AUSTRALIAN PRODUCT INFORMATION – CEREZYME (IMIGLUCERASE) POWDER FOR SOLUTION FOR INFUSION

1 NAME OF THE MEDICINE

Imiglucerase-rch

2 QUALITATIVE AND QUANTITATIVE COMPOSITION

Each vial contains 400 units* of imiglucerase**.

*An Enzyme Unit (U) is defined as the amount of enzyme that catalyses the hydrolysis of one micromole of the synthetic substrate para-nitrophenyl β-D-glucopyranoside (pNP-Glc) per minute at 37°C.

**Imiglucerase is a recombinant, macrophage-targeted, variant of human β-glucocerebrosidase, purified from Chinese Hamster Ovary cells. It catalyses the hydrolysis of the glycolipid, glucocerebroside, to glucose and ceramide following the normal degradation pathway for membrane lipids.

Excipients: For the full list of excipients, see Section 6.1 LIST OF EXCIPIENTS

3 PHARMACEUTICAL FORM

Cerezyme is provided as a white to off - white sterile lyophilised powder in a clear glass vial and contains a nominal value of 400 Units* of imiglucerase.

After reconstitution, the solution contains 40 units (approximately 1.0 mg) of imiglucerase per mL (400U/10 mL).

The reconstituted solution must be diluted further in sodium chloride.

4 CLINICAL PARTICULARS

4.1 THERAPEUTIC INDICATIONS

Cerezyme (imiglucerase) is indicated for long-term enzyme replacement therapy for patients with a confirmed diagnosis of non-neuronopathic (Type 1) or chronic neuronopathic (Type 3) Gaucher disease who exhibit clinically significant non-neurological manifestations of the disease.

The non-neurological manifestations of Gaucher disease include one or more of the following conditions:

a) anaemia;
b) thrombocytopenia;
c) bone disease;

d) hepatomegaly or splenomegaly.

4.2 DOSE AND METHOD OF ADMINISTRATION

After reconstitution with water for injection and dilution with 0.9% Sodium Chloride intravenous solution the preparation is administered by intravenous infusion over 1 to 2 hours.

Dosage should be individualised for each patient. Initial dosages range from 2.5U/kg of body weight 3 times a week to 60U/kg once every two weeks. 60U/kg every 2 weeks is the dosage for which most data are available. Disease severity may dictate that treatment be initiated at a relatively high dose or relatively frequent administration. Dosage adjustments should be made on an individual basis, and may increase or decrease, based on achievement of therapeutic goals as assessed by routine comprehensive evaluations of the patient's clinical manifestations.

Initial doses of 60 U/kg of body weight once every 2 weeks have shown improvement in haematological and visceral parameters within 6 months of therapy, and continued use has either stopped progression of or improved bone disease. Administration of doses as low as 15 U/kg of body weight once every 2 weeks has been shown to improve haematological parameters and organomegaly, but not bone parameters.

Method of Administration

Preparation and Administration Instructions: Use Aseptic Techniques

The lyophilised powder has to be reconstituted with water for injection, diluted with 0.9% Sodium Chloride intravenous solution and then administered by intravenous infusion. It is recommended that the diluted solution be filtered through an in-line low protein-binding 0.2µm filter during administration.

1. Determine the number of vials to be reconstituted based on the individual patient's dosage regimen and remove the vials from the refrigerator.

   Occasionally, small dosage adjustments may be made to avoid discarding partially used vials. Dosages may be rounded to the nearest full vial as long as the monthly administered dosage remains substantially unaltered.

2. Reconstitute each vial with water for injection. The final concentrations and administration volumes are provided in Table 1:

Table 1 - 400 Unit Vial Concentration and Administration Volume

	400 Unit Vial
Sterile water for reconstitution	10.2 mL
Final volume of reconstituted product	10.6 mL
Concentration after reconstitution	40U/mL
Withdrawal volume	10.0 mL
Units of enzyme within final volume	400 Units

Avoid forceful impact of water for injection on the powder and, by mixing gently, avoid foaming of the solution. The pH of the reconstituted solution is approximately 6.1.

3. Before further dilution, visually inspect the reconstituted solution in each vial for foreign particles and discolouration. Do not use vials exhibiting foreign particles or discolouration. Do not use Cerezyme after the expiration date on the vial.

   Cerezyme contains no preservatives or antimicrobial agent. Use once and discard any residue. Any unused reconstituted solution must be discarded appropriately.

   The reconstituted solution contains 40 units imiglucerase per mL. The reconstituted volume allows accurate withdrawal of a nominal volume of 10.0 mL for the 400 Unit vial.

   Withdraw the reconstituted solution from each of the reconstituted vials and dilute with 0.9% Sodium Chloride intravenous solution to a total volume of 100 to 200 mL. Mix the infusion solution gently. Being a protein solution, slight flocculation (described as thin translucent fibers) occurs occasionally after dilution. The diluted solution may be filtered through an in-line low protein-binding 0.2 μm filter during administration.

   It is recommended that the diluted solution be administered within 3 hours. The product diluted in 0.9% Sodium Chloride intravenous solution will retain chemical stability if stored for up to 24 hours between 2° and 8°C, protected from light, but microbial safety will depend on the reconstitution and dilution having been performed aseptically.

Infusion of Cerezyme at home by a trained health care professional may be considered for patients who are tolerating their infusions well for several months. Decision to have patient move to home infusion should be made after evaluation and recommendation by the treating physician. Home infusion must be administered by a appropriately trained healthcare professional who should be always available during the home infusion and for a specified time after infusion. Patients experiencing adverse events during the infusion need to immediately **stop the infusion process and** appropriate medical treatment should be initiated. Subsequent infusions may need to occur in a clinical setting. Dose and infusion rate should remain constant while at home, and not be changed without supervision of a health care professional.

A Home Infusion Guide for HCPs and Patients/Carers is available to provide home infusion information related to Cerezyme.

4.3 CONTRAINDICATIONS

There are no known contraindications to the use of Cerezyme. Treatment with Cerezyme should be carefully re-evaluated if there is significant clinical evidence of hypersensitivity to the product.

4.4 SPECIAL WARNINGS AND PRECAUTIONS FOR USE

Therapy with Cerezyme should be directed by physicians knowledgeable in the management of patients with Gaucher disease.

Immunogenicity

Hypersensitivity reactions including anaphylaxis and anaphylactic shock have been reported. Treatment should be carefully evaluated if there is significant clinical evidence of hypersensitivity to the product (See Section 4.3 CONTRAINDICATIONS). Consider using pre-medication in patients with prior history of hypersensitivity with Cerezyme (see Section 4.8 ADVERSE EFFECTS (UNDESIRABLE EFFECTS).

If hypersensitivity occurs, consider temporarily stopping or slowing the infusion and/or administering appropriate medication. See Section 4.8 ADVERSE EFFECTS (UNDESIRABLE EFFECTS).

If a severe hypersensitivity reaction occurs, stop administration of Cerezyme and initiate appropriate medical treatment. The risks and benefits of re-administering Cerezyme following a severe hypersensitivity or anaphylactic reaction should be considered.

Current data suggest that, during the first year of therapy, IgG antibodies to Cerezyme are formed in approximately 15% of the treated patients. It appears that patients who will develop IgG antibody are most likely to do so within 6 months of treatment and will rarely develop antibodies to Cerezyme after 12 months of therapy. It is suggested that patients be monitored periodically for IgG antibody formation to imiglucerase during the first year of treatment.

Patients with antibodies to Cerezyme have a higher risk of hypersensitivity reaction (see Section 4.8 ADVERSE EFFECTS (UNDESIRABLE EFFECTS). If a patient experiences a reaction suggestive of hypersensitivity, subsequent testing for imiglucerase antibodies is advised. Anaphlyactoid reactions have been reported in less than 1% of the patient population. Further treatment with imiglucerase should be conducted with caution. Most patients have successfully continued therapy after a reduction in the rate of infusion and pretreatment with antihistamines and/or corticosteroids.

Patients who have developed antibodies or symptoms of hypersensitivity to Ceredase® (alglucerase) should be treated with caution when administering Cerezyme.

Infusion-associated reactions

Infusion-associated reactions (IARs) such as angioedema, pruritus, rash, urticaria, chest discomfort, chills, fatigue, infusion-site burning, infusion-site discomfort, infusion-site swelling, pyrexia and transient hypertension have been observed in patients treated with Cerezyme (see Section 4.8 ADVERSE EFFECTS (UNDESIRABLE EFFECTS)).

Pulmonary Hypertension

In less than 1% of the patient population, pulmonary hypertension has also been observed during treatment with Cerezyme. Pulmonary hypertension is a known complication of Gaucher disease, and has been observed both in patients receiving and not receiving Cerezyme. No causal relationship with Cerezyme has been established. Patients with respiratory symptoms should be evaluated for the presence of pulmonary hypertension.

Patients who have undergone a splenectomy have an increased risk of pulmonary hypertension. Cerezyme therapy reduces the requirement for splenectomy in most cases and early treatment with Cerezyme has been associated with a reduced risk of pulmonary hypertension. Routine evaluation to detect the presence of pulmonary hypertension after diagnosis of Gaucher disease and over time is recommended. Patients diagnosed with pulmonary hypertension, in particular, should receive adequate doses of Cerezyme to ensure control of underlying Gaucher disease as well as be evaluated for the need of additional pulmonary hypertension specific treatments.

Neurologic Symptoms

There is insufficient evidence that the use of imiglucerase improves neurologic symptoms in patients with Type 2 or Type 3 Gaucher disease.

Use in the elderly

No data available.

Paediatric use

No data available.

Effects on laboratory tests

No data available.

4.5 INTERACTIONS WITH OTHER MEDICINES AND OTHER FORMS OF INTERACTIONS

Interactions between Cerezyme and other medicinal products have not been studied. Other forms of interactions such as with food are unlikely.

4.6 FERTILITY, PREGNANCY AND LACTATION

Effects on fertility

Studies have not been conducted to assess the potential effects of Cerezyme on impairment of fertility in animals or humans.

Use in pregnancy (Category B2)

(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.)

Animal reproduction studies have not been conducted with Cerezyme.

It is not known whether Cerezyme can cause fetal harm when administered to a pregnant woman, or can affect reproductive capacity. Cerezyme should be given to a pregnant woman only if clearly needed and after a careful risk / benefit analysis has been conducted for both the mother and fetus.

Patients who have Gaucher disease and become pregnant may experience a period of increased disease activity during pregnancy and the puerperium. This includes an increased risk of skeletal manifestations, exacerbation of cytopenia, haemorrhage and an increased need for transfusion. Both pregnancy and lactation are known to stress maternal calcium homeostasis and to accelerate bone turnover. This may contribute to skeletal disease burden in Gaucher disease.

Animal studies are insufficient with respect to assessing the effects of Cerezyme on human pregnancy, embryonal / fetal development, parturition and postnatal development. It is not known whether Cerezyme passes via the placenta to the developing fetus. No clinical trial data on exposed pregnancies are available for Cerezyme. From extensive post marketing experience, however, safety information on the use of Cerezyme in over 150 pregnancies is available. These data suggest that Cerezyme may be used to better control progression of underlying Gaucher disease in pregnancy.

Among over 150 Cerezyme exposed pregnancies, the nature and prevalence of major congenital malformation and fetal death were not different from the occurrences expected in the general population. The available post marketing data show that Cerezyme treatment in pregnant patients has, in the majority of cases, led to uncomplicated pregnancies and birth of healthy infants.

In pregnant Gaucher patients and those intending to become pregnant, a risk/benefit treatment assessment is required for each pregnancy. Treatment naïve women should be advised to consider commencing therapy prior to conception in order to attain optimal health. In women receiving Cerezyme treatment, continuation throughout pregnancy should be considered. Close monitoring of the pregnancy and clinical manifestations of Gaucher disease is necessary for the individualisation of dose according to the patient's needs and therapeutic response.

Caution should be exercised when prescribing to pregnant women.

Use in lactation

It is not known whether Cerezyme is excreted in human milk. However, the enzyme is likely to be digested in the child's gastrointestinal tract. Caution should therefore be exercised when Cerezyme is administered to a nursing woman. There are no animal studies on the effects of imiglucerase on lactation or the potential for excretion of imiglucerase in milk.

4.7 EFFECTS ON ABILITY TO DRIVE AND USE MACHINES

Cerezyme is presumed to be safe and unlikely to produce an effect on ability to drive or use machines.

4.8 ADVERSE EFFECTS (UNDESIRABLE EFFECTS)

Experience in patients treated with Cerezyme has revealed that approximately 13.8% of patients experienced adverse events which were judged to be related to Cerezyme administration and which occurred with an increase in frequency. Some of the adverse events were related to the route of administration. These include discomfort, pruritus, burning, swelling or sterile abscess at the site of venipuncture. Each of these events were found to occur in <1% of the total patient population.

Symptoms suggestive of hypersensitivity have been noted in approximately 6.6% of patients. Onset of such symptoms has occurred during or shortly after infusions; these symptoms include pruritus, flushing, urticaria, angioedema, chest discomfort, dyspnoea, coughing, cyanosis, transient hypertension and hypotension (see Section 4.4 SPECIAL WARNINGS AND PRECAUTIONS FOR USE). Hypersensitivity reactions, including anaphylaxis and anaphylactic shock, have been reported (see Section 4.4 SPECIAL WARNINGS AND PRECAUTIONS FOR USE). Each of these events were found to occur in < 1.5% of the total patient population. Pre-treatment with antihistamines and / or corticosteroids and reduced rate of infusion has allowed continued use of Cerezyme in most patients.

Additional adverse reactions that have been reported in approximately 6.2% of patients treated with Cerezyme include nausea, abdominal pain, vomiting, diarrhoea, rash, fatigue, headache, fever, dizziness, chills, backache and tachycardia. Each of these events were found to occur in < 1.5% of the total patient population.

In addition to the adverse reactions that have been observed in patients treated with Cerezyme, transient peripheral oedema has been reported for this therapeutic class of drug.

A completed post-marketing clinical study conducted in Japan (protocol 8-98) investigated the use of Cerezyme in patients with neuronopathic Gaucher disease. During this study, one Type 3 Gaucher patient experienced an adverse event of nail disorder which was considered potentially related to Cerezyme therapy. No additional adverse events were reported that were related to Cerezyme.

Reporting suspected adverse events

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 (Australia).

4.9 OVERDOSE

Experience with doses up to 240 U/kg every two weeks have been reported. At that dose there have been no reports of obvious toxicity.

For information on the management of overdose, contact the Poisons Information Centre on 131126 (Australia).

5 PHARMACOLOGICAL PROPERTIES

5.1 PHARMACODYNAMIC PROPERTIES

Pharmacotherapeutic group: Other alimentary tract and metabolism products, ATC code: A16AB02

Mechanism of action

Imiglucerase is a recombinant, macrophage-targeted, variant of human β-glucocerebrosidase, purified from Chinese Hamster Ovary cells. It catalyses the hydrolysis of the glycolipid, glucocerebroside, to glucose and ceramide following the normal degradation pathway for membrane lipids.

Glucocerebroside is primarily derived from haematopoietic cell turnover. Gaucher disease is characterised by a functional deficiency in β-glucocerebrosidase enzymatic activity and the resultant accumulation of lipid glucocerebroside in tissue macrophages, which become engorged and are termed Gaucher cells.

Gaucher cells are typically found in liver, spleen and bone marrow and occasionally, as well, in lung, kidney and intestine. Secondary haematological sequelae include severe anaemia and thrombocytopenia in addition to the characteristic progressive hepatosplenomegaly. The skeletal complications are a common, and frequently the most debilitating and disabling, feature of Gaucher disease. Possible skeletal complications are osteonecrosis, osteopenia with secondary pathological fractures, remodelling failure, osteosclerosis and bone crises.

Imiglucerase replaces the deficient enzyme activity, hydrolysing glucosylceramide, thus correcting initial pathophysiology and preventing secondary pathology. Cerezyme reduces spleen and liver size, improves or normalises thrombocytopenia and anaemia, improves or normalises bone mineral density and bone marrow burden, and reduces or eliminates bone pain and bone crises. Cerezyme decreases chitotriosidase, a biomarker for glucosylceramide accumulation in macrophages and response to treatment.

The rate and extent of response to Cerezyme treatment is dose-dependent. Generally, improvements in organ systems with a faster turnover rate, such as the haematological, can be noted far more rapidly than in those with a slower turnover, such as the bone.

Clinical trials

After the completion of the pivotal clinical trial, at 6 months, patients continued to be followed for an extended study period of 26 to 29 months. In addition, a separate dosing schedule comparison study was conducted. Table 2 and Table 3 below describe the design features and results of these studies.

Table 2 - Clinical Trial Information Summary

Protocol #	RC91-0110 – Pivotal Trial	RC92-501 – Extension to Pivotal Trial	RC92-301
Investigators	1. Barton, NW; 2. Grabowski, GA	1. Barton, NW; 2. Pastores, G	Zimran, A
Publications	Grabowski GA, Barton NW, Pastores G, Dambrosia JM, Banerjee TK, McKee M, et al. Enzyme therapy in Type 1 Gaucher Disease: Comparative efficacy of mannose-terminated glucocerebrosidase from natural and recombinant sources. Ann Intern Med 1995; 122:33-9		Zimran A, Elstein D, Levy-Lahad E, Zevin S, Hadas-Halpern I, Bar-Ziv Y, et al. Replacement therapy with imiglucerase for Type 1 Gaucher Disease. Lancet 1995; 345: 1479-80.
Location of Study	Mt. Sinai School of Medicine in New York, NY. Nat'l Inst. of Neurolog. Disorders and Strokes in Bethesda, MD		Shaare-Zedek Medical Centre, Jerusalem, Israel
Dates	Jan. 1992 - Sept. 1992	July 1992 - May 1994	Not reported
Study Design	CONT, DB, RAND, parallel	CONT, DB, RAND, parallel	CONT, RAND, matched pair
Treatment	CDASE or CZYME 60 U/kg IV q other wk	60 U/kg IV q other wk	A: 15 U/kg IV q other wk B: 2.5 U/kg IV 3x/wk
# Entered	30 (15 CDASE; 15 CZYME)	30 (15 CDASE; 15 CZYME)	10 (5 in each group)
# Completed	30	30* (29 CZYME)	10
Age: Mean	32.7 years old	32.7 years old	32.2 years old
Age: Range	12-69	12-69	18-46
Average Weight	62.4 kg	62.4 kg	58.4 kg
M/F	17/13	17/13	2/8
Duration	6 months	26-29 months	1.5 to 2 years
Efficacy Results	Stat. Sign Improvement from baseline for all 1" endpoints; Sign ↑ in haematologic parameters; sign ↓ in hepatomegaly/splenomegaly; ↓ cachexia; improvements in skeleton and disease markers		↓ hepatomegaly; improvement in haematology parameters and disease markers; possible minimal improvement in skeletal manifestations
Safety Results	185 non-serious AEs; 0 serious AEs	385 non-serious AEs; 0 serious AEs	35 non-serious AEs; 0 serious AEs. Most frequent events were pain and nausea
	Most frequent events were pain, ecchymosis, epistaxis, pharyngitis, diarrhoea, rash, fever, headache, rhinitis, dizziness, menorrhagia, pruritus		

CONT = controlled; RAND = randomised; DB = double blinded; CDASE = Ceredase; CZYME = Cerezyme®; AE = adverse event. *All patients were converted to Cerezyme® by the end of the trial.

Table 3 - Clinical effects on Haematology and Organ Weights

CLINICAL EFFECTS ON HAEMATOLOGY AND ORGAN WEIGHTS (% change compared to baseline)					
Report Number	Parameter	Haemoglobin	Platelet	Liver	Spleen
RC91-110	Mean	20%	33%	-11%	-35%
	p-value	$p < 0.001$	$p = 0.001$	$p < 0.001$	$p < 0.001$
	Response	$\uparrow \geq 1.0$ g/dL	$\uparrow \geq 30\%$	$\downarrow \leq 10\%$	$\downarrow \leq 10\%$
	Response rate	13/15 87%	9/15 60%	8/15 53%	15/15 100%
RC92-501	Mean	28%	80%	- 21%	- 54.7%
	Response	$\uparrow \geq 1.0$ g/dL	$\uparrow \geq 30\%$	$\downarrow \leq 10\%$	$\downarrow \leq 10\%$
	Response rate	12/15 80%	11/15 73%	14/15 93%	14/15 93%
RC92-301	Mean	12.5%	97%	- 19%	- 42.5%
	Response	$\uparrow \geq 1.0$ g/dL	$\uparrow \geq 30\%$	$\downarrow \leq 10\%$	$\downarrow \leq 10\%$
	Response rate	7/10 70%	5/10 50%	7/10 70%	9/10 90%

In an International Collaborative Gaucher Group (ICGG) Gaucher Registry analysis of a large cohort of patients (n=528) with Gaucher disease type 1, a time- and dose-dependent effect for Cerezyme was observed for haematological and visceral parameters (platelet count, haemoglobin concentration, spleen and liver volume) within the dose range of 15, 30 and 60 U/kg body weight once every 2 weeks. Patients treated with 60 U/kg body weight every 2 weeks showed a faster improvement and a greater maximum treatment effect as compared to patients receiving the lower doses. (Grabowski et al, 2009).

Similarly, in an ICGG Gaucher Registry analysis of bone mineral density using dual-energy X-ray absorptiometry (DXA) in 342 patients, after 8 years of treatment normal bone mineral density was achieved with a Cerezyme dose of 60 U/kg body weight once every 2 weeks, but not with lower doses of 15 and 30 U/kg body weight once every 2 weeks (Wenstrup et al, 2007).

Evaluation of treatment efficacy data captured from the International Collaborative Gaucher Group Registry (ICGG/Gaucher Registry), published literature, and from a Japanese post-marketing study show evidence of improvement in non-neurological manifestations (anaemia, thrombocytopenia, bone disease, hepatomegaly, and splenomegaly) for Type 3 patients, similar to that observed in Type 1 patients.

5.2 PHARMACOKINETIC PROPERTIES

During 1 hour intravenous infusions of 4 doses (7.5, 15, 30 and 60 U/kg) of Cerezyme, steady state enzymatic activity was achieved within 30 minutes. Following infusion, plasma enzymatic activity declined rapidly with a half-life ranging from 3.6 to 10.4 minutes. Plasma clearance ranged from 9.8 to 20.3 mL/min/kg (mean ± S.D., 14.5 ± 4.0 mL/min/kg). The volume of distribution corrected for weight ranged from 0.09 to 0.15 L/kg (mean ± S.D., 0.12 ± 0.02 L/kg). These variables do not appear to be influenced by dose or duration of infusion, however, only 1 or 2 patients were studied at each dose level and infusion rate.

5.3 PRECLINICAL SAFETY DATA

Genotoxicity

No evidence of mutagenic activity was seen in a bacterial gene mutation (AMES) test, however, assays for chromosomal aberrations have not been carried out.

Carcinogenicity

Studies have not been conducted to assess the potential effects of Cerezyme on carcinogenesis.

6 PHARMACEUTICAL PARTICULARS

6.1 LIST OF EXCIPIENTS

Mannitol,
Sodium citrate dihydrate,
Citric acid monohydrate,
Polysorbate 80.

6.2 INCOMPATIBILITIES

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

6.3 SHELF LIFE

Unopened vial:

3 years

Diluted solution:

If necessary, the product diluted in 0.9% Sodium Chloride intravenous solution can be stored for up to 24 hours between 2° - 8°C, protected from light, but microbiological safety will depend on the reconstitution and dilution having been performed aseptically.

Cerezyme, after reconstitution, has been shown to be stable for up to 12 hours when stored at room temperature (25°C) and at 2° - 8°C. Cerezyme, when diluted, has been shown to be stable for up to 24 hours when stored at 2° - 8°C. After reconstitution, promptly dilute vials and do not store for subsequent use.

6.4 SPECIAL PRECAUTIONS FOR STORAGE

The lyophilised product is stored between 2° - 8°C.

For storage condition after dilution of Cerezyme, see Section 6.3 SHELF LIFE.

6.5 NATURE AND CONTENTS OF CONTAINER

Cerezyme is supplied in clear glass 20 mL vials. The closure consists of a siliconised butyl rubber stopper with a tamper-proof flip-top cap.

Each vial is for single use only. To provide sufficient volume to allow accurate dispensing, each vial is formulated to contain an overfill of 0.3 mL.

Pack size: 400 Unit vial.

6.6 SPECIAL PRECAUTIONS FOR DISPOSAL

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

6.7 PHYSICOCHEMICAL PROPERTIES

Cerezyme contains a nominal value of 400 Units* of imiglucerase.

*An Enzyme Unit (U) is defined as the amount of enzyme that catalyses the hydrolysis of one micromole of the synthetic substrate para-nitrophenyl β-D-glucopyranoside (pnp-Glc) per minute at 37°C.

CAS number

154248-97-2

7 MEDICINE SCHEDULE (POISONS STANDARD)

Prescription Only Medicine (Schedule 4)

8 SPONSOR

sanofi-aventis australia pty ltd
International Tower 3, Level 23
300 Barangaroo Avenue
Sydney NSW 2000
Freecall: 1800 818 806
E-mail: medinfo.australia@sanofi.com

9 DATE OF FIRST APPROVAL

25 May 1999

10 DATE OF REVISION

11 February 2026

CEREZYME® is a registered trademark of Genzyme Corporation, USA.

SUMMARY TABLE OF CHANGES

Section Changed	Summary of new information
8	Sponsor details updated