

PROFESSIONAL INFORMATION

Category D: Complementary Medicine

Discipline Specific: Combination Medicine

This unregistered medicine has not been evaluated by SAHPRA for its quality, safety or intended use.

SCHEDULING STATUS: **S0**

1. NAME OF THE MEDICINE

Cepacol Throat Spray

Pelargonium sidoides (African Geranium) 140 mg/ml

Hedera helix (Ivy) 40 mg/ml

Menthol crystals 0,09 mg/ml

Eucalyptus globules (Eucalyptus Oil 2) 0,45 mg/ml

Syzygium aromaticum (Clove Oil) 0,3 mg/ml

2. QUALITATIVE AND QUANTITATIVE COMPOSITION

Per ml:

Pelargonium sidoides DC (African Geranium)

[roots, 1:10 ethanolic (0,52 % v/v) extract providing 14 mg of dried herb equivalent].....140 mg/ml

Hedera helix (Ivy)

[dry leaf extract, 10:1 extract providing 40 mg of dried herb equivalent].....4 mg/ml

Menthol crystals.....0,09 mg/ml

Eucalyptus globules (Eucalyptus Oil 2) 0,45 mg/ml

Syzygium aromaticum (Clove Oil) 0,3 mg/ml

Excipients with known effect

Contains sweetener: Xylitol 63 mg/ml

Sugar Free

Preservative: Sodium benzoate 0,55 %

For the full list of excipients, see section 6.1.

3. PHARMACEUTICAL FORM

Throat Spray.

Light to dark brown clear liquid.

4. CLINICAL PARTICULARS

4.1 Therapeutic indications

Cepacol Throat Spray provides relief of symptoms of upper respiratory tract infections including pharyngitis, influenza, tonsillitis, bronchitis, sinusitis, and the common cold.

Cepacol Throat Spray has anti-inflammatory, analgesic, broncholytic, mucolytic, antibacterial and antiviral properties.

4.2 Posology and method of administration

Posology

Adults and children older than 12 years old: 6 sprays into the throat 6 times per day.

Children 6-12 years old: 4 sprays into the throat 6 times daily.

Paediatric population

Cepacol Throat Spray is contraindicated for children under 6 years of age (see section 4.3).

Method of administration

Oromucosal use.

If the symptoms persist longer than one week during the use of this medicinal product, a doctor or a pharmacist should be consulted.

4.3 Contraindications

- Hypersensitivity to the active substances or to plants of the Araliaceae (ivy) or Geraniaceae (pelargonium) families, menthol, eucalyptus oil, clove oil or to any of the excipients listed in [section 6.1](#).
- Children under 6 years of age because of the general risk of aggravation of respiratory symptoms through secretolytic medicines.
- Safety in pregnancy and lactation has not been established (see section 4.6).

4.4 Special warnings and precautions for use

- When dyspnoea, fever or purulent sputum occurs, a health care provider should be consulted.
- Caution is recommended in patients with gastritis or gastric ulcer
- Caution is recommended in patients with hepatic impairment as hepatotoxicity and hepatitis cases were reported.
- In infants and children, taking clove oil by mouth has been associated with severe liver damage.
- In case signs of hepatotoxicity occur, the administration of Cepacol Throat Spray should be stopped immediately and a health care provider should be consulted.

4.5 Interaction with other medicines and other forms of interaction

Pelargonium sidiodes DC (African Geranium) & *Hedera helix* (Ivy):

No interaction studies have been performed or reported.

Eucalyptus globules (Eucalyptus Oil 2)

Theoretically Eucalyptus Oil may reduce the effectiveness of pentobarbital.

Theoretically Eucalyptus Oil may increase risk of hypoglycaemia when used with antidiabetic medicines.

Theoretically Eucalyptus Oil may increase levels of Cytochromes P450 (CYP 1A2; CYP2C19; CYP2C9/CYP3A4 substrates).

Syzygium aromaticum (Clove Oil)

Theoretically, concomitant use of clove extracts with antidiabetic medicines might increase the risk of hypoglycaemia.

4.6 Fertility, pregnancy and lactation

Pregnancy

Safety in pregnancy has not been established.

Cepacol Throat Spray is not recommended during pregnancy.

Lactation

Safety in lactation has not been established.

Cepacol Throat Spray should not be used during breastfeeding.

Fertility

There are no data on the effects on fertility available.

4.7 Effects on ability to drive and use machines

Effects of Cepacol Throat Spray on driving and use of machines has not been established.

4.8 Undesirable effects

Pelargonium sidiodes DC (African Geranium):

Mild gastrointestinal complaints (diarrhoea, epigastric discomfort, nausea or vomiting, dysphagia), mild nasal and gingival bleeding and allergic reactions have been reported. The frequency was less frequent.

Hepatotoxicity has been reported. The frequency is not known.

Hedera helix (Ivy)

Gastrointestinal reactions (nausea, vomiting, diarrhoea) have been reported. The frequency is not known.

Allergic reactions (urticaria, skin rash, dyspnoea, anaphylactic reaction) have been reported. The frequency is not known.

Menthol

Menthol may give rise to hypersensitivity reactions including dermatitis.

Inhalation of menthol has been reported to cause ataxia, confusion, euphoria, nystagmus and diplopia.

Eucalyptus globules (Eucalyptus Oil 2)

Diarrhoea, nausea, vomiting is commonly reported.

Eucalyptus oil can cause contact dermatitis in sensitive people.

Signs of toxicity after ingestion include central nervous system depression, shallow respiration, rapid pulse, apnoea, coma and death (see section 4.9).

Syzygium aromaticum (Clove Oil)

Less Frequent: Liver failure, respiratory distress.

Reporting of suspected adverse reactions

Reporting suspected adverse reactions after authorisation of the medicine is important. It allows continued monitoring of the benefit/risk balance of the medicine. Health care providers are asked to report any suspected adverse reactions to SAHPRA via the “**6.04 Adverse Drug Reactions Reporting Form**”, found online under SAHPRA’s publications: <https://www.sahpra.org.za/Publications/Index/8>

4.9 Overdose

Pelargonium sidiodes DC (African Geranium):

No case of overdose has been reported.

In overdose, side effects can be precipitated and/or be of increased severity (see section 4.8).

Hedera helix (Ivy)

Overdose can provoke nausea, vomiting, diarrhoea and agitation.

Menthol

Ingestion of significant quantities of menthol is reported to cause symptoms similar to those seen after ingestion of camphor including severe abdominal pain, nausea, vomiting, vertigo, ataxia, drowsiness, and coma; they may be managed similarly.

Supportive care, including anticonvulsant therapy, is the mainstay of treatment of menthol intoxication. The benefits of gastric decontamination are uncertain, but oral activated charcoal, or gastric lavage after potentially life-threatening overdose, may be considered if the patient presents within 1 hour of ingestion; any convulsions must be controlled first.

Eucalyptus globules (Eucalyptus Oil 2)

Toxicity can occur with the undiluted oil at oral doses as low as 1 ml. Symptoms include central nervous system depression, shallow respiration, rapid pulse, apnoea, status epilepticus, coma, and death. A dose of 3.5 ml can be fatal in adults, although there is conflicting evidence whether there is a direct link between the amount ingested and symptom severity. Toxicity may also occur after topical use or inhalation, particularly in children.

Topically, prolonged exposure or large amounts of the oil can cause agitation, drowsiness, slurred speech, ataxia, muscle weakness, and seizures.

There is no specific antidote. If treatment can be commenced soon after ingestion, lavage or activated charcoal may be helpful. Eucalyptus oil is rapidly and widely distributed throughout the body, so delayed

administration of activated charcoal is unlikely to provide benefit

Syzygium aromaticum (Clove Oil)

Toxicity has been reported in infants and children up to 3 years of age after taking as little as 5-10 ml of clove oil. These include at least three cases of hepatic failure and one case of liver injury. One of these patients also presented with disseminated intravascular coagulation, seizure, and coma.

A seven-month-old infant who was accidentally given 5ml of clove oil in place of mineral oil developed central nervous system depression, proteinuria, and other urinary abnormalities.

There is insufficient reliable information available about the presentation of overdose with clove oil in adults.

Liver injury associated with clove oil has been successfully treated with N-acetylcysteine, which seems to reduce the severity and duration of liver injury from clove oil. Clove oil toxicity in children has also been treated with supportive care and gastric lavage.

5. PHARMACOLOGICAL PROPERTIES

5.1 Pharmacodynamic properties

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Pharmacodynamic properties

Pelargonium sidiodes DC (African Geranium):

Pharmacological activities include antiviral and antibacterial action as well as immunomodulatory capabilities.

Hedera helix (Ivy)

The broncholytic and secretolytic efficacy, are well established in the treatment of productive cough and may also be used for the adjuvant therapy of inflammatory bronchial diseases.

Eucalyptus globules (Eucalyptus Oil 2)

Anti-inflammatory effects: The eucalyptol constituent of eucalyptus oil appears to have analgesic and anti-inflammatory effects. Preliminary research suggests eucalyptol might block the production of arachidonic acid metabolites that mediate pain. It might also inhibit cyclooxygenase pathways.

Antiviral effects: Isolated constituents of eucalyptus, such as grandinol, sideroxylin, and tereticornate A have antiviral effects against HSV-1 *in vitro*. Cypellocarpin C and litseagermacrane have antiviral effects against HSV-2.

Hypoglycemic effects: Preliminary research shows that it increases insulin secretion and enhances the

uptake and metabolism of glucose by muscle. Additional research also shows that eucalyptus leaf can significantly decrease basal glucose levels in animal models of diabetes.

Syzygium aromaticum (Clove Oil)

Clove oil contains up to 95% eugenol.

Antihistamine effects: Antiallergenic effects of eugenol may be attributed to the induction of apoptosis of mast cells.

Anti-inflammatory effects: Eugenol inhibits or modulates enzymes involved in the inflammatory cascade and decreases production of inflammatory mediators. Also, clove oil modulates the activity of cells involved in inflammation, such as macrophages and neutrophils.

Antimicrobial effects: Laboratory research suggests that oil of clove has both antibacterial and antifungal effects. Eugenol is likely the main constituent of interest for these effects. Constituents in clove oil prevent cellular communication and toxin production by microbes.

Menthol

In small oral doses menthol has a carminative action.

A review of menthol's actions and uses noted that menthol elicited a cool sensation by acting on the TRPM8 receptor, a thermosensitive cation channel that is also activated by low temperature.

5.2 Pharmacokinetic properties

There are no available data about pharmacokinetic parameters of *Pelargonium* extract and *Hedera helix* (Ivy).

Syzygium aromaticum (Clove Oil)

There is insufficient reliable information available about the pharmacokinetics of clove.

Eucalyptus globules (Eucalyptus Oil 2)

Absorption: The eucalyptol constituent of eucalyptus is well absorbed via inhalation with the peak plasma level occurring at 18 minutes.

Menthol

The systemic absorption of menthol from dermal patches has been studied. The absolute bioavailability could not be determined from this study but there did not appear to be any substantial systemic accumulation, even from high exposure for prolonged periods.

Paediatric population:

Uncertainties due to limited experience.

5.3 Preclinical safety data

Based on the long standing clinical use, there is a sufficiently established safety of the usage in the given posology in humans. Data on carcinogenicity; genotoxicity and reproductive toxicity testing are not available.

6. PHARMACEUTICAL PARTICULARS

6.1 List of excipients

Glycerine BP

Sodium Benzoate

Xylitol

Water

6.2 Incompatibilities

Not applicable

6.3 Shelf life

3 years

6.4 Special precautions for storage

Store at or below 25 °C.

Protect from light and moisture.

6.5 Nature and contents of container

Brown, amber glass bottle with a white plastic spray nozzle in a carton box containing a light to dark brown clear liquid.

Pack size: 20 ml.

6.6 Special precautions for disposal

Any unused medicinal product or waste material should be disposed of in accordance with local requirements.

7. HOLDER OF CERTIFICATE OF REGISTRATION

Adcock Ingram Limited

1 New Road,

Erand Gardens,

Midrand, 1685

Customer Care: 0860 ADCOCK / 232625

8. REGISTRATION NUMBER

To be allocated

9. DATE OF FIRST AUTHORISATION

Not applicable.

10. DATE OF REVISION OF THE TEXT

28 February 2022