Ranitidine Hydrochloride (CAS number- 66357-35-5)

TAJMTF-KNSDAR4875

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TAJ PHARMACEUTICALS LIMITED INDIA

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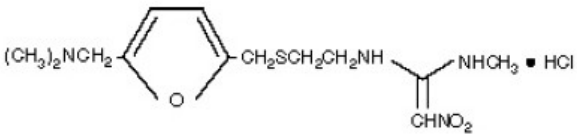
Raw Material / Chemicals Index

Taj Pharmaceuticals Ltd.
Ranitidine Hydrochloride
(Cas No 66357-35-5)

Ranitidine Hydrochloride
CAS number 66357-35-5

Structure :



Systematic (IUPAC) name
N-(2-[(5-[(dimethylamino)methyl]furan-2-yl)methylthio]ethyl)-N-methyl-2-nitroethene-1,1-diamine

Chemical Name: N-[2-[[5-[(dimethylamino)methyl]furfuryl]thio]ethyl]-N'-methyl-2-nitrovinylidenediamine monohydrochloride

Classification: Antagonist to nistamine H2 receptors

Molecule: C13H22N4O3S. HCl

Molecule Weight: 350.87

Quality Standard: EP5/USP31

Identifiers

CAS number 66357-35-5
ATC code A02BA02
PubChem 3001055
DrugBank APRD00254
ChemSpider 571454

Chemical data
Formula C13H22N4O3S
Mol. mass 314.4 g/mol

Pharmacokinetic data
Bioavailability 39 to 88%
Metabolism Hepatic
Half life 2–3 hours
Excretion 30–70% Renal

Biological Activity
Potent, selective and competitive histamine H2 receptor antagonist (pA2 = 6.95-7.2). In vivo, inhibits gastric acid secretion induced by histamine, pentagastrin, bethanecol and food. Also inhibits aspirin-induced gastric lesions.

Solubility & Useage Info:
Water to 50 mM
Ethanol to 25 mM
DMSO to 25 mM

Description: Potent, selective and competitive histamine H2 receptor antagonist (pA2 = 6.95-7.2). In vivo, inhibits gastric acid secretion induced by histamine, pentagastrin, bethanecol and food. Also inhibits aspirin-induced gastric lesions.

Physical and Chemical Properties:
Batch Molecular Formula: C13H22N4O3S.HCl
Batch Molecular Weight: 350.86
CAS Number: [66357-35-5]
Physical Appearance: Pale yellow solid
Batch Molecular Structure:

Stability Advice: Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath). Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard
recommendations are:
SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.
SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20° C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

6**. TOXICOLOGICAL INFORMATION**
To the best of our knowledge, the chemical, physical and toxicological properties have not been fully investigated.
RTECS No: KM6556500
Target Organs: Eyes; Respiratory system; Skin; Central nervous system; Cardiovascular system; Digestive system;
Toxicity Data: ORL-MAN TDLO: 4286µg/kg; ORL- WMN TDLO: 12mg/kg; ORL-RAT LD50: >5gm/kg; IVN-RAT LD50: 93mg/kg; IMS-RAT LD50: 2018mg/kg; ORL-MUS LD50: 884mg/kg; IVN-MUS Ld50: 80mg/kg; IMS-MUS LD50: 280mg/kg; IPR-MUS TDLo: 570mg/kg.

Only selected Registry of Toxic Effects of Chemical Substances (RTECS) data is presented above. See actual entry in RTECS for complete information.

Transport Information
U.N.Number:
Proper Shipping Name:
IATA Class:
IATA Packing Group:

Fire-Fighting Measures
Extinguishing Media: Material is non-combustible. Use extinguishing media appropriate to surrounding fire conditions. Unusual Fire and Explosive Hazards: May emit toxic gases upon thermal decomposition. Special Fire-Fighting Procedures: Wear protective clothing to prevent contact with skin and eyes.

Accidental Release Measures
Wear appropriate protective clothing. Cover spillage with suitable absorbent material. Using non-spark tools, sweep up material and place in an appropriate container. Decontaminate spill site with with 10% caustic solution and ventilate area until after disposal is complete. Hold all material for appropriate disposal as described under DISPOSAL CONDITIONS.

Disposal Conditions
As specific country, federal, state and local environmental regulations are varied and change frequently, we recommend that you contact your local department for Health Services for information on the correct disposal of this product.

Handling and Storage Use in a chemical fume hood, with air supplied by an independent system. Avoid inhalation, contact with eyes, skin and clothing. Avoid prolonged or repeated exposure.
Material should be stored in a tightly sealed container under the storage condition stated on the Product Information sheet and on the vial label.

Hazards Identification
RTECS substance category: Drug Exposure may cause irritation to eyes, mucous membranes upper respiratory tract and skin. Exposure may also cause the following: Rigidity, includes catalepsy; Muscle contraction or spasticity; Increased pulse rate; Jaundice and impaired liver function; Degenerative changes in brain coverings; Effect on specific coenzymes.

Brittain and Daly (1981) A review of the animal pharmacology of ranitidine - a new, selective histamine H2-antagonist. Scand.J.Gastroenterol.Suppl. **69 1. Daly** et al (1981) Some in vitro and in vivo actions of the new histamine H2-receptor antagonist, ranitidine. Br.J.Pharmacol. **72 49. Daly** et al (1981) Antagonism of vasodepressor and gastric secretory responses to histamine by the H2-receptor antagonists, ranitidine and cimetidine, in the anaesthetized dog. Br.J.Pharmacol. 72 55.