

# LEADING LIFE TECHNOLOGIES

## GENERAL SAFETY DATA SHEET

### OptiVitro® NK Cell Serum-Free Medium

|                   |                                                   |
|-------------------|---------------------------------------------------|
| Document number   | SDS-NK-SFM-GEN-001                                |
| Version           | 1.0                                               |
| Preparation date  | August 20, 2026                                   |
| Product form      | Liquid cell culture medium                        |
| Intended audience | Laboratory, cell-culture, and manufacturing users |

#### IMPORTANT - GENERAL TEMPLATE

This document is a general SDS content model adapted from the supplied Leading Life Technologies FBS SDS and the supplied OptiVitro® NK Cell Expansion Serum-free Kit Series MSDS. It is not a manufacturer-issued, lot-specific regulatory determination. Leading Life Technologies must validate the exact product, formulation, lot, jurisdiction, and applicable requirements before release or operational use.

For laboratory research and manufacturing use only, as permitted by the product label. Not for direct administration to humans or animals.

## SECTION 1 - IDENTIFICATION

|                               |                                                                                                                                                                     |
|-------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product identifier            | OptiVibro® NK Cell Serum-Free Medium                                                                                                                                |
| Other means of identification | NK Cell Expansion Serum-Free Medium; phenol red-free configuration may be available                                                                                 |
| Product / catalog no.         | General medium family: NE000-N011, NE000-N012, NE000-N011S; NE000-N041, NE000-N042, NE000-N041S (phenol red-free). Confirm exact catalog number before final issue. |
| Recommended use               | Laboratory and industrial cell-culture research, process development, and manufacturing use.                                                                        |
| Uses advised against          | Direct administration to the human body; diagnostic or therapeutic use unless specifically approved and labeled.                                                    |
| Supplier                      | Leading Life Technologies                                                                                                                                           |
| Emergency telephone           | Use the site-specific emergency contact established by Leading Life Technologies before official release.                                                           |

## SECTION 2 - HAZARDS IDENTIFICATION

GHS classification: Based on the supplied product MSDS, this product is not classified as hazardous under GHS.

Label elements: No GHS hazard pictogram, signal word, or hazard statement is required based on the supplied general product information.

Other hazards: No additional hazards identified. Handle using standard laboratory hygiene and aseptic cell-culture practices.

## SECTION 3 - COMPOSITION / INFORMATION ON INGREDIENTS

|                     |                                                                                                                                                          |
|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product description | A proprietary serum-free NK cell culture medium. The supplied reference describes no health-hazardous substances at concentrations requiring disclosure. |
| Components          | Exact formulation is proprietary. Confirm any product-specific additive, supplement, cytokine, preservative, or dye content before official release.     |
| Phenol red          | Product family may include phenol red-free configurations; confirm the selected catalog number.                                                          |

## SECTION 4 - FIRST-AID MEASURES

|              |                                                                                                                                                 |
|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| Inhalation   | Not expected to present an inhalation hazard under normal use. Move to fresh air if irritation occurs; seek medical advice if symptoms persist. |
| Skin contact | Wash with plenty of water. Remove contaminated clothing and seek medical advice if irritation develops.                                         |

|                         |                                                                                                                                   |
|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| Eye contact             | Rinse cautiously with water for several minutes. Remove contact lenses if easy to do. Seek medical advice if irritation persists. |
| Ingestion               | Rinse mouth. Do not induce vomiting unless directed by medical personnel. Seek medical advice if unwell.                          |
| Most important symptoms | No specific acute or delayed symptoms are known from the supplied general product information.                                    |

## SECTION 5 - FIRE-FIGHTING MEASURES

|                              |                                                                                                                                       |
|------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| Suitable extinguishing media | Use water spray, foam, carbon dioxide, or dry chemical appropriate for the surrounding fire.                                          |
| Specific hazards             | No specific fire hazard identified. Decomposition products are not characterized.                                                     |
| Protective equipment         | Firefighters should wear protective clothing and self-contained breathing apparatus when appropriate for surrounding fire conditions. |

## SECTION 6 - ACCIDENTAL RELEASE MEASURES

|                           |                                                                                                                                                       |
|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| Personal precautions      | Ensure adequate ventilation. Wear appropriate laboratory PPE. Avoid contact with eyes and skin.                                                       |
| Environmental precautions | Avoid release to drains and waterways.                                                                                                                |
| Cleanup methods           | Absorb spill with inert material, collect in a suitable container, clean the affected area, and dispose of waste in accordance with local procedures. |

## SECTION 7 - HANDLING AND STORAGE

|                 |                                                                                                                                                                                         |
|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Safe handling   | Use standard aseptic and laboratory hygiene practices. Avoid unnecessary exposure to ambient or fluorescent light. Do not use UV irradiation to sterilize the product or its packaging. |
| Storage         | Store at 2-8°C and protect from light. Keep container closed when not in use.                                                                                                           |
| Transport       | Transport below 25°C and protect from light.                                                                                                                                            |
| In-use guidance | Follow the applicable product label and user manual. Confirm storage limits for prepared medium and any added supplements or cytokines.                                                 |

## SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

|                      |                                                                                               |
|----------------------|-----------------------------------------------------------------------------------------------|
| Exposure limits      | No occupational exposure limits are established in the supplied general product information.  |
| Engineering controls | Use adequate ventilation and standard biosafety / aseptic handling facilities as appropriate. |

|                        |                                                                                                                                  |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| Eye protection         | Safety glasses or chemical splash goggles as appropriate to the task.                                                            |
| Skin / hands           | Laboratory coat and suitable disposable gloves.                                                                                  |
| Respiratory protection | Not normally required under expected conditions of use; use suitable protection if aerosols or poor ventilation are anticipated. |
| Hygiene measures       | Wash hands after handling. Do not eat, drink, or apply cosmetics in the work area.                                               |

## SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

|                                       |                                                                                   |
|---------------------------------------|-----------------------------------------------------------------------------------|
| Appearance / physical state           | Liquid                                                                            |
| Color / odor                          | Not specified in supplied product information                                     |
| pH                                    | 7.20-7.60                                                                         |
| Flash point / flammability            | Not available; not expected to be flammable based on supplied general information |
| Solubility / density / vapor pressure | Not available                                                                     |
| Explosive / oxidizing properties      | Not available                                                                     |

## SECTION 10 - STABILITY AND REACTIVITY

|                                  |                                                                                                                                      |
|----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| Reactivity / stability           | Stable under normal ambient conditions and when stored as directed.                                                                  |
| Hazardous reactions              | No hazardous reactions identified in the supplied general information.                                                               |
| Conditions to avoid              | Avoid incompatible handling conditions, excessive heat, light exposure, contamination, and conditions contrary to the product label. |
| Incompatible materials           | No data available.                                                                                                                   |
| Hazardous decomposition products | No data available; see Section 5.                                                                                                    |

## SECTION 11 - TOXICOLOGICAL INFORMATION

Based on the supplied product MSDS, no health hazards are identified from the available information under normal conditions of use. Acute toxicity, skin/eye irritation, sensitization, mutagenicity, carcinogenicity, reproductive toxicity, STOT, and aspiration hazard: no data available or not classified based on the supplied general product information.

Treat all laboratory chemicals and cell-culture media with appropriate care. The absence of classification does not replace product-specific risk assessment.

## SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicity, persistence and degradability, bioaccumulative potential, mobility in soil, and PBT/vPvB assessment: no data available in the supplied general product information. Avoid uncontrolled environmental

release.

## SECTION 13 - DISPOSAL CONSIDERATIONS

Dispose of remaining product, contaminated absorbent, and packaging through an approved waste contractor in accordance with applicable local, state, and federal requirements. Follow institutional procedures for cell-culture and biologically contaminated waste where applicable.

## SECTION 14 - TRANSPORT INFORMATION

|                                        |                                                                                                                                                            |
|----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| UN number                              | Not assigned based on the supplied general product MSDS.                                                                                                   |
| UN proper shipping name                | Not regulated as dangerous goods based on the supplied general product MSDS.                                                                               |
| Transport hazard class / packing group | Not assigned.                                                                                                                                              |
| Environmental hazards                  | Not identified.                                                                                                                                            |
| Special precautions                    | Maintain required storage temperature and protect from light. Assess the exact shipped configuration, including dry ice or other refrigerants, separately. |

## SECTION 15 - REGULATORY INFORMATION

The supplied general product MSDS identifies the product as non-hazardous under GHS. Regulatory obligations can vary by formulation, additives, jurisdiction, intended use, and destination. Leading Life Technologies must confirm applicable workplace, chemical-inventory, import/export, labeling, and waste requirements before official release.

## SECTION 16 - OTHER INFORMATION

|                  |                                                                                                                                                                   |
|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Document number  | SDS-NK-SFM-GEN-001                                                                                                                                                |
| Version          | 1.0                                                                                                                                                               |
| Preparation date | August 20, 2026                                                                                                                                                   |
| Revision summary | New general SDS adapted from supplied LLT FBS SDS template and OptiVibro® NK Cell Expansion Serum-free Kit Series MSDS.                                           |
| Abbreviations    | CBMC: cord blood mononuclear cell; GHS: Globally Harmonized System; MSDS/SDS: Material Safety Data Sheet / Safety Data Sheet; PPE: personal protective equipment. |

## DISCLAIMER

The information in this document is prepared as a general guide based on the supplied reference material. It does not constitute a product specification, certificate of safety, regulatory determination, or warranty. Leading Life Technologies must verify the exact formulation, lot information, applicable storage and transport conditions, regulatory status, and contact details before issuing this document as an official SDS. The user is responsible for safe handling and compliance with applicable requirements.