UMBRELLA LAB SOLUTION

MATERIAL SAFETY DATA SHEET (MSDS / SDS) • OSHA 29 CFR 1910.1200 / GHS REV. 8 COMPLIANT

SECTION 1: PRODUCT & COMPANY IDENTIFICATION

Product Name: Glutathione • **CAS Number:** 70-18-8
Intended Use: Strictly intended for laboratory chemical synthesis, academic, and in-vitro research use. Not for human, veterinary, or clinical use.
Manufacturer / Supplier: Umbrella Lab Solution • **Website:** https://umbrellalabsolution.com • **Email:** info@umbrellalabsolution.com

SECTION 2: HAZARDS IDENTIFICATION (GHS)

GHS Classification: Antioxidant Tripeptide. Acute Toxicity (Oral) - Cat 5; Eye Irritation - Cat 2B.
Signal Word: WARNING • **Hazard Statements:** H303: May be harmful if swallowed. H320: Causes eye irritation.
Precautionary Statements: P264: Wash skin thoroughly after handling. P280: Wear protective gloves and eye protection. P305+P351+P338: IF IN EYES: Rinse cautiously with water for 15 minutes.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Substance: Glutathione • **CAS #:** 70-18-8 • **Assay Purity:** ≥ 99.0% (w/w) pure active standard.

SECTION 4: FIRST-AID MEASURES

First Aid Summary: Clean water rinse.
Eye Contact: Flush thoroughly with copious amounts of water for 15 minutes. **Skin:** Wash thoroughly with mild soap and water. **Inhalation:** Move to fresh air. **Ingestion:** Clean mouth with water. Never give anything by mouth to an unconscious person.

SECTION 5: FIRE-FIGHTING MEASURES

Extinguishing Media: Water spray, carbon dioxide, dry chemical powder, or appropriate alcohol-resistant foam.
Specific Hazards: Thermal decomposition emits toxic fumes of carbon oxides, nitrogen oxides, and standard combustion products.
Protective Equipment: Full protective bunker gear with NIOSH-approved self-contained breathing apparatus (SCBA).

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions: Avoid aerosol and dust generation. Ensure adequate ventilation. Wear nitrile gloves, safety goggles, and lab coat.
Environmental Precautions: Prevent material from entering drains or watercourses. Sweep up or absorb with inert material and place in sealed disposal container.

SECTION 7: HANDLING AND STORAGE

Handling: Operate inside certified laboratory chemical fume hood. Avoid inhalation and direct contact with skin and eyes.
Storage: Store at 2°C to 8°C. Keep container tightly sealed in a cool, dry, dark environment protected from moisture and direct light.

SECTION 8: EXPOSURE CONTROLS & PERSONAL PROTECTION

Engineering Controls: Certified laminar flow fume hood. **PPE:** Safety goggles (ANSI Z87.1), nitrile gloves, lab coat, respirator if required.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Solid powder / sterile liquid reagent • **Odor:** Odorless • **CAS:** 70-18-8 • **Solubility:** Soluble in DMSO / Ethanol / Water

SECTION 10: STABILITY AND REACTIVITY

Reactivity: Stable under recommended storage conditions. **Incompatible Materials:** Strong oxidizing agents, strong acids.

SECTION 11: TOXICOLOGICAL INFORMATION

Toxicity: Preclinical laboratory reagent. No component is classified as a known or anticipated human carcinogen by IARC, NTP, or OSHA.

SECTION 12: ECOLOGICAL & DISPOSAL INFORMATION (SECTIONS 12-13)

Ecotoxicity: Avoid release to the natural environment. **Disposal:** Dispose of in accordance with applicable federal, state, and local waste disposal regulations.

SECTION 14: TRANSPORT & REGULATORY INFORMATION (SECTIONS 14-16)

Transport (DOT / IATA / IMDG): Non-hazardous research chemical. Not regulated as dangerous goods.
Regulatory Notice: Strictly for scientific in-vitro research and laboratory development. Umbrella Lab Solution assumes no liability for handling.