Inhalation Exposure
If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.

Dermal Exposure
In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. Call a physician.

Eye Exposure
In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

Section 5 - Fire Fighting Measures

Autoignition Temp: N/A

Extinguishing Media
Suitable: Water spray. Carbon dioxide, dry chemical powder, or appropriate foam.

Firefighting
Protective Equipment
Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.
Specific Hazard(s)
Emits toxic fumes under fire conditions.

Section 6 - Accidental Release Measures

Procedure to be Followed in Case of Leak or Spill
Evacuate area.

Procedure(s) of Personal Protection(s)
Wear self-contained breathing apparatus, rubber boots, and heavy rubber gloves/leather disposable overalls and discard them after use.

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

Section 7 - Handling and Storage

Handling
User Exposure
Do not breathe dust. Do not get in eyes, on skin, or on clothing. Avoid prolonged or repeated exposure.

Storage
Suitable
Keep tightly closed.

Section 8 - Exposure Controls / PPE

Engineering Controls
Use only in a chemical fume hood. Safety shower and eye bath.

Personal Protective Equipment
Respiratory
Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CE (EU). 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.

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Hand
Compatible chemical resistant gloves.

Eye
Chemical safety goggles.

General Hygiene Measures
Wash contaminated clothing before reuse. Wash thoroughly after handling.

Section 9 - Physical/Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Molecular Weight</td>
<td>344.5 AMU</td>
</tr>
<tr>
<td>pH</td>
<td>N/A</td>
</tr>
<tr>
<td>BP/BD Range</td>
<td>N/A</td>
</tr>
<tr>
<td>MP/MF Range</td>
<td>118 °C</td>
</tr>
<tr>
<td>Freezing Point</td>
<td>N/A</td>
</tr>
<tr>
<td>Vapor Pressure</td>
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</tr>
<tr>
<td>Vapor Density</td>
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<tr>
<td>Saturated Vapor Conc.</td>
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<tr>
<td>SG/Density</td>
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<tr>
<td>Bulk Density</td>
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<tr>
<td>Odor Threshold</td>
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</tr>
<tr>
<td>Volatile%</td>
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</tr>
<tr>
<td>VOC Content</td>
<td>N/A</td>
</tr>
<tr>
<td>Water Content</td>
<td>N/A</td>
</tr>
<tr>
<td>Solvent Content</td>
<td>N/A</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>N/A</td>
</tr>
<tr>
<td>Viscosity</td>
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</tr>
<tr>
<td>Partition Coefficient</td>
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</tr>
<tr>
<td>Decomposition Temp.</td>
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</tr>
<tr>
<td>Flash Point *F</td>
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</tr>
<tr>
<td>Flash Point °C</td>
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</tr>
<tr>
<td>Explosion Limits</td>
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<tr>
<td>Flammability</td>
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<tr>
<td>Autoignition Temp</td>
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<tr>
<td>Optical Rotation</td>
<td>&lt;0.2 - 1 (± 0)</td>
</tr>
<tr>
<td>Solubility</td>
<td>N/A</td>
</tr>
<tr>
<td>N/A = not available</td>
<td></td>
</tr>
</tbody>
</table>

Section 10 - Stability and Reactivity

Stability
Stable

Materials to Avoid
Strong oxidizing agents, Strong bases

Hazardous Decomposition Products
Carbon monoxide, Carbon dioxide

Hazardous Polymerization
Hazardous Polymerization
Will not occur.

Section 11 - Toxicological Information

Route of Exposure
Skin Contact
May cause skin irritation.

Skin Absorption
May be harmful if absorbed through the skin.

Eye Contact
May cause eye irritation.

Inhalation
May be harmful if inhaled. Material may be irritating to mucous membranes and upper respiratory tract.

Ingestion
Harmful if swallowed.

Target Organ(s) or System(s)
Liver: Hepatotoxic system.

Signs and Symptoms of Exposure
Causes anaphylactic and anaphylactic effects. Can cause masculinization, nitrogen and water retention, electrolyte imbalance, advance reproductive effects, androgenic side effects. Pregnant females should avoid exposure. Exposure to testosterone and its esters during pregnancy causes masculinization of the fetus.

RTECS Number: XA3115000

Toxicity Data

<table>
<thead>
<tr>
<th>Route of Exposure</th>
<th>Oral (Rat)</th>
<th>Intraperitoneal (Rat)</th>
<th>Subcutaneous (Rat)</th>
<th>Oral (Mouse)</th>
<th>Intraperitoneal (Mouse)</th>
<th>Subcutaneous (Mouse)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50</td>
<td>1000 mg/kg</td>
<td>585 mg/kg</td>
<td>&gt;500 mg/kg</td>
<td>1350 mg/kg</td>
<td>970 mg/kg</td>
<td>&gt;500 mg/kg</td>
</tr>
</tbody>
</table>

Chronic Exposure - Carcinogen

Result: This product contains a component that has been reported to be probably carcinogenic based on its IARC, OSHA, ACGIH, NTP, and EPA classification.

Rat - Subcutaneous 10 mg/kg
Result: Tumorigenic by RTECS criteria. Skin and Appendages: Other. Tumors.

Rat - Subcutaneous 432 mg/kg, 48W C
Result: Tumorigenic Tumorigenic by RTECS criteria. Tumorigenic Effects: Prostate tumors.

Mouse - Subcutaneous 5200 mg/kg, 45W 1

Hamster - Subcutaneous 360 mg/kg
Result: Tumorigenic Tumorigenic by RTECS criteria. Musculoskeletal: Tumors. Tumorigenic Effects: Other reproductive system tumors.

Chronic Exposure - Teratogen

<table>
<thead>
<tr>
<th>Species</th>
<th>Dose</th>
<th>Route of Application</th>
<th>Exposure Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rat</td>
<td>100 mg/kg</td>
<td>Oral</td>
<td>17-20D (FREG)</td>
</tr>
<tr>
<td>Rat</td>
<td>25 mg/kg</td>
<td>Oral</td>
<td>16-20D (FREG)</td>
</tr>
</tbody>
</table>

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**Rat**

7500 U/GK | Subcutaneous | (17D PREG)
Result: Specific Developmental Abnormalities: Urogenital system.
Effects on Newborn: Delayed effects.

5200 U/GK | Subcutaneous | (15D PREG)
Result: Specific Developmental Abnormalities: Skin and skin appendages.

6260 U/GK | Subcutaneous | (MULTIGENETATION)
Result: Specific Developmental Abnormalities: Urogenital system.
Effects on Newborn: Growth statistics (e.g., reduced weight gain).

3600 U/GK | Subcutaneous | (9-14D PREG)
Result: Specific Developmental Abnormalities: Urogenital system.
Effects on Newborn: Birth weight (e.g., fetuses per litter, measured at birth).

3600 U/GK | Intraocular | (13D PREG)
Result: Effects on Embryo or Fetus: Fetal toxicity (except death; e.g., stunted fetus).

3000 MG/KG | Subcutaneous | (7-12D PREG)
Result: Specific Developmental Abnormalities: Skin and skin appendages.

15 MG/KG | Intramuscular | (7-12D PREG)
Result: Specific Developmental Abnormalities: Musculoskeletal system.
Specific Developmental Abnormalities: Urogenital system.
Effects on Newborn: Growth statistics (e.g., reduced weight gain).

240 MG/KG | Intramuscular | (7-12D PREG)
Result: Specific Developmental Abnormalities: Eye, ear.

142 MG/KG | Intramuscular | (4-77D PREG)
Result: Specific Developmental Abnormalities: Urogenital system.
Effects on Newborn: Delayed effects.

98 MG/KG | Intramuscular | (120D PREG)
Result: Specific Developmental Abnormalities: Urogenital system.
Effects on Newborn: Delayed effects.

650 U/GK | Subcutaneous | (120D PREG)
Result: Specific Developmental Abnormalities: Urogenital system.

693 MG/KG | Subcutaneous | (4-60D PREG)
Result: Specific Developmental Abnormalities: Endocrine system.
Effects on Newborn: Biochemical and metabolic.

**Chronic Exposure - Mutation**

**Species** | **Dose** | **Cell Type** | **Mutation Test**
--- | --- | --- | ---
Rat | 300 UMO/L | Liver | DNA damage
Rat | 10 MCGL | Embryo | Morphological transformation

**Chronic Exposure - Reproductive Hazard**

**Species** | **Dose** | **Route of Application** | **Exposure Time**
--- | --- | --- | ---
Man | 437-4 U/GK | Intrauterine | 180D PRE
Result: Paternal Effects: Spermatogenesis (including genetic material, sperm morphology, motility, and count).

Man | 4266 U/GK | Intramuscular | (14D MALE)
Result: Paternal Effects: Spermatogenesis (including genetic material, sperm morphology, motility, and count).

Woman | 3 MG/KG | Intramuscular | (6D PRE)
Result: Maternal Effects: Menstrual cycle changes or disorders.

Man | 850 U/GK | Parenteral | (90D PRE)
Result: Paternal Effects: Spermatogenesis (including genetic material, sperm morphology, motility, and count).

Woman | 18500 MG/KG | Parenteral | (31D PRE)
Result: Maternal Effects: Menstrual cycle changes or disorders.

Rat | 5500 MG/KG | Intraperitoneal | (28W PRE)

Rat | 4550 MG/KG | Intraperitoneal | (26W PRE)

Rat | 6200 MG/KG | Subcutaneous | (120D PRE)

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**Rat**

200 U/GK | Subcutaneous | (20D MALE)
Result: Paternal Effects: Testes, epididymis, sperm duct.

50 U/GK | Subcutaneous | (1D PRE)
Result: Effects on Fertility. Other measures of fertility.

50 U/GK | Subcutaneous | (1D PRE)
Result: Maternal Effects: Menstrual cycle changes or disorders.

6250 MG/KG | Intramuscular | (11D PRE)
Result: Effects on Fertility. Maternal effects (e.g., *sperm* positive females per *females* mated, *copulations* per *estrous* cycles). Effects on Fertility: Female fertility index (e.g., *females* pregnant per *sperm* positive females; *females* pregnant per *females* mated).

10 U/GK | Intramuscular | (77D PREG)
Result: Male Effects: Ovaries, fallopian tubes.

1200 U/GK | Intramuscular | (6-14D PREG)
Result: Effects on Fertility. Litter size (e.g., *fetuses* per litter; measured before birth).Special Developmental Abnormalities: Musculoskeletal system.
Effects on Newborn: Growth statistics (e.g., reduced weight gain).

10 U/GK | Intramuscular | (13D PREG)
Result: Male Effects: Ovaries, fallopian tubes.

50 U/GK | Parenteral | (11D PRE)
Result: Effects on Fertility. Female fertility index (e.g., *females* pregnant per *sperm* positive females; *females* pregnant per *females* mated).

10 MG/KG | Parenteral | (15-20D PREG)
Result: Effects on Newborn: Behavioral.

250 MG/KG | Parenteral | (1D PRE)
Result: Male Effects: Ovaries, fallopian tubes.

500 MG/KG | Parenteral | (1D PRE)
Result: Male Effects: Uterus, cervix, vagina.

90 MG/KG | Parenteral | (23D MALE)
Result: Effects on Fertility. Maternal effects (e.g., *sperm* positive females per *females* mated, *copulations* per *estrous* cycles).

10 U/GK | Parenteral | (77D PREG)
Result: Effects on Fertility. Maternal effects (e.g., *sperm* positive females per *females* mated, *copulations* per *estrous* cycles).

30 U/GK | Parenteral | (77D PREG)
Result: Male Effects: Other effects.

20 MG/KG | Unreported | (50 MALE)
Result: Effects on Fertility. Maternal effects (e.g., *sperm* positive females per *females* mated, *copulations* per *estrous* cycles).

2500 MG/KG | Unreported | (10-18D PREG)
Result: Effects on Fertility. Female fertility index (e.g., *females* pregnant per *sperm* positive females; *females* pregnant per *females* mated).

5050 MG/KG | Multiple | (15D PRE)
Result: Male Effects: Other effects.

4 MG/KG | Subcutaneous | (1D MALE)
Result: Paternal Effects: Testes, epididymis, sperm duct.

40 MG/KG | Subcutaneous | (1D PRE)
Result: Effects on Fertility. Female fertility index (e.g., *females* pregnant per *sperm* positive females; *females* pregnant per *females* mated).

20 MG/KG | Subcutaneous | (10D PREG)
Result: Male Effects: Other effects.

190 MG/KG | Subcutaneous | (35D MALE)
Result: Paternal Effects: Prostate, seminal vesicle, Cowper's gland, accessory glands.

12 MG/KG | Intramuscular | (7-12D PREG)
Result: Effects on Fertility: Litter size (e.g., *fetuses* per litter; measured before birth). Effects on Embryo or Fetus: Fetal toxicity (except death; e.g., stunted fetus).

2 MG/KG | Intracerebral | (10D PRE)
Result: Paternal Effects: Ovaries, fallopian tubes.

2 MG/KG | Intracerebral | (10D MALE)
Result: Paternal Effects: Spermatogenesis (including genetic material, sperm morphology, motility, and count).

30 MG/KG | Intramuscular | (60D MALE)
Result: Paternal Effects: Spermatogenesis (including genetic material, sperm morphology, motility, and count).

30 MG/KG | Subcutaneous | (40-64 D PREG)
Result: Effects on Newborn: Biochemical and metabolic.

2400 U/GK | Oral | (400 MALE)
Result: Paternal Effects: Spermatogenesis (including genetic material, sperm morphology, motility, and count). Effects on Fertility: Male fertility index (e.g., *males* impregnating females per *males* exposed to fertility nonpregnant females).

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Section 12 - Ecological Information

No data available.

Section 13 - Disposal Considerations

Appropriate Method of Disposal of Substance or Preparation
Contact the Drug Enforcement Administration concerning the disposal of controlled substances. Observe all federal, state, and local environmental regulations.

Section 14 - Transport Information

DOT
Proper Shipping Name: None
Non-Hazardous for Transport This substance is considered to be nonhazardous for transport.

IATA
Non-Hazardous for Air Transport Non-hazardous for air transport.

Section 15 - Regulatory Information

EU Additional Classification
Symbol of Danger: T
Indication of Danger
Toxic.
Risk Statements:
R: 45 63
May cause cancer. Possible risk of harm to the unborn child.

Safety Statements:
S: 53 36/37 45
Avoid exposure - obtain special instructions before use. Wear suitable protective clothing and gloves. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

Section 16 - Other Information

Disclaimer
For R&D use only. Not for drug, household or other uses.

Warranty
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