

MOTS-C

DOCUMENT SDS-GP-MS40 · VERSION 1.0 · ISSUED 18 AUGUST 2026 · SUPERSEDES NONE · REVIEW ANNUALLY

SUBSTANCE IDENTITY	Single-component synthetic research compound
COMPONENTS	1
APPEARANCE	White to off-white lyophilized powder
PURITY	≥99% (HPLC)

NOT CLASSIFIED AS HAZARDOUS
Does not meet GHS classification criteria (OSHA HazCom 2012). No signal word, pictogram, or hazard statement required. Handle per good laboratory practice — see Sections 7 & 8.

HMIS® III: Health 1 · Flammability 0 · Physical 0
NFPA 704: Health 1 · Flammability 0 · Reactivity 0

COMPONENTS
MOTS-c — CAS 1627580-64-6 · MW 2174.64 g/mol

1 Identification

PRODUCT IDENTIFIER	MOTS-C — research compound, lyophilized powder
SYNONYMS	Mitochondrial ORF of the twelve S rRNA type-c
PRODUCT CODE	MS40
RECOMMENDED USE	Research Use Only (RUO) — laboratory research, analytical, and scientific applications by qualified professionals.
USES ADVISED AGAINST	Not for human or veterinary use; not a drug, food, cosmetic, dietary supplement, or household product; not for diagnostic or therapeutic use.
SUPPLIER	Glow Peptides · Florida, United States · glowpeptides.com · info@glowpeptides.com
EMERGENCY TELEPHONE	U.S. Poison Control Center: 1-800-222-1222 (24-hour). For spill or transport emergencies contact your regional emergency-response service.

2 Hazard(s) Identification

GHS CLASSIFICATION	Not classified as a hazardous substance or mixture per OSHA HazCom 2012 (29 CFR 1910.1200) / GHS.
SIGNAL WORD	None
PICTOGRAMS	None required
HAZARD STATEMENTS	None
PRECAUTIONARY (GLP)	P262 avoid eye/skin/clothing contact · P270 no eating, drinking or smoking while handling · P280 wear gloves and eye protection · P501 dispose per regulations
OTHER HAZARDS	Toxicological properties have not been fully investigated. May be harmful if inhaled, swallowed, or absorbed through skin. Avoid formation and inhalation of dust. Not assessed as PBT or vPvB.

3 Composition / Information on Ingredients

SUBSTANCE TYPE	Synthetic research compound
MOTS-C	CAS 1627580-64-6 · MW 2174.64 g/mol
CONCENTRATION	≥99% (HPLC); balance: residual synthesis salts / moisture
HAZARDOUS IMPURITIES	None present at reportable concentrations

4 First-Aid Measures

INHALATION	Remove person to fresh air and keep comfortable for breathing. If not breathing, give artificial respiration. Get medical attention if symptoms occur.
SKIN CONTACT	Wash with plenty of soap and water. Remove contaminated clothing. Get medical attention if irritation develops or persists.
EYE CONTACT	Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do; continue rinsing. Get medical attention if irritation persists.
INGESTION	Rinse mouth. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention.

SYMPTOMS / EFFECTS	No specific data available; symptoms of overexposure are not established.
NOTE TO PHYSICIAN	Treat symptomatically. Contact U.S. Poison Control (1-800-222-1222).

5 Fire-Fighting Measures

SUITABLE MEDIA	Water spray, dry chemical, carbon dioxide (CO ₂), or alcohol-resistant foam.
UNSUITABLE MEDIA	None known.
SPECIAL HAZARDS	Thermal decomposition may release carbon oxides (CO, CO ₂) and nitrogen oxides (NO _x).
ADVICE FOR FIREFIGHTERS	Wear self-contained breathing apparatus (SCBA) and full protective equipment.

6 Accidental Release Measures

PERSONAL PRECAUTIONS	Wear appropriate PPE (Section 8). Avoid dust formation and inhalation. Ensure adequate ventilation.
ENVIRONMENTAL PRECAUTIONS	Prevent entry into drains, waterways, and soil.
CONTAINMENT & CLEANUP	Collect using dust-suppressing methods; place in a sealed, labeled container for disposal. Clean the affected surface after removal.

7 Handling and Storage

SAFE HANDLING	Use only in a well-ventilated area or under a fume hood / laminar-flow enclosure. Wear PPE. Avoid contact with skin, eyes, and clothing; avoid inhalation and ingestion. Follow Good Laboratory Practice (GLP). Wash hands thoroughly after handling.
STORAGE CONDITIONS	Store the lyophilized powder tightly sealed at -20 °C, protected from light and moisture. Avoid repeated freeze-thaw of reconstituted solutions; prepare fresh and store cold. Keep away from incompatible materials (Section 10).
SHELF LIFE	Per lot Certificate of Analysis — verify any lot at glowpeptides.com/quality .

8 Exposure Controls / Personal Protection

EXPOSURE LIMITS	No occupational exposure limits (OEL / PEL / TLV) have been established.
ENGINEERING CONTROLS	Adequate general ventilation; handle under a fume hood where dust may be generated. Provide accessible eyewash station and safety shower.
EYE / FACE	Safety glasses or goggles (ANSI Z87.1 / EN166).
SKIN / BODY	Nitrile gloves; laboratory coat.
RESPIRATORY	If dust is generated, wear a NIOSH-approved N95 (or better) respirator.

9 Physical and Chemical Properties

APPEARANCE	White to off-white lyophilized powder
ODOR / THRESHOLD	Odorless to faint / not determined
PH	Not applicable (solid)
MELTING / BOILING POINT	Not determined
FLASH POINT	Not applicable
SOLUBILITY	Soluble in water / bacteriostatic water (typical for research peptides)
OTHER PROPERTIES	Vapor pressure, density, partition coefficient, viscosity: not determined for this preparation.

10 Stability and Reactivity

REACTIVITY	Not reactive under normal conditions of use and storage.
CHEMICAL STABILITY	Stable under recommended storage. Reconstituted solutions are less stable — keep cold and use promptly.
HAZARDOUS REACTIONS	None known; will not undergo hazardous polymerization.
CONDITIONS TO AVOID	Heat, moisture, direct light, and repeated freeze-thaw cycles.

INCOMPATIBLE MATERIALS	Strong oxidizing agents; strong acids and bases.
DECOMPOSITION PRODUCTS	Carbon oxides (CO, CO ₂) and nitrogen oxides (NO _x) on thermal decomposition.

11 Toxicological Information

ACUTE TOXICITY	No data — LD ₅₀ /LC ₅₀ not determined
SKIN / EYE IRRITATION	No data
SENSITIZATION	No data
MUTAGENICITY	No data
CARCINOGENICITY	Not listed by IARC, NTP, or OSHA
REPRODUCTIVE TOXICITY	No data
STOT / ASPIRATION	No data
NOTE	Supplied for research use only; toxicological properties have not been thoroughly investigated. Handle as a substance of unknown toxicity.

12 Ecological Information

ECOTOXICITY	No data
PERSISTENCE / DEGRADABILITY	No data
BIOACCUMULATION	No data
MOBILITY / PBT	Not assessed — avoid release to the environment

13 Disposal Considerations

WASTE TREATMENT	Dispose of contents and container in accordance with local, state, and federal regulations. Do not discharge into drains, waterways, or the environment. Where required, use a licensed waste-disposal contractor.
CONTAMINATED PACKAGING	Dispose of as unused product.

14 Transport Information

DOT / IATA / IMDG	Not regulated as dangerous goods.
UN NUMBER	None
PROPER SHIPPING NAME	Not applicable
HAZARD CLASS / PACKING GROUP	None / None
ENVIRONMENTAL HAZARDS	None known
SPECIAL PRECAUTIONS	Maintain cold-chain during transport where required to preserve product integrity.

15 Regulatory Information

PRODUCT STATUS	Research Use Only (RUO). Not approved by the U.S. FDA. Not intended for human or veterinary use, nor for use as a drug, food, dietary supplement, cosmetic, or household product.
TSCA (US)	Used for research and development; not for general commercial distribution as a chemical substance.
SARA 311/312	No applicable hazard categories
CALIFORNIA PROP 65	No listed components known to the State of California to cause cancer or reproductive harm
STANDARD APPLIED	Prepared in accordance with OSHA HazCom 2012 (29 CFR 1910.1200) and GHS.

16 Other Information

DATE OF ISSUE	18 August 2026 · Version 1.0 · Supersedes: None
HAZARD RATINGS	NFPA 704 — Health 1, Flammability 0, Reactivity 0. HMIS III — Health 1, Flammability 0, Physical Hazard 0.

ABBREVIATIONS

GHS Globally Harmonized System · RUO Research Use Only · GLP Good Laboratory Practice · OEL/PEL/TLV occupational exposure limits · PBT/vPvB persistent-bioaccumulative-toxic · SCBA self-contained breathing apparatus · "No data" = information not available.

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