# Atropine Sulphate S.A.L.F 1mg/ml

## 1. NAME OF THE DRUG
Atropine Sulphate S.A.L.F 1mg/ml.

## 2. QUALITATIVE AND QUANTITATIVE COMPOSITION
1 ml of solution contains:
Active ingredient: Atropine Sulphate monohydrate 1 mg.
For the full list of the excipients, see section 6.1.

## 3. PHARMACEUTICAL FORM
Solution for injection.

## 4. CLINICAL INFORMATION

### 4.1 Therapeutic indications
Preanesthetic medication to decrease excessive salivation and secretions of the respiratory tract. Treatment of sinus bradycardia, particularly if complicated by hypotension.
Antidote in poisoning by organophosphorus.

### 4.2 Posology and method of administration
**Pre-anesthetic medication**
*Adults*: The recommended dose is 0.3-0.6 mg by intravenous injection immediately before the anesthesia induction or by intramuscular injection 30-60 minutes before the induction.
*Children*: The recommended dose is 0.02 mg/kg (maximum dose 0.6 mg).

**Treatment of sinus bradycardia**
The recommended dose is between 0.3 and 1.0 mg intravenously.

**Antidote** in poisoning by organophosphorus
*Adults*: The recommended dose is 2 mg (intramuscularly or intravenously, taking into account the severity of the poisoning) every 5-10 minutes, until the skin becomes red and dry, the pupils dilate and tachycardia appears.
*Children*: The recommended dose is 0.02 mg/kg.

### 4.3 Contraindications
Hypersensitivity to the active ingredient or to any of the excipients. Angle-closure glaucoma, esophageal reflux, pyloric stenosis, gastrointestinal obstruction, ulcerative colitis, prostatic hypertrophy, paralytic ileus, intestinal atony.

### 4.4 Special warnings and precautions for use
The solution should be clear, colorless and free of visible particles.
The ampoule is for a single, uninterrupted administration and any unused residual solution should be discarded. Precautions must be taken in geriatric patients for whom you may need a dose adjustment for a possible occurrence of adverse events related to the cardiovascular system and the central nervous system.
Use with caution in patients with ileostomy or colostomy; the occurrence of diarrhea may indicate an incomplete intestinal obstruction.
Use with caution in cases of myasthenia gravis, hyperthyroidism, coronary artery disease, acute myocardial ischemia, tachycardia, tachyarrhythmia, prostatic hypertrophy and other obstructive uropathies.

Important information about some of the excipients:
The solution Atropine Sulphate S.A.L.F 1mg/ml contains sodium metabisulfite, a sulfite that may cause allergic-type reactions including anaphylactic or life-threatening symptoms or severe asthmatic episodes in susceptible patients.

### 4.5 Interaction with other medicinal products and other forms of interaction
Contraindicated associations
*Derivatives of Belladonna*: increase of the anticholinergic activity.
*Halothane*: attenuation of the depressor effect on the heart rate.
*Procainamide*: increased vagal effects at atrioventricular level.
*Methacholine*: inhibition of the bronchoconstriction induced by methacholine inhalation.

### 4.6 Pregnancy and lactation
Animal studies are insufficient to determine possible effects related to the use of the drug during pregnancy or lactation. The potential risk for humans is not known.
Use with caution and only when necessary.

### 4.7 Effects on ability to drive and use machines
Atropine has a considerable influence on the ability to drive or use machines.

### 4.8 Side effects
Below are the side effects of atropine organized according to the MedDRA system organ classification. There are insufficient data to determine the frequency of the single effects listed.

Endocrine disorders
Change in the levels of the growth hormone.

Metabolism and nutrition disorders
Porphyria, hyperthermia, hypothermia.

Nervous system disorders
Sedation, disorientation, dizziness, impaired short-term memory, psychosis.

Eye disorders
Diplopia, disturbances in accommodation, mydriasis, changes in intraocular pressure.

Cardiac disorders
Angina, arrhythmias, transient bradycardia (followed by tachycardia, palpitations and arrhythmias), atrioventricular block, hypertension, tachycardia.

Respiratory, thoracic and mediastinal disorders
Reduction of bronchial secretions.

Gastrointestinal disorders
Esophageal regurgitation.

Skin subcutaneous tissue
Redness and dryness of the skin. In the case of intramuscular administration, a reduction in the activity of the sweat glands can be observed.

General disorders and administration site conditions
Hypersensitivity reactions – Anaphylactic reactions.

**Reporting of suspected adverse reactions**
Reporting suspected adverse reactions after authorization of the medicinal product is important.
It allows continued monitoring of the benefit/risk balance of the medicinal product. Any suspected adverse events should be reported to the Ministry of Health according to the National Regulation by using an online form (http://forms.gov.il/globaldata/getsequence/getsequence.aspx?formType=AdversEffectMedic@moh.gov.il).

**4.9 Overdose**
Symptoms:
In case of an overdose of the drug, you may have the intensification of the side effects described. In particular, dryness of mucous membranes, dilated pupils, tachycardia, fever and skin rash are possible; neurological symptoms such as confusion, hallucinations, etc., that can persist for 48 hours or more, can also be observed. In some cases respiratory depression, coma, circulatory collapse and death can be observed.

Treatment:
At the first signs, in the case of respiratory depression, it is recommended to administer oxygen and, in the case of a persistence of seizures, if the circulatory conditions permit it, proceed with an intravenous administration of short-acting barbiturates (e.g. thiopental) or benzodiazepines (e.g. diazepam). Since atropine is excreted through the kidneys, an intravenous administration of fluids is recommended. In cases of delirium and coma, the administration of physostigmine by a slow intravenous infusion at a dose range of 1 to 4 mg (0.5 to 1 mg in children) is recommended.

## 5. PHARMACOLOGICAL PROPERTIES

**5.1 Pharmacodynamic properties**
*Pharmacotherapeutic group*:
Belladonna alkaloids, tertiary amines.
*ATC code*: A03BA01
Atropine is an antimuscarinic alkaloid. It acts as an antagonist of peripheral muscarinic cholinergic receptors, which become insensitive to the action of acetylcholine that is released by the parasympathetic autonomic endings. This elective action explains the pharmacotherapeutic activity of the product.

**5.2 Pharmacokinetic properties**
*Distribution*
Atropine is rapidly distributed in the tissues after an intravenous administration (distribution volume of 3,297 L/kg in normal subjects).
Atropine crosses the blood-brain barrier and has a half life of 4 hours.

*Metabolism and excretion*
About half of a dose is metabolized and eliminated by the liver, while the remaining half is excreted unchanged in the urine.
Atropine crosses the placenta and traces appear in breast milk.

**5.3 Preclinical safety data**
Preclinical data reveal no special hazard for humans based on conventional studies of safety pharmacology and reproductive toxicity.

## 6. PHARMACEUTICAL INFORMATION

**6.1 List of the excipients**
Atropine Sulphate S.A.L.F. 1 mg/ml solution for injection. Each ampoule contains:
Excipients: Sodium metabisulfite 0.5 mg
Sulfuric acid for pH correction, Water for injections q.s. to 1 ml.

**6.2 Incompatibility**
The drug must not be mixed with alkali.

**6.3 Shelf life**
3 years in unopened package.
The product should be used immediately after opening, any unused residual solution should be discarded.

**6.4 Special precautions for storage.**
Store in the original package to protect the drug from light.
Store below 25°C.

**6.5 Nature and capacity of the container.**
Glass ampoule, type I, of 1 ml.
Each package contains 5 ampoules of 1 ml.

**6.6 Special precautions for disposal and other handling**
Any unused product or waste material should be disposed of in accordance with the local requirements.

## 7. MANUFACTURER
S.A.L.F. S.p.A. Laboratorio Farmacologico - Via G. Mazzini 9 – 24069 Cenate Sotto (BG), Italy.

## 8. MARKETING AUTHORIZATION HOLDER
RAZ PHARMACEUTICS LTD., 6 Hamatechet st., Kadima, Israel.

## 9. MARKETING AUTHORIZATION NUMBER
159-21-34594-00.

**The content of this leaflet was approved by the Ministry of Health in August 2017 and updated according to the guidelines of the Ministry of Health in July 2018.**