

S-Adenosyl-Methionine (SAME) + Silybin

- Drug Information

Brand Names:

Denamarin®

Pharmacology:

SAME is a supplement reported to increase hepatic glutathione with silybin, which inhibits lipid peroxidase and β -glucuronidase and acts as an antioxidant and free radical scavenger. Silymarin also inhibits the cytotoxic, inflammatory, and apoptotic effects of tumor necrosis factor; apparently silymarin can alter outer hepatocyte cell membranes that can prevent toxin penetration. Silymarin is thought to reduce hepatic collagen formation and increase hepatic glutathione content.

Indications:

In small animal medicine, S-adenosyl-methionine combined with silybin is most commonly used as an adjunctive treatment for liver disease.

It potentially could be of benefit for treatment of acute hepatotoxin-induced liver toxicity.

Contraindications:

- General

There are no apparent contraindications for use of combined SAME + silybin.

Interactions:

- General Interactions

No identified General Interactions at time of publishing.

- Category Interactions

- Antiviral

Decreased efficacy possible

- Hepatic enzyme inhibitor

Silybin may increase the clearance of drugs that undergo hepatic glucuronidation (not in cats).

- MAOI - Monoamine Oxidase Inhibitor

could cause additive serotonergic effects

- SSRI-Selective serotonin reuptake inhibitor

potentially could cause additive serotonergic effects

- TCA - Tricyclic Antidepressant

potentially could cause additive serotonergic effects

- Drug Interactions

- Dextromethorphan

potentially could cause additive serotonergic effects

- Meperidine

potentially could cause additive serotonergic effects

- Pentazocine lactate or HCl

potentially could cause additive serotonergic effects

Adverse Effects:

- General

Adverse effects appear to be minimal or nonexistent in treated animals.

Vomiting, anorexia, and anxiety are possible.

Oral SAME in humans may cause anorexia, vomiting, diarrhea, flatulence, constipation, dry mouth, insomnia/nervousness, headache, sweating, and dizziness.

The safety of exogenous SAME + silybin has not been proven in pregnancy; use with caution.

Dosages:

- General

Tablets should be given on an empty stomach, at least 1 hour before feeding, as food decreases absorption of SAME.

May hide enteric-coated tablets in a small amount of food if encounter difficulty in pilling.

Number of tablets can be gradually reduced or increased at any time, depending on the pet's needs.

Many pets are maintained long-term on every other day or every third day administration.

- Small Animal

- Dog

Enteric-Coated Tablets (tablet concentrations in parentheses are listed as SAmE/silybin)

<5.5 kg: 1 tablet (90 mg/9 mg) by mouth once daily.

>5.5 kg: 1 tablet (90 mg/9 mg) by mouth twice daily.

6 - 15.5 kg: 1 tablet (225 mg/24 mg) by mouth once daily.

16 - 29.5 kg: 1 tablet (425 mg/35 mg) by mouth once daily.

30 - 54.5 kg: 2 tablets (425 mg/35 mg) by mouth daily or 1 tablet twice daily.

54.5 kg: 3 tablets (425 mg/35 mg) by mouth per day; can divide dose and give twice daily (eg, 2 tablets in AM, 1 tablet in PM).

For Dogs Only: Chewable Tablets (SAmE 225 mg/silybin 24 mg; manufacturer lists doses per pound, not per kg)

<6 pound: ¼ tablet by mouth/day

7 - 15 pound: ½ tablet by mouth/day

16 - 30 pound: 1 tablet by mouth/day

31 - 45 pound: 1½ tablets by mouth/day

46 - 60 pound: 2 tablets by mouth/day

61 - 75 pound: 2½ tablets by mouth/day

76 - 90 pound: 3 tablets by mouth/day

91 - 105 pound: 3½ tablets by mouth/day

>105 pound: 4 tablets by mouth/day

- Cat

Do not dry-pill cats; give 3 - 6 mL of water immediately afterward to facilitate passage to the stomach.

Enteric-Coated Tablets (tablet concentrations in parentheses are listed as SAmE/silybin)

<5.5 kg: 1 tablet (90 mg/9 mg) by mouth once daily.

>5.5 kg: 1 tablet (90 mg/9 mg) by mouth twice daily.

Special Notes:

None