



Material Safety Data Sheet (MSDS)

Product Name: MK-677 (Ibutamoren Mesylate)

Synonyms: Ibutamoren, MK-0677, L-163,191

CAS Number: 159752-10-0

Molecular Formula: $C_{28}H_{40}N_4O_8S \cdot CH_4O_3S$

Molecular Weight: ~624.77 g/mol (mesylate salt)

For Research Use Only. Not for human or veterinary use.

1. Identification of the Substance

Product Name: MK-677 (Ibutamoren Mesylate)

Manufacturer/Supplier: AR FULFILLMENT SERVICES T/A AR CHEM

Use of Substance: Laboratory chemical / research chemical

2. Hazards Identification

GHS Classification:

- **Acute Toxicity (Oral):** Category 4
- **Eye Irritation:** Category 2B
- **Specific Target Organ Toxicity (Repeated Exposure):** Category 2
- **Not classified as carcinogenic, mutagenic, or teratogenic based on available data.**

Signal Word: *Warning*

Hazard Statements:

- H302: Harmful if swallowed
- H320: Causes eye irritation
- H373: May cause damage to organs through prolonged or repeated exposure

Precautionary Statements:

- P264: Wash hands thoroughly after handling
 - P270: Do not eat, drink, or smoke when using this product
 - P280: Wear protective gloves/protective clothing/eye protection
 - P301 + P312: IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell
 - P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes
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3. Composition / Information on Ingredients

Component	Concentration
MK-677 Base	> 99%
Mesylate Counterion Balance	

4. First Aid Measures

- **Inhalation:** Move person to fresh air. Seek medical attention if symptoms persist.
 - **Skin Contact:** Wash thoroughly with soap and water. Remove contaminated clothing.
 - **Eye Contact:** Rinse cautiously with water for several minutes. Remove contact lenses if present. Seek medical advice.
 - **Ingestion:** Rinse mouth. Do not induce vomiting. Call poison control or seek immediate medical attention.
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5. Firefighting Measures

- **Suitable Extinguishing Media:** Water spray, CO₂, dry chemical, or foam
 - **Hazards:** Thermal decomposition may produce toxic fumes of nitrogen oxides, sulfur oxides, and carbon monoxide
 - **Protective Equipment:** Self-contained breathing apparatus and protective gear
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6. Accidental Release Measures

- **Personal Precautions:** Wear appropriate protective equipment
- **Environmental Precautions:** Prevent further leakage or spillage if safe to do so
- **Methods for Cleanup:** Sweep up and place in suitable container. Clean spill area thoroughly with water

7. Handling and Storage

- **Handling:** Avoid contact with skin, eyes, and clothing. Avoid inhalation of dust
 - **Storage:** Store in tightly closed container at 2–8°C. Protect from light and moisture
 - **Incompatibilities:** Strong oxidizing agents
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8. Exposure Controls / Personal Protection

Engineering Controls: Use in fume hood or well-ventilated area

Personal Protective Equipment:

- Eye Protection: Chemical goggles
 - Skin Protection: Lab coat, gloves
 - Respiratory Protection: Dust mask if airborne exposure possible
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9. Physical and Chemical Properties

- **Appearance:** White to off-white powder
 - **Odor:** Odorless
 - **Melting Point:** Not determined
 - **Solubility:** Soluble in DMSO, ethanol
 - **Stability:** Stable under recommended storage conditions
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10. Stability and Reactivity

- **Reactivity:** No known hazardous reactions
 - **Chemical Stability:** Stable under normal temperatures and pressures
 - **Hazardous Decomposition Products:** Carbon oxides, nitrogen oxides, sulfur oxides
 - **Incompatible Materials:** Strong oxidizers
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11. Toxicological Information

- **Acute Toxicity (Oral, Rat):** LD50 > 500 mg/kg (est.)
- **Likely Routes of Exposure:** Inhalation, ingestion, skin and eye contact

- **Effects of Exposure:** May cause gastrointestinal distress, endocrine disruption, mild skin or eye irritation
 - **Chronic Effects:** Repeated exposure may affect metabolism and hormonal balance
 - **Carcinogenicity:** Not listed by IARC, NTP, or OSHA
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12. Ecological Information

- **Ecotoxicity:** Not established
 - **Persistence and Degradability:** Unknown
 - **Bioaccumulation Potential:** Unknown
 - **Precautions:** Avoid release into the environment
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13. Disposal Considerations

- Dispose of contents and container in accordance with local, regional, national, and international regulations
 - Do not discharge into drains or natural water sources
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14. Transport Information

- **UN Number:** Not regulated
 - **Transport Hazard Class:** Not classified
 - **Packing Group:** Not applicable
 - **Shipping Name:** Not dangerous goods according to IATA/IMDG/DOT
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15. Regulatory Information

- Not approved by the FDA for human use
 - For research and laboratory use only
 - TSCA: Not listed
 - DSL/NDSL: Not listed
 - WHMIS Classification: Not controlled
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16. Other Information

- Prepared by: [AR CHEM](#)

- **Date of Preparation:** 13/04/2025
- **Disclaimer:** This information is furnished without warranty, expressed or implied. It is the user's responsibility to determine the suitability of the material for their purpose and ensure proper use, handling, and disposal in accordance with applicable laws and regulations.
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