

# Safety Data Sheet

Superoxide Dismutase (SOD) | 0.032% Superoxide Dismutase in Ammonium Sulfate Suspension  
Product Code FL-SOD1-AMS-0032PCT-SDS

## Current published version — subject to change.

This document is the current web-published revision. Specifications, classifications, and recommendations may be revised without notice as additional batch and analytical data become available. **For any shipment, the authoritative document is the revision packaged with your batch — refer to that version for the values that apply to the lot you receive.**

## 1. Identification

|                           |                                                                                                                                                                                                                                                                     |
|---------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product Name              | Superoxide Dismutase (SOD)   0.032% Superoxide Dismutase in Ammonium Sulfate Suspension                                                                                                                                                                             |
| Product Code / SKU        | FL-SOD1-AMS-0032PCT-SDS                                                                                                                                                                                                                                             |
| Document Revision         | 0.1                                                                                                                                                                                                                                                                 |
| Effective Date            | May 20, 2026                                                                                                                                                                                                                                                        |
| Manufacturer              | Formulate Labs, Inc.<br>1645 Headland Dr.<br>Fenton, MO 63026                                                                                                                                                                                                       |
| Quality Contact           | quality@formulate.co<br><i>Lot issues, complaints, contamination concerns, out-of-spec materials, COA discrepancies.</i>                                                                                                                                            |
| Regulatory Contact        | regulatory@formulate.co<br><i>INCI, allergens, IFRA, Prop 65, vegan/natural claims, compliance documents, formulation-use questions.</i>                                                                                                                            |
| Adverse Effects Reporting | safety@formulatelabs.ai                                                                                                                                                                                                                                             |
| Emergency Phone Number    | 888-999-2260                                                                                                                                                                                                                                                        |
| Recommended Use           | Cosmetic and personal-care raw material for professional formulation and manufacturing use. Intended to be incorporated into finished cosmetic products.                                                                                                            |
| Restrictions on Use       | Not intended for ingestion, injection, inhalation, or unsupervised topical use. Not a finished consumer product. Finished-product brand owners and manufacturers are responsible for final formula safety, preservation, labeling, claims, and regional compliance. |

## 2. Hazard(s) Identification

|                           |                                                                                                                                                                                                                         |
|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| GHS / OSHA Classification | Not classified as hazardous based on currently available information for the mixture and its component concentrations.                                                                                                  |
| Signal Word               | Not required.                                                                                                                                                                                                           |
| Hazard Pictograms         | None.                                                                                                                                                                                                                   |
| Hazard Statements         | No GHS hazard statements required at this revision based on available information. Product may cause mild eye irritation from direct contact. Spilled product may be slippery.                                          |
| Precautionary Statements  | Use good industrial hygiene practices. Avoid eye contact. Wash hands after handling. Keep container closed when not in use. Clean spills promptly.                                                                      |
| Other Hazards             | Cosmetic raw material containing a recombinant protein / peptide and ammonium sulfate. Ammonium sulfate is an irritant in concentrated form; the finished suspension is intended for professional formulation use only. |

## 3. Composition / Information on Ingredients

| Ingredient / Chemical Name | CAS #     | Function in supplied raw material                           | % by Weight |
|----------------------------|-----------|-------------------------------------------------------------|-------------|
| Ammonium Sulfate           | 7783-20-2 | Salting-out stabilizer / protein precipitation carrier      | 35.000%     |
| Superoxide Dismutase       | 9054-89-1 | Active recombinant protein / peptide; cosmetic raw material | 0.032%      |
| Purified Water             | 7732-18-5 | Solvent (balance)                                           | 64.968%     |

Ammonium sulfate is disclosed on this SDS/TDS as part of the shipped suspension for industrial safety review. It is a process stabilizer and is typically removed or diluted below finished-product INCI thresholds when the active is incorporated into a cosmetic formula; the recommended cosmetic INCI declaration for labeling is the protein / peptide active only.

#### 4. First-Aid Measures

| Exposure Route          | Recommended First Aid                                                                                                                                           |
|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Inhalation              | Move person to fresh air if mist or vapor exposure causes discomfort. Seek medical attention if symptoms persist.                                               |
| Skin Contact            | Wash with soap and water. Product is intended for cosmetic formulation use, but prolonged or repeated contact with concentrated raw material should be avoided. |
| Eye Contact             | Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Seek medical attention if irritation persists.                |
| Ingestion               | Rinse mouth. Do not induce vomiting. Seek medical advice if a significant amount is swallowed or symptoms occur.                                                |
| Most Important Symptoms | Possible mild eye irritation; gastrointestinal discomfort if ingested.                                                                                          |

#### 5. Fire-Fighting Measures

|                                     |                                                                                                                                                                        |
|-------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Suitable Extinguishing Media</b> | Use water spray, dry chemical, carbon dioxide, or alcohol-resistant foam as appropriate for surrounding materials.                                                     |
| <b>Specific Hazards</b>             | Product is a water-based cosmetic suspension and is not expected to be flammable or combustible. Thermal decomposition may produce carbon oxides and irritating fumes. |
| <b>Protective Equipment</b>         | Firefighters should wear self-contained breathing apparatus and protective gear if exposed to combustion products.                                                     |

#### 6. Accidental Release Measures

- Use caution: spilled suspension can create a slip hazard.
- Wear suitable gloves and eye protection for bulk spills.
- Contain spill, absorb with inert material, and place in a suitable container for disposal.
- Prevent large quantities from entering drains or waterways.
- Wash spill area with water after material is removed.

#### 7. Handling and Storage

|                   |                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Handling</b>   | Avoid contamination during use. Use clean tools and closed transfer systems where possible. Avoid eye contact and prolonged direct handling. Avoid high shear, extended heat (>45 °C), and pH extremes during formulation.                                                                                                                                                                                                           |
| <b>Storage</b>    | Store tightly closed at 2-8 °C (refrigerated). Protect from light. Ship cold. Minimize freeze-thaw cycles. Resuspend gently before sampling. Use within opened-container guidance on the lot COA once production batches run.                                                                                                                                                                                                        |
| <b>Shelf Life</b> | Anticipated unopened: 12-24 months at 2-8 °C; 6-12 months at controlled room temperature (20-25 °C) when protected from heat and light. Shelf-life ranges represent the current published target derived from formulation design and analogous catalog items; finished-batch stability data may refine these ranges in a future revision. Do not assign shelf life to open or repeatedly exposed containers without in-use controls. |

## 8. Exposure Controls / Personal Protection

|                                     |                                                                                                                                                                                  |
|-------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Occupational Exposure Limits</b> | No occupational exposure limits established for the mixture. Component-level limits, where they exist, apply at the individual ingredient concentrations disclosed in Section 3. |
| <b>Engineering Controls</b>         | General room ventilation is expected to be adequate for normal handling.                                                                                                         |
| <b>Eye / Face Protection</b>        | Safety glasses recommended when handling bulk material.                                                                                                                          |
| <b>Skin Protection</b>              | Use suitable gloves for repeated or bulk handling.                                                                                                                               |
| <b>Respiratory Protection</b>       | Not normally required. Avoid generating aerosols or mists.                                                                                                                       |
| <b>Hygiene Measures</b>             | Handle according to good industrial hygiene and manufacturing practices. Wash hands after handling.                                                                              |

## 9. Physical and Chemical Properties

| Property         | Anticipated Value / Description                                                                                                        |
|------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| Appearance       | Opaque to translucent suspension; salting-out ammonium sulfate may settle on standing. Resuspend gently before sampling.               |
| Odor             | Odorless to faint characteristic; no added fragrance                                                                                   |
| pH (target)      | 5.5-7.0 at 25 °C (anticipated)                                                                                                         |
| Specific Gravity | Approximately 1.05-1.15 g/mL (anticipated; salting-out suspension)                                                                     |
| Solubility       | Water-miscible / water-compatible                                                                                                      |
| Flash Point      | Not applicable; aqueous product                                                                                                        |
| Flammability     | Not expected to be flammable                                                                                                           |
| Boiling Point    | Not determined; aqueous system                                                                                                         |
| Viscosity        | Anticipated low- to medium-viscosity pourable suspension with possible settling of ammonium sulfate on standing; resuspend before use. |

## 10. Stability and Reactivity

|                                |                                                                                                                                                             |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Reactivity</b>              | No dangerous reactivity known under recommended handling and storage conditions, based on available component data and analogous cosmetic suspensions.      |
| <b>Chemical Stability</b>      | Anticipated stable under recommended storage conditions. See the Formulation Guidance section of the TDS for finished-formula compatibility considerations. |
| <b>Conditions to Avoid</b>     | High heat, freezing, repeated contamination, direct sunlight, extremes of pH, and high-shear mixing once dispersed in the finished formula.                 |
| <b>Incompatible Materials</b>  | Strong oxidizing agents, strong bases, strong reducing agents, and high-dose chelators where applicable to the active in this material.                     |
| <b>Hazardous Decomposition</b> | Carbon oxides and irritating fumes under fire or thermal decomposition conditions.                                                                          |

## 11. Toxicological Information

| Endpoint                        | Information                                                                                                                                                  |
|---------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Acute Toxicity                  | No mixture data available. Not expected to be acutely toxic under normal industrial handling based on available component information and use concentration. |
| Skin Corrosion / Irritation     | No mixture data available. Not expected to be corrosive based on available component information.                                                            |
| Serious Eye Damage / Irritation | Direct contact may cause mild temporary irritation.                                                                                                          |
| Sensitization                   | No mixture sensitization data available. Patch testing of finished formulations per standard cosmetic protocol is recommended.                               |

| Endpoint               | Information                                                                                                                                                                  |
|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Carcinogenicity        | No component intentionally added at $\geq 0.1\%$ is known by Formulate Labs to be listed by IARC, NTP, OSHA, or ACGIH as a carcinogen, based on the current ingredient deck. |
| Additional Information | Toxicological properties of the finished mixture have not been fully investigated. Use with caution appropriate to cosmetic raw materials.                                   |

## 12. Ecological Information

- Ecotoxicity data for the finished mixture are not available.
- Avoid uncontrolled release to the environment or waterways.
- Product is primarily aqueous and contains cosmetic-grade components, but no complete biodegradation claim is made for the mixture.

## 13. Disposal Considerations

Dispose of product and contaminated packaging in accordance with federal, state, and local regulations. Do not discharge bulk product to drains or waterways. Empty containers should be cleaned or disposed of according to site procedures.

## 14. Transport Information

| Mode | Classification                                                   |
|------|------------------------------------------------------------------|
| DOT  | Not regulated as dangerous goods based on available information. |
| IMDG | Not regulated as dangerous goods based on available information. |
| IATA | Not regulated as dangerous goods based on available information. |

## 15. Regulatory Information

| Regulation / Program      | Status / Statement                                                                                                                                                                                                                    |
|---------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| OSHA HazCom               | Not classified as hazardous under the OSHA Hazard Communication Standard based on available information.                                                                                                                              |
| SARA 302 / 304            | No intentionally added components known to be subject to emergency planning notification at listed thresholds.                                                                                                                        |
| SARA 311 / 312            | No SARA hazard categories expected for this mixture at this revision.                                                                                                                                                                 |
| SARA 313                  | No intentionally added components known to be reportable under SARA 313 at listed thresholds.                                                                                                                                         |
| California Proposition 65 | No Proposition 65-listed chemicals are intentionally added. Trace environmental constituents may be present in naturally-derived materials; batch or periodic testing should be used where Prop 65 exposure assessments are required. |
| EU / REACH                | See separate REACH/SVHC and regulatory statement where provided. Recipe-specific REACH packets are issued on request via regulatory@formulate.co.                                                                                     |

## 16. Other Information

|               |                                                                                                                                                                                                                                                                           |
|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Prepared By   | Formulate Labs Quality / Regulatory                                                                                                                                                                                                                                       |
| Issue Date    | May 20, 2026                                                                                                                                                                                                                                                              |
| Revision      | 0.1                                                                                                                                                                                                                                                                       |
| Abbreviations | GHS: Globally Harmonized System; OSHA: Occupational Safety and Health Administration; SDS: Safety Data Sheet; COA: Certificate of Analysis; INCI: International Nomenclature Cosmetic Ingredient; CAS: Chemical Abstracts Service; SVHC: Substances of Very High Concern. |

**Disclaimer**

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