

**Netilmicin Sulfate - MATERIAL****SAFETY DATA SHEET**

Version 2.0

Revision Date 09/01/2010

1. SUBSTANCE IDENTITY AND COMPANY CONTACT INFORMATION

Product Name	Netilmicin Sulfate
Product Number	N004
Procedure	N/A
Brand	TOKU-E
Company	715 W. Orchard Drive Suite 3 Bellingham, WA 98225
EMERGENCY PHONE (US only)	+1-800-535-5053
INF	+86-21-5206 9530

2. CHEMICAL COMPOSITION AND DATA ON COMPONENTS

CAS NO.	56391-57-2
Formula	$C_{21}H_{41}N_5O_7 \cdot 2.5H_2SO_4$
Molecular Weight	720.78 g/mol

3. HAZARD IDENTIFICATION

Label precautionary statements	Toxic May cause harm to the unborn child. Harmful by inhalation, in contact with skin and if swallowed.
Target organ(s)	Kidneys; Ears

In case of accident or if you feel unwell, seek medical advice immediately (show label when possible). Wear suitable protective clothing, gloves and eye/ face protection.

4. FIRST-AID MEASURES

In case of eye and skin contact

Immediately flush eyes or skin with copious amounts of water at least 15minutes while removing contaminated clothing and shoes. Assure adequate flushing of eyes by separating eyelids with fingers.

If inhaled

Remove to fresh air. If breathing is difficult, call a physician.

If swallowed

Wash out mouth with water (provided person is conscious). Call a physician immediately.

Others

Wash all contaminated clothing before reuse.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Water spray, Carbon dioxide, dry chemical powder or appropriate foam.

Special protective equipment for fire-fighters

Wear self-contained breathing apparatus and protective clothing to prevent contact with eyes and skin.

Unusual fire and explosion hazards

Emits toxic fumes under fire conditions.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Wear respirator, chemical safety goggles, rubber boots, and heavy rubber gloves.

Methods for cleaning up

Sweep up; avoid raising dust, place in a bag and hold for waste disposal. Ventilate area and wash spill site after material pickup is complete.

7. HANDLING AND STORAGE

Handling

Wear Government approved respirator, chemical resistant gloves, safety goggles, and all other protective clothing. Do not breathe dust. Safety shower and eye bath. Use only in a chemical fume hood.

Storage

Keep tightly closed. Store at 2~8°C

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

Personal protective equipment

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).

Hand protection

For prolonged or repeated contact use protective gloves.

Eye protection

Safety glasses with side-shields conforming to EN166

Skin and body protection

Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hygiene measures

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

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Solid
PH	N/A
Melting point	N/A
Solubility	N/A

10. STABILITY AND REACTIVITY

Storage stability

Stable.

Materials to avoid

Avoid strong oxidizing agents.

Hazardous decomposition products

Hazardous combustion or decomposition products thermal decomposition may produce carbon

monoxide, carbon dioxide, nitrogen oxides and sulfur oxides.

Hazardous polymerization products

Hazardous polymerization will not occur.

11. TOXICOLOGICAL INFORMATION

Potential Health Effects

Harmful if swallowed, inhaled, or absorbed through skin.

Signs and Symptoms of Exposure

Amino glycosides are associated with significant nephrotoxicity and/or ototoxicity.

Toxicity data:

Oral Rat LD ₅₀	> 10000 MG/KG
Intraperitoneal Rat LD ₅₀	231 MG/KG
Subcutaneous Rat LD ₅₀	169 MG/KG
Intravenous Rat LD ₅₀	40700 UG/KG
Intramuscular Rat LD ₅₀	167 MG/KG
Intraperitoneal Mouse LD ₅₀	189 MG/KG
Subcutaneous Mouse LD ₅₀	68900 UG/KG
Intravenous Mouse LD ₅₀	22 MG/KG
Intramuscular Mouse LD ₅₀	63100 UG/MG

Sensitization

Prolonged or repeated exposure may cause allergic reactions in certain sensitive individuals.

Chronic exposure

Teratogen. Reproductive hazards.

Only selected registry of toxic effects of chemical substances (RTECS) data is presented here. See actual entry in trees for complete information.

12. ECOLOGICAL INFORMATION

Data not yet available.

13. DISPOSAL CONSIDERATIONS

Product

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. Observe all federal, state and local environmental regulations.

Contaminated packaging

Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (US)	Not dangerous goods
IMDG	Not dangerous goods
IATA	Not dangerous goods

15. REGULATORY INFORMATION**US information**

Toxic.

May cause harm to the unborn child. Harmful by inhalation, in contact with skin and if swallowed.

In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

Wear suitable protective clothing, gloves, and eye/ face protection.

Target organ(s): Kidneys. Ears.

SARA list: No.

California Prop - 65: California Proposition 65: This product is or contains chemical(s) known to the state of California to cause developmental toxicity. California Proposition 65: This product is or contains chemical(s) known to the state of California to cause developmental toxicity.

EU information

Toxic.

R: 61 20/21/22

May cause harm to the unborn child. Harmful by inhalation, in contact with skin and if swallowed.

S: 53 36/37/39 45

Avoid exposure - obtain special instructions before use. Wear suitable protective clothing, gloves, and eye/ face protection. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

Canada information

This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.

DSL: No

NDSL: No

16. OTHER INFORMATION

Further information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Toku-e Co., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale.