Professional Information

SCHEDULING STATUS

S2

1. NAME OF THE MEDICINE

FLUSTAT® SYRUP

2. QUALITATIVE AND QUANTITATIVE COMPOSITION

Each 20 ml contains:

Phenylpropanolamine hydrochloride 25 mg

Dextromethorphan hydrobromide 15 mg

Paracetamol 500 mg

Preservative: Nipastat 0,08 % *m/v*

Alcohol 14,8 % *v/v*

Contains Sugar: Sucrose 4,0 g per 20 ml

For full list of excipients, see section 6.1

3. PHARMACEUTICAL FORM

Syrup

A clear orange-red liquid, with a fruity flavour.

4. CLINICAL PARTICULARS

4.1. Therapeutic indications

FLUSTAT® SYRUP is recommended for the relief of the symptoms associated with colds and influenza such as headache, minor aches and pains and coughing.

4.2 Posology and method of administration

Adults and children:

Over 12 years: 20 ml every four hours up to four times daily.

Children 6-12 years: 10 ml every four hours up to four times daily.

DO NOT EXCEED THE RECOMMENDED DOSE. If symptoms persist, consult your doctor.

4.3 Contraindications

FLUSTAT® SYRUP is contra-indicated in persons with:

- Hypersensitivity to any of the active ingredients, or to any of the excipients in listed in section 6.1.
- Asthma
- Sensitivity to small doses of sympathomimetic substances is manifested by sleeplessness, dizziness, light-headedness, weakness, tremulousness or cardiac arrhythmia.
- Liver damage
- Cardiovascular disease
- Hypertension
- Hyperthyroidism
- Hyperexcitability
- Phaeochromocytoma
- Closed angle glaucoma
- **FLUSTAT® SYRUP** is not recommended for children under the age of 6 years.

4.4 Special warnings and precautions for use

PARACETAMOL:

FLUSTAT® SYRUP contains paracetamol, dosages of **FLUSTAT® SYRUP** in excess of those recommended may cause severe liver damage. DO NOT use continuously for more than 10 days without consulting your doctor.

This product contains paracetamol which may be fatal in overdose. In the event of overdosage or suspected overdose and notwithstanding the fact that the person may be asymptomatic, the nearest doctor, hospital or poison centre must be contacted immediately.

Severe cutaneous adverse reactions (SCARs)

Severe cutaneous adverse reactions (SCARs) such as toxic epidermal necrolysis (TEN), Steven-Johnson syndrome (SJS), acute generalized exanthematous pustulosis (AGEP), eosinophilia and systemic

(DRESS)/Drug-induced hypersensitivity syndrome (DIHS) and fixed drug eruptions (FDE) have been reported in patients treated with paracetamol_containing medicines. If a patient develops SCAR, treatment with **FLUSTAT SYRUP** must immediately be discontinued and appropriate treatment instituted.

PHENYLPROPANOLAMINE HYDROCHLORIDE:

In patients with prostatic enlargement it may cause difficulty in micturition. Phenylpropanolamine hydrochloride should be given with caution to patients receiving chloroform, cyclopropane, halothane or other halogenated anaesthetics. The effect of phenylpropanolamine hydrochloride are diminished by guanethidine, reserpine, methyldopa and may be diminished or enhanced by tricyclic antidepressants. It may diminish the effect of guanethidine and may increase the possibility of arrhythmias in digitalised patients. Prolonged use may lead to rebound congestion. Use with caution in patients with diabetes.

FLUSTAT® SYRUP contains sucrose 4 g, liquid sorbitol 9,4 g, propylene glycol 2 g, ~~and~~ alcohol (96 %) 3,08 ml, sodium saccharin 10 mg and sodium citrate 240 mg in each 20 ml.

- Sucrose: therefore patients with rare hereditary problems of fructose intolerance, glucose-galactose malabsorption or sucrase-isomaltase insufficiency should not take this medicine.
- Liquid sorbitol non crystallising: patients with hereditary fructose intolerance (HFI) should not take/be given **FLUSTAT® SYRUP.**
- Small amounts of ethanol (alcohol): less than 100 mg per dose.
- Sodium: This medicinal product contains 31 mg sodium per dosage unit equivalent to 1,55 % of the WHO recommended maximum daily intake of 2 g sodium for an adult."

4.5 Interaction with other medicines and other forms of interaction

Do not take this medicine if already receiving other medicines or with alcohol. **FLUSTAT® SYRUP** should not be given concomitantly with any monoamine-oxidase inhibitor, or within 14 days of stopping such treatment.

4.6 Fertility, pregnancy and lactation

The safety and efficacy of use during pregnancy and lactation has not been established. Therefore **FLUSTAT SYRUP** is not recommended during pregnancy and lactation.

4.7 Effects on ability to drive and use machines

Some patients may experience side effects such as dizziness, headaches and drowsiness.

Patients should be warned not to drive a motor vehicle, operate dangerous machinery or climb dangerous heights, as impaired decision making could lead to accidents.

4.8 Undesirable Effects

	Flustat Syrup		
	Phenylpropanolamine	**Paracetamol**	**Dextromethorphan hydrobromide**
Blood and the lymphatic system disorders:			
Frequency Unknown		Neutropaenia, pancytopaenia, leucopaenia	

Metabolism and Nutrition Disorders:			
Frequency Unknown			Mental confusion
Psychiatric Disorders:			
Frequency Unknown			
Nervous System Disorders:			
Frequency Unknown	Dizziness, Headache, tremor, anxiety, restlessness, insomnia		Drowsiness, dizziness, excitation
Skin and Subcutaneous tissue disorders:			
Frequency Unknown		Skin rashes (erythematous, urticarial or mucosal lesions) Risk of fixed drug eruptions and drug-induced hypersensitivity syndrome	
Musculoskeletal and connective tissue disorders:			
Frequency Unknown	Muscular weakness,		
Cardiac Disorders:			
Frequency Unknown	Tachycardia, precordial pain, palpitations, hypertension, ventricular arrhythmias		
Gastrointestinal disorders:			
Frequency Unknown	Nausea, vomiting		Nausea, vomiting, diarrhoea

Renal and Urinary disorders:			
Frequency Unknown	Sweating, thirst, difficulty micturition, prostatic enlargement		
General disorders and administrative site conditions:			
Frequency Unknown		Allergic reactions, drug fever	

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 Reaction Reporting Form", found online under SAHPRA's publications: https://www.sahpra.org.za/Publications/Index/8

4.9 Overdose

Paracetamol:

Prompt treatment is essential. In the event of an overdosage, consult a doctor immediately, or take the person directly to a hospital. A delay in starting treatment may mean that antidote is given too late to be effective. Evidence of liver damage is often delayed until after the time for effective treatment has lapsed.

Susceptibility to paracetamol toxicity is increased in patients who have taken repeated high doses (greater than 5 - 10 g/day) of paracetamol for several days, in chronic alcoholism, chronic liver disease, AIDS, malnutrition, and with the use of medicine that induce liver microsomal oxidation such as barbiturates, isoniazid, rifampicin, phenytoin and carbamazepime.

Symptoms of paracetamol overdosage in the first 24 hours include pallor, nausea, vomiting, anorexia and possibly abdominal pain. Mild symptoms during the first two days of acute poisoning, do not reflect the potential seriousness of the overdosage.

Liver damage may become apparent 12 to 48 hours, or later after ingestion, initially by elevation of the serum transaminase and lactic dehydrogenase activity, increased serum bilirubin concentration and prolongation of the prothrombin lime. Liver damage may lead to encephalopathy, coma and death.

Acute renal failure with acute tubular necrosis may develop even in the absence of severe liver damage. Abnormalities of glucose metabolism and metabolic acidosis may occur. Cardiac arrhythmias have been reported.

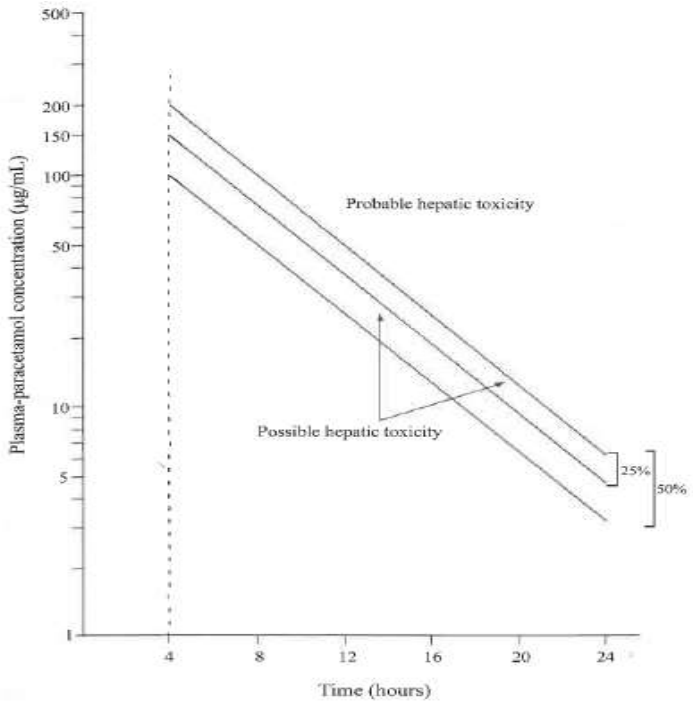
Treatment for paracetamol overdosage:

Ingestion of amounts of paracetamol smaller than 5 – 10 grams or more of paracetamol (or a child who has had more than 140 mg/kg) may require treatment in patients susceptible to paracetamol poisoning.

N-acetylcysteine should be administered to all cases of suspected overdose as soon as possible preferably within eight hours of overdosage, although treatment up to 36 hours after ingestion may still be of benefit, especially if more than 150 mg/kg of paracetamol was taken. An initial dose of 150 mg/kg N-acetylcysteine in 200 ml dextrose injection given **intravenously** over 15 minutes, followed by an infusion of 50 mg/kg in 500 ml dextrose injection over the next four hours, and then 100 mg/kg in 1 000 ml dextrose injection over the next sixteen hours. **The volume of intravenous fluid should be modified for children.**

Although the oral formulation is not the treatment of choice, 140 mg/kg dissolved in water may be administered Initially, followed by 70 mg/kg every tour hours for seventeen doses.

A plasma paracetamol level should be determined four hours after Ingestion In all cases of suspected overdosage. Levels done before four hours may be misleading. Patients at risk of liver damage, and hence requiring continued treatment with N-acetylcysteine, can be identified according to their 4-hour plasma paracetamol level. The plasma paracetamol level can be plotted against time since ingestion In the nomogram below.



Source: Martindale: The Complete Drug Reference -37th Edition.

The nomogram should be used only in relation to a single acute ingestion. Those whose plasma paracetamol levels are above the “normal treatment line”, should continue N-acetylcysteine treatment with 100 mg/kg IV over sixteen hours repeated until recovery. Patients with increased susceptibility lo liver damage as identified above, should continue

treatment if concentrations are above the "high risk treatment line". Prothrombin index correlates best with survival.

For overdose with an extended/modified release preparation the value of the nomogram is unknown. As there is no information on the plasma levels of paracetamol alter an overdose of extended/modified release paracetamol preparations, all patients with suspected or known overdose with such preparations should receive N-acetylcysteine.

Because of lack of data for extended/modified release formulations, a level below the "treatment line" of the nomogram may not exclude the possibility of toxicity. Monitor all patients with significant ingestions for at least ninety six hours.

Phenylpropanolamine hydrochloride: Symptoms of overdosage with phenylpropanolamine hydrochloride may include rapid pulse and respiration, disorientation, elevated blood pressure, tachycardia, mydriasis, headache, excitation of the central nervous system, nausea, vomiting and anorexia.
Treatment is essentially symptomatic and supportive. Immediate depletion of the stomach should be induced through emesis and gastric lavage.

Dextromethorphan hydrobromide: Symptoms of overdosage with dextromethorphan hydrobromide may include respiratory depression, excitation and confusion.
In the event of an overdosage, consult your doctor immediately, or take the patient to the nearest hospital at once. Specialised treatment is essential as soon as possible.

5. PHARMACOLOGICAL PROPERTIES

5.1 Pharmacodynamic properties

Category and class: A.5.8 - Preparation for the common cold including nasal decongestants.

Mechanism of action

FLUSTAT® SYRUP has analgesic, antipyretic, cough suppressant, and sympathomimetic properties.

6. PHARMACEUTICAL PARTICULARS

6.1 List of excipients

- Alcohol 96 %
- Castor sugar (sucrose),
- Citric acid monohydrate,
- Cherry menthol liquid,
- Nipastat,
- Propylene glycol,
- Purified water
- Sodium saccharin,
- Sodium citrate,
- Sorbitol solution 70 % w/w,
- Sunset yellow dye.

6.2 Incompatibilities

Not applicable

6.3 Shelf life

60 Months

6.4 Special precautions for storage

Store at or below 25 ºC, in a cool, dark place.

6.5 Nature and contents of container

100 ml and 200 ml containers.

6.6 Special precautions for disposal and other handling

Return all unused or expired medicines to your pharmacist for safe disposal. Do not dispose of unused medicines in drains or sewage systems (e.g. toilets)

7. HOLDER OF CERTIFICATE OF REGISTRATION

Ranbaxy Pharmaceuticals (Pty) Ltd

14 Lautre Road

Stormill Ext. 1

Roodepoort

1724

South Africa

8. REGISTRATION NUMBERS

28/5.8/0231 (S.A.)

NS1 04/5.8/1619 (Namibia)

PMPB/PL4/23 (Malawi) (100 ml)

9. DATE OF FIRST AUTHORISATION

27 May 1994.

10. DATE OF REVISION OF THE TEXT

30 September 2023