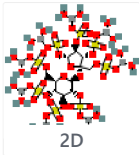


## COMPOUND SUMMARY

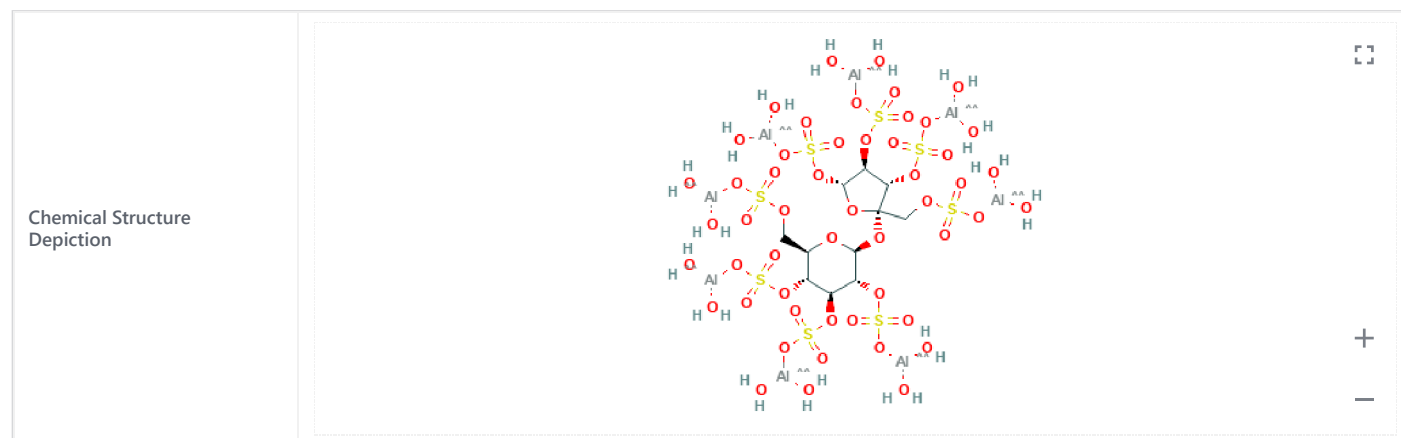
## Carafate

PubChem CID:	70789197
Structure:	 <a href="#">Find Similar Structures</a>
Molecular Formula:	C <sub>11</sub> H <sub>44</sub> Al <sub>8</sub> O <sub>51</sub> S <sub>8</sub>
Synonyms:	Antepsin Carafate Sucralfat Sucramal Sulcrate <input type="button" value="More..."/>
Molecular Weight:	1464.8 g/mol
Dates:	Modify: 2019-11-09    Create: 2013-03-06
<p><b>Sucralfate</b> is a medication that is widely used to prevent and treat a number of diseases in the gastrointestinal tract such as duodenal ulcers [FDA label], gastro-esophageal reflux disease (GERD), gastritis, peptic ulcer disease, stress ulcer, in addition to dyspepsia [A177655]. It is considered a _cytoprotective agent_, protecting cells in the gastrointestinal tract from damage caused by agents such as gastric acid, bile salts, alcohol, and <a href="#">acetylsalicylic acid (aspirin)</a>, among other substances [A177655, F4519]. <b>Sucralfate</b> has been shown to be a well-tolerated and safe drug. It is sold under many brands and is available in both tablet and suspension forms. It was approved by the FDA 1982 in tablet form, and in 1994 for the suspension form [L6073, L6076].</p> <ul style="list-style-type: none"><li>▶ <a href="#">from DrugBank</a></li></ul> <p>A basic aluminum complex of sulfated sucrose.</p> <ul style="list-style-type: none"><li>▶ <a href="#">from MeSH</a></li></ul>	

## 1 Structures



### 1.1 2D Structure



▼ from PubChem

Source: PubChem

URL: <https://pubchem.ncbi.nlm.nih.gov>

Description: Data deposited in or computed by PubChem

### 1.2 3D Status



Conformer generation is disallowed since too many atoms, MMFF94s unsupported element, MMFF94s unsupported atom valence, too flexible, mixture or salt

▼ from PubChem

Source: PubChem

URL: <https://pubchem.ncbi.nlm.nih.gov>

Description: Data deposited in or computed by PubChem



C<sub>11</sub>H<sub>44</sub>Al<sub>8</sub>O<sub>51</sub>S<sub>8</sub>

Computed by PubChem 2.1 (PubChem release 2019.06.18)

▼ from PubChem

Source: PubChem

URL: <https://pubchem.ncbi.nlm.nih.gov>

Description: Data deposited in or computed by PubChem

## 2.3 Other Identifiers



## 2.3.1 CAS



54182-58-0

▼ from DrugBank

Source: DrugBank

Record Name: Sucralfate

URL: <http://www.drugbank.ca/drugs/DB00364>

Description: The DrugBank database is a unique bioinformatics and cheminformatics resource that combines detailed drug (i.e. chemical, pharmacological and pharmaceutical) data with comprehensive drug target (i.e. sequence, structure, and pathway) information.

## 2.4 Synonyms



## 2.4.1 MeSH Entry Terms



Aluminum Sucrose Sulfate  
Antepsin  
Basic Aluminum Sucrose Sulfate  
Carafate  
Sucralfate  
Sulfate, Aluminum Sucrose  
Ulcerban  
Ulcogant  
Ulsanic

▼ from MeSH

Source: MeSH

Record Name: Sucralfate

URL: <https://www.ncbi.nlm.nih.gov/mesh/68013392>

## 2.4.2 Depositor-Supplied Synonyms



Antepsin	[[[[(2S,3R,4S,5R,6R)-4,5-bis([[dihydroxyalumanyl]oxy)sulfonyl]oxy)-6-[[[(dihydroxyalumanyl)oxy)sulfonyl]oxy)methyl]-2-[[[(2R,3S,4S,5R,6R)-4,5-bis([[dihydroxyalumanyl]oxy)sulfonyl]oxy)-2-[[[(dihydroxyalumanyl)oxy)sulfonyl]oxy)methyl]oxolan-2-yl]oxy]oxan-3-yl]oxy)sulfonyl]oxy]hexadecaaluminum
Carafate	Hexadeca-mu-hydroxytetracosahydroxy[ $\mu$ 8-[1,3,4,6-tetra-O-sulfo-beta-D-fructofuranosyl-alpha-D-glucopyranoside tetrakis(hydroxy sulfato)8-]]hexadecaaluminum
Sucralfat	
Sucramal	
Sulcrate	
Ulcermin	
Apo-sucralfate	
Sulcrate Suspension Plus	
GTPL7055	
DB00364	

▼ from PubChem

Source: PubChem

URL: <https://pubchem.ncbi.nlm.nih.gov>

Description: Data deposited in or computed by PubChem

### 3 Chemical and Physical Properties



#### 3.1 Computed Properties



Property Name	Property Value	Reference
Molecular Weight	1464.8 g/mol	Computed by PubChem 2.1 (PubChem release 2019.06.18)
Hydrogen Bond Donor Count	16	Computed by Cactvs 3.4.6.11 (PubChem release 2019.06.18)
Hydrogen Bond Acceptor Count	51	Computed by Cactvs 3.4.6.11 (PubChem release 2019.06.18)
Rotatable Bond Count	36	Computed by Cactvs 3.4.6.11 (PubChem release 2019.06.18)
Exact Mass	1463.713824 g/mol	Computed by PubChem 2.1 (PubChem release 2019.06.18)
Monoisotopic Mass	1463.713824 g/mol	Computed by PubChem 2.1 (PubChem release 2019.06.18)
Topological Polar Surface Area	532 Å <sup>2</sup>	Computed by Cactvs 3.4.6.11 (PubChem release 2019.06.18)
Heavy Atom Count	78	Computed by PubChem
Formal Charge	0	Computed by PubChem
Complexity	2400	Computed by Cactvs 3.4.6.11 (PubChem release 2019.06.18)
Isotope Atom Count	0	Computed by PubChem
Defined Atom Stereocenter Count	9	Computed by PubChem
Undefined Atom Stereocenter Count	0	Computed by PubChem
Defined Bond Stereocenter Count	0	Computed by PubChem
Undefined Bond Stereocenter Count	0	Computed by PubChem
Covalently-Bonded Unit Count	17	Computed by PubChem
Compound Is Canonicalized	Yes	Computed by PubChem (release 2019.01.04)

▼ from PubChem

Source: PubChem

URL: <https://pubchem.ncbi.nlm.nih.gov>

Description: Data deposited in or computed by PubChem

#### 3.2 Experimental Properties



##### 3.2.1 Melting Point



>220

<https://www.trc-canada.com/product-detail/?S692350>

▼ from DrugBank

Source: DrugBank

Record Name: Sucralfate

URL: <http://www.drugbank.ca/drugs/DB00364>

Description: The DrugBank database is a unique bioinformatics and cheminformatics resource that combines detailed drug (i.e. chemical, pharmacological and pharmaceutical) data with comprehensive drug target (i.e. sequence, structure, and pathway) information.

##### 3.2.2 Solubility



Insoluble

[https://www.chemicalbook.com/ChemicalProductProperty\\_US\\_CB6239042.aspx](https://www.chemicalbook.com/ChemicalProductProperty_US_CB6239042.aspx)

▼ from DrugBank

Source: DrugBank

Record Name: Sucralfate

URL: <http://www.drugbank.ca/drugs/DB00364>

Description: The DrugBank database is a unique bioinformatics and cheminformatics resource that combines detailed drug (i.e. chemical, pharmacological and pharmaceutical) data with comprehensive drug target (i.e. sequence, structure, and pathway) information.

##### 3.2.3 Octanol/Water Partition Coefficient



---

-7.087

[http://www.molbase.com/en/overview\\_54182-58-0-moldata-62765.html](http://www.molbase.com/en/overview_54182-58-0-moldata-62765.html)

▼ from DrugBank

Source: DrugBank

Record Name: Sucralfate

URL: <http://www.drugbank.ca/drugs/DB00364>

Description: The DrugBank database is a unique bioinformatics and cheminformatics resource that combines detailed drug (i.e. chemical, pharmacological and pharmaceutical) data with comprehensive drug target (i.e. sequence, structure, and pathway) information.

---

3.2.4 pKa



0.43 to 1.19

[https://www.chemicalbook.com/ChemicalProductProperty\\_US\\_CB6239042.aspx](https://www.chemicalbook.com/ChemicalProductProperty_US_CB6239042.aspx)

▼ from DrugBank

Source: DrugBank

Record Name: Sucralfate

URL: <http://www.drugbank.ca/drugs/DB00364>

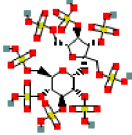
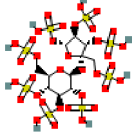
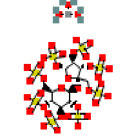
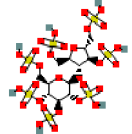
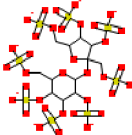
Description: The DrugBank database is a unique bioinformatics and cheminformatics resource that combines detailed drug (i.e. chemical, pharmacological and pharmaceutical) data with comprehensive drug target (i.e. sequence, structure, and pathway) information.

## 4 Related Records



## 4.1 Related Compounds with Annotation

37 items [View More Rows & Details](#)

Structure	Compound CID	Name	Molecular Formula	Molecular Weight, g/mol
	<a href="#">444237</a>	Sucrose octasulfate	$C_{12}H_{22}O_{35}S_8$	982.8
	<a href="#">5312151</a>	[[2R,3S,4S,5R]-2,4-Disulfooxy-5-(sulfooxymethyl)-5-[(2S,3R,4S,5R,6R)-3,4,5-trisulfooxy-6-(sulfooxymethyl)oxan-2-yl]oxyoxolan-3-yl] hydrogen sulfate	$C_{11}H_{20}O_{35}S_8$	968.8
	<a href="#">6398588</a>	Aluminum;[(2R,3S,4S,5R)-2,4-disulfonatooxy-5-(sulfonatooxymethyl)-5-[(2S,3R,4S,5R,6R)-3,4,5-trisulfonatooxy-6-(sulfonatooxymethyl)oxan-2-yl]oxyoxolan-3-yl] sulfate;trihydrate	$C_{11}H_{18}AlO_{38}S_8^{-8}$	1041.8
	<a href="#">11629450</a>	[[2R,3R,4R,5R)-2,5-Bis(sulfooxymethyl)-4-[(2S,3R,4S,5R,6R)-3,4,5-trisulfooxy-6-(sulfooxymethyl)oxan-2-yl]oxyoxolan-3-yl] hydrogen sulfate	$C_{12}H_{22}O_{31}S_7$	886.8
	<a href="#">12943987</a>	[2-[3,4-Disulfonatooxy-2,5-bis(sulfonatooxymethyl)oxolan-2-yl]oxy-3,5-disulfonatooxy-6-(sulfonatooxymethyl)oxan-4-yl] sulfate	$C_{12}H_{14}O_{35}S_8^{-8}$	974.8

1 2 3 ... 8 Next &gt;

▼ from PubChem

Source: PubChem

URL: <https://pubchem.ncbi.nlm.nih.gov>

Description: Data deposited in or computed by PubChem

## 4.2 Parent Compound

[16685690](#)

▼ from PubChem

Source: PubChem

URL: <https://pubchem.ncbi.nlm.nih.gov>

Description: Data deposited in or computed by PubChem

## 4.3 Related Compounds



Same Parent, Exact	<a href="#">6 Records</a>
Mixtures, Components, and Neutralized Forms	<a href="#">2 Records</a>
Similar Compounds	<a href="#">41 Records</a>

▼ from PubChem

Source: PubChem

URL: <https://pubchem.ncbi.nlm.nih.gov>

Description: Data deposited in or computed by PubChem

## 4.4 Substances

### 4.4.1 Related Substances

Same	8 Records
------	-----------

▼ from PubChem

Source: PubChem

URL: <https://pubchem.ncbi.nlm.nih.gov>

Description: Data deposited in or computed by PubChem

### 4.4.2 Substances by Category

3 Categories Expanded View 

- ▶ Curation Efforts (7)
- ▶ Research And Development (5)
- ▶ Legacy Depositors (1)

▼ from PubChem

Source: PubChem

URL: <https://pubchem.ncbi.nlm.nih.gov>

Description: Data deposited in or computed by PubChem

## 4.5 Entrez Crosslinks

PubMed	9 Records
Taxonomy	2 Records
Gene	6 Records

▼ from PubChem

Source: PubChem

URL: <https://pubchem.ncbi.nlm.nih.gov>

Description: Data deposited in or computed by PubChem



## 5 Drug and Medication Information



### 5.1 Drug Indication



The **sucralfate** suspension [FDA label] and tablet [F4534] are used for the treatment of active duodenal ulcer for up to 8 weeks. The tablet form may be used at a lower dose for healed duodenal ulcers, for the purpose of maintaining healing and preventing recurrence [F4519, F4534]. **Sucralfate** is also used in the prevention and/or treatment of gastro-esophageal reflux disease (GERD), gastritis, peptic ulcer disease, stress ulcer, in addition to dyspepsia [A177655, F4519].

#### ▼ from DrugBank

Source: [DrugBank](#)

Record Name: Sucralfate

URL: <http://www.drugbank.ca/drugs/DB00364>

Description: The DrugBank database is a unique bioinformatics and cheminformatics resource that combines detailed drug (i.e. chemical, pharmacological and pharmaceutical) data with comprehensive drug target (i.e. sequence, structure, and pathway) information.

#### FDA Label

#### ▼ from DrugBank

Source: [DrugBank](#)

Record Name: Sucralfate

URL: <http://www.drugbank.ca/drugs/DB00364>

Description: The DrugBank database is a unique bioinformatics and cheminformatics resource that combines detailed drug (i.e. chemical, pharmacological and pharmaceutical) data with comprehensive drug target (i.e. sequence, structure, and pathway) information.

### 5.2 FDA Orange Book



2 items [View More Details](#)

Trade Name	Marketing Status	Application Number	Applicant
CARAFATE	Prescription	<a href="#">N019183</a>	ALLERGAN SALES LLC
CARAFATE	Prescription	<a href="#">N018333</a>	ALLERGAN SALES LLC

#### ▼ from FDA Orange Book

Source: [FDA Orange Book](#)

**License Note:** Unless otherwise noted, the contents of the FDA website ([www.fda.gov](http://www.fda.gov)), both text and graphics, are not copyrighted. They are in the public domain and may be republished, reprinted and otherwise used freely by anyone without the need to obtain permission from FDA. Credit to the U.S. Food and Drug Administration as the source is appreciated but not required.

License URL: <https://www.fda.gov/about-fda/about-website/website-policies#linking>

URL: <https://www.fda.gov/Drugs/InformationOnDrugs/ucm129662.htm>

Description: The publication, Approved Drug Products with Therapeutic Equivalence Evaluations (the List, commonly known as the Orange Book), identifies drug products approved on the basis of safety and effectiveness by the Food and Drug Administration (FDA) under the Federal Food, Drug, and Cosmetic Act (the Act).

### 5.3 Drug Labels for Ingredients



Label Information	<a href="#">Total 40 labels</a>
Drug Ingredient	SUCRALFATE
NDC Code(s)	0093-2210-01, 0093-2210-05, 0093-2210-98, 0121-0747-00, 0121-0747-10, 0121-0747-40, 0591-0780-01, 0591-0780-05, 0591-3892-01, 0591-3892-05 ... total 92.
Packagers	A-S Medication Solutions; Actavis Pharma, Inc.; Allergan, Inc.; Aphenia Pharma Solutions - Tennessee, LLC; Atlantic Biologicals Corps; AvKARE, Inc.; Bryant Ranch Prepack; Cardinal Health; Golden State Medical Supply, Inc.; Greenstone LLC; H.J. Harkins Company, Inc.; McKesson Corporation dba SKY Packaging; Medsource Pharmaceuticals; Mylan Institutional Inc.; <a href="#">NCS HealthCare of KY, Inc dba Vanguard Labs</a> ; Northwind Pharmaceuticals, LLC; NuCare Pharmaceuticals, Inc.; Pharmaceutical Associates, Inc.; Physicians Total Care, Inc.; Precision Dose Inc.; Preferred Pharmaceuticals Inc.; REMEDYREPACK INC.; RPK Pharmaceuticals, Inc.; STAT RX USA LLC; State of Florida DOH Central Pharmacy; Teva Pharmaceuticals USA, Inc.; VistaPharm, Inc.

#### ▼ from DailyMed

Source: [DailyMed](#)

Record Name: SUCRALFATE

URL: <https://dailymed.nlm.nih.gov/dailymed/search.cfm?labeltype=all&query=SUCRALFATE>

Description: DailyMed provides trustworthy information about marketed drugs in the United States. DailyMed is the official provider of FDA label information (package inserts).

## 6 Pharmacology and Biochemistry



### 6.1 Pharmacology



This drug aids in the healing of duodenal ulcers, relieving painful inflammation by creating a protective mechanical barrier between the lining or skin of the gastrointestinal tract and damaging substances [A177655]. In addition, **sucralfate** acts to increase levels of growth factors locally, and also causes an increase in prostaglandins which are important in the healing of the mucosa (lining) of the gastrointestinal tract [A177655].

▼ from DrugBank

Source: [DrugBank](#)

Record Name: Sucralfate

URL: <http://www.drugbank.ca/drugs/DB00364>

Description: The DrugBank database is a unique bioinformatics and cheminformatics resource that combines detailed drug (i.e. chemical, pharmacological and pharmaceutical) data with comprehensive drug target (i.e. sequence, structure, and pathway) information.

### 6.2 MeSH Pharmacological Classification



#### Anti-Ulcer Agents

Various agents with different action mechanisms used to treat or ameliorate PEPTIC ULCER or irritation of the gastrointestinal tract. This has included ANTIBIOTICS to treat HELICOBACTER INFECTIONS; HISTAMINE H2 ANTAGONISTS to reduce GASTRIC ACID secretion; and ANTACIDS for symptomatic relief. (See [all compounds classified as Anti-Ulcer Agents](#).)

▼ from MeSH

Source: [MeSH](#)

Record Name: Anti-Ulcer Agents

URL: <https://www.ncbi.nlm.nih.gov/mesh/68000897>

### 6.3 Absorption, Distribution and Excretion



#### Absorption

This drug is absorbed from the gastrointestinal tract in very minimal quantities [FDA label]. The adsorbed sulfated disaccharide is excreted in the urine [F4519]. This drug contains **aluminum** and after the administration of 1 g of **sucralfate** 4 times per day, about 0.001% to 0.017% of this **aluminum** content is absorbed in patients with normal renal function [F4519]. This number is expected to increase in those with impaired renal function [F4519].

▼ from DrugBank

Source: [DrugBank](#)

Record Name: Sucralfate

URL: <http://www.drugbank.ca/drugs/DB00364>

Description: The DrugBank database is a unique bioinformatics and cheminformatics resource that combines detailed drug (i.e. chemical, pharmacological and pharmaceutical) data with comprehensive drug target (i.e. sequence, structure, and pathway) information.

#### Route of Elimination

The negligible amount of this drug that is absorbed is excreted mainly in the urine within 48 hours [FDA label, F4537].

▼ from DrugBank

Source: [DrugBank](#)

Record Name: Sucralfate

URL: <http://www.drugbank.ca/drugs/DB00364>

Description: The DrugBank database is a unique bioinformatics and cheminformatics resource that combines detailed drug (i.e. chemical, pharmacological and pharmaceutical) data with comprehensive drug target (i.e. sequence, structure, and pathway) information.

#### Volume of Distribution

This drug is absorbed in a very small quantity, and normally localizes to inflamed gastrointestinal lesions [FDA label].

▼ from DrugBank

Source: [DrugBank](#)

Record Name: Sucralfate

URL: <http://www.drugbank.ca/drugs/DB00364>

Description: The DrugBank database is a unique bioinformatics and cheminformatics resource that combines detailed drug (i.e. chemical, pharmacological and pharmaceutical) data with comprehensive drug target (i.e. sequence, structure, and pathway) information.

#### Clearance

**Sucralfate** contains **aluminum**. The administration of **sucralfate** in non-dialyzed chronic renal failure patients warrants careful consideration from the treating physician as the excretion of absorbed **aluminum** may be decreased, causing possible **aluminum** toxicity [F4519]. In dialyzed patients diagnosed with chronic renal failure, **aluminum** toxicity related to **sucralfate** has been observed and reported. The daily amount of **aluminum** ingestion (including **sucralfate**) should be carefully examined before administering **sucralfate** in combination with other drugs also containing **aluminum**, including various antacids [F4519].

▼ from DrugBank

Source: [DrugBank](#)

Record Name: Sucralfate

URL: <http://www.drugbank.ca/drugs/DB00364>

Description: The DrugBank database is a unique bioinformatics and cheminformatics resource that combines detailed drug (i.e. chemical, pharmacological and pharmaceutical) data with comprehensive drug target (i.e. sequence, structure, and pathway) information.

## 6.4 Metabolism/Metabolites



This drug is absorbed in very small quantities and is not significantly metabolized [FDA label, F4519].

▼ from DrugBank

Source: [DrugBank](#)

Record Name: Sucralfate

URL: <http://www.drugbank.ca/drugs/DB00364>

Description: The DrugBank database is a unique bioinformatics and cheminformatics resource that combines detailed drug (i.e. chemical, pharmacological and pharmaceutical) data with comprehensive drug target (i.e. sequence, structure, and pathway) information.

## 6.5 Biological Half-Life



The half-life is not known. In animals, the elimination half-life of the **sucrose** component of this drug is from 6-20 h [F4537].

▼ from DrugBank

Source: [DrugBank](#)

Record Name: Sucralfate

URL: <http://www.drugbank.ca/drugs/DB00364>

Description: The DrugBank database is a unique bioinformatics and cheminformatics resource that combines detailed drug (i.e. chemical, pharmacological and pharmaceutical) data with comprehensive drug target (i.e. sequence, structure, and pathway) information.

## 6.6 Mechanism of Action



The mechanism of action of this drug in the healing duodenal ulcers is not yet completely defined, however, there are several probable mechanisms that adequately describe the healing activity of **sucralfate**. There is evidence that **sucralfate** acts locally to aid in tissue healing, and not systemically [FDA label]. Studies in both humans and animals have indicated that **sucralfate** forms a complex that binds to protein-rich exudate found on the surface of ulcers. It binds to albumin and fibrinogen [A11831, A177685] preventing blood clot lysis by stomach acid (**hydrochloric acid**). **Sucralfate** increases the tissue levels of fibroblast growth factors and epidermal growth factors [A17638, A16741], leading to an increase in prostaglandins at the gastrointestinal tract lining, which promote the healing of gastrointestinal ulcers [A177655]. In the laboratory setting, a **sucralfate**-albumin film provides a barrier against the entry of **hydrogen** ions, which are a component of gastric acid. In humans, **sucralfate**, given at therapeutic doses for ulcers, decreases pepsin activity in gastric fluids by 32% [FDA label]. Pepsin has been shown to be damaging to tissues, further aggravating ulcer lesion inflammation [A177667]. Bile salts have been implicated in mucosal injury to the gastrointestinal tract [A177697, A177700]. **Sucralfate** has also been shown to adsorb bile salts in the laboratory, setting, which could further contribute to its beneficial effects in ulcer healing [FDA label].

▼ from DrugBank

Source: [DrugBank](#)

Record Name: Sucralfate

URL: <http://www.drugbank.ca/drugs/DB00364>

Description: The DrugBank database is a unique bioinformatics and cheminformatics resource that combines detailed drug (i.e. chemical, pharmacological and pharmaceutical) data with comprehensive drug target (i.e. sequence, structure, and pathway) information.

## 7 Toxicity



### 7.1 Toxicological Information



#### 7.1.1 Toxicity Summary



**\*\*Overdose\*\*** Overdosage has never been observed with [sucralfate](#) [F4519]. It is unlikely, as administering a maximum dose of up to 12 g/kg/body weight in several animal species did not result in death. The lethal dose could not be determined in these studies [F4519]. It is likely that overdose of [sucralfate](#) in humans would result in constipation, and supportive treatment would be advised [F4519]. **\*\*Use in pregnancy\*\*** This drug is considered a pregnancy Category B drug. Studies have been performed in rodents and rabbits at doses up to 50 times the recommended human dose. No harm to the fetus has been observed in the abovementioned studies. Sufficient and well-controlled clinical trials have not been performed in pregnant women. Due to the fact that the results of animal studies are not always relevant to human response, [sucralfate](#) should be used during pregnancy only if it is deemed essential for the mother's health [FDA label]. **\*\*Use in nursing\*\*** Whether this drug is excreted in human milk is currently unknown. Many drugs are excreted in breast milk, therefore, if [sucralfate](#) is administered to a lactating and nursing woman, caution should be observed [FDA label]. **\*\*Carcinogenesis\*\*** 24 month toxicity studies were performed in rodents, and the dose of [sucralfate](#) reached up to 1 g/kg (equivalent to 12 times the recommended human dose). No signs of [sucralfate](#)-related tumors were noted [FDA label].

▼ from DrugBank

Source: [DrugBank](#)

Record Name: Sucralfate

URL: <http://www.drugbank.ca/drugs/DB00364>

**Description:** The DrugBank database is a unique bioinformatics and cheminformatics resource that combines detailed drug (i.e. chemical, pharmacological and pharmaceutical) data with comprehensive drug target (i.e. sequence, structure, and pathway) information.

#### 7.1.2 Protein Binding



[Sucralfate](#) is bound to plasma proteins, especially albumin and transferrin [F4519].

▼ from DrugBank

Source: [DrugBank](#)

Record Name: Sucralfate

URL: <http://www.drugbank.ca/drugs/DB00364>

**Description:** The DrugBank database is a unique bioinformatics and cheminformatics resource that combines detailed drug (i.e. chemical, pharmacological and pharmaceutical) data with comprehensive drug target (i.e. sequence, structure, and pathway) information.

## 8 Literature



### 8.1 NLM Curated PubMed Citations



#### All NLM Curated PubMed Citations

administration and dosage  
adverse effects  
analysis  
blood  
chemistry  
economics  
immunology  
metabolism  
pharmacokinetics  
pharmacology

therapeutic use  
toxicity

▼ from PubChem

Source: PubChem

URL: <https://pubchem.ncbi.nlm.nih.gov>

Description: Data deposited in or computed by PubChem

### 8.2 Depositor Provided PubMed Citations



194 items View More Rows & Details

SORT BY Publication Date ▼

PMID	Publication Date	Title	Journal
<a href="#">22932084</a>	2012-08-01	Gastro-protecting effect of gefarnate on chronic erosive gastritis with dyspeptic symptoms.	Chinese medical journal
<a href="#">22782130</a>	2012-07-01	[Stress lesions in the upper gastrointestinal tract].	Der Anaesthetist
<a href="#">22076933</a>	2012-06-01	Protective effect of Calamintha officinalis Moench leaves against alcohol-induced gastric mucosa injury in rats. Macroscopic, histologic and phytochemical analysis.	Phytotherapy research : PTR
<a href="#">22226535</a>	2012-03-01	Can sucralfate be effective to protect on peritoneal membrane in patients receiving peritoneal dialysis treatment?	Medical hypotheses
<a href="#">21658805</a>	2012-01-01	Topical sucralfate for pain after oral CO2 laser surgery: a prospective, randomized, controlled trial.	American journal of otolaryngology

1 2 3 ... 39 Next >

▼ from PubChem

Source: PubChem

URL: <https://pubchem.ncbi.nlm.nih.gov>

Description: Data deposited in or computed by PubChem

### 8.3 Synthesis References



Nick V. Lazaridis, Moo K. Park, Yousry Sayed, "Method for preparing high potency [sucralfate](#)." U.S. Patent US4990610, issued March, 1973.

▼ from DrugBank

Source: DrugBank

Record Name: Sucralfate

URL: <http://www.drugbank.ca/drugs/DB00364>

Description: The DrugBank database is a unique bioinformatics and cheminformatics resource that combines detailed drug (i.e. chemical, pharmacological and pharmaceutical) data with comprehensive drug target (i.e. sequence, structure, and pathway) information.

### 8.4 General References



- Rees WD: Mechanisms of gastroduodenal protection by **sucralfate**. Am J Med. 1991 Aug 8;91(2A):58S-63S. [PMID:1715673]
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- Duane WC, Wiegand DM: Mechanism by which bile salt disrupts the gastric mucosal barrier in the dog. J Clin Invest. 1980 Nov;66(5):1044-9. doi: 10.1172/JCI109932. [PMID:7430343]
- FDA approval, **Sucralfate** suspension
- Sucralfate** tablet FDA approval

▼ from DrugBank

Source: DrugBank

Record Name: Sucralfate

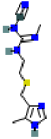
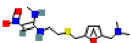
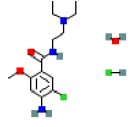
URL: <http://www.drugbank.ca/drugs/DB00364>

Description: The DrugBank database is a unique bioinformatics and cheminformatics resource that combines detailed drug (i.e. chemical, pharmacological and pharmaceutical) data with comprehensive drug target (i.e. sequence, structure, and pathway) information.

## 8.5 Chemical Co-Occurrences in Literature



Showing 3 of 25 View More Co-Occurrence and Evidence Data

Chemical	Evidence from <input type="text" value="All Time"/>
 <b>Cimetidine</b> CID 2756	<p>7 articles <span style="float: right;">Download CSV View in PubMed </span></p> <p><b>Efficacy of sucralfate and cimetidine in protection of the human gastric mucosa against alcohol injury.</b>            PMID 3661609; The American journal of medicine 1987 Sep; 83(3B):31-37            Name matches: <b>cimetidine</b>; <b>tagamet</b> <i>carafate</i></p> <p><b>[Recurrence of duodenal ulcer after therapy with Sucralfat or cimetidine].</b>            PMID 6546829; Wiener klinische Wochenschrift 1984 Feb; 96(4):153-156            Name matches: <b>cimetidine</b> <i>sucralfat</i></p> <p><b>Sucralfate--alternative therapy for peptic-ulcer disease.</b>            PMID 6764389; Clinical pharmacy 1982 ; 1(4):307-314 (Review Article)            Name matches: <b>cimetidine</b> <i>carafate</i></p>
 <b>Ranitidine</b> CID 3001055	<p>3 articles <span style="float: right;">Download CSV View in PubMed </span></p> <p><b>Pharmacological management of patients with peptic ulcer disease: prospects for the late 1980's.</b>            PMID 2887321; Clinical and investigative medicine. Medecine clinique et experimentale 1987 May; 10(3):152-170 (Review Article)            Name matches: <b>ranitidine</b> <i>sulcrate</i></p> <p><b>[Effect of stress ulcer prevention on the incidence of ventilation pneumonia at a pulmologic intensive care unit].</b>            PMID 2608643; Pneumologie (Stuttgart, Germany) 1989 Nov; 43(11):665-668            Name matches: <b>ranitidine</b> <i>sucralfat</i></p> <p><b>Oesophageal reflux disease. Diagnosis, pathophysiology and treatment with special reference to the role of sucralfate.</b>            PMID 3475767; Scandinavian journal of gastroenterology. Supplement 1987 ; 127(?):101-109            Name matches: <b>ranitidine</b> <i>antepsin</i></p>
 <b>Reglan</b> CID 441347	<p>2 articles <span style="float: right;">Download CSV View in PubMed </span></p> <p><b>Refractory peptic lesions. Therapeutic strategies for ulcers and reflux esophagitis that resist standard regimens.</b>            PMID 8095331; Postgraduate medicine 1993 Mar; 93(4):143 (Review Article)            Name matches: <b>reglan</b> <i>carafate</i></p> <p><b>[Erosive reflux-esophagitis and its treatment].</b>            PMID 2057905; Terapevticheskii arkhiv 1991 ; 63(1):81-84            Name matches: <b>cerucal</b> <i>sucralfat</i></p>

▼ from PubChem

Source: PubChem

URL: <https://pubchem.ncbi.nlm.nih.gov>

Description: Data deposited in or computed by PubChem

## 8.6 Chemical-Disease Co-Occurrences in Literature



Showing 3 of 25 View More Co-Occurrence and Evidence Data

Disease	Evidence from	All Time
<b>Ulcer</b>	15 articles	<a href="#">Download CSV</a> <a href="#">View in PubMed</a>
	<p><b>Bile salt binding properties of commonly used gastrointestinal drugs: maalox, carafate, and questran.</b> PMID 3171934; Journal of pharmaceutical sciences 1988 Jun; 77(6):527-530 Name matches: <b>ulcer carafate</b></p> <p><b>pH-neutralizing esophageal irrigations as a novel mitigation strategy for button battery injury.</b> PMID 29889306; The Laryngoscope 2019 Jan; 129(1):49-57 Name matches: <b>ulcer carafate</b></p> <p><b>Antacid, sucralfate, and prostaglandin E2 effects on the growth and potential for translocation of Pseudomonas aeruginosa, Escherichia coli, and Staphylococcus aureus in an in vitro gastric simulation.</b> PMID 1902478; The Journal of burn care &amp; rehabilitation 1991 ; 12(1):7-12 Name matches: <b>ulceration carafate</b></p>	
<b>Duodenal Ulcer</b>	10 articles	<a href="#">Download CSV</a> <a href="#">View in PubMed</a>
	<p><b>[Sucralfate: the agent of choice in the treatment of peptic ulcer?].</b> PMID 2186496; Terapevticheskii arkhiv 1990 ; 62(2):64-67 Name matches: <b>duodenal ulcer antepsin</b></p> <p><b>[Effect of stress ulcer prevention on the incidence of ventilation pneumonia at a pulmologic intensive care unit].</b> PMID 2608643; Pneumologie (Stuttgart, Germany) 1989 Nov; 43(11):665-668 Name matches: <b>stress ulcer sucralfat</b></p> <p><b>[Recurrence of duodenal ulcer after therapy with Sucralfat or cimetidine].</b> PMID 6546829; Wiener klinische Wochenschrift 1984 Feb; 96(4):153-156 Name matches: <b>duodenal ulcer sucralfat</b></p>	
<b>Stomach Ulcer</b>	7 articles	<a href="#">Download CSV</a> <a href="#">View in PubMed</a>
	<p><b>[Sucralfate: the agent of choice in the treatment of peptic ulcer?].</b> PMID 2186496; Terapevticheskii arkhiv 1990 ; 62(2):64-67 Name matches: <b>gastric ulcer antepsin</b></p> <p><b>Pharmacological management of patients with peptic ulcer disease: prospects for the late 1980's.</b> PMID 2887321; Clinical and investigative medicine. Medecine clinique et experimentale 1987 May; 10(3):152-170 (Review Article) Name matches: <b>gastric ulcers sulcrate</b></p> <p><b>Sucralfate--alternative therapy for peptic-ulcer disease.</b> PMID 6764389; Clinical pharmacy 1982 ; 1(4):307-314 (Review Article) Name matches: <b>gastric ulcers carafate</b></p>	

▼ from PubChem

Source: PubChem

URL: <https://pubchem.ncbi.nlm.nih.gov>

Description: Data deposited in or computed by PubChem

## 8.7 Chemical-Gene Co-Occurrences in Literature



Showing 2 of 2

Gene	Evidence from	All Time

Gene	Evidence from <span>All Time</span>
<a href="#">Atpase H<sup>+</sup>/K<sup>+</sup> Transporting Non-Gastric Alpha2 Subunit</a>	<p>2 articles <span>Download CSV</span> <span>View in PubMed</span></p> <p><a href="#">Endoscopic resection using band ligation for esophageal SMT in less than 10 mm.</a> PMID 25780296; World journal of gastroenterology 2015 Mar; 21(10):2982-2987 Name matches: <b>proton pump</b> <i>ulcermin</i></p> <p><a href="#">Pharmacological management of patients with peptic ulcer disease: prospects for the late 1980's.</a> PMID 2887321; Clinical and investigative medicine. Medecine clinique et experimentale 1987 May; 10(3):152-170 (Review Article) Name matches: <b>proton pump</b> <i>sulcrate</i></p>
<a href="#">Atpase Plasma Membrane Ca<sup>2+</sup> Transporting 1</a>	<p>1 article <span>Download CSV</span> <span>View in PubMed</span></p> <p><a href="#">Pharmacological management of patients with peptic ulcer disease: prospects for the late 1980's.</a> PMID 2887321; Clinical and investigative medicine. Medecine clinique et experimentale 1987 May; 10(3):152-170 (Review Article) Name matches: <b>atpase</b> <i>sulcrate</i></p>

▼ from PubChem

Source: PubChem

URL: <https://pubchem.ncbi.nlm.nih.gov>

Description: Data deposited in or computed by PubChem



## 9 Biomolecular Interactions and Pathways



### 9.1 DrugBank Interactions



Showing 1 of 4 [View More](#)

Target	<a href="#">Pepsin</a>
Action	inhibitor
Interaction References	<ol style="list-style-type: none"><li>1. Jensen SL, Funch Jensen P: Role of <a href="#">sucralfate</a> in peptic disease. Dig Dis. 1992;10(3):153-61. [<a href="#">PMID:1611711</a>]</li><li>2. Hollander D, Tarnawski A: The protective and therapeutic mechanisms of <a href="#">sucralfate</a>. Scand J Gastroenterol Suppl. 1990;173:1-5. [<a href="#">PMID:2190304</a>]</li><li>3. Peterson WL: Pathogenesis and therapy of peptic ulcer disease. J Clin Gastroenterol. 1990;12 Suppl 2:S1-6. [<a href="#">PMID:1978840</a>]</li></ol>

▼ from DrugBank

Source: [DrugBank](#)

URL: <http://www.drugbank.ca/drugs/DB00364#targets>

**Description:** The DrugBank database is a unique bioinformatics and cheminformatics resource that combines detailed drug (i.e. chemical, pharmacological and pharmaceutical) data with comprehensive drug target (i.e. sequence, structure, and pathway) information.

## 10 Classification



### 10.1 Ontologies



#### 10.1.1 MeSH Tree



Showing 1 of 1

##### Sucralfate

A basic aluminum complex of sulfated sucrose.

LINKED RECORDS

Compounds: 1 Substances: 51 PubMed Abstracts: 1,442

CLASSIFICATION (PARENT NODES)

MeSH Tree > Technology And Food And Beverage > Food And Beverages > Food > Food Ingredients > Food Additives > Flavoring Agents > Sweetening Agents > Sucrose

▼ from MeSH

Source: [MeSH](#)

Record Name: MeSH Tree

URL: <http://www.nlm.nih.gov/mesh/meshhome.html>

Description: MeSH (Medical Subject Headings) is the NLM controlled vocabulary thesaurus used for indexing articles for PubMed.

#### 10.1.2 WHO ATC Classification System



Showing 1 of 1

##### A02BX02 - Sucralfate

LINKED RECORDS

Compounds: 13 Substances: 41

CLASSIFICATION (PARENT NODES)

ATC Code > A - Alimentary Tract And Metabolism > A02 - Drugs For Acid Related Disorders > A02B - Drugs For Peptic Ulcer And Gastroesophageal Reflux Disease > A02BX - Other Drugs For Peptic Ulcer And Gastroesophageal Reflux Disease

▼ from WHO ATC

Source: [WHO ATC](#)

Record Name: ATC Code

URL: [https://www.whooc.no/atc\\_ddd\\_index/](https://www.whooc.no/atc_ddd_index/)

Description: In the World Health Organization (WHO) Anatomical Therapeutic Chemical (ATC) classification system, the active substances are divided into different groups according to the organ or system on which they act and their therapeutic, pharmacological and chemical properties.

## 11 Information Sources



FILTER BY SOURCE

ALL SOURCES



1. [DailyMed](#)

SUCRALFATE

<https://dailymed.nlm.nih.gov/dailymed/search.cfm?labeltype=all&query=SUCRALFATE>

2. [DrugBank](#)

<http://www.drugbank.ca/drugs/DB00364#targets>

Sucralfate

<http://www.drugbank.ca/drugs/DB00364>

3. [FDA Orange Book](#)

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<https://www.fda.gov/about-fda/about-website/website-policies#linking>

<https://www.fda.gov/Drugs/InformationOnDrugs/ucm129662.htm>

4. [MeSH](#)

Sucralfate

<https://www.ncbi.nlm.nih.gov/mesh/68013392>

MeSH Tree

<http://www.nlm.nih.gov/mesh/meshhome.html>

Anti-Ulcer Agents

<https://www.ncbi.nlm.nih.gov/mesh/68000897>

5. [PubChem](#)

<https://pubchem.ncbi.nlm.nih.gov>

6. [WHO ATC](#)

ATC Code

[https://www.whocc.no/atc\\_ddd\\_index/](https://www.whocc.no/atc_ddd_index/)