely.

Mobility

Soluble in water.

Other adverse effects

No information available.

12. Disposal Consideration

Waste disposal methods

Dispose of in accordance with local regulations. Do not discharge into drains or environment.

Contaminated packaging

Rinse and dispose of empty containers as non-hazardous lab waste.

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

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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)

SARA13

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

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Clean Water Act

This product does not contains 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	2025-04-27
Revision Date	2025-04-27
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[®] A9 Dopaminergic Medium Supplement

1. Product and Company Identification

Product Name: TrailBio[®] A9 Dopaminergic Medium Supplement
Product Codes: DEC05401
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 exposed or if symptoms occur, seek medical attention. Call physician if irritation persists.

Eye Contact

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

Skin Contact

Flush skin with water and soap for ≥ 15 min. Remove contaminated clothing. Seek medical advice if irritation occurs.

Inhalation

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

Ingestion

Rinse mouth; drink plenty of water if conscious. Do not induce vomiting. Seek medical attention if discomfort occurs.

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:

Water spray, alcohol-resistant foam, dry chemical, or CO₂. Use media appropriate to surroundings.

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

Wear gloves, lab coat, and eye protection. Avoid inhalation of dust/aerosol.

Environmental precautions

Prevent large spills from reaching drains or waterways.

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. Sweep or scoop up solids. Ventilate area. Dispose of waste as chemical waste. 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. Wash hands after handling and use in a well-ventilated lab environment. Minimize creation of aerosols.

Conditions for safe storage, including any incompatibilities

Store as specified in user instructions. Avoid freeze-thaw cycles. Keep containers tightly closed. Store in a cool, dry place away from incompatible materials (strong oxidizers, acids, bases). Keep away from reducing agents and oxidizers.

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, Use local exhaust if power handling
Showers
Eyewash Stations

Individual protection measures, such as personal protective equipment

Eye/face protection

Safety goggles.

Skin and body protection

Lab coat and nitrile gloves. Change gloves if contamination occurs

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

Wash hands after use. Do not eat or drink in work area.

8. Physical and Chemical Properties

Appearance: colorless

Odor Threshold: Faint or none

pH: ~7 (Neutral)

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: Miscible 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 -0 °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

No hazardous reactions expected under normal use

Chemical Stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

None under normal processing.

Conditions to avoid

Avoid extreme heat; keep away from strong oxidizers (e.g. peroxides, halogens) and strong acids/bases which could degrade components.

Incompatible Materials

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

Hazardous Decomposition Products

None known. Combustion may produce CO, CO₂, NO_x, HCl

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 Can cause mild irritation.

Corrosivity No information available.

Sensitization Can cause sensitization.

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 No information available.

Aspiration hazard Not aspiration hazard.

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

Expected to degrade by normal environmental processes (light, hydrolysis).

Bioaccumulation

There is no data for this product.

Mobility

Water-soluble; may disperse in water.

Other adverse effects

No information available.

12. Disposal Consideration

Waste disposal methods

Treat as chemical waste. Dispose in accordance with federal, state, and local regulations. Do not pour down drains or sewer. Small quantities may be neutralized or degraded before disposal.

Contaminated packaging

Empty containers should be rinsed and disposed of as non-hazardous waste; do not reuse 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)

SARA13

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

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