AUSTRALIAN PRODUCT INFORMATION – MOVICOL® LIQUID ORANGE FLAVOUR (MACROGOL 3350 AND ELECTROLYTES) CONCENTRATE FOR ORAL SOLUTION

1 NAME OF THE MEDICINE

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

2 QUALITATIVE AND QUANTITATIVE COMPOSITION

Each 25 mL of MOVICOL Liquid Orange Concentrate contains:

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

The concentration of electrolyte ions when 25 mL is made up with water to 125 mL is:

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

Excipients with known effect: sucralose, benzyl alcohol, methyl hydroxybenzoate, ethyl hydroxybenzoate.

For full list of excipients, see Section 6.1 List of Excipients.

3 PHARMACEUTICAL FORM

Liquid concentrate for oral solution.
Clear colourless liquid.

4 CLINICAL PARTICULARS

4.1 THERAPEUTIC INDICATIONS

For use in adults and children over 12 years of age for effective relief from constipation and treatment of chronic constipation. MOVICOL Liquid Orange Concentrate 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, in adults and children over 12 years of age.

4.2 DOSE AND METHOD OF ADMINISTRATION

The product must not be taken undiluted and may only be diluted in water. Measure 25 mL of MOVICOL Liquid Orange Concentrate with the 25 mL measuring cup provided, then

add this to 100 mL of water. Any unused diluted solution should be discarded within 24 hours.

Adults:
Constipation: 25 mL of MOVICOL Liquid Orange Concentrate added to 100 mL of water once daily (to make a total volume of 125 mL). This may be increased to 2 – 3 doses of 25 mL daily (each 25 mL dose added to 100 mL of water), if required according to individual response.

Faecal Impaction: 8 doses of 25 mL daily (each 25 mL dose added to 100 mL of water). A course of treatment for faecal impaction does not normally exceed 3 days.

Children:
MOVICOL Liquid Orange Concentrate is not recommended for use in children below the age of 12 years (see Section 4.4 Special warnings and precautions for use). Alternative MOVICOL Junior products are available for children.

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.

Also see Section 4.4 Special warnings and precautions for use.

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 Liquid Orange Concentrate 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 Liquid Orange Concentrate 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 Liquid Orange Concentrate (see Section 4.5 Interactions with other Medicines and other forms of interactions).

MOVICOL Liquid Orange Concentrate contains 187 mg of sodium in each diluted dose of 125mL, 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 doses) is equivalent to 28% of the WHO recommended maximum daily intake for sodium. MOVICOL Liquid Orange Concentrate is considered high in sodium. This should be particularly taken into account for those on a low salt diet.

Benzyl alcohol may cause anaphylactoid reactions. MOVICOL Liquid Orange Concentrate contains benzyl alcohol (45.6 mg/25 mL); if extended treatment is required for the management of constipation the maximum recommended dose of 3 times 25 mL dose per day should not be exceeded. The Acceptable Daily Intake of benzyl alcohol is 5 mg/kg. MOVICOL Liquid Orange Concentrate should be used with caution and only if necessary in pregnancy, lactation, liver or kidney impairment because of the risk of benzoic acid accumulation and toxicity (metabolic acidosis).

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
This product contains 45.6 mg of benzyl alcohol in each diluted dose of 125 mL. The maximum recommended daily dose of the product for constipation contains 136.8 mg of benzyl alcohol, and for faecal impaction contains 364.8 mg benzyl alcohol. This product should not be used in children 12 years of age or under because the safety of these amounts of benzyl alcohol in this age group has not been established. Alternative MOVICOL Junior products are available for children.

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 Liquid Orange Concentrate (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 Liquid Orange Concentrate is overdosed to induce watery diarrhoea.

MOVICOL Liquid Orange Concentrate 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

Refer to Section 4.4 Special warnings and precautions for use.

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 Liquid Orange Concentrate can be used during breast-feeding.

4.7 EFFECTS ON ABILITY TO DRIVE AND USE MACHINES

MOVICOL 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 Liquid Orange Concentrate. 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 www.tga.gov.au/reporting-problems in Australia.

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).

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 Liquid Orange Concentrate for oral solution also contains sucralose (E955), orange flavour (contains ethanol), acesulfame potassium (E950), water, and the following preservatives; benzyl alcohol 45.6mg per 25 mL, methyl hydroxybenzoate (E218) 11.3 mg per 25 mL, ethyl hydroxybenzoate (E214) 5.6 mg per 25 mL.

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 30°C. Any diluted solution should be discarded after 24 hours.

6.5 NATURE AND CONTENTS OF CONTAINER

MOVICOL Liquid Orange Concentrate for oral solution requires dilution before use. Each 25 mL contains 13.125 g of macrogol 3350 and electrolytes.

It is supplied in a 500 mL plastic bottle, with a clear plastic 25 mL measuring cup.

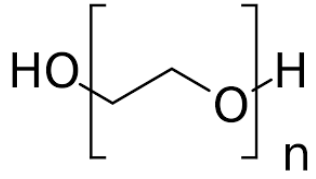
6.6 SPECIAL PRECAUTIONS FOR DISPOSAL

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 $NaHCO_3$
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)

S2 Pharmacy Medicine

8 SPONSOR

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

9 DATE OF FIRST APPROVAL

11 July 2013

10 DATE OF REVISION

29 October 2020

SUMMARY TABLE OF CHANGES

Section Changed	Summary of new information
4.5	Added text "MOVICOL Liquid Orange Concentrate 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."