

# Safety Data Sheet

Mifamurtide

## 1. Identification

Product name	Mifamurtide
Catalog#	66672
IUPAC name	[(2R)-3-[2-[[[(2S)-2-[[[(4R)-4-[[[(2S)-2-[[[(2R)-2-[(3R,4R,5S,6R)-3-acetamido-2,5-dihydroxy-6-(hydroxymethyl)oxan-4-yl]oxypropanoyl]amino]propanoyl]amino]-5-amino-5-oxopentanoyl]amino]propanoyl]amino]ethoxy-hydroxyphosphoryl]oxy-2-hexadecanoyloxypropyl]hexadecanoate
Product use/Restrictions on use	For laboratory research use. Not for drug or household use.
Company	AK Scientific, Inc. 30023 Ahern Ave. Union City, CA 94587
Telephone	(510) 429-8835
Fax	(510) 429-8836
Website	www.aksci.com
Emergency contact number:	(510) 429-8835

## 2. Hazards Identification

### GHS Classification

Not a hazardous substance or mixture.

### Pictogram

Not Applicable.

### Signal word

Not applicable.

### Hazard statement(s)

Not Applicable.

### Precautionary statement(s)

Not Applicable.

### Hazards not otherwise classified (HNOC) or not covered by GHS

none

## 3. Composition/Information on Ingredients

Synonyms:	Muramyl tripeptide phosphatidylethanolamine; N-(N-Acetylmuramoyl)-L-alanyl-D-alpha-glutaminy-N-[(7R)-4-hydroxy-4-oxido-10-oxo-7-[(1-oxohexadecyl)oxy]-3,5,9-trioxa-4-phosphapentacos-1-yl]-L-alaninamide
CAS#:	[83461-56-7]
Purity:	98%
EC#:	No data available.

## 4. First Aid Measures

**General information:** Immediately remove any clothing contaminated by the product. Move out of dangerous area. Consult a physician and show this safety data sheet.

**Inhalation:** Move person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Obtain medical aid.

**Skin contact:** Immediately flush skin with running water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Obtain medical aid immediately.

**Eye contact:** Immediately flush open eyes with running water for at least 15 minutes. Obtain medical aid immediately.

**Ingestion:** Do NOT induce vomiting without medical advice. Rinse mouth with water. Never administer anything by mouth to an unconscious person. Obtain medical aid immediately.

**Most important symptoms and effects, both acute and delayed:** No further information available. Please see headings 2 and 11.

**Indication of any immediate medical attention and special treatment needed:** No further information available.

## 5. Fire Fighting Measure

**Suitable extinguishing media:** Use water spray, dry chemical, carbon dioxide, or chemical foam.

## Mifamurtide

**Specific hazards arising from the chemical:** Phosphorus oxides, Nitrogen oxides, Carbon oxides

**Advice for firefighters:** As in any fire, wear a MSHA/NIOSH-approved or equivalent, pressure-demand, self-contained breathing apparatus and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion

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## 6. Accidental Release Measures

**Personal precautions, protective equipment and emergency procedures:** Wear protective equipment and keep unprotected personnel away. Ensure adequate ventilation. Remove all sources of ignition. Prevent further leak or spill if safe to do so. For personal protective equipment, please refer to heading 8.

**Environmental precautions:** Do not let product enter drains, other waterways, or soil.

**Methods and materials for containment and cleaning up:** Prevent further leak or spill if safe to do so. Vacuum, sweep up, or absorb with inert material and place into a suitable disposal container. Consult local regulations for disposal. Also, see heading 13.

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## 7. Handling and Storage

**Precautions for safe handling:** Avoid contact with skin, eyes, and personal clothing. Wash hands thoroughly after handling. Avoid breathing fumes. Use only with adequate ventilation. Wear suitable protective clothing, gloves, and eye/face protection. Keep away from sources of ignition. Minimize dust generation and accumulation. Keep container tightly closed. Open and handle container with care. Do not eat, drink, or smoke while handling.

**Conditions for safe storage, including any incompatibilities:** Store in a tightly-closed container when not in use. Store in a cool, dry, well-ventilated area away from incompatible substances. Keep away from sources of ignition. Recommended storage temperature: -20°C.

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## 8. Exposure Controls/Personal Protection

### Exposure limits

OSHA PEL:	No data available.
NIOSH REL:	No data available.
ACGIH TLV:	No data available.

**Appropriate engineering controls:** Avoid contact with skin, eyes, and clothing. Wash hands before breaks and immediately after handling the product. Facilities storing or utilizing this material should be equipped with an eyewash fountain. Use adequate ventilation to keep airborne concentrations low.

### Personal protection

Eyes:	Wear chemical splash goggles.
Hand:	Wear protective gloves.
Skin and body:	Wear protective lab coat and boots.
Respiratory:	Use NIOSH/MSHA or CEN approved respirator.

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## 9. Physical and Chemical Properties

Physical State:	White to off-white crystalline powder or powder
Molecular Formula:	C <sub>59</sub> H <sub>109</sub> N <sub>6</sub> O <sub>19</sub> P
Molecular Weight:	1237.5
Odor:	No data available.
pH:	No data available.
Boiling Point Range:	No data available.
Freezing/Melting Point:	No data available.
Flash Point:	No data available.
Evaporation Rate:	No data available.
Flammability (solid, gas):	Please see section 2.
Explosive limits:	No data available.
Vapor Pressure:	No data available.
Vapor Density:	No data available.
Solubility:	DMSO: =2 mg/mL at 60 °C
Relative Density:	No data available.
Refractive Index:	No data available.

## Mifamurtide

Volatility:	No data available.
Auto-ignition temperature:	No data available.
Decomposition Temperature:	No data available.
Partition Coefficient:	No data available.

**10. Stability and Reactivity**

Reactivity	No data available.
Chemical stability	Stable under recommended temperatures and pressures.
Possibility of hazardous reactions	No data available.
Conditions to avoid	Dust generation. Heat.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	Phosphorus oxides, Nitrogen oxides, Carbon oxides

**11. Toxicological Information**

RTECS#	No data available.
Acute toxicity	No data available.
Routes of exposure	Inhalation, eye contact, skin contact, ingestion.
Symptoms related to the physical, chemical and toxicological characteristics	Skin contact may result in inflammation characterized by itching, scaling, reddening, blistering, pain or dryness. Eye contact may result in redness, pain or severe eye damage. Inhalation may cause irritation of the lungs and respiratory system. Overexposure may result in serious illness or death.
<b>Carcinogenicity</b>	
IARC	Not classified.
NTP	Not listed.
OSHA	Not listed.
Acute toxic effects	Inflammation of the eye is characterized by redness, watering, and itching. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.

**12. Ecological Information**

Ecotoxicity	No data available.
Persistence and degradability	No data available.
Bioaccumulative potential	No data available.
Mobility in soil	No data available.
Other adverse effects	No data available.

**13. Disposal Considerations**

**Disposal of waste:** Chemical waste generators must determine whether a discarded chemical is classified as hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification. Observe all federal, state and local regulations when disposing of the substance.

**Disposal of packaging:** Do not reuse containers. Dispose of as unused product.

**14. Transport Information**

<b>DOT (U.S.)</b>	
UN number	Not applicable.
UN proper shipping name	Not applicable.
Transport hazard class(es)	Not applicable.
Packing group	Not applicable.

**15. Regulatory Information**

## Mifamurtide

TSCA Chemical Inventory:	This product is NOT on the EPA Toxic Substance Control Act (TSCA) inventory. The product is supplied solely for use in research and development by or under the supervision of a technically qualified individual as defined in 40 CFR 720 et seq. The health risks have not been fully determined. Any information that is or becomes available will be supplied on an SDS sheet.
California Proposition 65:	Not listed.
EC#:	No data available.
NFPA rating:	<b>Health:</b> 0 <b>Flammability:</b> 0 <b>Instability:</b> 0

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**16. Additional Information**

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## Disclaimer:

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