LEADING LIFE TECHNOLOGIES

GENERAL SAFETY DATA SHEET

OptiVitro® CHO Serum-Free Perfusion Medium CP01

Document number	SDS-CP01-GEN-001
Version	1.0
Preparation date	August 20, 2026
Product form	Liquid or dry powder perfusion medium
Covered catalog numbers	CE000-N071 to CE000-N075; liquid and powder configurations

IMPORTANT - GENERAL TEMPLATE

This general SDS content model is adapted from the supplied Leading Life Technologies FBS SDS format and the supplied OptiVitro® CHO CP01 datasheet. It is not a manufacturer-issued, lot-specific regulatory determination. Leading Life Technologies must validate final composition, classification, labeling, packaging, supplier details, and jurisdictional requirements before release or operational use.

For research and manufacturing use only, as permitted by the product label. Not intended for diagnostic or therapeutic use. Not for direct administration to humans or animals, food, drug, or household use unless specifically approved and labeled.

SECTION 1 - IDENTIFICATION

Product identifier	OptiVitro® CHO Serum-Free Perfusion Medium CP01
Product / catalog numbers	CE000-N071 (1,000 mL liquid); CE000-N072 (1 L powder); CE000-N073 (10 L powder); CE000-N074 (50 L powder); CE000-N075 (100 L powder).
Product type	Chemically defined, serum-free, protein-free, animal-origin-free CHO cell-culture perfusion medium.
Recommended use	N-1 and steady-state perfusion culture of CHO-K1, CHOZN, and CHO-S cells; concentrated or intensified fed-batch and hybrid culture process development.
Restrictions on use	Research and manufacturing use only. Not for diagnostic or therapeutic use. Do not use contrary to the label, applicable protocol, or site biosafety procedures.
Responsible party	Leading Life Technologies
Emergency telephone	650-996-6078

SECTION 2 - HAZARD(S) IDENTIFICATION

GHS / OSHA classification	No manufacturer-issued product-specific hazard classification was supplied. Pending final hazard determination, handle as a non-hazardous laboratory mixture with standard laboratory precautions.
Signal word	None assigned in this general template.
Hazard pictograms	None assigned in this general template.
Hazard statements	No specific hazard statements assigned; final labeling must be based on the released formulation.
Other hazards	Avoid eye and skin contact and avoid generating aerosols. Spills may create a slip hazard. Any hazard from contaminating process materials is not addressed by this general SDS.

SECTION 3 - COMPOSITION / INFORMATION ON INGREDIENTS

OptiVitro® CHO Serum-Free Perfusion Medium CP01 is a proprietary chemically defined liquid formulation. The supplied datasheet identifies the product as animal-origin-free, protein-free, serum-free, and chemically defined. Exact formulation and constituent concentrations are proprietary; final product labeling, Certificate of Analysis, and manufacturer-issued SDS control.

Mixture description	A chemically defined CHO perfusion-medium formulation supplied as liquid or dry powder.
Hazardous ingredients	No hazardous ingredient disclosure was supplied for this general template.
Trade-secret information	Composition may include proprietary components; disclose as required by the applicable hazard communication standard.
Product scope	This SDS applies to liquid and powder CP01 catalog configurations CE000-N071 through CE000-N075.

SECTION 4 - FIRST-AID MEASURES

Eye contact	Rinse cautiously with clean water for at least 15 minutes. Remove contact lenses if present and easy to do. Obtain medical advice if irritation persists.
Skin contact	Remove contaminated clothing. Wash thoroughly with soap and water. Seek medical advice for persistent irritation.
Inhalation	Move to fresh air. Obtain medical attention for persistent respiratory symptoms following aerosol exposure.
Ingestion	Rinse mouth with water. Do not induce vomiting unless directed by medical personnel. Seek medical advice if symptoms occur or a significant amount was swallowed.
Most important symptoms	No specific acute or delayed effects are expected from normal handling; temporary eye, skin, or respiratory irritation may occur after contact or aerosol exposure.
Medical attention	Treat symptomatically. Provide the product label, SDS, and exposure details to medical personnel.

SECTION 5 - FIRE-FIGHTING MEASURES

Suitable extinguishing media	Water spray, alcohol-resistant foam, dry chemical, or carbon dioxide as appropriate for the surrounding fire.
Specific hazards	The liquid formulation is not expected to be readily flammable. Heating to decomposition may produce irritating smoke and formulation-dependent oxides of carbon, nitrogen, or other decomposition products.
Protective equipment	Firefighters should wear self-contained breathing apparatus and full protective clothing when conditions warrant. Prevent contaminated runoff from entering drains where practicable.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Personal precautions. Restrict access. Wear gloves, protective clothing, and eye protection. Avoid splashes and aerosol generation. Ventilate the area if aerosols could have formed. Treat used product as potentially contaminated according to the process and facility biosafety assessment.

Containment and cleanup. Prevent further leakage where safe. Absorb with inert material, disposable towels, or compatible absorbent and place in a closed, labeled container for disposal. Clean the affected surface thoroughly using a validated facility procedure. Do not mix disinfectants. Prevent uncontrolled release to drains, soil, or surface water.

SECTION 7 - HANDLING AND STORAGE

Precautions for safe handling. Use trained personnel and good laboratory practices. Avoid contact with eyes, skin, and clothing. Avoid inhaling mist or aerosol. Keep containers closed when not in use. Do not eat, drink, smoke, apply cosmetics, or mouth-pipette in handling areas.

Storage. Store liquid medium at 2-8°C and protect from light. Store powder in a dark, dry environment. Keep containers closed and avoid direct sunlight, excessive heat, moisture exposure for powder, contamination, and freezing unless the product label specifically allows it. The supplied datasheet states a 12-month shelf life for liquid and 24 months for powder when stored as directed; confirm the labeled expiration date before use.

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational limits	No occupational exposure limits were supplied for the product mixture.
Engineering controls	General laboratory ventilation is normally adequate. Use suitable containment or local exhaust where procedures may generate aerosols. Provide access to eyewash and safety shower.
Eye / face protection	Safety glasses with side shields. Use splash goggles or a face shield when splash risk is significant.
Skin protection	Disposable laboratory gloves such as nitrile and a lab coat or protective gown. Change contaminated gloves and clothing promptly.
Respiratory protection	Not normally required for routine handling. If aerosols cannot be controlled, use a site-specific respiratory protection program consistent with applicable regulations.
Hygiene measures	Wash hands after handling and before leaving the work area. Clean equipment and work areas according to facility procedure.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Physical state	Liquid or dry powder; powder is reconstituted into liquid medium before use.
Color / odor	No product-specific general specification supplied; inspect product before use.
pH	Final reconstituted medium: 7.00-7.40 (datasheet).
Flash point / flammability	No data available; aqueous formulation is not expected to be readily flammable.
Water solubility	No product-specific data available.
Other properties	Osmolality after reconstitution: 330-360 mOsm/kg (datasheet). Other physical properties: no data available for the mixture.

SECTION 10 - STABILITY AND REACTIVITY

Reactivity	No dangerous reaction expected under normal laboratory conditions.
Chemical stability	Stable when stored and handled according to product-specific instructions.
Hazardous reactions	Hazardous polymerization is not expected.
Conditions to avoid	Light, high temperature, contamination, and aerosol-generating conditions.
Incompatible materials	Strong oxidizing agents, strong acids, and strong alkalis.
Hazardous decomposition products	No hazardous decomposition expected under conventional conditions. See Section 5 for fire or severe-heating hazards.

SECTION 11 - TOXICOLOGICAL INFORMATION

Likely routes of exposure	Eye contact, skin contact, ingestion, or inhalation of aerosols.
Acute toxicity	No adequate product-specific numerical data are available. No major hazards are expected under correct handling based on the supplied product description.
Skin / eye irritation	No product-specific classification was supplied. Contact may cause temporary irritation.
Sensitization	Unknown; no product-specific data available.
Carcinogenicity, mutagenicity, reproductive toxicity, STOT	No product-specific data available for the mixture.
Aspiration hazard / symptoms	No data available. Possible redness, tearing, skin irritation, or respiratory discomfort following aerosol exposure.

SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicity	No product-specific aquatic or terrestrial toxicity data are available.
Persistence / degradability	No data available.
Bioaccumulative potential	No data available.
Mobility in soil	No data available.
PBT / vPvB assessment	Not available.
Other adverse effects	Avoid uncontrolled environmental release.

SECTION 13 - DISPOSAL CONSIDERATIONS

Do not discharge unused product or concentrated spill residues to sinks, drains, soil, or surface water unless specifically permitted. Dispose of unused product, absorbents, contaminated disposables, and packaging in accordance with federal, state, local, and institutional requirements. Waste classification depends on use and possible contamination with cells, microorganisms, recombinant material, hazardous chemicals, pharmaceuticals, or radioisotopes.

SECTION 14 - TRANSPORT INFORMATION

U.S. DOT / IMDG / IATA	Not expected to be regulated as dangerous goods in its generic liquid or dry-powder form. Confirm final transport classification for the released formulation and shipment configuration.
UN number / shipping name / class / packing group	Not applicable to this general template; confirm shipment-specific requirements.
Environmental hazard / marine pollutant	Not expected based on currently supplied general information.
Special precautions	Protect from damage, light exposure, and temperature excursion. Maintain prescribed storage temperature during transport; liquid below 25°C and powder below 10°C, protected from light.

SECTION 15 - REGULATORY INFORMATION

OSHA Hazard Communication	A product-specific hazard determination and compliant label/SDS must be completed by the responsible party before release.
Chemical inventories	No data available for TSCA, EINECS/ELINCS, AICS, or China inventory status in the supplied information.
State / local requirements	Assess applicable workplace, right-to-know, waste, and environmental requirements for the intended location and use.

SECTION 16 - OTHER INFORMATION

This general safety data sheet is based on the supplied LLT-FBS template and product datasheet and is intended as a guide. It does not constitute an express or implied warranty, including merchantability or fitness for a particular purpose. All materials and mixtures may have unknown hazards and should be handled with appropriate caution. Leading Life Technologies must validate the final product formulation, classification, labeling, and all jurisdictional requirements before release.

Revision history: Rev. 1.0 - Initial general SDS covering OptiVitro® CHO Serum-Free Perfusion Medium CP01, catalog numbers CE000-N071 through CE000-N075.