



SIGMA-ALDRICH

## Material Safety Data Sheet

Date Printed: 06/24/2007  
Date Updated: 01/26/2006  
Version 1.40

### Section 1 - Product and Company Information

**Product Name** Ketanserin tartrate salt, > 97%  
**Product Number** S006  
**Brand** Sigma Chemical

**Company** Sigma-Aldrich  
**Street Address** 3050 Spruce Street  
**City, State, Zip, Country** SAINT LOUIS, MO 63103 US  
**Technical Phone:** 800-325-5832  
**Fax:** 800-325-5052

**Emergency Phone:** 314-776-6555

### Section 2 - Composition/Information on Ingredient

Substance Name	CAS #	SARA 313	EC no	Annex I Index Number
KETANSERIN TARTRATE	83846-83-7	No	281-062-8	

**Formula** C22H22FN3O3.C4H6O6  
**Synonyms** 3-(2-[4-(p-Fluorobenzoyl)-1-piperidinyl]ethyl)-2,4-(1H,3H)-quinazolinedione L-tartrate, Ketanserin tartrate, KJK-945, R 49945R 41468 3-[2-[4-(4-FLUOROBENZOYL)-1-PIPERIDINYL]ETHYL]-2,4-(1H,3H)QUINAZOLINEDIONE TARTRATE

### Section 3 - Hazards Identification

#### Emergency Overview

Toxic.  
Toxic if swallowed.  
Target organ(s): Nerves. Smooth muscle.

**HMIS Rating**  
Health: 2\* Flammability: 0 Reactivity: 0

**NFPA Rating**  
Health: 2 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 immediately.

#### 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 Precaution(s)

Wear self-contained breathing apparatus, rubber boots, and heavy rubber gloves.

#### 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, on clothing. Avoid prolonged or repeated exposure.

#### Storage

##### Suitable

Keep tightly closed. Store at 2-8°C

### 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 CEN (EU). Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N99 (US) or type P2 (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.

##### 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

Appearance	Color
Physical State	White
Solid	
Molecular Weight:	545.5 AMU
pH	N/A
BP/BP Range	N/A
MP/MP Range	183 - 186 °C
Freezing Point	N/A
Vapor Pressure	N/A
Vapor Density	N/A
Saturated Vapor Conc.	N/A
SG/Density	N/A
Bulk Density	N/A
Odor Threshold	N/A
Volatile%	N/A
VOC Content	N/A
Water Content	N/A
Solvent Content	N/A
Evaporation Rate	N/A
Viscosity	N/A
Partition Coefficient	N/A
Decomposition Temp.	N/A
Flash Point °F	N/A
Flash Point °C	N/A
Explosion Limits	N/A
Flammability	N/A
Autoignition Temp	N/A
Solubility	
Solvent: 10 mg/ml DMF, clear, colorless	

N/A = not available

### 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, Hydrogen fluoride.

#### 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

Toxic if swallowed.

#### Target Organ(s) or System(s)

Nerves. Smooth muscle.

RECS Number: VA1411195

#### Toxicity Data

Oral - Rat: 129 mg/kg (LD50)

Remarks: Behavioral: Altered sleep time (including change in righting reflex).  
Behavioral: Somnolence (general depressed activity).  
Lungs, Thorax, or Respiration: Respiratory depression.

Intraperitoneal - Rat: 204 MG/KG (LD50)

Remarks: Behavioral: Altered sleep time (including change in righting reflex).  
Behavioral: Somnolence (general depressed activity).  
Lungs, Thorax, or Respiration: Respiratory depression.

Subcutaneous - Rat: 348 MG/KG (LD50)

Remarks: Behavioral: Altered sleep time (including change in righting reflex).  
Behavioral: Somnolence (general depressed activity).  
Lungs, Thorax, or Respiration: Respiratory depression.

Intravenous - Rat: 41100 UG/KG (LD50)

Remarks: Behavioral: Altered sleep time (including change in righting reflex).  
Behavioral: Somnolence (general depressed activity).  
Lungs, Thorax, or Respiration: Respiratory depression.

Oral - Mouse: 164 mg/kg (LD50)

Remarks: Behavioral: Altered sleep time (including change in righting reflex).  
Behavioral: Convulsions or effect on seizure threshold.  
Lungs, Thorax, or Respiration: Respiratory stimulation.

Intraperitoneal - Mouse: 71500 UG/KG (LD50)

Remarks: Behavioral: Altered sleep time (including change in righting reflex).  
Behavioral: Convulsions or effect on seizure threshold.  
Lungs, Thorax, or Respiration: Respiratory stimulation.

Subcutaneous - Mouse: 150 MG/KG (LD50)

Remarks: Behavioral: Altered sleep time (including change in righting reflex).  
Behavioral: Convulsions or effect on seizure threshold.  
Lungs, Thorax, or Respiration: Respiratory stimulation.

Intravenous - Mouse: 37100 UG/KG (LD50)

Remarks: Behavioral: Altered sleep time (including change in righting reflex).  
Behavioral: Convulsions or effect on seizure threshold.  
Lungs, Thorax, or Respiration: Respiratory stimulation.

Oral - Dog: 570 mg/kg (LD50)

Remarks: Behavioral: Altered sleep time (including change in righting reflex).  
Behavioral: Somnolence (general depressed activity).  
Behavioral: Tremor.

Intravenous - Dog: 26700 UG/KG (LD50)

Remarks: Behavioral: Altered sleep time (including change in righting reflex).

Behavioral: Somnolence (general depressed activity).

Behavioral: Tremor.

#### Chronic Exposure - Reproductive Hazard

Species	Dose	Route of Application	Exposure Time
Rat	1458 MG/KG	Oral	(60D MALE/2W PRE-7D PREG)
Result: Effects on Fertility: Mating performance (e.g., # sperm positive females per # females mated; # copulations per # estrus cycles).			
Rat	5670 MG/KG	Oral	(60D MALE/2W PRE-7D PREG)
Result: Paternal Effects: Testes, epididymis, sperm duct.			
Rat	550 MG/KG	Oral	(7-17D PREG)
Result: Effects on Fertility: Pre-implantation mortality (e.g., reduction in number of implants per female; total number of implants per corpora lutea). Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus). Specific Developmental Abnormalities: Musculoskeletal system.			
Rat	1350 MG/KG	Oral	(17D PREG-21D POST)
Result: Maternal Effects: Parturition. Effects on Newborn: Viability index (e.g., # alive at day 4 per # born alive). Effects on Newborn: Growth statistics (e.g., reduced weight gain).			

#### 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.

#### Section 14 - Transport Information

##### DOT

Proper Shipping Name: Toxic solids, organic, n.o.s.

UN#: 2811

Class: 6.1

Packing Group: Packing Group III

Hazard Label: Toxic substances.

PIH: Not PIH

##### IATA

Proper Shipping Name: Toxic solid, organic, n.o.s.

IATA UN Number: 2811

Hazard Class: 6.1

Packing Group: III

#### Section 15 - Regulatory Information

##### EU Additional Classification

Symbol of Danger: T

Indication of Danger

Toxic.

Risk Statements

R: 25

Toxic if swallowed.

Safety Statements

S: 45 38/37/39 22

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. Do not breathe dust.

#### US Classification and Label Text

##### Indication of Danger

Toxic.

##### Risk Statements

Toxic if swallowed.

##### Safety Statements

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. Do not breathe dust.

##### US Statements

Target organ(s): Nerves. Smooth muscle.

#### 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: No

NDSL: No

#### Section 16 - Other Information

##### Disclaimer

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

##### Warranty

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. Sigma-Aldrich Inc., 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. Copyright 2007 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.