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Material Safety Data Sheet

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Section 1-Product Information

Product name	Oxytocin
Product Cat. No.	RP10407

Section 2-Composition / Information on Ingredients

Substance/Preparation:	Substance
Ingredient Name	Oxytocin
CAS No.	50-56-6
SARA 313	No
Formula	C ₄₃ H ₆₆ N ₁₂ O ₁₂ S ₂

Section 3- Hazards Identification

Emergency Overview	
Target organ(s):	Cardiovascular system. Uterus
HMIS Rating	
Health	0*
Flammability	0
Reactivity	0
NFPA Rating	
Health	0*
Flammability	0
Reactivity	0

*additional chronic hazards present.

For additional information on toxicity, please refer to Section 11.

Section 4- First Aid Measures

Oral Exposure	If swallowed, wash out mouth with water provided person is conscious. Call a physician.
Inhalation Exposure	If inhaled, remove to fresh air. If breathing becomes difficult, call a physician.
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

Flash Point	Not available
Autoignition Temp	Not available
Flammability	Not available
Extinguishing Media	
Suitable	Water spray. Carbon dioxide, dry chemical powder, or appropriate foam.
Fire Fighting	
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(s) of Personal Precaution(s)	Exercise appropriate precautions to minimize direct contact with skin or eyes and prevent inhalation of dust.
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	Avoid inhalation. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.
Storage	
Suitable	Keep tightly closed
Storage at -20°C	

Section 8-Exposure Controls/Personal Protection Equipment

Engineering Controls	Safety shower and eye bath. Mechanical exhaust required.
Personal Protective equipment	
Respiratory	Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks.
Hand	Protective gloves
Eye	Chemical safety goggles
General Hygiene Measures	Wash thoroughly after handling

Section 9- Physical and Chemical Properties

Appearance	
Physical State	White powder
Property	
Molecular Weight	1007.19 AMU
pH	Not available
BP/BP Range	Not available
MP/MP Range	Not available
Freezing Point	Not available
Vapor Pressure	Not available
Vapor Density	Not available
Saturated Vapor Conc.	Not available
SG/Density	Not available
Bulk Density	Not available
Odor Threshold	Not available
Volatile%	Not available
VOC Content	Not available
Water Content	Not available
Solvent Content	Not available
Evaporation Rate	Not available
Viscosity	Not available
Surface Tension	Not available
Partition Coefficient	Not available
Decomposition Temp.	Not available
Flash Point	Not available
Explosion Limits	Not available
Flammability	Not available
Autoignition Temp	Not available
Refractive Index	Not available
Optical Rotation	Not available
Miscellaneous Data	Not available
Solubility	Solubility in water

Section 10- Stability and Reactivity

Stability	
Stable	Stable
Materials to Avoid	Strong oxidizing agents
Hazardous Decomposition Products	
Hazardous Decomposition Products	Carbon monoxide, Carbon dioxide, Nitrogen oxides, Sulfur oxides.

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
Inhalation	Material may be irritating to mucous membranes and upper respiratory tract, May be harmful if inhaled.
Ingestion	May be harmful if swallowed
Target Organ(s) or System(s)	Cardiovascular system. Uterus
Signs and Symptoms of Exposure	Absorption into the body leads to hypotension. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.
Toxicity Data	
Oral	Rat > 20.52 mg/kg LD50
Subcutaneous	Rat >20520 ug/kg LD50
Intravenous	Rat 2275 ug/kg LD50
Oral	Mouse > 514 mg/kg LD50
Subcutaneous	Mouse >514 mg/kg LD50
Intravenous	Mouse 5800 ug/kg LD50
Chronic Exposure - Teratogen	
Species	Woman
Dose	82 ng/kg
Route of Application	Intravenous
Exposure Time	(37W PREG)
Result	Specific Developmental Abnormalities: Blood and lymphatic system (including spleen and marrow).
Species	Woman
Dose	5760 ul/kg
Route of Application	Intravenous
Exposure Time	(39W PREG)
Result	Specific Developmental Abnormalities: Respiratory system. Specific Developmental Abnormalities: Hepatobiliary system. Effects on Newborn: Viability index (e.g., # alive at day 4 per # born alive).
Chronic Exposure - Reproductive Hazard	
Species	Rat
Dose	20 ug/kg
Route of Application:	Oral
Exposure Time:	(21D PREG)
Result:	Effects on Newborn: Growth statistics (e.g., reduced weight gain).
Species	Rat
Dose	650 ng/kg
Route of Application	Intraperitoneal

Exposure Time	(21D PREG)
Result	Maternal Effects: Parturition.
Species	Rat
Dose	30000 IU/kg
Route of Application	Intraperitoneal
Exposure Time	(1D PRE)
Result	Maternal Effects: Other effects. Maternal Effects: Menstrual cycle changes or disorders.
Species	Rat
Dose	277 ng/kg
Route of Application	Intravenous
Exposure Time	(21D PREG)
Result	Maternal Effects: Parturition
Species	Rat
Dose	10 units/kg
Route of Application	Intravenous
Exposure Time	(15D PREG)
Result	Effects on Fertility: Abortion.
Species	Rat
Dose	175 ug/kg
Route of Application	Implant
Exposure Time	(17-21D PREG)
Result	Maternal Effects: Parturition. Effects on Newborn: Other neonatal measures or effects.
Species	Rat
Dose	175 ug/kg
Route of Application	Implant
Exposure Time	(17-21D PREG/21D POST)
Result	Effects on Newborn: Growth statistics (e.g., reduced weight gain).
Species	Rat
Dose	500 ug/kg
Route of Application	Implant
Exposure Time	(17D PREG)
Result	Effects on Newborn: Growth statistics (e.g., reduced weight gain). Effects on Newborn: Physical.
Species	Mouse
Dose	500 ng/kg
Route of Application	Intraperitoneal
Exposure Time	(18D PREG)
Result	Maternal Effects: Parturition. Effects on Newborn: Live birth index (# fetuses per litter; measured after birth).
Species	Mouse
Dose	80 ng/kg
Route of Application	Subcutaneous
Exposure Time	(19D PREG)
Result	Maternal Effects: Parturition
Species	Mouse
Dose	80 ng/kg
Route of Application	Intravenous
Exposure Time	(19D PREG)
Result	Maternal Effects: Parturition
Species	Mouse
Dose	80 ng/kg
Route of Application	Unreported
Exposure Time	(1D PRE)
Result	Maternal Effects: Uterus, cervix, vagina.
Species	Monkey
Dose	900 ug/kg
Route of Application	Intramuscular
Exposure Time	(1D PRE)
Result	Maternal Effects: Other effects
Species	Rabbit
Dose	300 mg/kg
Route of Application	Oral

Exposure Time	(6-20D PREG)
Result	Effects on Fertility: Post-implantation mortality (e.g., dead and/or resorbed implants per total number of implants).
Species	Rabbit
Dose	150 ng/kg
Route of Application	Intravenous
Exposure Time	(1D MALE)
Result	Effects on Fertility: Mating performance (e.g., # sperm positive females per # females mated; # copulations per # estrus cycles).
Species	Guinea pig
Dose	2400 ng/kg
Route of Application	Subcutaneous
Exposure Time	(63-64D PREG)
Result	Effects on Fertility: Abortion
Species	Hamster
Dose	24 ug/kg
Route of Application	Unreported
Exposure Time	(1D POST)
Result	Maternal Effects: Postpartum
Species	Domestic Animals
Dose	1613 mg/kg
Route of Application	Intravenous
Exposure Time	(18-19W PREG)
Result	Maternal Effects: Parturition. Effects on Embryo or Fetus: Other effects to embryo. Specific Developmental Abnormalities: Blood and lymphatic system (including spleen and marrow).
Species	Cattle, Horse
Dose	50 ug/kg
Route of Application	Intramuscular
Exposure Time	(1D PREG)
Result	Maternal Effects: Parturition
Species	Cattle, Horse
Dose	54 ng/kg
Route of Application	Parenteral
Exposure Time	(1D PRE)
Result	Maternal Effects: Menstrual cycle changes or disorders. Maternal Effects: Uterus, cervix, vagina.

Section 12- Ecological Information

No data available.

Section 13- Disposal Considerations

Appropriate Method of Disposal of Substance or Preparation	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.
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Section 14- Transport Information

DOT	
Proper Shipping Name	None
Non-Hazardous for Transport	This substance is considered to be non-hazardous for transport.
IATA	
Non-Hazardous for Air Transport	Non-hazardous for air transport

Section 15- Regulatory Information

US Classification and Label Text	
US Statements	Target organ(s): Cardiovascular system. Uterus.
United States Regulatory information	

SARA Listed	No
Canada Regulatory information WHMIS Classification	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	Yes
NDSL	No

Section 16- Other Information

GenScript corporation MSDS is believed to be correct but only used as a guide for experienced personnel, GenScript shall not be held liable for any damage resulting from the handling or from contact with the above product.