

SAFETY DATA SHEET (SDS)

TrailBio® Cytarabine (Ara-C)

1. Identification

Product Name: TrailBio® Cytarabine (Ara-C)

Synonyms: Cytosine β-D-arabinofuranoside; Cytosine Arabinoside; Ara-C

Product Code: TB47622

CAS No.: 147-94-4

Molecular Formula: C₉H₁₃N₃O₅

Molecular Weight: 243.22 g/mol

Product Use: For Research Use Only (RUO). Laboratory chemical; manufacture of substances.

Uses Advised Against: Any use other than the identified research use.

Distributed by: Trailhead Biosystems Inc.

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

Company Phone Number: +1 (216) 490-3304

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2. Hazard(s) Identification

Classification (OSHA HCS 2024, GHS Rev. 7; 29 CFR 1910.1200)

Skin sensitization – Category 1 (1A, 1B), H317

Reproductive toxicity – Category 2, H361

Hazards not otherwise classified (HNOC)

None.

GHS Label Elements



Pictograms:

Signal Word: Warning

Hazard Statements

H317 – May cause an allergic skin reaction

H361 – Suspected of damaging fertility or the unborn child

Precautionary Statements – Prevention

P261 – Avoid breathing dust/fume/gas/mist/vapours/spray.

P272 – Contaminated work clothing should not be allowed out of the workplace.

P280 – Wear protective gloves/protective clothing/eye protection/face protection.

Precautionary Statements – Response

P302+P352 – IF ON SKIN: Wash with plenty of soap and water.

P362+P364 – Take off contaminated clothing and wash it before reuse.

Precautionary Statements – Storage

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P405 – Store locked up.

Precautionary Statements – Disposal

P501 – Dispose of contents/container in accordance with local regulations.

3. Composition/Information on Ingredients

Substance

Chemical Name: Cytarabine

Synonyms: Cytosine β -D-arabinofuranoside; Cytosine Arabinoside; Ara-C

CAS No.: 147-94-4

Molecular Formula: C₉H₁₃N₃O₅

Molecular Weight: 243.22 g/mol

Single substance supplied at $\geq 98\%$ (as supplied). See Section 2 for hazard classification.

4. First-Aid Measures

Description of first-aid measures

Eye Contact

Remove any contact lenses, locate eye-wash station, and flush eyes immediately with large amounts of water. Separate eyelids with fingers to ensure adequate flushing. Promptly call a physician.

Skin Contact

Rinse skin thoroughly with large amounts of water. Remove contaminated clothing and shoes and call a physician.

Inhalation

Immediately relocate self or casualty to fresh air. If breathing is difficult, give cardiopulmonary resuscitation (CPR). Avoid mouth-to-mouth resuscitation.

Ingestion

Wash out mouth with water; do NOT induce vomiting; call a physician.

Most important symptoms/effects, acute and delayed

May cause an allergic skin reaction. Suspected of damaging fertility or the unborn child. See Section 2.

Indication of immediate medical attention and special treatment needed

Treat symptomatically.

5. Fire-Fighting Measures

Suitable Extinguishing Media

Use water spray, dry chemical, foam, or carbon dioxide (CO₂) fire extinguisher.

Unsuitable Extinguishing Media

None known.

Specific hazards arising from the chemical

During combustion, may emit irritant fumes. Under fire conditions, may decompose and emit toxic fumes.

Hazardous Combustion Products

Toxic and irritant fumes under fire conditions.

Protective Equipment and Precautions for Firefighters

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

6. Accidental Release Measures

Personal precautions, protective equipment, and emergency procedures

Use full personal protective equipment. Avoid breathing vapors, mist, dust, or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Refer to protective measures listed in Section 8.

Environmental precautions

Try to prevent further leakage or spillage. Keep the product away from drains or water courses.

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 Absorb solutions with finely-powdered liquid-binding material (diatomite, universal binders). Decontaminate surfaces and equipment by scrubbing with alcohol. Dispose of contaminated material according to Section 13.

7. Handling and Storage

Precautions for safe handling

Avoid inhalation and contact with eyes and skin. Avoid dust and aerosol formation. Use only in areas with appropriate exhaust ventilation. Wear personal protective equipment.

Conditions for safe storage, including any incompatibilities

Keep container tightly sealed in a cool, well-ventilated area. Keep away from direct sunlight and sources of ignition. Keep away from strong acids/alkalis and strong oxidising/reducing agents.

Recommended storage temperature (powder): -20 °C – 3 years; 4 °C – 2 years

Recommended storage temperature (in solvent): -80 °C – 2 years; -20 °C – 1 year

Shipping: Room temperature if less than 2 weeks.

8. Exposure Controls/Personal Protection

Control parameters

Exposure Guidelines This product contains no substances with established occupational exposure limit (OEL) values.

Appropriate engineering controls

Ensure adequate ventilation. Provide accessible safety shower and eye-wash station.

Individual protection measures, such as personal protective equipment

Eye/face protection Safety goggles with side-shields.

Hand protection Protective (impervious) gloves.

Skin and body protection Impervious clothing.

Respiratory protection Suitable respirator where exposure may occur (e.g., dust/aerosol generation).

General Hygiene Considerations Handle in accordance with good industrial hygiene and

safety practice.

9. Physical and Chemical Properties

Appearance: Solid

Odor: No data available

Odor Threshold: No data available

pH: No data available

Melting point/freezing point: 214 °C

Boiling point/boiling range: 386.09 °C at 760 mmHg

Flash Point: No data available

Evaporation Rate: No data available

Flammability (solid, gas): No data available

Upper/lower flammability or explosive limits: No data available

Vapor Pressure: No data available

Vapor Density: No data available

Relative Density: 1.3686 g/cm³

Solubility: No data available

Partition Coefficient (n-octanol/water): No data available

Autoignition temperature: No data available

Decomposition temperature: No data available

Viscosity: No data available

Explosive properties: No data available

Oxidizing properties: No data available

Molecular Weight: 243.22 g/mol

Physical State at 20 °C: Solid

10. Stability and Reactivity

Reactivity

No data available.

Chemical Stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

No data available.

Conditions to avoid

Direct sunlight and sources of ignition. Dust and aerosol formation.

Incompatible Materials

Strong acids/alkalis, strong oxidising/reducing agents.

Hazardous Decomposition Products

Under fire conditions, may decompose and emit toxic fumes.

11. Toxicological Information

Information on toxicological effects

Acute toxicity	Classified based on available data; see Section 2.
Skin corrosion/irritation	Classified based on available data; see Section 2.
Serious eye damage/irritation	Classified based on available data; see Section 2.
Respiratory or skin sensitization	Skin sensitizer, Category 1 (H317); see Section 2.
Germ cell mutagenicity	Classified based on available data; see Section 2.
Reproductive Toxicity	Suspected, Category 2 (H361); see Section 2.
STOT – single exposure	Classified based on available data; see Section 2.
STOT – repeated exposure	Classified based on available data; see Section 2.
Aspiration hazard	Classified based on available data; see Section 2.
Target Organ Effects	Skin.

Carcinogenicity

IARC, ACGIH, NTP, and OSHA: No component of this product present at a level equal to or greater than 0.1% is identified as a probable, possible, or confirmed human carcinogen by these bodies.

Additional information

RTECS No.: HA5425000. This information is based on current knowledge; the chemical, physical, and toxicological properties have not been completely investigated.

12. Ecological Information

Ecotoxicity

No data available.

Persistence and degradability

No data available.

Bioaccumulative potential

No data available.

Mobility in soil

No data available.

Results of PBT and vPvB assessment

PBT/vPvB assessment unavailable as chemical safety assessment not required or not conducted.

Other adverse effects

No data available.

13. Disposal Considerations

Waste treatment methods

Dispose of substance in accordance with prevailing country, federal, state, and local regulations.

Contaminated packaging

Conduct recycling or disposal in accordance with prevailing country, federal, state, and local regulations.

14. Transport Information

DOT: Not regulated (Not dangerous goods).

TDG: Not determined

MEX: Not determined

ICAO: Not determined

IATA: Not regulated (Not dangerous goods).

IMDG: Not regulated (Not dangerous goods).

ADR/RID: Not determined

ADN: Not determined

15. Regulatory Information

U.S. Federal Regulations

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313: This material does not contain any chemical components above De Minimis reporting levels under SARA Title III, Section 313.

SARA 311/312 Hazard Categories: Health Hazards: Acute Health Hazard, Chronic Health Hazard, Skin sensitization; Reproductive toxicity. Physical Hazards: None known.

US State Regulations

California Proposition 65: WARNING – This product contains a chemical (Cytarabine) known to the State of California to cause developmental harm.

Massachusetts Right to Know: No components subject to the Massachusetts Right to Know Act.

Pennsylvania Right to Know: No components subject to the Pennsylvania Right to Know Act.

New Jersey Right to Know: No components subject to the New Jersey Right to Know Act.

16. Other Information

Prepared By	Trailhead Biosystems
Preparation Date	2026-06-10
Revision Date	2026-06-10
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 guidance for safe handling, use, processing, storage, transportation, disposal, and release and is not to be considered a warranty or quality specification. This product is For Research Use Only and must be handled only by suitably qualified, experienced personnel in appropriately equipped facilities. The burden of safe use of this material rests with the user. 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.

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