



1 Identification Product identifier Product name: Ketanserin tartrate Stock number: J62798 CAS Number: 83846-83-7 EC number: 281-062-8 Relevant identified uses of the substance or mixture and uses advised against. Identified use: SU24 Scientific research and development Details of the supplier of the safety data sheet Manufacturer/Supplier: Alfa Aesar Thermo Fisher Scientific Chemicals, Inc. Inerrito Fisher Scheman C. 30 Bond Street Ward Hill, MA 01835-8099 Tel: 800-343-0660 Fax: 800-322-4757 Email: tech @alfa.com www.alfa.com Information Department: Health, Safety and Environmental Department Emergency telephone number: During normal business hours (Monday-Friday, 8am-7pm EST), call (800) 343-0660. After normal business hours, call Carechem 24 at (866) 928-0789. 2 Hazard(s) identification Classification of the substance or mixture in accordance with 29 CFR 1910 (OSHA HCS) Set. GHS06 Skull and crossbones Acute Tox. 3 H301 Toxic if swallowed. Hazards not otherwise classified No information known. Label elements GHS label elements The product is classified and labeled in accordance with 29 CFR 1910 (OSHA HCS) Hazard pictograms GHS06 Signal word Danger Hazard statements H301 Toxic if swallowed. 

 H301 Foxic if swallowed.

 Precautionary statements

 P264
 Wash thoroughly after handling.

 P270
 Do not eat, drink or smoke when using this product.

 P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor/...

 P321
 Specific treatment (see on this label).

 P405
 Store locked up.

 Dispose of contents/container in accordance with local/regional/nat

 Dispose of contents/container in accordance with local/regional/national/international regulations.
 WHMIS classification D1A - Very toxic material causing immediate and serious toxic effects S. Classification system (Hazardous Materials Identification System) 2 
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 Flammability = 1

 EACTIVITY I
 Physical Hazard = 1
 Other hazards Results of PBT and vPvB assessment PBT: Not applicable. vPvB: Not applicable. 3 Composition/information on ingredients Chemical characterization: Substances CAS# Description: 83846-83-7 Ketanserin tartrate Identification number(s): EC number: 281-062-8 4 First-aid measures Description of first aid measures General information Immediately remove any clothing soiled by the product. In case of irregular breathing or respiratory arrest provide artificial respiration. After inhalation Supply fresh air. If required, provide artificial respiration. Keep patient warm. Seek immediate medical advice. After skin contact Immediately wash with water and soap and rinse thoroughly. Seek immediate medical advice. (Contd. on page 2)

## Product name: Ketanserin tartrate

(Contd. of page 1) After eye contact Rinse opened eye for several minutes under running water. Then consult a doctor. After swallowing Do not induce vomiting; immediately call for medical help. Information for doctor Most important symptoms and effects, both acute and delayed No further relevant information available. Indication of any immediate medical attention and special treatment needed No further relevant information available. 5 Fire-fighting measures Extinguishing media Suitable extinguishing agents Carbon dioxide, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam. Special hazards arising from the substance or mixture If this product is involved in a fire, the following can be released: Arbon monoxide and carbon dioxide Nitrogen oxides (NOx) Advice for firefighters Protective equipment: Wear self-contained respirator. Wear fully protective impervious suit. 6 Accidental release measures Personal precautions, protective equipment and emergency procedures Wear protective equipment. Keep unprotected persons away. Ensure adequate ventilation Environmental precautions: Do not allow material to be released to the environment without proper governmental permits. Methods and material for containment and cleaning up: Dispose of contaminated material as waste according to section 13. **Prevention of secondary hazards:** No special measures required. **Reference to other sections** See Section 7 for information on safe handling See Section 8 for information on personal protection equipment. See Section 13 for disposal information. 7 Handling and storage Handling Precautions for safe handling Keep container tightly sealed. Ensure good ventilation at the workplace. Information about protection against explosions and fires: No information known. Conditions for safe storage, including any incompatibilities Storage Requirements to be met by storerooms and receptacles: Refrigerate Information about storage in one common storage facility: Store away from oxidizing agents. Protect from heat. Further information about storage conditions: Keep container tightly sealed. Refi Specific end use(s) No further relevant information available. 8 Exposure controls/personal protection Additional information about design of technical systems: Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute. Control parameters Components with limit values that require monitoring at the workplace: The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace. Additional information: No data Exposure controls Personal protective equipment Personal protective equipment General protective and hygienic measures The usual precautionary measures for handling chemicals should be followed. Keep away from foodstuffs, beverages and feed. Remove all soiled and contaminated clothing immediately. Wash hands before breaks and at the end of work. Maintain an ergonomically appropriate working environment. Breathing equipment: Use suitable respirator when high concentrations are present. Protection of hands: Impervious gloves Check protective gloves prior to each use for their proper condition The selection of suitable gloves prior to each use for their proper condition. The selection of suitable gloves not only depends on the material, but also on quality. Quality will vary from manufacturer to manufacturer. **Penetration time of glove material (in minutes)** Not determined **Eye protection:** Safety glasses **Body protection:** Protective work clothing. 9 Physical and chemical properties Information on basic physical and chemical properties General Information Appearance: Form: Color: Powder White Odor: Not determined Odor threshold: Not determined pH-value: Not applicable. Change in condition Melting point/Melting range: Not determined Boiling point/Boiling range: Sublimation temperature / start: Flammability (solid, gaseous) Ignition temperature: Not determined Not determined Not determined. Not determined (Contd. on page 3)

## Product name: Ketanserin tartrate

Page 3/4 Printing date 11/24/2015 Reviewed on 01/20/2012

oduct name: Ketanserin tartrate	
	(Contd. of page
	Not determined
	Not determined. Not determined.
Explosion limits:	Not determined
Upper:	Not determined
Vapor pressure: Density:	Not applicable. Not determined
Relative density	Not determined.
	Not applicable. Not applicable.
Solubility in / Miscibility with	
Partition coefficient (n-octanol/water):	Not determined Not determined.
Viscosity: dynamic:	Not applicable.
kinematic:	Not applicable.
Other information	No further relevant information available.
0 Stability and reactivity	
Reactivity No information known.	nandad storage conditions
Thermal decomposition / conditions to	nended storage conditions. <b>be avoided:</b> Decomposition will not occur if used and stored according to specifications.
Possibility of hazardous reactions No c Conditions to avoid No further relevant i	langerous reactions known information available.
Incompatible materials:	
Oxidizing agents Heat	
Hazardous decomposition products: Carbon monoxide and carbon dioxide	
Nitrogen oxides	
1 Toxicological information	
Information on toxicological effects	
Acute toxicity: Toxic if swallowed.	
The Registry of Toxic Effects of Chemical	I Substances (RTECS) contains acute toxicity data for components in this product.
LD/LC50 values that are relevant for cla Oral LD50 570 mg/kg (dog)	assification:
164 mg/kg (mouse)	
129 mg/kg (rat)	
Skin irritation or corrosion: May cause in Eye irritation or corrosion: May cause in	irritation rritation
Sensitization: No sensitizing effects know	wn.
Germ cell mutagenicity: No effects know Carcinogenicity: No classification data o	wn. on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.
Reproductive toxicity: No effects known	
Specific target organ system toxicity - Specific target organ system toxicity -	repeated exposure: No effects known. single exposure: No effects known.
Aspiration hazard: No effects known.	
Additional toxicological information: To	stry of Toxic Effects of Chemical Substances (RTECS) contains multiple dose toxicity data for this substance. o the best of our knowledge the acute and chronic toxicity of this substance is not fully known.
2 Ecological information	
Toxicity	
Aquatic toxicity: No further relevant infor Persistence and degradability No further	rmation available. er relevant information available.
Bioaccumulative potential No further rel	levant information available.
Mobility in soil No further relevant inform Additional ecological information:	nation available.
General notes:	a an viranment without proper acyormantal parmita
Do not allow undiluted product or large qu	e environment without proper governmental permits. Jantities to reach ground water, water course or sewage system.
Avoid transfer into the environment. Results of PBT and vPvB assessment	
PBT: Not applicable.	
vPvB: Not applicable. Other adverse effects No further relevan	nt information available.
3 Disposal considerations	
Waste treatment methods	
	national regulations to ensure proper disposal.
Recommendation Consult state, local or Uncleaned packagings: Recommendation: Disposal must be ma	de according to official regulations.
Uncleaned packagings: Recommendation: Disposal must be main	de according to official regulations.
Uncleaned packagings: Recommendation: Disposal must be ma 4 Transport information UN-Number	
Uncleaned packagings: Recommendation: Disposal must be made 4 Transport information UN-Number DOT, IMDG, IATA	de according to official regulations. UN2811
Uncleaned packagings: Recommendation: Disposal must be ma 4 Transport information UN-Number	

per OSHA HazCom 2012	Printing date 11/24/2015 Reviewed on 01/20/2012
Product name: Ketanserin tartrate	
	(Contd. of page 3)
Transport hazard class(es) DOT	
(100c)	
Class Label	6.1 Toxic substances. 6.1
Class Label	6.1 (T2) Toxic substances 6.1
IMDG, IATA	
$\langle \! \! \! \! \rangle$	
Class Label	6.1 Toxic substances. 6.1
Packing group DOT, IMDG, IATA	
DO1, IMDG, IATA Environmental hazards:	III Not applicable.
Special precautions for user EMS Number:	Warning: Toxic substances F-A,S-A
Transport in bulk according to Annex II of MARPOL73/78 and the IBC (	
Transport/Additional information: DOT	
Marine Pollutant (DOT):	No
UN "Model Regulation":	UN2811, Toxic solids, organic, n.o.s. (Ketanserin tartrate), 6.1, III
to research and development only. This product must be used by or directly product must not be used for commercial purposes or in formulations for co SARA Section 313 (specific toxic chemical listings) Substance is not list California Proposition 65 Prop 65 - Chemicals known to cause cancer Substance is not listed. Prop 65 - Developmental toxicity Substance is not listed. Prop 65 - Developmental toxicity, female Substance is not listed. Prop 65 - Developmental toxicity, male Substance is not listed. Prop 65 - Developmental toxicity, male Substance is not listed. Information about limitation of use: For use only by technically qualified i Other regulations, limitations and prohibitive regulations Substance of Very High Concern (SVHC) according to the REACH Reg The conditions of restrictions according to Article 67 and Annex XVII of market and use must be observed. Substance is not listed. Annex XIV of the REACH Regulations (requiring Authorisation for use) Chemical safety assessment: A Chemical Safety Assessment has not been	ic Substances Control Act Chemical Substance Inventory. Use of this product is restricted y under the supervision of a technically qualified individual as defined by TSCA. This ommercial purposes. sted. individuals. gulations (EC) No. 1907/2006. Substance is not listed. of the Regulation (EC) No 1907/2006 (REACH) for the manufacturing, placing on the substance is not listed.
<ul> <li>16 Other information         Employers should use this information only as a supplement to other inform information to ensure proper use and protect the health and safety of employ conformance with this Material Safety Data Sheet, or in combination with an environment of preparation / last revision 11/24/2015 / - Abbreviations and acronyms:     </li> <li>RiD: Règlement international concernant le transport des marchandises dangereuses par chemin de ICAO: International Civil Aviation Organization</li> <li>ADR: Accord européen sur le transport des marchandises dangereuses par chemin de ICAO: International Air Transport des marchandises dangereuses par Route (European Agree IMDG: International Air Transport Association     </li> <li>END: Réplement of Transport Association         EIN: Exercise and Inventory of Existing Commercial Chemical Substances         CAS: Chemical Abstracts Service (division of the American Chemical Society)     </li> <li>HMIS: Hazardous Materials Identification System (USA)</li> <li>WerMMIS: Workplace Hazardous Materials Information System (Canada)     </li> <li>LC50: Lethal concentration, 50 percent</li> <li>UBS: Used Concentration and Concent ele of orgamental Industrial Hygienists (USA)</li> <li>OSHA: Occupational Safety and Health Administration (USA)</li> <li>NTP: National Toxicology Program (USA)</li> <li>IARC: International Agency for Research on Cancer</li> <li>EPA: Environmental Protection Agency (USA)</li> </ul>	nation gathered by them, and should make independent judgement of suitability of this oyees. This information is furnished without warranty, and any use of the product not in ny other product or process, is the responsibility of the user. le fer (Regulations Concerning the International Transport of Dangerous Goods by Rail) ement concerning the International Carriage of Dangerous Goods by Road) USA