

Safety Data Sheet

Melflufen hydrochloride

Catalog No. **BP-02431A** · CAS **380449-54-7** · Physical form **Solid** · Version **1.1** · Revision **2026-09-11****FOR RESEARCH USE ONLY. NOT FOR HUMAN OR VETERINARY USE.**

SECTION 1 — IDENTIFICATION

Product name	Melflufen hydrochloride
Catalog number	BP-02431A
CAS number	380449-54-7
Recommended use	Laboratory research chemical
Restrictions on use	Not for drug, household, or other uses
Supplier	Guangzhou Yuyuan Biotech Co., Ltd. (BiochemProbe)
Address	Baiyun District, Guangzhou, Guangdong, China
Telephone / Fax	+86 20 31130026 / +86 20 36822386
Email / Web	tech@biochemprobe.com · www.biochemprobe.com
Emergency phone	+86 20 31130026 (business hours) · local poison control as applicable

SECTION 2 — HAZARD(S) IDENTIFICATION

GHS classification

- Not classified based on available data, or data are insufficient for classification.

Signal word: None**Hazard statements:** No hazard statements assigned based on available data.**Precautionary statements:** P261 Avoid breathing dust/fume/gas/mist/vapours/spray. P280 Wear protective gloves/eye protection. P501 Dispose of contents/container in accordance with local regulations. Handle as a research chemical; avoid dust/mist inhalation and skin/eye contact.**Additional notes:** This SDS does not imply the substance is non-hazardous. Update when classification data become available.

SECTION 3 — COMPOSITION / INFORMATION ON INGREDIENTS

Chemical name	Melflufen hydrochloride
Synonyms	—
Molecular formula	C₂₄H₃₁Cl₃FN₃O₃
Molecular weight	534.8790
CAS number	380449-54-7

SECTION 4 — FIRST-AID MEASURES

Inhalation: Move to fresh air. If breathing is difficult, give oxygen. Seek medical attention if symptoms persist.

Skin contact: Wash with plenty of soap and water. Remove contaminated clothing. Seek medical advice 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. Call a poison center or physician if you feel unwell.

Most important symptoms / medical attention: Treat symptomatically. Provide this SDS to medical personnel.

SECTION 5 — FIRE-FIGHTING MEASURES

Suitable extinguishing media	Water spray, dry chemical, carbon dioxide, or alcohol-resistant foam
Unsuitable media	Do not use a solid water stream that may scatter dust
Specific hazards	May emit toxic fumes under fire conditions
Protective equipment	Self-contained breathing apparatus and full protective gear

SECTION 6 — ACCIDENTAL RELEASE MEASURES

Personal precautions: Wear suitable PPE (Section 8). Ensure adequate ventilation. Avoid dust formation.

Environmental precautions: Prevent entry into drains and surface water.

Cleanup: Sweep or vacuum carefully (HEPA preferred). Place in a suitable closed container for disposal.

SECTION 7 — HANDLING AND STORAGE

Handling: Handle in a well-ventilated area or fume hood. Avoid contact with skin and eyes. Do not eat, drink, or smoke when using this product.

Storage: Powder 4°C, sealed storage, away from moisture; In solvent -20°C 1 month;

Incompatibilities: Strong oxidizing agents (general guidance). Keep away from food and feed.

SECTION 8 — EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational exposure limits	No specific OELs established for this substance
Engineering controls	Local exhaust / laboratory fume hood
Eye / face protection	Safety glasses with side shields or chemical goggles
Skin protection	Chemical-resistant gloves (e.g. nitrile); lab coat
Respiratory protection	If dust is generated, use approved particulate respirator

SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Off-white to light yellow solid
Physical state	Solid
Color	Off-white to light yellow
Odor	No data available
Melting / freezing point	No data available
Boiling point	Not applicable (solid)
Flash point	No data available
Solubility	Soluble in DMSO/H₂O
Viscosity	Not applicable (solid)

SECTION 10 — STABILITY AND REACTIVITY

Chemical stability	Stable under recommended storage conditions
Conditions to avoid	Moisture, excessive heat, dust generation
Incompatible materials	Strong oxidizers
Hazardous decomposition products	Carbon / nitrogen / sulfur / halogen oxides may form under fire conditions

SECTION 11 — TOXICOLOGICAL INFORMATION

Likely routes of exposure: Inhalation of dust, skin and eye contact, ingestion.

Acute toxicity	See Section 2. Substance-specific LD50/LC50 data not available.
Skin corrosion / irritation	See Section 2.
Serious eye damage / irritation	See Section 2.
Respiratory or skin sensitization	No data available.
Germ cell mutagenicity	No data available.
Carcinogenicity	No data available. No component present at $\geq 0.1\%$ is identified as a probable, possible, or confirmed human carcinogen by IARC, NTP, or OSHA based on available data.
Reproductive toxicity	No data available.
STOT — single exposure	See Section 2.
STOT — repeated exposure	No data available.
Aspiration hazard	Not applicable for solid under normal use.

Additional information: To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. Treat as a research chemical.

SECTION 12 — ECOLOGICAL INFORMATION

No specific ecotoxicity data available. Do not release to the environment. Avoid discharge to sewer and waterways.

SECTION 13 — DISPOSAL CONSIDERATIONS

Dispose of contents/container in accordance with local, regional, and national regulations. Offer surplus and non-recyclable material to a licensed disposal company.

SECTION 14 — TRANSPORT INFORMATION

DOT (US)	Not dangerous goods
IMDG	Not dangerous goods
IATA	Not dangerous goods
Special precautions	Transport in sealed containers; protect from moisture / leakage

SECTION 15 — REGULATORY INFORMATION

Intended for research use only. The user must determine applicability of local chemical inventory listings and workplace regulations before use.

SECTION 16 — OTHER INFORMATION

SDS version	1.1
Revision date	2026-09-11

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