# AUSTRALIAN PRODUCT INFORMATION – MOVICOL® LEMON-LIME FLAVOUR (MACROGOL 3350 AND ELECTROLYTES) POWDER FOR ORAL SOLUTION

# 1 NAME OF THE MEDICINE

Macrogol 3350 and electrolytes (sodium chloride, sodium bicarbonate, potassium chloride).

# 2 QUALITATIVE AND QUANTITATIVE COMPOSITION

Each sachet of MOVICOL Lemon-Lime Flavour powder contains:

Macrogol 3350 13.125 g Sodium chloride 350.7 mg Sodium bicarbonate 178.5 mg Potassium chloride 46.6 mg

The content of electrolyte ions per sachet when made up to 125 mL is:

Sodium 65 mmol/L
Potassium 5.4 mmol/L
Chloride 53 mmol/L
Bicarbonate 17 mmol/L

### 3 PHARMACEUTICAL FORM

Powder for oral solution.

Free-flowing white powder with an odour of lemon-lime.

### 4 CLINICAL PARTICULARS

# 4.1 THERAPEUTIC INDICATIONS

For effective relief from constipation, treatment of chronic constipation. MOVICOL Lemon-Lime Flavour is also effective in resolving faecal impaction, defined as refractory constipation with faecal loading of the rectum and/or colon confirmed by physical examination of abdomen and rectum.

### 4.2 Dose and method of administration

**Constipation:** The dose is 1 sachet daily. This may be increased to 2-3 sachets daily, if required.

**Faecal Impaction:** 8 sachets daily, consumed within 6 hours. A course of treatment for faecal impaction does not normally exceed 3 days.

### Administration:

For oral administration. Each sachet should be dissolved in 125 mL water. For faecal impaction 8 sachets may be dissolved in 1 litre of water. Store reconstituted solution in a refrigerator and discard any solution not used within 6 hours.

# Patients with impaired cardiovascular function

For the treatment of faecal impaction the dose should be divided so that no more than two sachets are taken in any one hour.

# Patients with renal insufficiency

No dosage change is necessary for treatment of either constipation or faecal impaction.

### 4.3 CONTRAINDICATIONS

Intestinal perforation or obstruction due to structural or functional disorder of the gut wall, ileus and severe inflammatory conditions of the intestinal tract, such as Crohn's disease, ulcerative colitis and toxic megacolon.

Known hypersensitivity to macrogol or any of the ingredients.

# 4.4 SPECIAL WARNINGS AND PRECAUTIONS FOR USE

The fluid content of MOVICOL Lemon-Lime Flavour when re-constituted with water does not replace regular fluid intake and adequate fluid intake must be maintained.

Adverse reactions are possible as described under Section 4.8 Adverse Effects (Undesirable Effects). If patients develop any symptoms indicating shifts of fluid/electrolytes (eg. oedema, shortness of breath, increasing fatigue, dehydration, cardiac failure) MOVICOL Lemon-Lime Flavour should be stopped immediately and electrolytes measured, and any abnormality should be treated appropriately.

The absorption of other medicines could transiently be reduced due to a decrease in gastro-intestinal transit time induced by MOVICOL Lemon-Lime Flavour (Section 4.5 Interactions with other Medicines and other forms of interactions).

This medicinal product contains 187 mg of sodium per sachet, equivalent to 9.3% of the WHO recommended maximum daily intake of 2g sodium for an adult. The maximum daily dose of this product for constipation (ie. 3 sachets) is equivalent to 28% of the WHO recommended maximum daily intake for sodium. MOVICOL is considered high in sodium. This should be particularly taken into account for those on a low salt diet.

As with all laxatives, prolonged use is not usually recommended and may lead to dependence. If prolonged use is necessary, it should only be under medical supervision. Extended use may be necessary in the care of patients with severe chronic or resistant

constipation, secondary to multiple sclerosis or Parkinson's Disease, or induced by regular constipating medication, in particular opioids and antimuscarinics. Patients should be advised to drink plenty of water. They should also increase fibre in the diet, except in the case of medication-induced constipation.

# Use in the elderly

No data available.

### Paediatric use

MOVICOL paediatric dosages (the MOVICOL Junior range) are approved for use in children aged 2 years and above, for chronic constipation and faecal impaction only.

### Effects on laboratory tests

No data available.

### 4.5 Interactions with other medicines and other forms of interactions

There is a possibility that the absorption of other medicines could be transiently reduced during use with MOVICOL Lemon-Lime Flavour (see Section 4.4 Special warnings and precautions for use). There have been isolated reports of decreased efficacy with some concomitantly administered medicinal products, e.g. anti-epileptics.

A theoretical potential also exists for decreased absorption (rate and extent) of drugs which are generally poorly absorbed or are contained in sustained or modified release dosage forms. This is more likely to occur if MOVICOL Lemon-Lime Flavour is overdosed to induce watery diarrhoea.

MOVICOL Lemon-Lime Flavour may have a potential interactive effect when used with starch-based food thickeners. The macrogol ingredient counteracts the thickening effect of starch, effectively liquefying preparations that need to remain thick for people with swallowing problems.

### 4.6 FERTILITY, PREGNANCY AND LACTATION

### **Effects on fertility**

No data available.

# Use in pregnancy

Pregnancy Category B1: Drugs which have been taken by only a limited number of pregnant women and women of childbearing age, without an increase in the frequency of malformation or other direct or indirect harmful effects on the human fetus having been observed. Studies in animals have not shown evidence of an increased occurrence of fetal damage.

There were no direct embryotoxic or teratogenic effects in rats at maternally toxic doses up to 40 g/kg/day, 51x the maximum recommended dose in humans for chronic constipation and 19X for faecal impaction.

Indirect effects, including reduction in fetal and placental weights, reduced fetal viability and abortions, were noted in the rabbit at doses below the maximum recommended human dose. Rabbits are particularly sensitive to the effects of GI acting substances, and the findings are considered most likely a reflection of poor maternal condition as a result of an exaggerated pharmacodynamic response rather than direct embryofetal toxicity. There was no indication of a teratogenic effect.

### Use in lactation

No effects on the breastfed newborn/infant are anticipated since the systemic exposure of the breast-feeding woman to macrogol 3350 is negligible.

MOVICOL Lemon-Lime Flavour can be used during breast-feeding.

### 4.7 EFFECTS ON ABILITY TO DRIVE AND USE MACHINES

MOVICOL Lemon-Lime Flavour has no influence on the ability to drive or use machines.

# 4.8 ADVERSE EFFECTS (UNDESIRABLE EFFECTS)

Reactions related to the gastrointestinal tract occur most commonly. These reactions may occur as a consequence of expansion of the contents of the gastrointestinal tract, and an increase in motility due to the pharmacologic effects of MOVICOL Lemon-Lime Flavour. Diarrhoea usually responds to dose reduction.

System Order Class	Adverse Event
Immune system disorders	Allergic reactions, including anaphylactic reactions, dyspnoea, and skin reactions (see below).
Metabolism and nutrition disorders	Electrolyte disturbances, particularly hyperkalaemia and hypokalaemia.
Nervous system disorders	Headache.
Gastrointestinal disorders	Abdominal pain, diarrhoea, vomiting, nausea, dyspepsia, abdominal distension, borborygmi, flatulence, anorectal discomfort.
General disorders and administration site conditions	Peripheral oedema.
Skin and subcutaneous tissue disorders	Allergic skin reactions including angioedema, urticaria, pruritus, rash, erythema.

# Reporting suspected adverse effects

Reporting suspected adverse reactions after registration of the medicinal product is important. It allows continued monitoring of the benefit-risk balance of the medicinal product. Healthcare professionals are asked to report any suspected adverse reactions at <a href="https://www.tga.gov.au/reporting-problems">www.tga.gov.au/reporting-problems</a> in Australia or <a href="https://nzphvc.otago.ac.nz/reporting/">https://nzphvc.otago.ac.nz/reporting/</a> in New Zealand.

### 4.9 OVERDOSE

Severe pain or distension can be treated by nasogastric aspiration. Extensive fluid loss by diarrhoea or vomiting may require correction of electrolyte disturbances. For information on the management of overdose, contact the Poisons Information Centre on 13 11 26 (Australia) or the National Poisons Centre on 0800 POISON/0800 764766 (New Zealand).

# 5 PHARMACOLOGICAL PROPERTIES

### **5.1** PHARMACODYNAMIC PROPERTIES

### Mechanism of action

Macrogol 3350 exerts an osmotic action in the gut, which induces a laxative effect. Macrogol 3350 increases the stool volume, which triggers colon motility via neuromuscular pathways. The physiological consequence is an improved propulsive colonic transportation of the softened stools and a facilitation of defaecation. Electrolytes combined with macrogol 3350 are exchanged across the intestinal barrier (mucosa) with serum electrolytes and excreted in faecal water without net gain or loss of sodium, potassium and water.

The laxative action of macrogol has a time course which will vary according to the severity of the constipation being treated.

## **Clinical Trials**

Faecal Impaction – In a non-comparative study in 27 adult patients, MOVICOL cleared the faecal impaction in 12/27 (44%) after 1 day's treatment, 23/27 (85%) after 2 day's treatment and 24/27 (89%) at the end of 3 days. Controlled comparative studies have not been performed with other treatments (eg. enemas).

### 5.2 PHARMACOKINETIC PROPERTIES

Macrogol 3350 is unchanged along the gut. It is virtually unabsorbed from the gastrointestinal tract. Any macrogol 3350 that is absorbed is excreted via the urine.

### 5.3 Preclinical safety data

# Genotoxicity

Preclinical studies provide evidence that macrogol 3350 has no significant systemic toxicity potential, based on conventional studies of pharmacology, repeated dose toxicity, genotoxicity and toxicity to reproduction.

# **Carcinogenicity**

There are long-term animal toxicity and carcinogenicity studies involving macrogol 3350. Results from these and other toxicity studies using high levels of orally administered high molecular weight macrogols provide evidence of safety at the recommended therapeutic dose.

# 6 PHARMACEUTICAL PARTICULARS

### 6.1 LIST OF EXCIPIENTS

MOVICOL Lemon-Lime Flavour also contains acesulfame potassium (E950) and lemon and lime flavour (the flavour contains acacia solids, maltodextrin, lime oil, lemon oil, citral, and citric acid).

### 6.2 INCOMPATIBILITIES

Incompatibilities were either not assessed or not identified as part of the registration of this medicine.

### 6.3 SHELF LIFE

In Australia, information on the shelf life can be found on the public summary of the Australian Register of Therapeutic Goods (ARTG). The expiry date can be found on the packaging.

### 6.4 Special precautions for storage

Store below 25°C.

# 6.5 Nature and contents of container

Boxes of 8 sachets and 30 sachets.

### 6.6 SPECIAL PRECAUTIONS FOR DISPOSAL

In Australia, any unused medicine or waste material should be disposed of by taking to your local pharmacy.

# 6.7 PHYSICOCHEMICAL PROPERTIES

# **Chemical structure**

Macrogol 3350

Sodium chloride NaCl Sodium bicarbonate NaHCO<sub>3</sub> Potassium chloride KCl

# **CAS** number

Macrogol 3350 25322-68-3 Sodium chloride 7647-14-5 Sodium bicarbonate 144-55-8 Potassium chloride 7447-40-7

# 7 MEDICINE SCHEDULE (POISONS STANDARD)

Unscheduled

# 8 SPONSOR

Norgine Pty Ltd Suite 3.01 Building A 20 Rodborough Road Frenchs Forest NSW 2086

# 9 DATE OF FIRST APPROVAL

21 August 1997

# 10 DATE OF REVISION

29 October 2020

# **SUMMARY TABLE OF CHANGES**

Section Changed	Summary of new information
4.5	Added text "MOVICOL Lemon-Lime Flavour may have a potential interactive effect when used with starch-based food thickeners. The macrogol ingredient counteracts the thickening effect of starch, effectively liquefying preparations that need to remain thick for people with swallowing problems."