

SAFETY DATA SHEET

According to UK REACH Regulation and GB CLP Regulation
Product: **MOTS-c 10mg Lyophilised Powder**
Version 1.0 | Revision Date: 28 July 2026

FOR LABORATORY RESEARCH USE ONLY — NOT FOR HUMAN OR ANIMAL USE

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Product name: MOTS-c
Product description: MOTS-c 10mg Lyophilised Powder
CAS No.: 1627580-64-6

Molecular Formula: C₁₀₁H₁₅₂N₂₈O₂₂S₂
Molecular Weight: 2174.6 g/mol

Synonyms: Mitochondrial open reading frame of the 12S rRNA-c, MRWQEMGYIFYPRKLR
Sequence: Met-Arg-Trp-Gln-Glu-Met-Gly-Tyr-Ile-Phe-Tyr-Pro-Arg-Lys-Leu-Arg

1.2 Relevant identified uses of the substance or mixture and uses advised against

Recommended use: Laboratory chemicals. For scientific research use only.
Uses advised against: Not for human or animal use, consumption, therapeutic, diagnostic or medicinal purposes. Not intended for food, cosmetic or household use.

1.3 Details of the supplier of the safety data sheet

Supplier: Peptide Origin Limited
Address: College House, 17 King Edwards Road, Ruislip, London, HA4 7AE, United Kingdom
Email: sales@peptideorigin.com
Website: www.peptideorigin.com

1.4 Emergency telephone number

Contact sales@peptideorigin.com during business hours. For medical emergencies contact local emergency services.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to GB CLP Regulation: **Not classified.** No physical, health or environmental hazard classifications meet the criteria based on available data.

2.2 Label elements

No hazard pictogram, signal word, hazard statement or precautionary statement is required according to available data.

2.3 Other hazards

This substance/mixture does not meet the criteria for PBT or vPvB. No other hazards known under normal laboratory handling conditions.

SECTION 3: Composition/information on ingredients

3.1 Substances

Component	CAS No.	Concentration	Classification
MOTS-c	1627580-64-6	≥98–99%	Not classified

May contain residual process-related substances at levels below classification thresholds.

SECTION 4: First aid measures

4.1 Description of first aid measures

Inhalation: Move to fresh air. If symptoms develop, seek medical attention.
Skin contact: Wash with soap and water. Seek medical attention if irritation develops.
Eye contact: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
Ingestion: Rinse mouth. Do **not** induce vomiting. Seek medical attention if feeling unwell.

4.2 Most important symptoms and effects

None reasonably foreseeable under normal laboratory handling conditions.

4.3 Indication of any immediate medical attention

Treat symptomatically. No specific antidote known.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable: Water spray, CO₂, dry chemical, foam. **Unsuitable:** None known.

5.2 Special hazards

Thermal decomposition may produce carbon oxides and nitrogen oxides.

5.3 Advice for firefighters

Wear self-contained breathing apparatus and full protective equipment.

SECTION 6: Accidental release measures

6.1 Personal precautions

Avoid dust formation. Wear PPE (see Section 8). Ensure adequate ventilation.

6.2 Environmental precautions

Prevent entry into drains or watercourses.

6.3 Methods for cleaning up

Sweep up carefully. Place in labelled container for disposal. Avoid generating dust.

6.4 Reference to other sections

See Section 8 and Section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Handle in accordance with good laboratory practice. Avoid contact with skin, eyes and clothing. Avoid inhalation of dust. Wash hands after handling.

7.2 Conditions for safe storage

Store in a tightly closed container in a dry, cool place. Protect from light and moisture. Recommended storage: **-20 °C**. Keep away from strong oxidising agents.

7.3 Specific end use(s)

For laboratory research use only.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

No occupational exposure limits established.

8.2 Exposure controls

Engineering controls: Use in a well-ventilated area or fume hood if generating dust.

Eye protection: Safety glasses with side shields (EN 166).

Hand protection: Chemical-resistant gloves (nitrile, EN 374).

Skin protection: Laboratory coat.

Respiratory protection: Not normally required. Use particulate filter (P2) if dust is generated.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state: Solid (lyophilised powder or crystalline powder)

Colour: White to off-white

Odour: Odourless or nearly odourless

Solubility: Soluble in water (typical for research peptides/compounds)

Other properties: Melting point, boiling point, flammability, pH, viscosity – no data available or not applicable.

SECTION 10: Stability and reactivity

10.1–10.3 Reactivity / Chemical stability / Hazardous reactions

Stable under recommended storage conditions. No hazardous reactions known under normal use.

10.4 Conditions to avoid

Excessive heat, moisture, prolonged light exposure, strong oxidising agents.

10.5 Incompatible materials

Strong oxidising agents, strong acids and bases.

10.6 Hazardous decomposition products

Carbon oxides, nitrogen oxides under fire conditions.

SECTION 11: Toxicological information

11.1 Information on hazard classes

Acute toxicity, skin corrosion/irritation, serious eye damage/irritation, respiratory or skin sensitisation, germ cell mutagenicity, carcinogenicity, reproductive toxicity, STOT-single/repeated exposure, aspiration hazard: **No data available.**

11.2 Information on other hazards

To the best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated. Handle with appropriate laboratory precautions.

SECTION 12: Ecological information

12.1–12.4 Toxicity / Persistence / Bioaccumulation / Mobility

No data available.

12.5 Results of PBT and vPvB assessment

Not considered PBT or vPvB.

12.6–12.7 Endocrine disrupting properties / Other adverse effects

No data available. Avoid release to the environment.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Dispose of contents/container in accordance with local, regional, national and international regulations. Do not dispose into drains or the environment. Contaminated packaging should be treated as the product itself.

SECTION 14: Transport information

UN number / Proper shipping name / Hazard class / Packing group: Not regulated.

This product is not classified as dangerous goods for transport by road (ADR), rail (RID), sea (IMDG) or air (IATA).

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations

Not classified as hazardous under GB CLP. Supplied for research and development purposes in accordance with UK REACH.

15.2 Chemical safety assessment

A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

The information in this Safety Data Sheet is correct to the best of our knowledge at the date of publication. It is intended for use by trained laboratory personnel only. Peptide Origin Limited makes no warranty regarding accuracy or completeness. The user is solely responsible for determining suitability and for compliance with all applicable laws and regulations.

Recommended use statement: For laboratory research use only. Not for human or animal consumption.

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