

SAFETY DATA SHEET

LAP Photoinitiator

Lithium phenyl(2,4,6-trimethylbenzoyl)phosphinate | SKU FB5926

Document version	1.0
Issue date	October 8, 2026
Basis	Carlsbad Bio SPC-003 and published commercial LAP SDSs; manufacturer SDS verification pending.

SECTION 1: Identification

Product identifier	LAP Photoinitiator SKU FB5926
Chemical name	Lithium phenyl(2,4,6-trimethylbenzoyl)phosphinate
CAS number	85073-19-4
Recommended use	Research photoinitiator for photocrosslinkable hydrogels and bioinks; research use only.
Supplier / distributor	Carlsbad Bio American Fork, Utah, USA www.CarlsbadBio.co Support@CarlsbadBio.co
Manufacturer	NAYAS Laboratories, India
Emergency information	For emergencies in the United States call 911; Poison Control 1-800-222-1222.

SECTION 2: Hazard(s) identification

Classification	Not classified as a hazardous substance or mixture under OSHA Hazard Communication Standard, based on referenced Sigma-Aldrich and Allevi SDSs.
Label elements	No GHS pictogram, signal word, or hazard statement required by those reference classifications.
Other hazards	Dust may cause mechanical irritation. Avoid dust inhalation and unnecessary contact. Photoinitiated radical generation and light exposure may affect biological samples.

SECTION 3: Composition/information on ingredients

Substance	Lithium phenyl(2,4,6-trimethylbenzoyl)phosphinate (LAP)
CAS / Formula / MW	85073-19-4 C ₁₆ H ₁₆ LiO ₃ P 294.21 g/mol
Purity	≥96% by HPLC per Carlsbad Bio incoming specification; lot-specific result on CoA.

SECTION 4: First-aid measures

Inhalation	Move to fresh air. Seek medical attention if symptoms persist.
Skin	Wash with soap and water; remove contaminated clothing. Seek medical advice for persistent irritation.
Eyes	Rinse cautiously with water for at least 15 minutes. Remove contact lenses if easy to do. Seek medical advice if symptoms persist.
Ingestion	Rinse mouth. Do not induce vomiting. Seek medical advice if unwell.
Symptoms	Specific acute or delayed symptoms have not been established for Carlsbad Bio material.

SECTION 5: Fire-fighting measures

Extinguishing media	Water spray, dry chemical, carbon dioxide, or foam suitable for surrounding fire.
Specific hazards	Thermal decomposition may release carbon oxides and irritating phosphorus-containing fumes.
Protection	Firefighters should wear appropriate protective equipment and self-contained breathing apparatus.

SECTION 6: Accidental release measures

Personal precautions	Avoid dust formation and inhalation. Wear appropriate gloves and eye protection.
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Environmental	Prevent uncontrolled release to drains and waterways.
Cleanup	Carefully collect powder mechanically without dispersing dust; place in a closed, labeled waste container. Clean affected surfaces.

SECTION 7: Handling and storage

Handling	Use good laboratory practice; minimize dust and unnecessary exposure. Avoid eating or drinking in handling areas.
Storage	Keep container tightly closed, dry, and protected from light at $\leq -20^{\circ}\text{C}$ according to Carlsbad Bio specification. Warm sealed vial before opening to reduce condensation.
Specific uses	Laboratory photoinitiator for research formulations.

SECTION 8: Exposure controls/personal protection

Occupational limits	No substance-specific occupational exposure limit established in the cited SDSs.
Engineering controls	Use adequate general ventilation; local exhaust when dust may be generated.
Eye/hand protection	Safety glasses or goggles and suitable protective gloves.
Respiratory	Use suitable particulate protection when engineering controls do not adequately limit dust.

SECTION 9: Physical and chemical properties

Appearance	White to off-white fine powder or crystals
Odor	Not established
Solubility	Soluble in deionized water at $23 \pm 2^{\circ}\text{C}$ per incoming specification
Molecular weight	294.21 g/mol
Other physical data	pH, melting/boiling points, flash point, density, vapor pressure, and decomposition temperature not determined for this supplied grade.

SECTION 10: Stability and reactivity

Reactivity	Photoinitiator; generates radicals under suitable illumination.
Stability	Expected to be stable when stored dry, closed, cold, and protected from light.
Conditions to avoid	Unnecessary heat, moisture, intense light, and incompatible reagents.
Incompatible materials	Strong oxidizing agents; compatibility of specific mixtures has not been established.
Decomposition	Combustion may generate carbon oxides and other irritating fumes.

SECTION 11: Toxicological information

Acute/chronic toxicity	Product-specific toxicological test data for NAYAS grade not available.
Classification	Published Sigma-Aldrich and Allevi SDSs do not classify LAP as hazardous under OSHA HCS.
Research caution	Photoactivated LAP and light exposure can affect cultured cells; biological compatibility is formulation- and dose-dependent.

SECTION 12: Ecological information

Ecotoxicity / fate	No product-specific data available for aquatic toxicity, persistence, bioaccumulation, or mobility.
Precautions	Avoid uncontrolled environmental release.

SECTION 13: Disposal considerations

Waste	Dispose of chemical and contaminated packaging in accordance with applicable local, state, and federal regulations. Do not discharge bulk powder into drains.
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SECTION 14: Transport information

DOT / IATA / IMDG	Not classified as dangerous goods in cited commercial LAP SDSs; confirm current carrier and jurisdictional requirements.
UN number / class / packing group	Not applicable under the cited transport classifications.

SECTION 15: Regulatory information

Regulatory status	No additional product-specific regulatory determination has been made for the NAYAS grade. Research use only; recipient is responsible for applicable requirements.
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SECTION 16: Other information

Prepared by	Carlsbad Bio Issue date October 8, 2026
Reference sources	Sigma-Aldrich LAP SDS, product 900889, version 6.8 (April 30, 2025); 3D Systems/Allevi LAP SDS (August 13, 2024); Carlsbad Bio SPC-003.
Disclaimer	This SDS communicates available safety information for research use. It is not a warranty of specific properties. Final classification should be checked against the NAYAS manufacturer SDS for the supplied lot.
Reference URLs	https://www.sigmaaldrich.com/US/en/sds/aldrich/900889 https://www.allevi3d.com/wp-content/uploads/2019/12/SDS_LAP_A-0462_MTR_AGHS_EN_08-13-2024-LAP.pdf