### PEPLEOMYCIN SULFATE (cas 70384-29-1) MSDS

**MSDS**

- **CAS**: 70384-29-1
- **SYNONYMS**: * Bleomycinamide, N(sup 1)-(3-((1-phenylethyl)amino)propyl)-, (S)-, sulfate (1:1) (salt)
  * NK 631
  * Pepleo
  * Peplomycin sulfate
  * 3-((S)-1'-Phenylethylamino)propylamino-bleomycin sulfate

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**RTECS NUMBER**: SC6082000

**CHEMICAL NAME**: Pepleomycin sulfate

**CAS REGISTRY NUMBER**: 70384-29-1

**OTHER CAS REGISTRY NOS.**: 69880-92-8

**LAST UPDATED**: 199609

**DATA ITEMS CITED**: 18

**MOLECULAR FORMULA**: C61-H88-N18-O21-S2.H2-O4-S

**MOLECULAR WEIGHT**: 1571.87

**COMPOUND DESCRIPTOR**: Tumorigen

**SYNONYMS/TRADE NAMES**:

- * Bleomycinamide, N(sup 1)-(3-((1-phenylethyl)amino)propyl)-, (S)-, sulfate (1:1) (salt)
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  * Peplomycin sulfate
  * 3-((S)-1'-Phenylethylamino)propylamino-bleomycin sulfate
** SKIN/EYE IRRITATION DATA **

<table>
<thead>
<tr>
<th>TYPE OF TEST</th>
<th>Standard Draize test</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROUTE OF EXPOSURE</td>
<td>Administration into the eye</td>
</tr>
<tr>
<td>SPECIES OBSERVED</td>
<td>Rodent - rabbit</td>
</tr>
<tr>
<td>DOSE/DURATION</td>
<td>1 mg</td>
</tr>
<tr>
<td>REACTION SEVERITY</td>
<td>Mild</td>
</tr>
</tbody>
</table>

REFERENCE:
JJANAX Japanese Journal of Antibiotics. (Japan Antibiotics Research Assoc.,
2-20-8 Kamiosaki, Shinagawa-ku, Tokyo 141, Japan) V.21- 1968-
Volume(issue)/page/year: 31,859,1978

** ACUTE TOXICITY DATA **

<table>
<thead>
<tr>
<th>TYPE OF TEST</th>
<th>LD50 - Lethal dose, 50 percent kill</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROUTE OF EXPOSURE</td>
<td>Oral</td>
</tr>
<tr>
<td>SPECIES OBSERVED</td>
<td>Rodent - rat</td>
</tr>
<tr>
<td>DOSE/DURATION</td>
<td>&gt;2 gm/kg</td>
</tr>
<tr>
<td>TOXIC EFFECTS</td>
<td>Details of toxic effects not reported other than lethal dose value</td>
</tr>
</tbody>
</table>

REFERENCE:
NIIRDN Drugs in Japan (Ethical Drugs). (Yakugyo Jiho Co., Ltd., Tokyo,
Japan) Volume(issue)/page/year: 6,762,1982

<table>
<thead>
<tr>
<th>TYPE OF TEST</th>
<th>LD50 - Lethal dose, 50 percent kill</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROUTE OF EXPOSURE</td>
<td>Intraperitoneal</td>
</tr>
<tr>
<td>SPECIES OBSERVED</td>
<td>Rodent - rat</td>
</tr>
<tr>
<td>DOSE/DURATION</td>
<td>155 mg/kg</td>
</tr>
<tr>
<td>TOXIC EFFECTS</td>
<td>Details of toxic effects not reported other than lethal dose value</td>
</tr>
</tbody>
</table>

REFERENCE:
40WDA5 "Bleomycin: Current Status and New Development, Papers Presented in a

<table>
<thead>
<tr>
<th>TYPE OF TEST</th>
<th>LD50 - Lethal dose, 50 percent kill</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROUTE OF EXPOSURE</td>
<td>Subcutaneous</td>
</tr>
<tr>
<td>SPECIES OBSERVED</td>
<td>Rodent - rat</td>
</tr>
<tr>
<td>DOSE/DURATION</td>
<td>199 mg/kg</td>
</tr>
<tr>
<td>TOXIC EFFECTS</td>
<td>Details of toxic effects not reported other than lethal dose value</td>
</tr>
</tbody>
</table>

REFERENCE:
TYPE OF TEST : LD50 - Lethal dose, 50 percent kill
ROUTE OF EXPOSURE : Intravenous
SPECIES OBSERVED : Rodent - rat
DOSE/DURATION : 215 mg/kg

TOXIC EFFECTS:
Details of toxic effects not reported other than lethal dose value

REFERENCE:
JJANAX Japanese Journal of Antibiotics. (Japan Antibiotics Research Assoc.,
2-20-8 Kamiosaki, Shinagawa-ku, Tokyo 141, Japan) V.21- 1968-
Volume(issue)/page/year: 31,719,1978

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TYPE OF TEST : LD50 - Lethal dose, 50 percent kill
ROUTE OF EXPOSURE : Oral
SPECIES OBSERVED : Rodent - mouse
DOSE/DURATION : >1 gm/kg

TOXIC EFFECTS:
Details of toxic effects not reported other than lethal dose value

REFERENCE:
NIIRDN Drugs in Japan (Ethical Drugs). (Yakugyo Jiho Co., Ltd., Tokyo,
Japan) Volume(issue)/page/year: 6,762,1982

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TYPE OF TEST : LD50 - Lethal dose, 50 percent kill
ROUTE OF EXPOSURE : Intraperitoneal
SPECIES OBSERVED : Rodent - mouse
DOSE/DURATION : 77 mg/kg

TOXIC EFFECTS:
Details of toxic effects not reported other than lethal dose value

REFERENCE:
JJANAX Japanese Journal of Antibiotics. (Japan Antibiotics Research Assoc.,
2-20-8 Kamiosaki, Shinagawa-ku, Tokyo 141, Japan) V.21- 1968-
Volume(issue)/page/year: 31,719,1978

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TYPE OF TEST : LD50 - Lethal dose, 50 percent kill
ROUTE OF EXPOSURE : Subcutaneous
SPECIES OBSERVED : Rodent - mouse
DOSE/DURATION : 80 mg/kg

TOXIC EFFECTS:
Details of toxic effects not reported other than lethal dose value

REFERENCE:
JJANAX Japanese Journal of Antibiotics. (Japan Antibiotics Research Assoc.,
** TYPE OF TEST **
LD_{50} - Lethal dose, 50 percent kill

** ROUTE OF EXPOSURE **
Intravenous

** SPECIES OBSERVED **
Rodent - mouse

** DOSE/DURATION **
45 mg/kg

** TOXIC EFFECTS **
Details of toxic effects not reported other than lethal dose value

** REFERENCE **
JJANAX Japanese Journal of Antibiotics. (Japan Antibiotics Research Assoc.,
2-20-8 Kamiosaki, Shinagawa-ku, Tokyo 141, Japan) V.21- 1968-
Volume(issue)/page/year: 31,719,1978

** TYPE OF TEST **
LDLo - Lowest published lethal dose

** ROUTE OF EXPOSURE **
Intratracheal

** SPECIES OBSERVED **
Rodent - mouse

** DOSE/DURATION **
1572 ng/kg

** TOXIC EFFECTS **
Lungs, Thorax, or Respiration - fibrosis (interstitial)

** REFERENCE **
First St., Duluth, MN 55802) V.1- 1959- Volume(issue)/page/year:
56,326,1980

** TYPE OF TEST **
LD - Lethal dose

** ROUTE OF EXPOSURE **
Intravenous

** SPECIES OBSERVED **
Mammal - dog

** DOSE/DURATION **
>50 mg/kg

** TOXIC EFFECTS **
liver - hepatitis (hepatocellular necrosis), diffuse
Kidney, Ureter, Bladder - changes in tubules (including acute renal failure,
acute tubular necrosis)
Gastrointestinal - other changes

** REFERENCE **
JJANAX Japanese Journal of Antibiotics. (Japan Antibiotics Research Assoc.,
2-20-8 Kamiosaki, Shinagawa-ku, Tokyo 141, Japan) V.21- 1968-
Volume(issue)/page/year: 31,719,1978

** OTHER MULTIPLE DOSE TOXICITY DATA **

** TYPE OF TEST **
TDLo - Lowest published toxic dose

** ROUTE OF EXPOSURE **
Intraperitoneal
SPECIES OBSERVED : Rodent - rat
DOSE/DURATION : 54 mg/kg/26W-I

TOXIC EFFECTS :
Nutritional and Gross Metabolic - weight loss or decreased weight gain
Related to Chronic Data - death

REFERENCE :
JJANAX Japanese Journal of Antibiotics. (Japan Antibiotics Research Assoc., 2-20-8 Kamiosaki, Shinagawa-ku, Tokyo 141, Japan) V.21- 1968-
Volume(issue)/page/year: 31,803,1978

TYPE OF TEST : TDLo - Lowest published toxic dose
ROUTE OF EXPOSURE : Intravenous
SPECIES OBSERVED : Mammal - dog
DOSE/DURATION : 45800 ug/kg/37D-I

TOXIC EFFECTS :
Tumorigenic - Carcinogenic by RTECS criteria
Biochemical - Enzyme inhibition, induction, or change in blood or tissue levels - transaminases
Related to Chronic Data - death

REFERENCE :

TYPE OF TEST : TDLo - Lowest published toxic dose
ROUTE OF EXPOSURE : Intramuscular
SPECIES OBSERVED : Mammal - dog
DOSE/DURATION : 72 mg/kg/30D-I

TOXIC EFFECTS :
Liver - other changes
Kidney, Ureter, Bladder - changes in tubules (including acute renal failure, acute tubular necrosis)
Blood - normocytic anemia

REFERENCE :
JJANAX Japanese Journal of Antibiotics. (Japan Antibiotics Research Assoc., 2-20-8 Kamiosaki, Shinagawa-ku, Tokyo 141, Japan) V.21- 1968-
Volume(issue)/page/year: 31,767,1978

TYPE OF TEST : TDLo - Lowest published toxic dose
ROUTE OF EXPOSURE : Intramuscular
SPECIES OBSERVED : Mammal - dog
DOSE/DURATION : 54 mg/kg/26W-I

TOXIC EFFECTS :
Lungs, Thorax, or Respiration - fibrosis, focal (pneumoconiosis)
Skin and Appendages - dermatitis, other (after systemic exposure)

Related to Chronic Data - death

REFERENCE:

JJANAX Japanese Journal of Antibiotics. (Japan Antibiotics Research Assoc., 2-20-8 Kamiosaki, Shinagawa-ku, Tokyo 141, Japan) V.21- 1968-
Volume(issue)/page/year: 32,387,1979

** TUMORIGENIC DATA **

<table>
<thead>
<tr>
<th>TYPE OF TEST</th>
<th>TDLo - Lowest published toxic dose</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROUTE OF EXPOSURE</td>
<td>Subcutaneous</td>
</tr>
<tr>
<td>SPECIES OBSERVED</td>
<td>Rodent - rat</td>
</tr>
<tr>
<td>DOSE/DURATION</td>
<td>23 mg/kg/61W-I</td>
</tr>
<tr>
<td>TOXIC EFFECTS:</td>
<td>Tumorigenic - Carcinogenic by RTECS criteria</td>
</tr>
<tr>
<td></td>
<td>Kidney, Ureter, Bladder - Kidney tumors</td>
</tr>
<tr>
<td></td>
<td>Tumorigenic - tumors at site of application</td>
</tr>
</tbody>
</table>

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<tr>
<th>TYPE OF TEST</th>
<th>TDLo - Lowest published toxic dose</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROUTE OF EXPOSURE</td>
<td>Parenteral</td>
</tr>
<tr>
<td>SPECIES OBSERVED</td>
<td>Rodent - rat</td>
</tr>
<tr>
<td>DOSE/DURATION</td>
<td>17 mg/kg/52W-I</td>
</tr>
<tr>
<td>TOXIC EFFECTS:</td>
<td>Tumorigenic - Carcinogenic by RTECS criteria</td>
</tr>
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<td>Kidney, Ureter, Bladder - Kidney tumors</td>
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<td></td>
<td>Tumorigenic - tumors at site of application</td>
</tr>
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REFERENCE:

AAACA3 Proceedings of the American Association for Cancer Research. (Waverly Press, 428 E. Preston St., Baltimore, MD 21202) V.1- 1954-
Volume(issue)/page/year: 24,96,1983

<table>
<thead>
<tr>
<th>TYPE OF TEST</th>
<th>TD - Toxic dose (other than lowest)</th>
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</thead>
<tbody>
<tr>
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<td>Parenteral</td>
</tr>
<tr>
<td>SPECIES OBSERVED</td>
<td>Rodent - rat</td>
</tr>
<tr>
<td>DOSE/DURATION</td>
<td>33 mg/kg/52W-I</td>
</tr>
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<td>TOXIC EFFECTS:</td>
<td>Tumorigenic - Carcinogenic by RTECS criteria</td>
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<td></td>
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*** END OF RECORD ***