# Summary of Product Characteristics

## 1 NAME OF THE MEDICINAL PRODUCT

ALUTARD SQ Wasp Initial Pack (100 SQ-U/ml, 1 000 SQ-U/ml, 10 000 SQ-U/ml and 100 000 SQ-U/ml) suspension for injection

## 2 QUALITATIVE AND QUANTITATIVE COMPOSITION

ALUTARD SQ Wasp contains allergen from wasp venom (*Vespula* spp.) adsorbed to aluminium hydroxide, hydrated. The wasp venom species included in the mixture are: *Vespula germanica, Vespula alascensis, Vespula maculifrons, Vespula flavopilosa, Vespula pensylvanica* and *Vespula Squamosa*.

The biological activity of ALUTARD SQ Wasp is related to the concentration of the allergen and is expressed in SQ-U/ml. The vials are distinguished by differently coloured vial numbers.

Table 1: Vial number and strength

| Vial No.<br>(Colour code) | Strength (SQ-U/ml) | Aluminium content in adjuvant (mg/ml) |
|---|---|---|
| 1 (Grey) | 100 | 0.00113 |
| 2 (Green) | 1000 | 0.0113 |
| 3 (Orange) | 10 000 | 0.113 |
| 4 (Red) | 100 000 | 1.13 |

For a full list of excipients, see section 6.1.

## 3 PHARMACEUTICAL FORM

Suspension for injection.

Clear liquid with or without a precipitate. The precipitate might be white to faintly brown or green.

## 4 CLINICAL PARTICULARS

### 4.1 Therapeutic Indications

Allergy immunotherapy for patients with a documented history of generalised and/or systemic IgE-mediated allergic reactions due to sensitisation to wasp venom (*Vespula* spp.), confirmed by skin prick test and/or intradermal test and/or specific IgE test.

### 4.2 Posology and method of administration

Treatment with ALUTARD SQ Wasp should be carried out under the supervision of a doctor experienced in specific immunotherapy. After each injection, the patient must be observed for at least 30 minutes.

*Posology*
The treatment is divided into two phases; an up-dosing phase and a maintenance phase. The aim is to gradually increase the dose until the highest tolerated maintenance dose is reached. The highest recommended maintenance dose is 1 ml of 100 000 SQ-U/ml (vial 4). The dosing of ALUTARD SQ Wasp must always be adjusted according to the allergenic anamnesis and the patient's sensitivity to the specific allergen (see 4.4).

Up-dosing phase:
Recommendations for up-dosing are given in table 2, 3 and 4. The recommendations given in the tables are to be considered as a guidance. The patient should be informed that local and general reactions may occur during the up-dosing phase (see section 4.8). The choice of up-dosing schedule depends on the patient's sensitivity since the risk of developing allergic reactions is reduced with a slow up-dosing.

Table 2: 7-week up-dosing (cluster) which is recommended in cases when there is a need for faster protection

| Vial no | Strength SQ-U/ml | Week no | Injection no | Volume ml | Dosage SQ-U |
|---|---|---|---|---|---|
| 1 | 100 | 1 | 1 | 0.1 | 10 |
| 2 | 1 000 | | 2 | 0.1 | 100 |
| 3 | 10 000 | | 3 | 0.1 | 1 000 |
| | 10 000 | 2 | 4 | 0.2 | 2 000 |
| | 10 000 | | 5 | 0.2 | 2 000 |
| | 10 000 | 3 | 6 | 0.5 | 5 000 |
| | 10 000 | | 7 | 0.5 | 5 000 |
| 4 | 100 000 | 4 | 8 | 0.2 | 20 000 |
| | 100 000 | 5 | 9 | 0.4 | 40 000 |
| | 100 000 | 6 | 10 | 0.6 | 60 000 |
| | 100 000 | 7 | 11 | 1.0 | 100 000 |

Table 3: 15-week up-dosing (conventional) which is suitable for the majority of patients

| Vial no | Strength SQ-U/ml | Week no | Injection no | Volume ml | Dosage SQ-U |
|---|---|---|---|---|---|
| 1 | 100 | 1 | 1 | 0.2 | 20 |
| | 100 | 2 | 2 | 0.4 | 40 |
| | 100 | 3 | 3 | 0.8 | 80 |
| 2 | 1 000 | 4 | 4 | 0.2 | 200 |
| | 1 000 | 5 | 5 | 0.4 | 400 |
| | 1 000 | 6 | 6 | 0.8 | 800 |
| 3 | 10 000 | 7 | 7 | 0.2 | 2 000 |
| | 10 000 | 8 | 8 | 0.4 | 4 000 |
| | 10 000 | 9 | 9 | 0.8 | 8 000 |
| 4 | 100 000 | 10 | 10 | 0.1 | 10 000 |
| | 100 000 | 11 | 11 | 0.2 | 20 000 |
| | 100 000 | 12 | 12 | 0.4 | 40 000 |
| | 100 000 | 13 | 13 | 0.6 | 60 000 |
| | 100 000 | 14 | 14 | 0.8 | 80 000 |
| | 100 000 | 15 | 15 | 1.0 | 100 000 |

Table 4: 25-week up-dosing (extended conventional) recommended for sensitive patients.

| **Vial no** | **Strength SQ-U/ml** | **Week no** | **Injection no** | **Volume ml** | **Dosage SQ-U** |
|---|---|---|---|---|---|
| 1 | 100 | 1 | 1 | 0.2 | 20 |
| | 100 | 2 | 2 | 0.4 | 40 |
| | 100 | 3 | 3 | 0.8 | 80 |
| 2 | 1 000 | 4 | 4 | 0.2 | 200 |
| | 1 000 | 5 | 5 | 0.4 | 400 |
| | 1 000 | 6 | 6 | 0.8 | 800 |
| 3 | 10 000 | 7 | 7 | 0.1 | 1 000 |
| | 10 000 | 8 | 8 | 0.2 | 2 000 |
| | 10 000 | 9 | 9 | 0.3 | 3 000 |
| | 10 000 | 10 | 10 | 0.4 | 4 000 |
| | 10 000 | 11 | 11 | 0.5 | 5 000 |
| | 10 000 | 12 | 12 | 0.6 | 6 000 |
| | 10 000 | 13 | 13 | 0.7 | 7 000 |
| | 10 000 | 14 | 14 | 0.8 | 8 000 |
| | 10 000 | 15 | 15 | 0.9 | 9 000 |
| 4 | 100 000 | 16 | 16 | 0.1 | 10 000 |
| | 100 000 | 17 | 17 | 0.2 | 20 000 |
| | 100 000 | 18 | 18 | 0.3 | 30 000 |
| | 100 000 | 19 | 19 | 0.4 | 40 000 |
| | 100 000 | 20 | 20 | 0.5 | 50 000 |

| | | | | | |
|---|---|---|---|---|---|
| | 100 000 | 21 | 21 | 0.6 | 60 000 |
| | 100 000 | 22 | 22 | 0.7 | 70 000 |
| | 100 000 | 23 | 23 | 0.8 | 80 000 |
| | 100 000 | 24 | 24 | 0.9 | 90 000 |
| | 100 000 | 25 | 25 | 1.0 | 100 000 |

Maintenance phase:
When the maintenance dose is reached, the interval between injections is gradually increased. The interval is increased from 1 to 2, 4 and 6 to 8 weeks. Subsequently, the injections are given every 6 to 8 weeks. The maintenance treatment is continued for 3-5 years.

If the patient responds with severe allergic reactions during the up-dosing phase, it is possible that the highest recommended dose of 100 000 SQ-U is not reached. A lower dose should then be considered as the maximal tolerated dose for the patient, and this will be the maintenance dose.

ALUTARD SQ Wasp is not interchangeable with other venom immunotherapy products, but, if available on the market, Aquagen SQ *Vespula* spp. or Pharmalgen *Vespula* spp. (ALK manufacturing) can be used in the up-dosing phase before switching to ALUTARD SQ Wasp for the maintenance phase.

Exceeded time interval between two visits
If the recommended time interval between visits has been exceeded, the dosing of the following injection is handled according to the following recommendation:

Table 5: Exceeded time interval between two visits during the up-dosing phase

| Weeks between visits | Dosage |
|---|---|
| Up to 2 weeks | Continue up-dosing according to table 2, 3 or 4 |
| 2 - 3 weeks | Repeat previous dose |
| 3 - 4 weeks | Reduce to 50 % of previous dose |
| 4 weeks or more | Restart up-dosing according to table 2, 3 or 4 |

Table 6: Exceeded time interval between two visits during the maintenance phase

| Weeks between visits | Dosage |
|---|---|
| Up to 8 weeks | Continue with the maintenance dose |
| 8 - 10 weeks | Reduce to 75 % of previous dose |
| 10 - 12 weeks | Reduce to 50 % of previous dose |
| 12 – 14 weeks | Reduce to 25 % of previous dose |
| 14 - 16 weeks | Reduce to 10 % of previous dose |
| 16 weeks or more | Restart up-dosing according to table 2, 3 or 4 |

In case of a dose reduction in the maintenance phase, the patient must be carefully observed after the injection. Subsequently, up-dose according to the recommendations in table 2, 3 or 4 until the maximal maintenance dose is reached.

Concomitant treatment with more than one allergen
In case of treatment with more than one allergen concomitantly, the injections should be given in different locations on the arm. In order to evaluate possible allergic reactions caused by the specific allergen it is recommended to give the injections with a 30 minute interval.

Dose reduction in case of allergic reactions

*Dose reductions in case of local reactions*
If an injection site reaction persists for more than 6 hours after the injection, the following dose reduction is recommended depending on the size of the swelling:

Table 7: Recommended dose-reduction in case of local adverse events

| Maximum diameter of swelling | | Recommended dose reduction |
|---|---|---|
| Children | Adults | |
| < 5 cm | < 8 cm | Continue up-ward titration according to schedule (table 2, 3 or 4) |
| 5-7 cm | 8-12 cm | Repeat dose last given |

| | | |
|---|---|---|
| 7-12 cm | 12-20 cm | Reduce dose to dose given the time before last |
| 12-17 cm | >20 cm | Reduce dose to dose given 2 times before last |
| >17 cm | - | Reduce dose to dose given 3 times before last |

*Dose reduction in case of systemic reactions*
If a serious systemic reaction (see section 4.8) occurs after injection, the treatment should only be continued after careful consideration. If the treatment is continued, the following dose should be reduced to 10% of the dose provoking the reaction.

The chosen reduced dose can be split into two injections given with a 30 minute interval. The patient should be observed after the injections. Subsequently, up-dose according to recommendations in table 2, 3 or 4 until the maximal tolerated dose or 100 000 SQ-U is reached.

*Elderly population*
No additional dose adjustment is required in the elderly population.

*Paediatric population*
No additional dose adjustment is required in the paediatric population. See section 4.4.

*Method of administration*
After each injection, the patient must be observed for at least 30 minutes. On the day of injection the patient must avoid physical exercise, hot baths and alcohol as these co-factors may potentially amplify an anaphylactic reaction.

ALUTARD SQ Wasp is administered subcutaneously. The vials must be inverted up and down 10 - 20 times before use. The injection is given either laterally in the distal part of the upper arm or dorsally in the proximal part of the forearm.
Avoid intravascular injection by careful aspiration before injection. Aspiration must be repeated for every 0.2 ml during the injection and the injection must be given slowly. An anaphylactic emergency kit must be available while using ALUTARD SQ Wasp. Please refer to section 4.4 for warnings and precaution in relation to treatment.

Precautions in relation to administrations

The injection should be postponed:
- If the patient has a fever or shows other clinical signs of a chronic or acute infection.
- If the patient has an atopic dermatitis that has exacerbated.
- If the patient has had an allergic reaction within the last 3-4 days prior to the injection.
- If other kinds of vaccinations have been given, wait at least a week before treatment with ALUTARD SQ is continued. Other vaccinations should not be given earlier than a week after an ALUTARD SQ injection.

Before injection:
- Double check the allergen, concentration, volume and previous injection date (dosing interval), prior to each injection.
- ALUTARD SQ Wasp is intended for subcutaneous injection. Intravenous administration must be avoided due to the increased risk of allergic reactions.
- Allergic reactions (both local and systemic) which occurred during the previous injections should be recorded and the dose should be assessed on the basis of this.
- Pre-treatment with H1 antihistamines should be considered in the up-dosing phase for patients who experience large local reactions or systemic allergic reactions.
- The patient's state of health and allergy status must be evaluated as well as any changes of other medication since the last administered injection (see section 4.4 and 4.5).
- The asthma status, in patients with a medical history of asthma, must be evaluated prior to injection (see section 4.4).

After injection:
- The patient must be advised to consult a doctor or emergency room immediately in case of severe systemic delayed reactions.
- The patient must be advised to observe any local or systemic reactions that may occur subsequently, and to inform the attending doctor at the next visit.
- Any allergic reactions (both local and systemic) should be recorded before the patient leaves the clinic.

**4.3 Contraindications**

- Hypersensitivity to any of the excipients listed in section 6.1.
- Patients with active or poorly controlled systemic autoimmune diseases and immunodeficiency disorders.
- Patients with disorders or conditions where an induced anaphylactic reaction imply an unacceptable risk such as severe cardiovascular disease.
- Asthma patients at risk of exacerbation and/or with inadequate symptom control defined as the presence of:
loss of symptom control within the last four weeks (e.g. increase in daytime symptoms, nightly wakening, increased need of medication, activity limitations).

**4.4 Special warnings and precautions for use**

Severe systemic allergic reactions
Due to the risk of serious allergic reactions, immediate access to full resuscitation equipment and drugs must be available, including adrenaline for injection and staff trained in the use thereof. If symptoms of a systemic reaction, such as urticaria, angioedema or severe asthma, occur, symptomatic treatment should be initiated immediately (see section 4.2 and 4.8).

Cardiovascular diseases
Patients with cardiac diseases may be at increased risk in case of systemic allergic reactions. Patients with cardiovascular diseases must be sufficiently treated for the underlying condition prior to the initiation of ALUTARD SQ Wasp treatment. In connection with the treatment with ALUTARD SQ Wasp special attention should be given. See section 4.3 Clinical experience in treatment with ALUTARD SQ Wasp of patients with cardiac diseases is limited.

Autoimmune diseases
There are no controlled studies on the influence of autoimmune disorders on the efficacy of allergy immunotherapy (AIT), or on autoimmune disorders as a predisposing factor for severe side effects during AIT. AIT may only be initiated in patients with autoimmune diseases in case of disease remission or well-adjusted therapy. ALUTARD SQ Wasp should therefore be prescribed with caution in these patients.

Malignant neoplastic diseases
There are no controlled studies on the influence of malignant neoplastic diseases on the efficacy of AIT, or on malignant neoplastic diseases as a predisposing factor for severe side effects during ALUTARD SQ Wasp immunotherapy. AIT may only be initiated when the malignant disease is stable. In case of aggravation treatment with ALUTARD SQ Wasp should be discontinued. ALUTARD SQ Wasp should therefore be prescribed with caution in these patients.

Mastocytosis
Patients with increased baseline serum tryptase and/or mastocytosis may be at an increased risk of developing systemic allergic reactions and the severity of these may be increased. Patients with mastocytosis should therefore be monitored carefully during treatment with ALUTARD SQ Wasp. Patients with mastocytosis may expect less efficacy of treatment compared with the general insect venom allergic population.

Treatment with ACE-inhibitors
Patients simultaneously treated with ACE inhibitors may be at higher risk of developing more severe anaphylactic reactions and should therefore be carefully monitored during the up-dosing phase. Temporarily interrupting the ACE inhibitor treatment (based on the half-life of the ACE inhibitor) should be considered carefully in relation to the advantages of immunotherapy in the individual patient. ACE inhibitors might reduce the effect of ALUTARD SQ Wasp.

Treatment with MAO-inhibitors, COMT- inhibitors or beta-blockers
One option for treating severe systemic allergic reactions is adrenaline. The effects of adrenaline may be potentiated in patients treated with tricyclic antidepressants, monoamine oxidase inhibitors (MAOIs) and/or COMT inhibitors with possible fatal consequences. The effects of adrenaline may be reduced in patients treated with beta-blockers. In addition, the effects of adrenaline may exacerbate cardiovascular disease, e.g .cause cardiac arrhythmia. Patients in treatment with beta-blockers should be carefully monitored during the up-dosing phase.

Asthma
Asthma is a known risk factor for severe systemic allergic reactions. In patients with asthma, the asthma symptoms should be adequately controlled prior to the initiation of ALUTARD SQ Wasp treatment. In connection with the treatment with ALUTARD SQ Wasp special attention should be given.The patient´s asthma condition must be assessed prior to each injection (see section 4.3).

Patients must be informed of the need to seek medical attention immediately if their asthma suddenly deteriorates. Clinical experience in treatment with ALUTARD SQ Wasp of patients with asthma is limited.

Other populations (including patients with renal dysfunction)
As ALUTARD SQ Wasp contains aluminium, there is a theoretical risk of aluminium accumulation in patients at high risk (i.e. patients with renal dysfunction and patients concomitantly treated with other aluminium containing drugs (e.g. antacids)). This should be considered when initiating therapy with ALUTARD SQ Wasp.

Paediatric population
Special care should be given to the risk-benefit assessment with regard to the treatment of children younger than 5 years of age. For children $^{3}$ 5 years of age, clinical data of efficacy are sparse, however data on safety do not reveal a higher risk as for adults. A risk-benefit assessment with regard to the treatment of children ≥ 5 years of age is also recommended.

Co-administration with other AIT
No clinical experience on co-administration with other types of allergy immunotherapy is available.

This medicinal product contains less than 1 mmol sodium (23mg) per dose, i.e essentially 'sodium-free'.

**4.5 Interaction with other medicinal products and other forms of interactions**

No interaction studies have been conducted in humans and no potential drug interactions have been identified from any source. Concomitant treatment with symptomatic anti-allergy medications, e. g. antihistamines, corticosteroids and mast cell stabilisers may increase the patient's tolerance level towards the allergen injections. This should be considered at discontinuation of such medications.

For information considering concomitant use of ACE inhibitors, MAOIs, COMT inhibitors, beta-blockers and antacids see section 4.4.

**4.6 Fertility, pregnancy and lactation**

*Pregnancy*
There is no clinical experience of the use of ALUTARD SQ Wasp during pregnancy. Up-dosing treatment should not be initiated during pregnancy. If pregnancy occurs during maintenance treatment, the maintenance treatment may continue after a careful evaluation of the patient's general condition and reactions to previous injections with ALUTARD SQ Wasp.

*Breastfeeding*
No clinical data is available on the use of ALUTARD SQ Wasp during breastfeeding. No effects on the breastfed infants are anticipated.

*Fertility*
There are no clinical data available related to the effect of ALUTARD SQ Wasp on fertility.

**4.7 Effects on ability to drive and use machines**

ALUTARD SQ Wasp may in some cases influence the ability to drive or use machines due to the side effect vertigo.

**4.8 Undesirable effects**

*Summary of the safety profile*
Generally, reactions appearing in connection with ALUTARD SQ Wasp treatment occur due to an immunological reaction (local and /or systemic) to wasp venom.

Symptoms of an immediate reaction appear within the first 30 minutes after the injection. Symptoms of a delayed reaction appear within the first 24 hours after the injection.

Commonly reported adverse reactions in patients treated with ALUTARD SQ Wasp are local reactions at the injection site.

The most serious adverse drug reaction occurring in patients treated with ALUTARD SQ Wasp is anaphylactic shock.As it is a life threatening condition, it demands immediate treatment.

*Tabulated list of adverse reactions*
Data from clinical trials with ALUTARD SQ Wasp are limited. Therefore, the following table is based on adverse drug reactions for the product reported spontaneously from the market. The frequency is not known (cannot be estimated from the available data).

| **System Organ Class** | **Adverse Drug Reaction** | **Frequency** |
|---|---|---|
| Immune system disorders | Systemic allergic reactions including anaphylactic shock | Not known |
| Nervous system disorder | Headache, dizziness, paraesthesia | Not known |
| Eye disorders | Eyelid oedema, eye pruritus | Not known |
| Ear and labyrinth disorders | Vertigo | Not known |
| Cardiac disorders | Tachycardia, palpitations | Not known |
| Vascular disorders | Hypotension, pallor, flushing | Not known |
| Respiratory, thoracic and mediastinal disorders | Throat tightness, wheezing, cough, dyspnoea, asthma, throat irritation | Not known |
| Gastrointestinal disorders | Dysphagia, diarrhoea, vomiting, nausea, abdominal pain | Not known |
| Skin and subcutaneous tissue disorders | Urticaria, pruritus, rash, erythema, angioedema, swollen face | Not known |
| Musculoskeletal and connective tissue disorders | Arthralgia, Joint swelling | Not known |
| General disorders and administration site conditions | Injection site swelling, injection site urticaria, injection site discolouration, injection site nodule, injection site pain, injection site granuloma, injection site haematoma, injection site erythema, injection site pruritus, injection site hypertrichosis, feeling hot, sensation of foreign body, peripheral swelling, chest discomfort, fatigue, malaise | Not known |

*Local reactions*
Literature reporting of local reactions associated with the use of ALUTARD SQ Wasp and/or ALUTARD SQ Bee varied from 6% to 79% in the up-dosing phase and from 0% to 47% in the maintenance phase.

Local reactions can be treated with symptomatic medication, e.g. antihistamines.

- Injection site reactions consist of one or several of the following symptoms: diffuse swelling, redness, pain, itching and injection site urticaria. These symptoms most often appear within 30 minutes and may also persist after 6 hours. Generalized pruritus may also occur.
- Subcutaneous nodules at the injection site have been observed after repeated injections.

The aluminium content may contribute to the occurrence of local adverse effects including positive skin patch test for aluminium.

*Systemic allergic reactions*
Mild to moderate systemic allergic reactions might occur and can be effectively treated with symptomatic medications, e.g. antihistamines. Literature reporting of systemic reactions associated with the use of ALUTARD SQ Wasp and/or ALUTARD SQ Bee varied from 0% and 25% in the up-dosing phase and from 0% to 16% in the maintenance phase.

Symptoms that may be associated with a systemic allergic reaction may include but are not limited to urticaria, angioedema, dyspnoea, cough, bronchospasm, rhinitis, wheezing, chest tightness , asthma, tachycardia and hypotension. Other symptoms of a systemic allergic reaction can be fatigue, general discomfort, headache, abdominal pain, vomiting, diarrhoea, flushing, rash, pruritus, conjunctivitis or sneezing.

A severe systemic allergic reaction is a potentially life-threatening reaction that usually occurs within a few minutes after the patient has been exposed to the allergen. A severe systemic allergic reaction requires immediate treatment with e.g. adrenalin and/or other anaphylactic treatment.

In case of large local reactions and systemic reactions an evaluation of the treatment must be performed (see section 4.2 and section 4.4).

*Atopic dermatitis*
Atopic dermatitis may be exacerbated during treatment.

*Paediatric population*
Limited data from clinical trials on the adverse events in children is available. Available safety data does not indicate additional risks related to the use of ALUTARD SQ in the paediatric population.

*Other special populations*
No data from clinical trials on the adverse events in other populations available.

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 via HPRA Pharmacovigilance; Website: www.hpra.ie

**4.9 Overdose**

If a higher dose of ALUTARD SQ Wasp than intended is injected, the risk of side effects increases including the risk of developing a serious allergic reaction. The patient must be observed and any reaction must be treated with relevant symptomatic medication.

**5 PHARMACOLOGICAL PROPERTIES**

**5.1 Pharmacodynamic properties**

Pharmacotherapeutic group: Allergen extracts, insects ATC-code: V01AA07

*Pharmacodynamic effects and mechanism of action*
ALUTARD SQ Wasp is an allergen specific desensitization immunotherapy. The target organ for the pharmacodynamic effect is the immune system. The aim is to suppress the reaction toward the allergen that the patient is treated with. AIT has various effects on the immune system: The recruitment of T-lymphocytes and eosinophilic granulocytes to the target organ is inhibited, and is followed by a pronounced shift from the production of Th2 cytokines to the production of Th1 cytokines. In addition, the synthesis of IL-10 is increased which may lead to T-lymphocyte anergy. Release of histamine from peripheral blood basophils is decreased, which is a result of the decreased number of recirculating basophils. Serological studies on ALUTARD SQ Wasp have found a temporary increase in IgE early during treatment, while there is a substantial longterm rise in IgG.

*Clinical efficacy and safety*
Due to the potential life-threatening nature of allergic reactions to wasp stings and for ethical reasons, all available data on efficacy and safety come from clinical studies that have not been placebo controlled. Studies conducted over the past 30 years with a duration of up to 5 years on the efficacy and safety of ALUTARD SQ Wasp have demonstrated high clinical efficacy and a favourable safety profile. The percentage of subjects without a systemic reaction to sting (whether in-hospital sting challenge or after natural stings) after treatment with ALUTARD SQ Wasp has consistently been above 80%, and likewise consistent changes of IgE and IgG4 have been shown.

The protection rate following in-hospital sting challenges or natural stings after 4 months to 3 years of treatment, in terms of the fraction of sensitised subjects tolerating a re-sting without experiencing a systemic reaction was 52 out of 56 among subjects receiving ALUTARD SQ Wasp (numbers based on 3 publications of clinical trials, Malling et al. 1985; Mosbech et al. 1986; Oude Elberink HNG et al. 2007).

Data from clinical trials are limited and guidelines on allergy immunotherapy should be consulted regarding the optimal regimen and duration of therapy, and the use of biomarkers to assess efficacy and safety.

*Paediatric population*
Paediatric studies on efficacy and safety of venom extracts from wasp are limited. Clinical data on children below 5 years of age are too limited to draw any conclusions regarding efficacy or safety of ALUTARD SQ.

**5.2 Pharmacokinetic properties**

Adsorption of the allergen to aluminium hydroxide results in a slow release from the injection site. By subcutaneous injection, the allergen is slowly released which reduces the allergenicity and possibly prolongs the stimulation of the immune system.

**5.3 Preclinical safety data**

No relevant preclinical safety data is available in addition to the information already included in other sections of the summary of products characteristics.

**6 PHARMACEUTICAL PARTICULARS**

**6.1 List of excipients**

Sodium chloride
Sodium hydrogen carbonate
Phenol
Water for injection
Sodium Hydroxide (for pH adjustment)

For adjuvants please see section 2.

**6.2 Incompatibilities**

In the absence of compatibility studies, this medicinal product must not be mixed with other medicinal products.

**6.3 Shelf life**

3 years.

Shelf life after opening of vial is 6 months when used for one individual patient and when stored in refrigerator (2°C – 8°C).

**6.4 Special precautions for storage**

Store in refrigerator (2°C – 8°C).

Do not freeze.

Store in the original package (sensitive to light).

For storage conditions after first opening of the medicinal product, see section 6.3.

**6.5 Nature and contents of container**

ALUTARDSQ Wasp is supplied in glass vials (type I) fitted with a laminated halobutyl elastomer stopper and sealed with a coloured aluminium cap with a flip-off centre. The vials are distinguished by differently coloured vial numbers.

ALUTARD SQ Wasp is available in two different packs, an up-dosing pack and a maintenance pack (100 000 SQ-U/ml).

Table 9: Up-dosing pack, 4 x 5 ml

| Vial no. | Strength (SQ-U/ml) | Colour code |
|---|---|---|
| 1 | 100 | Grey |
| 2 | 1 000 | Green |
| 3 | 10 000 | Orange |
| 4 | 100 000 | Red |

Table 10: Maintenance pack, 5 ml

| Vial no. | Strength (SQ-U/ml) | Colour code |
|---|---|---|
| 4 | 100 000 | Red |

**6.6 Special precautions for disposal and other handling**

During storage, a precipitate and a clear liquid can be observed. This is normal for a suspension and does not constitute a sign of deterioration of the quality of the product. The precipitate might be white to faintly brown or green.

The vials must be turned slowlyupside down 10 - 20 times to make a homogeneous suspension prior to use.

Inspect the suspension visually for particulate matter prior to administration. Discard the product if visible particles are present.

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

**7 MARKETING AUTHORISATION HOLDER**

ALK-Abello A/S
Boge Alle 6-8
DK-2970 Horsholm
Denmark

**8 MARKETING AUTHORISATION NUMBER**

PA1255/009/002

**9 DATE OF FIRST AUTHORISATION/RENEWAL OF THE AUTHORISATION**

Date of first authorisation: 12th April 2019
Date of last renewal: 18th December 2022

**10 DATE OF REVISION OF THE TEXT**

February 2022