

## **SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**

### **1.1 Product identifier**

Product Identifier : Amikacin Sulfate, USP (1:1.8), Amikacin Sulfate, USP (1:2)  
Product Number : A070, A003  
CAS Number : [39831-55-5]  
EC Number : [254-648-6]  
REACH Registration Number : A registration number is not available for this substance as the substance or its uses are exempted from registration, the annual tonnage does not require a registration, or the registration is envisaged for a later registration deadline.

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

Identified Uses : For research use only - restricted to professional users.  
Uses Advised Against : Not for human or animal use

### **1.3 Details of the supplier of the safety data sheet**

Company : TOKU-E Company  
715 W Orchard Dr. Suite 3  
Bellingham, WA 98225  
Phone Number : (360) 734-1789  
E-mail Address : info@toku-e.com  
Safety Data Sheet Issued by : TOKU-E Company (USA)

### **1.4 Emergency telephone number**

Emergency Phone Number (Internat.) : +1 (352) 353-3500 (INFOTRAC, 24-Hour Number)  
Emergency Phone Number (US Only) : 1 (800) 535-5053 (INFOTRAC, 24-Hour Number)

## **SECTION 2: HAZARDS IDENTIFICATION**

### **2.1 Classification of the substance or mixture**

#### **Classification according to Regulation (EC) No. 1272/2008**

Skin Sensitization (Category 1), H317  
Eye Damage (Category 1), H318  
Specific Target Organ Toxicity - Repeated Exposure (Category 1), H372 (Kidney, Ear)

For the full text of the H-Statements mentioned in this section, see Section 16.

### **2.2 Label elements**

#### **Labelling according to Regulation (EC) No. 1272/2008**

##### **Hazard Pictogram(s):**



**Signal Word:** Warning

##### **Hazard Statement(s)**

H317 May cause an allergic skin reaction  
H318 Causes serious eye damage  
H372 Causes damage to organs through prolonged or repeated exposure

**Precautionary Statement(s)**

P261	Avoid breathing dust/fumes/gas/mist/vapors/spray.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352	IF ON SKIN: Wash with plenty of water/soap
P333+P313	IF SKIN irritation or rash occurs: Get medical advice/attention.
P321	Specific treatment, see applicable response statements on this label
P362+P364	Take off contaminated clothing and wash it before reuse.
P501	Dispose of contents/container in accordance with governmental regulation
P305+P351+ P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER/doctor.
P260	Do not breathe dust/fumes/gas/mist/vapors/spray.
P264	Wash hands/skin thoroughly after handling.
P270	Do not eat, drink, or smoke when using this product.
P314	Get medical advice/attention if you feel unwell.

**Supplemental Hazard Information**

No data available

**2.3 Other hazards**

No data available

**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS****3.1 Substances**

Synonym(s)	: Amikacin sulphate
Formula	: $C_{22}H_{43}N_5O_{13} \cdot xH_2SO_4$ (varies by product)
Molecular weight	: 585.60 g/mol (free base)

**Hazardous ingredients according to Regulation (EC) No. 1272/2008**

Component	Classification	Concentration
<b>Amikacin Sulfate</b>		
CAS Number [39831-55-5]	Skin Sens. 1, H317 Eye Dam. 1, H318	≤ 100%
EC Number [254-648-6]	STOT RE 1, H372 (Kidney, ear)	

For the full text of the H-Statements mentioned in this section, see Section 16.

**SECTION 4: FIRST-AID MEASURES****4.1 Description of first-aid measures****General information**

Consult a doctor/physician if exposed - additional medical care may be required. Show this safety data sheet to the medical provider.

**If inhaled**

If inhaled, move to fresh air. If not breathing, give artificial respiration. Consult a physician.

**In case of skin contact**

Wash skin thoroughly with soap and water. Remove any contaminated clothing. Consult a physician.

**In case of eye contact**

Flush eye with water. After initial flush, remove any contact lenses and continue flushing for at least 15 minutes.

**If swallowed**

Rinse mouth with water. Immediately call a doctor, physician, or poison control center. Never give anything by mouth to an unconscious person.

#### **Self-protection of the first aider**

Use personal protective equipment as required. Avoid contact with skin, eyes or clothing. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent the spread of contamination.

#### **4.2 Most important symptoms/effects, acute and delayed**

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

#### **4.3 Indication of any immediate medical attention and special treatment needed**

No data available

### **SECTION 5: FIRE-FIGHTING MEASURES**

#### **5.1 Extinguishing media**

##### **Suitable extinguishing media**

Water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

##### **Unsuitable extinguishing media**

No data available

#### **5.2 Special hazards arising from the substance or mixture**

##### **Hazardous Combustion Products**

Carbon and nitrogen oxides, sulfur oxides

#### **5.3 Advice for firefighters**

Wear self-contained breathing apparatus if necessary.

### **SECTION 6: ACCIDENTAL RELEASE MEASURES**

#### **6.1 Personal precautions, protective equipment and emergency procedures**

Consult the safety measures listed in Section 7 and 8. Use personal protective equipment. Avoid breathing dust, vapors, mist or gas. Avoid direct contact with spilled substances. Ensure adequate ventilation. Avoid dust formation. For personal protection see Section 8.

#### **6.2 Environmental precautions**

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

#### **6.3 Methods and materials for containment and cleaning up**

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

#### **6.4 Reference to other sections**

Refer to section 8 for exposure control and personal protection. Refer to section 13 for disposal information.

### **SECTION 7: HANDLING AND STORAGE**

#### **7.1 Precautions for safe handling**

Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. Avoid contact with skin and eyes. For precautionary statements see section 2.2

#### **7.2 Conditions for safe storage, including any incompatibilities**

Keep container tightly closed in a dry and well-ventilated place. Protect from humidity. Recommended storage temperature: 2-8 °C

##### **Incompatibilities:**

Strong oxidizing agents

### 7.3 Specific end use(s)

Refer to section 1.2

## **SECTION 8: EXPOSURE CONTROLS/ PERSONAL PROTECTION**

### 8.1 Control parameters

#### **Components with workplace control parameters:**

No OEL data available

### 8.2 Exposure controls

#### **Appropriate engineering controls:**

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling this product.

#### **Personal Protective Equipment (PPE):**

##### **Respiratory protection**

Where risk assessment shows air-purifying respirators are appropriate, use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

##### **Skin protection**

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal techniques to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the selected EN 374 derived from it.

##### Full Contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: > 480 min

Material tested: Dermatril® (KCL 740, Size M)

##### Splash Contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: > 480 min

Material tested: Dermatril® (KCL 740, Size M)

Data source: KCL GmbH, D-36124 Eichenzell,  
phone +49 (0)6659 87300, email sales@kcl.de  
Test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use. It should not be construed as offering an approval for any specific use scenario.

##### **Eye/Face protection**

Use a face shield and safety glasses. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

##### **Body protection**

Wear protective clothing. The type of protective equipment must be selected according to the concentration of the dangerous substance at the specific work place.

### **Environmental exposure controls**

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

## **SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

### **9.1 Information on basic physical and chemical properties**

Appearance	:	White crystalline powder
Odor	:	No data available
Odor Threshold	:	No data available
pH	:	No data available
Melting Point/Freezing Point	:	No data available
Initial Boiling Point and Range	:	No data available
Flash Point	:	No data available
Evaporation rate	:	No data available
Flammability (solid, gas)	:	No data available
Upper/Lower Flammability or Explosive Limits	:	No data available
Vapour Pressure	:	No data available
Vapour Density	:	No data available
Relative Density	:	No data available
Solubility(ies)	:	No data available
Partition Coefficient: n-octanol/water	:	No data available
Auto-Ignition Temperature	:	No data available
Decomposition Temperature	:	No data available
Viscosity	:	No data available
Explosive Properties	:	No data available
Oxidising Properties	:	No data available

### **9.2 Other information**

No additional information relevant to safe use of the substance.

## **SECTION 10: STABILITY AND REACTIVITY**

### **10.1 Reactivity**

No data available

### **10.2 Chemical stability**

Stable under recommended storage conditions

### **10.3 Possibility of hazardous reactions**

No data available

### **10.4 Conditions to avoid**

No data available

### **10.5 Incompatible materials**

Strong oxidizing agents

### **10.6 Hazardous decomposition products**

No data available

See Section 5 for hazardous combustion products.

## **SECTION 11. TOXICOLOGICAL INFORMATION**

### **11.1 Information on toxicological effects**

#### **Acute Toxicity**

Oral LD<sub>50</sub> : Rat: > 4000 mg/kg, Mouse: > 10679 mg/kg  
Intraperitoneal LD<sub>50</sub> : Rat: 3500 mg/kg  
Subcutaneous LD<sub>50</sub> : Rat: 3604 mg/kg

#### **Skin Corrosion/Irritation**

No data available

#### **Serious Eye Damage/ Eye Irritation**

No data available

#### **Respiratory or Skin Sensitization**

No data available

#### **Germ Cell Mutagenicity**

No data available

#### **Carcinogenicity**

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed human carcinogen by the International Agency for Research on Cancer Monograph.

#### **Reproductive Toxicity**

Rat: TDLo 2800 mg/kg, Subcutaneous  
Female 8-20 days after conception  
Toxic Effects: Effects on Embryo or Fetus - Fetotoxicity  
Specific Developmental Abnormalities - Musculoskeletal system, homeostasis

#### **Specific Target Organ Toxicity: Single Exposure**

No data available

#### **Specific Target Organ Toxicity: Repeated Exposure**

No data available

#### **Aspiration Hazard**

No data available

#### **Additional Information**

RTECS # WK1961200

Aminoglycosides are associated with significant nephrotoxicity and/or ototoxicity.

## **SECTION 12: ECOLOGICAL INFORMATION**

### **12.1 Toxicity**

No data available

### **12.2 Persistence and degradability**

No data available

### **12.3 Bioaccumulative potential**

No data available

### **12.4 Mobility in soil**

No data available

## 12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.

## 12.6 Other adverse effects

No data available

In the absence of complete ecological information, treat product as environmentally hazardous.  
Use proper storage, handling, and disposal to prevent unintentional release into the environment.

## SECTION 13: DISPOSAL CONSIDERATIONS

### 13.1 Waste treatment methods

#### Product

Offer surplus and non-recyclable products to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Avoid disposal of material in drains or sewers. Waste material must be disposed of in accordance with the Directive on Waste 2008/98/EC as well as other national and local regulations.

#### Contaminated Packaging

Dispose of as unused product.

## SECTION 14: TRANSPORT INFORMATION

	ADR/RID	IMDG	IATA
14.1	UN Number	-	-
14.2	UN Proper Shipping Name	Not dangerous goods	Not dangerous goods
14.3	Transport Hazard Class(es)	-	-
14.4	Packing Group	-	-
14.5	Environmental Hazards	No	Marine Pollutant: No

### 14.6 Special precautions for user

No data available

### 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable.

## SECTION 15: REGULATORY INFORMATION

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

#### Authorizations and/or restrictions on use

Restricted to professional users.

### 15.2 Chemical safety assessment

For this product a chemical safety assessment was not carried out.

## SECTION 16: OTHER INFORMATION

#### Full text of H-Statements referred to under sections 2 and 3

H317 May cause an allergic skin reaction

H318 Causes serious eye damage

H372 Causes damage to organs through prolonged or repeated exposure

**Abbreviations and acronyms**

ADR/RID: European Agreements Concerning the International Carriage of Dangerous Goods by Road (ADR) and Rail (RID)

CAS No: Chemical Abstracts Service number

EC: European Commission

EC No: European Commission number

EHS: Environmentally Hazardous Substance

EU: European Union

H-Statement: Hazard Statement

IARC: International Agency for Research on Cancer

IATA: International Air Transport Association

IBC: International Bulk Chemical

IMDG: International Maritime Dangerous Goods Code

LC50: Lethal concentration, 50%

LD50: Median Lethal dose

MARPOL 73/78: International Convention for the Prevention of Pollution from Ships

NIOSH: National Institute for Occupation Safety and Health

OEL: Occupational Exposure Limit

PBT: Persistent, Bioaccumulative and Toxic

REACH: Registration, Evaluation, Authorisation and restrictions of Chemicals

SDS: Safety Data Sheet

UN: United Nations

vPvB: Very Persistent and Very Bioaccumulative

**Further information**

Revision Date: 2018-10-01

The above information is based upon the present state of our knowledge and is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information is believed to be correct but does not purport to be all inclusive. It does not represent any guarantees of the properties of the product. TOKU-E Company shall not be held liable for damage or injury resulting from contact, handling, or storage of the above product.