

Summary of Product Characteristics

1 NAME OF THE MEDICINAL PRODUCT

Diclac Max Relief 2% w/w gel

2 QUALITATIVE AND QUANTITATIVE COMPOSITION

1 gram of gel contains diclofenac as 23.2 mg of diclofenac diethylamine corresponding to 20 mg of diclofenac sodium.

Excipient(s) with known effect: 1 gram of gel contains 50 mg of propylene glycol (E1520), 0.2 mg of butylhydroxytoluene (E321), up to 0.01 mg of hexyl benzoate, up to 0.001 mg citral and up to 0.001 mg eugenol.

For the full list of excipients, see section 6.1.

3 PHARMACEUTICAL FORM

Gel
Viscous white gel with characteristic fragrance with a pH between 6.5 – 8.0.

4 CLINICAL PARTICULARS

4.1 Therapeutic indications

Adults and adolescent aged 14 years and older:

For symptomatic treatment of local pain of mild to moderate intensity in connection with muscular- and joint injury, e.g. sporting injuries.

The medicine is intended for short-term treatment.

4.2 Posology and method of administration

Posology

Adults and adolescent aged 14 years and older

Diclac Max Relief 2% w/w gel is used 2 times a day (preferably morning and evening).

Depending on the size of the affected site to be treated, cherry to walnut size quantity is required, corresponding to 2-4 g of gel (46.4 - 92.8 mg diclofenac diethylamine salt) corresponding to 40-80 mg of diclofenac sodium. This is sufficient to treat an area of about 400-800 cm².

The maximum total daily dose is 8 g gel, corresponding to 185.6 mg diclofenac diethylamine (corresponding to 160 mg diclofenac sodium).

The duration of use depends on the symptoms, the underlying disease and the clinical response obtained.

This medicinal product should not be used for longer than 7 days without medical advice.

If symptoms have not improved or worsen after 7 days of treatment, a physician should be consulted.

Elderly patients (aged 65 years and older)

The usual adult dose may be used for the treatment of the elderly. Because of the potential undesirable effect profile, elderly people should be carefully monitored.

Renal impairment

No dose reduction is required in patients with renal impairment.

Hepatic impairment

No dose reduction is required in patients with hepatic impairment.

Pediatric population

There are insufficient data on efficacy and safety available for children and adolescents below 14 years of age (see also section 4.3).

Method of administration

For cutaneous use.

The gel is applied to the affected parts of the body thinly and gently rubbed into the skin. Afterwards, the hands should be wiped with paper towel and then washed, unless the hands are the area to be treated.

If too much gel is accidentally applied, the excess gel should be wiped with a paper towel.

The paper towel should be disposed in the household waste to prevent unused product reaching the aquatic environment.

Before applying a bandage (see also section 4.4), the gel should be left dry for a few minutes on the skin.

4.3 Contraindications

- Hypersensitivity to the active substance or to any of the excipients listed in section 6.1
- In patients with a history of hypersensitivity reactions, such as asthma, urticaria, angioedema or acute rhinitis in response to acetylsalicylic acid or non-steroidal anti-inflammatory drugs (NSAIDs)
- Third trimester of pregnancy
- In children and adolescents below 14 years of age.

4.4 Special warnings and precautions for use

The possibility of systemic adverse reactions (associated with the systemic formulas of diclofenac) should be considered, if the preparation is used in higher doses and for longer periods than recommended (see section 4.2).

This medicinal product must only be applied to intact, not diseased or injured skin. Eyes and mucous membranes must not come into contact with the medicinal product, and it must not be taken orally (see sections 4.2).

If a skin rash occurs during the treatment with diclofenac, the treatment should be discontinued.

During treatment photosensitivity can occur with the appearance of skin reactions after exposition to sunlight.

Topical diclofenac may be used with non-occlusive bandages but not with an airtight occlusive dressing.

Do not use on extensive/large body areas. Use only on the affected localized body parts.

Information about excipients:

Diclac Max Relief 2% w/w gel contains:

- 50 mg of propylene glycol (E1520) in each gram of the gel, which may cause skin irritation.
- 0.2 mg butylhydroxytoluene (E321) in each gram of the gel, which may cause local skin reactions (e.g. contact dermatitis), or irritation to the eyes and mucous membranes.
- up to 0.01 mg hexyl benzoate in each gram of the gel, which may cause local irritation.
- fragrance with citral, eugenol, which may cause allergic reaction. In addition to allergic reactions in sensitised patients, non-sensitised patients may become sensitised.

4.5 Interaction with other medicinal products and other forms of interaction

Since the systemic absorption of diclofenac is very low with topical application, the likelihood of interactions is low in use as intended.

4.6 Fertility, pregnancy and lactation

The systemic concentration of diclofenac is lower after topical administration, compared to oral formulations. With reference to experience from treatment with non-steroidal anti-inflammatory drugs (NSAIDs) with systemic uptake, the following is recommended:

Pregnancy

Inhibition of prostaglandin synthesis may adversely affect the pregnancy and/or the embryo/foetal development. Data from epidemiological studies suggest an increased risk of miscarriage and of cardiac malformation and gastroschisis after use of a prostaglandin synthesis inhibitor in early pregnancy. The absolute risk for cardiovascular malformation was increased from less than 1%, up to approximately 1.5%. The risk is expected to increase with the dose and duration of therapy. In animals, administration of a prostaglandin synthesis inhibitor has been shown to result in increased pre- and post-implantation loss and embryo-foetal lethality. In addition, increased incidences of various malformations, including cardiovascular, have been reported in animals given a prostaglandin synthesis inhibitor during the organogenetic period (see section 5.3).

There are no clinical data from the use of diclofenac during pregnancy. Even if systemic exposure is lower compared with oral administration, it is not known if the systemic diclofenac exposure reached after topical administration can be harmful to an embryo/fetus. During the first and second trimester of pregnancy, diclofenac should not be used unless clearly necessary. If used, the dose should be kept as low and duration of treatment as short as possible.

During the third trimester of pregnancy, systemic use of prostaglandin synthetase inhibitors including diclofenac may induce cardiopulmonary and renal toxicity in the fetus. At the end of the pregnancy prolonged bleeding time in both mother and child may occur, and labour can be delayed. Therefore, diclofenac is contraindicated during the last trimester of pregnancy (see Section 4.3).

Breast-feeding

Diclofenac passes into breast milk in small amounts. However, at therapeutic doses of diclofenac gel no effects on the breast-fed infant are anticipated. Because of a lack of controlled studies in breast-feeding women, the medicinal product should only be used during breast-feeding under advice from a physician. Under this circumstance, diclofenac gel should not be applied to the breasts of breast-feeding mothers, nor elsewhere on large areas of skin or for a prolonged period of time.

4.7 Effects on ability to drive and use machines

The topical use of diclofenac has no or negligible influence on the ability to drive and use machines.

4.8 Undesirable effects

Adverse reactions are listed below by system organ class and frequency. Frequencies are defined as: Very common ($\geq 1/10$); Common ($\geq 1/100$, $< 1/10$); Uncommon ($\geq 1/1\,000$, $< 1/100$); Rare ($\geq 1/10\,000$, $< 1/1\,000$); Very rare ($< 1/10\,000$), not known (cannot be estimated from the available data). Within each frequency grouping, adverse drug reactions are presented in order of decreasing seriousness.

Infections and infestations	
Very rare:	Pustular rash
Immune system disorders	
Very rare:	Hypersensitivity (including urticaria), angioedema
Respiratory, thoracic and mediastinal disorders	
Very rare:	Asthma
Skin and subcutaneous tissue disorders	
Common:	Dermatitis (including contact dermatitis), rash, erythema, eczema, pruritus
Rare:	Bullous dermatitis
Very rare:	Photosensitivity reaction

The possibility of systemic adverse reactions (e.g. renal, hepatic or gastrointestinal undesirable effects, systemic hypersensitivity reactions) cannot be excluded when this medicinal product is applied to large areas of skin or over a prolonged period of time.

Reporting of suspected adverse reactions

Reporting suspected adverse reactions after authorisation 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 via the national reporting system: HPRA Pharmacovigilance; website: www.hpra.ie.

4.9 Overdose

Due to the low systemic absorption of topical diclofenac an overdose is unlikely. If the recommended dose is significantly exceeded, the gel should be removed from the skin and washed off with water.

Undesirable effects similar to those observed following an overdose of systemic diclofenac can occur if diclofenac gel is inadvertently ingested (1 tube of 50 g contains the active substance equivalent of 1 000 mg diclofenac sodium).

In the event of accidental ingestion resulting in significant systemic adverse reactions, general therapeutic measures normally adopted to treat poisoning with non-steroidal anti-inflammatory drugs should be used. Gastric lavage and the use of activated charcoal should be considered, especially within a short time of ingestion.

A specific antidote is not known.

5 PHARMACOLOGICAL PROPERTIES

5.1 Pharmacodynamic properties

Pharmacotherapeutic group: Topical products for joint and muscular pain; Anti-inflammatory preparations, non-steroids for topical use

ATC code: M02AA15

Mechanism of action

Diclofenac is a potent non-steroidal anti-inflammatory drug. It develops its therapeutic efficacy primarily via the inhibition of prostaglandin synthesis by cyclooxygenase-2 (COX-2). Diclofenac has been shown to be effective by inhibiting prostaglandin synthesis in the usual animal models of inflammation. In humans, diclofenac reduces pain, swelling and fever caused by inflammation. Furthermore, diclofenac reversibly inhibits ADP- and collagen-induced platelet aggregation.

Clinical efficacy

In a clinical study in patients with ankle sprain (VOPO-P-307) 23.2 mg diclofenac diethylamine/g gel reduced pain (pain on movement). The primary endpoint, i.e. VAS at day 4, decreased by 49 mm on the 100 mm Visual Analogue Scale based to the evaluation of patients treated with 23.2 mg of diclofenac diethylamine salt/g gel, compared to a 25 mm decrease seen in patients treated with placebo ($p < 0.0001$). The median time necessary to reduce pain experienced during movement by 50% was 4 days with diclofenac gel treatment and 8 days with placebo ($p < 0.0001$).

5.2 Pharmacokinetic properties

Absorption

The quantity of diclofenac absorbed through the skin is proportional to the size of the treated area, and depends on both the total dose applied and the degree of skin hydration. After topical application of the 23.2 mg of diclofenac diethylamine salt/g gel two times a day to approximately 400 cm² of skin, the extent of systemic exposure as determined by plasma concentrations of the active substance was equivalent to diclofenac 10 mg/g gel, applied four times daily. The relative bioavailability of diclofenac (calculated from the ratio of AUC values) for the 23.2 mg of diclofenac diethylamine salt/g gel versus tablet was 4.5% on day 7 of treatment, for equivalent diclofenac sodium doses. The absorption rate was not modified by placing a moisture and vapour permeable dressing on the treated area.

Distribution

Diclofenac concentrations have been measured from plasma, synovial tissue and synovial fluid after application of topical diclofenac to hand and knee joints. Maximum plasma concentrations were approximately 100 times lower than after oral administration of the same quantity of diclofenac.

99.7% of diclofenac is bound to serum proteins, mainly albumin (99.4%).

Biotransformation

Biotransformation of diclofenac involves partly glucuronidation of the intact molecule, but mainly single and multiple hydroxylation resulting in several phenolic metabolites, most of which are converted to glucuronide conjugates. Two of the phenolic metabolites are biologically active, however, to a much smaller extent than diclofenac.

Elimination

The total systemic clearance of diclofenac from plasma is 263 ± 56 ml/min. The terminal plasma half-life is 1-2 hours. Four of the metabolites, including the two active ones, also have short plasma half-lives of 1-3 hours. One metabolite, 3'-hydroxy-4'-methoxy-diclofenac, has a longer half-life but is virtually inactive. Diclofenac and its metabolites are excreted mainly in the urine.

Renal and hepatic impairment

No accumulation of diclofenac and its metabolites is to be expected in patients suffering from renal impairment.

In patients with chronic hepatitis or compensated cirrhosis, the kinetics and metabolism of diclofenac are the same as in patients without liver disease.

5.3 Preclinical safety data

Based on conventional studies on safety pharmacology, genotoxicity and carcinogenic potential, the pre-clinical data do not reveal any specific hazards for humans apart from those already described in other sections of this SmPC. In the animal studies the chronic toxicity of diclofenac following systemic application mainly manifested as gastrointestinal lesions and ulcers. In a 2-year toxicity study, a dose-dependent increase in the incidence of thrombosis of the heart was observed in diclofenac-treated rats.

In animal studies on reproductive toxicity, systemically administered diclofenac caused inhibition of ovulation in rabbits and impairment of implantation and early embryonic development in rats.

Gestation and duration of parturition were prolonged by diclofenac. The embryotoxic potential of diclofenac was investigated in three animal species (rat, mouse, rabbit). Fetal death and growth retardation occurred at materno-toxic dose levels. Based on the available non-clinical data, diclofenac is regarded as being non-teratogenic. Doses below the maternotoxic threshold had no impact on the postnatal development of the offspring.

6 PHARMACEUTICAL PARTICULARS

6.1 List of excipients

Propylene glycol (E1520)
Oleyl alcohol
Isopropyl alcohol
Butylhydroxytoluene (E321)
Diethylamine
Paraffin light liquid
Macrogol cetostearyl ether
Carbomer 980 F
Cocoyl caprylocaprate
Perfume cream 45399 (containing hexyl benzoate, citral, eugenol)
Purified water

6.2 Incompatibilities

Not applicable.

6.3 Shelf life

2 years.

6.4 Special precautions for storage

Store below 25°C. Do not refrigerate or freeze.

6.5 Nature and contents of container

The gel is packed in an aluminium laminate tube with an HDPE shoulder sealed with a top seal and a polypropylene cap.

Pack sizes: tubes of 50 g, 100 g, 150 g and 180 g. Not all pack sizes may be marketed.

6.6 Special precautions for disposal and other handling

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

7 MARKETING AUTHORISATION HOLDER

Rowex Ltd
Newtown
Bantry
Co. Cork
Ireland

8 MARKETING AUTHORISATION NUMBER

PA0711/331/001

9 DATE OF FIRST AUTHORISATION/RENEWAL OF THE AUTHORISATION

Date of first authorisation: 23rd May 2025

10 DATE OF REVISION OF THE TEXT