

Product Specification

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| Product Name: | ACTINIZYME™ Kiwifruit Enzyme |
| Product Code: | FG044 |
| Latin Name: | <i>Actinidia chinensis</i> var. <i>deliciosa</i> 'Hayward' |
| Plant Part: | Fruit |
| Product Description: | Non-GMO, freeze-dried, green kiwifruit enzyme powder from 100% New Zealand-grown green kiwifruit. Proprietary methodology used to retain the maximum natural enzyme activity of green kiwifruit in powdered form. |
| Country of Origin: | New Zealand |
| Source Material: | Skinless, seedless ¹ , green kiwifruit puree made from 100% New Zealand-grown green kiwifruit. Also contains: anticaking and flowing agents (silica, 2% and microcrystalline cellulose, 5.5%) |
| Pack Size: | Standard pack is 10 kg net weight; plastic bag in foil pack in a shipper carton. |

Physical Characteristics

| | Specification |
|-----------------------|--|
| Appearance | Free-flowing powder |
| Colour | Green-yellow to tan ² (<i>shade subject to seasonal variation</i>) |
| Taste/Odour | Typical of kiwifruit |
| Particle Size: | Milled through US 20 (~850 µm) mesh |

Chemical Specification

| | Specification | Method | Test Frequency |
|---------------------------|----------------|--|----------------|
| Actinidin (Enzyme) | > 100,000 AU/g | N-α-CBZ-lys-p-nitrophenol digestion at 25°C (or 77°F) ³ | Every batch |
| Moisture | ≤ 5% | Aqualab or AOAC 18 th Edition (70°C) | Every batch |
| Water Activity | < 0.20 | Aqualab a _w | Every batch |
| Arsenic | < 1 ppm | ICPMS or GB 5009.268-2016 | Annual |
| Cadmium | < 0.3 ppm | ICPMS or GB 5009.268-2016 | Annual |
| Lead | < 0.5 ppm | ICPMS or GB 5009.268-2016 | Annual |
| Mercury | < 0.05 ppm | ICPMS or GB 5009.268-2016 | Annual |
| Copper | < 20 ppm | ICPMS or GB 5009.268-2016 | Annual |

¹ Puree may contain small specks of kiwifruit seed, which will be carried through into the powder. Seeds are a natural part of the fruit and are not considered as foreign matter, nor are they a food safety issue.

² As a natural product, some variation in colour between batches and/or seasons is normal.

³ A detailed protocol for enzyme analysis is available on request.

Microbial Specification

| | Specification | Method ⁴ | Test Frequency |
|-------------------------------------|----------------|--|----------------|
| Total Aerobic Plate Count | < 75,000 cfu/g | CMMEF Chapter 8 or APHA 8 | Every batch |
| <i>Escherichia coli</i> | ND/g | CMMEF Chapter 9 or AOAC 991.14 or APHA 9.92 | Every batch |
| Enterobacteriaceae | < 10 cfu/g | CMMEF Chapter 9 or MIMM 8.2 or APHA 9.62 | Every batch |
| Listeria | ND/25 g | Listeria species - BACGene or GENE-UP - BioMerieux | Every batch |
| Salmonella | Absent/25 g | Salmonella species - BACGene or GENE-UP - BioMerieux | Every batch |
| <i>Staphylococcus aureus</i> | ND/g | CMMEF Chapter 39 or FDA BAM 12 | Every batch |
| Yeast | < 1,000 cfu/g | CMMEF Chapter 21 or MIMM 9.5 or FDA BAM 18 | Every batch |
| Moulds | < 1,000 cfu/g | CMMEF Chapter 21 or MIMM 9.5 or FDA BAM 18 | Every batch |

Shelf Life, Storage and Handling

| Instructions and Recommendations | |
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| Shelf-Life | 36 months from date of manufacture, when stored under recommended conditions in original packaging. |
| Recommended Storage & Handling | <p>ACTINIZYME IS HYGROSCOPIC AND SPECIAL PRECAUTIONS ARE REQUIRED.</p> <p>Store and transport cool and dry, out of direct sunlight. To maintain quality and minimise the risk of clumping, it is recommended storage and transport temperatures do not exceed 25°C.</p> <p>Actinizyme is a natural product made from green kiwifruit. As such, the inherent natural sugar content of the product may result in intermittent clumping. Should this occur, the product can be returned to a free-flowing powder with minor milling.</p> <p>After sampling, reseal the pack using a suitable method to maintain the quality and shelf life of the product. Never leave bags open.</p> |

Product information supplied does not constitute or imply any warranty. No liability is accepted for damage etc. from use of this data.



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⁴ Listed method or similar validated method may be used.