

# SUNCRUPRO - Health & Wellness Ingredient Breakdown - 6225310974141\_43491777904829

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### ## AI Summary

**Product:** Sunset Crush Protein Smoothie (VG) MP5 **Brand:** Be Fit Food **Category:** Frozen vegan protein smoothie **Primary Use:** High-protein meal replacement or post-workout recovery drink combining whole fruits with plant-based protein.

**Quick Facts** - **Best For:** Active individuals seeking post-exercise recovery or protein-rich breakfast option - **Key Benefit:** 20g plant-based protein from pea isolate combined with whole-fruit nutrition in a clean, four-ingredient formula - **Form Factor:** Frozen smoothie (350g serving) - **Application Method:** Thaw and consume as meal replacement or protein supplement

**Common Questions This Guide Answers**

1. What ingredients are in this smoothie? → Four ingredients: mango, orange, passionfruit, and pea protein (5.8%)
2. How much protein does it contain? → 20g total protein per serving (16–18g from pea protein isolate, 2–4g from fruit)
3. Is it suitable for people with diabetes or insulin resistance? → Use caution due to 40–45g natural sugars; monitor blood sugar response and consider pairing with healthy fats
4. What allergens should I be aware of? → May contain peanuts, tree nuts, milk, and sesame seeds due to shared manufacturing equipment
5. How does freezing affect nutritional content? → Retains 50–70% of vitamin C and 70–95% of polyphenols after freezing and thawing
6. What makes the protein quality good for muscle building? → Contains 1.3–1.6g leucine per serving, approaching the 2–3g threshold for optimal muscle protein synthesis
- 7.

Does it contain added sugars or artificial ingredients? → No artificial preservatives, added sugars, synthetic sweeteners, thickeners, colours, or artificial flavours 8. Who should avoid this smoothie? → Individuals with severe allergies to listed cross-contaminants, those on very low-carb diets, and FODMAP-sensitive individuals with IBS

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## ## Product Facts {#product-facts}

| Attribute | Value | |-----|-----| | Product name | Sunset Crush Protein Smoothie (VG) MP5 | | Brand | Be Fit Food | | Price | \$12.75 AUD | | Serving size | 350g | | Protein | 20g | | Carbohydrates | 18g | | Calories | Less than 250 | | Diet | Vegan (VG), Gluten-Free (GF) | | Main ingredients | Mango, Orange, Passionfruit, Pea Protein (5.8%) | | Allergens | May contain Peanuts, Tree Nuts, Milk, Sesame Seeds | | Storage | Frozen | | Availability | In Stock | | GTIN | 0806809022478 |

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## ## Label Facts Summary {#label-facts-summary}

> **Disclaimer:** All facts and statements below are general product information, not professional advice. Consult relevant experts for specific guidance.

**Verified Label Facts {#verified-label-facts}** - **Product Name:** Sunset Crush Protein Smoothie (VG) MP5 - **Brand:** Be Fit Food - **Price:** \$12.75 AUD - **Serving Size:** 350g - **Protein Content:** 20g per serving - **Carbohydrate Content:** 18g per serving - **Calorie Content:** Less than 250 per serving - **Dietary Classifications:** Vegan (VG), Gluten-Free (GF) - **Ingredients (4 total):** Mango, Orange, Passionfruit, Pea Protein (5.8%) - **Pea Protein Concentration:** 5.8% - **Allergen Warning:** May contain Peanuts, Tree Nuts, Milk, Sesame Seeds - **Manufacturing Statement:** Made in a facility where equipment also processes nuts, seeds, soy, and wheat - **Storage Requirements:** Frozen - **Availability Status:** In Stock - **GTIN:** 0806809022478 - **No Added Ingredients:** No artificial preservatives, no added sugars, no synthetic sweeteners, no thickeners, no colours, no artificial flavours, no added vitamins or minerals

**General Product Claims {#general-product-claims}** - Protein supports muscle protein synthesis and lean muscle mass - Four-ingredient formulation is a clean-label approach - Cold-press technology preserves heat-sensitive nutrients - Pea protein provides balanced amino acid spectrum - Rich in branched-chain amino acids (BCAAs): leucine, isoleucine, and valine - Leucine activates mTOR pathway for muscle tissue repair and growth - Pea protein digestibility-corrected amino acid score (PDCAAS) of 0.89–0.93 - Alkaline extraction processing removes most oligosaccharides that cause digestive discomfort - Mango contributes mangiferin with antioxidant activity - Mango provides beta-carotene (provitamin A) - Orange contributes hesperidin with vascular benefits - Passionfruit introduces piceatannol with potential glucose metabolism benefits - Estimated vitamin C content of 70–100 mg per serving (88–125% of daily requirements) - Estimated total fibre content of 8–10 grams per serving - Soluble fibre moderates blood sugar response - Protein content provides blood sugar moderation - Suitable for post-exercise recovery - Appropriate for active-lifestyle breakfast - Supports muscle mass preservation - Polyphenol density may contribute to cardiovascular and metabolic benefits - Whole-food composition supports gut microbiome health - Real food nutrition approach - Dietitian-designed meal philosophy - Collaboration with Finn Cold Press - Snap-frozen delivery model locks in nutrient content

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## ## What's Inside Your Sunset Crush Protein Smoothie {#whats-inside-your-sunset-crush-protein-smoothie}

Your Sunset Crush Protein Smoothie (VG) keeps things refreshingly simple with just four ingredients: mango, orange, passionfruit, and pea protein at 5.8% concentration. This straightforward approach

stands out in a market where products often contain dozens of additives, stabilisers, and synthetic nutrients. We're committed to real food nutrition—no artificial preservatives, no added sugars, and no synthetic sweeteners.

The fruit trio—mango, orange, and passionfruit—creates the delicious base while delivering essential nutrients and that amazing taste. Mango brings natural sugars (primarily fructose and glucose) and dietary fibre. As the first ingredient listed, mango makes up the largest proportion by weight, giving your smoothie its smooth, creamy texture. Orange adds citric acid for pH balance and flavour depth, plus water content that creates the perfect drinkable consistency. Passionfruit contributes aromatic notes and extra fibre, including insoluble fibre from those tiny seed particles you might notice in the blend.

The 5.8% pea protein concentration is your sole protein source—a carefully chosen amount that translates to around 20.3 grams of pea protein isolate per 350-gram serving. This precise formulation gives you genuine protein benefits while keeping that delicious fruit-forward taste front and centre. Pea protein (*Pisum sativum*) isolate contains 80–90% protein by dry weight, so the actual protein you get from this ingredient ranges from 16–18 grams per serving. The remaining 2–4 grams come from the fruit components themselves, accounting for your total protein content.

### ## Why We Choose Pea Protein {#why-we-choose-pea-protein}

Pea protein isolate is the foundation of this smoothie, selected for both its excellent nutritional profile and compatibility with plant-based eating. Unlike soy protein, which contains phytoestrogens that some people prefer to avoid, or rice protein, which lacks certain essential amino acids, pea protein delivers a balanced amino acid spectrum. It's particularly rich in branched-chain amino acids (BCAAs): leucine, isoleucine, and valine. This plant-based protein source reflects the same protein-focused philosophy we apply across our dietitian-designed meal range, where protein appears at every meal to support lean muscle mass and metabolic health.

The leucine content in pea protein reaches 8–9% of total protein weight—crucial for muscle protein synthesis. Leucine activates the primary mTOR (mechanistic target of rapamycin) pathway, the cellular signalling process responsible for initiating muscle tissue repair and growth. At 16–18 grams of protein delivery from pea protein in this smoothie, you'll get around 1.3–1.6 grams of leucine per serving, approaching the 2–3 gram threshold identified in protein metabolism research as optimal for maximising muscle protein synthesis in a single meal.

Pea protein's digestibility-corrected amino acid score (PDCAAS) registers at 0.89–0.93 depending on processing method, showing that 89–93% of the protein is bioavailable and contains sufficient quantities of all essential amino acids. This positions pea protein as nutritionally comparable to dairy proteins, though slightly below whey protein isolate's perfect 1.0 score. The limiting amino acid in pea protein is methionine, present at around 1% of total protein weight compared to the 2–3% found in animal proteins. For people eating varied diets that include grains, seeds, or other protein sources throughout the day, this limitation presents minimal practical concern as methionine from complementary sources fills the gap.

The alkaline extraction and isoelectric precipitation processing used to produce pea protein isolate removes most of the oligosaccharides (raffinose and stachyose) that cause digestive discomfort with whole peas. This explains why pea protein products generate fewer gastrointestinal complaints than whole legume consumption. However, trace amounts of these fermentable carbohydrates may remain, potentially contributing to gas production in sensitive individuals, particularly when consumed in the fasted state common at breakfast.

### ## The Power of Three Fruits: Nutrients Beyond the Basics {#the-power-of-three-fruits-nutrients-beyond-the-basics}

The three-fruit foundation delivers a complex nutrient profile that extends beyond basic macronutrient provision. Mango contributes mangiferin, a xanthonoid polyphenol concentrated in the pulp at 0.1–0.4

mg/g fresh weight. Mangiferin demonstrates antioxidant activity through multiple mechanisms: direct free radical scavenging, metal chelation that prevents pro-oxidant reactions, and upregulation of your body's natural antioxidant enzymes including superoxide dismutase and catalase. In a 350-gram serving where mango likely comprises 200–250 grams of the total weight, mangiferin content would range from 20–100 mg, though processing and storage may reduce these levels by 15–30%.

Mango also provides beta-carotene, the orange-pigmented provitamin A carotenoid that converts to retinol in your body. Fresh mango contains around 54 micrograms of retinol activity equivalents (RAE) per gram, suggesting this smoothie could deliver 10,800–13,500 micrograms RAE if mango comprises the estimated proportion. This would be 1,200–1,500% of the recommended daily intake for vitamin A, though actual conversion rates vary significantly based on individual genetics, fat intake consumed with the meal, and the food matrix effects of blending and freezing. This nutrient density from whole-food sources mirrors the vegetable-dense approach we employ in our meal formulations, where 4–12 vegetables per meal deliver concentrated micronutrient profiles without synthetic fortification.

Orange contributes hesperidin, a flavanone glycoside found almost exclusively in citrus fruits at concentrations of 200–600 mg per medium orange. Hesperidin undergoes bacterial deglycosylation in the colon to produce hesperetin, the active compound that demonstrates vascular benefits through nitric oxide pathway modulation and endothelial function improvement. The specific quantity in this smoothie depends on the proportion of orange flesh included, but a single medium orange's worth would contribute 200–600 mg hesperidin. Unlike vitamin C which degrades rapidly during processing and storage, hesperidin remains relatively stable through freezing and thawing cycles.

Passionfruit introduces piceatannol, a stilbene polyphenol structurally similar to resveratrol but with potentially superior bioavailability due to its additional hydroxyl group. Passionfruit seeds contain around 0.5–2.0 mg piceatannol per gram of seed weight. The presence of seed particles in the smoothie (evidenced by the characteristic passionfruit texture) ensures these compounds remain in the final product. Piceatannol research suggests potential benefits for glucose metabolism through GLUT4 transporter modulation, though human clinical evidence remains limited compared to the more extensively studied resveratrol.

#### ## Vitamin C: What You're Getting {#vitamin-c-what-youre-getting}

The three-fruit combination creates a vitamin C-rich product, though the exact content remains unspecified in the nutritional data. Fresh mango provides around 0.4 mg vitamin C per gram, orange delivers 0.5 mg/g, and passionfruit contributes 0.3 mg/g. Assuming a conservative fruit distribution (250g mango, 70g orange, 20g passionfruit), the theoretical fresh vitamin C content would reach around 141 mg per serving—176% of the recommended daily intake.

However, vitamin C (ascorbic acid) stability is a significant consideration for frozen smoothie products. Ascorbic acid degrades through multiple pathways: aerobic oxidation accelerated by metal ions, anaerobic degradation at elevated temperatures, and enzymatic breakdown via ascorbate oxidase. Freezing substantially slows but doesn't eliminate these processes. Research on frozen fruit products shows vitamin C retention rates of 60–80% after three months of frozen storage at –18°C, with further losses of 10–20% occurring during the thawing process due to cellular structure disruption that exposes ascorbic acid to oxidative enzymes.

The product's frozen-to-thawed consumption model means you'll likely receive 50–70% of the theoretical fresh vitamin C content, translating to around 70–100 mg per serving—still 88–125% of daily requirements. We don't add synthetic ascorbic acid (it's not listed in ingredients), relying entirely on naturally occurring vitamin C. This formulation choice aligns with our clean-label positioning but introduces nutritional variability based on storage duration and conditions. This whole-food vitamin C approach parallels the ingredient philosophy behind our dietitian-designed meals, which avoid synthetic fortification in favour of nutrient density from real food ingredients.

#### ## Understanding Natural Sugar Content {#understanding-natural-sugar-content}

The all-fruit base creates a sugar-dense product, though the specific total sugar content remains undisclosed in the provided specifications. Fresh mango contains around 14% sugar by weight, orange 9%, and passionfruit 11%. Using the estimated fruit proportions, the smoothie would contain around 40–45 grams of naturally occurring sugars per 350-gram serving, consisting primarily of fructose, glucose, and sucrose in varying ratios specific to each fruit.

This sugar load positions the product in a complex nutritional space. The sugars are intrinsic (naturally occurring within intact cellular structures) rather than free sugars (added or released from cellular matrix), a distinction recognised by health authorities as nutritionally significant. However, the blending process disrupts cellular structures and releases sugars from the fibre matrix, creating a functional effect similar to free sugars from a blood sugar response perspective.

The fibre content from whole fruit provides some blood sugar moderation. Mango contributes around 1.6 grams fibre per 100 grams, orange 2.4 g/100g, and passionfruit 10.4 g/100g (primarily from seeds). The estimated total fibre content would reach 8–10 grams per serving, with a mixture of soluble fibre (pectin from mango and orange) and insoluble fibre (cellulose and hemicellulose from all three fruits, plus seed fibre from passionfruit).

Soluble fibre forms viscous solutions in the digestive tract that slow gastric emptying and glucose absorption, helping to moderate post-meal blood sugar spikes. The pectin content specifically may reach 2–3 grams per serving, sufficient to produce measurable blood sugar effects in controlled studies. However, the liquid format and disrupted cellular structure mean this smoothie will generate a faster, higher blood sugar response than consuming the equivalent whole fruits intact, particularly when consumed in the fasted breakfast state when insulin sensitivity is high but liver glucose output is also elevated.

The protein content provides additional blood sugar moderation through multiple mechanisms: protein stimulates insulin secretion independent of glucose, slows gastric emptying through cholecystokinin release, and provides amino acids for gluconeogenesis that help stabilise blood glucose during the post-absorptive period. The 16–18 grams of protein from pea isolate, combined with 2–4 grams from fruit, creates a total protein content of 18–22 grams—sufficient to classify this as a moderate-protein meal that should blunt blood sugar response compared to fruit juice alone. This protein-driven glucose stabilisation reflects the same metabolic health principles that underpin our low-carbohydrate, high-protein meal programs, which are specifically designed to support insulin sensitivity and blood glucose management in individuals with Type 2 diabetes and metabolic syndrome.

#### ## Allergen Information You Should Know {#allergen-information-you-should-know}

The product carries a comprehensive allergen warning: "May contain: Peanuts, Tree Nuts, Milk, Sesame Seeds" with the clarification that it is "Made in a facility where equipment also processes nuts, seeds, soy, and wheat." This declaration shows shared manufacturing equipment rather than intentional inclusion of these allergens, a critical distinction for people with varying sensitivity levels.

For individuals with severe IgE-mediated allergies to these foods, even trace cross-contamination is risky. The threshold doses that trigger reactions vary dramatically: some individuals react to as little as 0.1–1 mg of peanut protein, while others tolerate 100+ mg without symptoms. The absence of specific allergen testing data or quantified contamination limits means highly sensitive individuals cannot make fully informed risk assessments.

The milk allergen warning is particularly relevant given the vegan (VG) designation. People selecting this product specifically for dairy avoidance—whether for ethical veganism, lactose intolerance, or milk allergy—must weigh the cross-contamination risk. For lactose-intolerant individuals, trace milk contamination presents minimal concern as the quantities would be far below the threshold to cause digestive symptoms. For milk-allergic individuals, particularly those with anaphylactic sensitivity, the risk calculation differs substantially.

The facility also processes soy and wheat (mentioned in the manufacturing statement but not in the "may contain" list), creating ambiguity about whether these allergens present cross-contamination risk. This inconsistency may reflect regulatory interpretation: the manufacturer may determine that cleaning protocols adequately prevent soy and wheat cross-contact, while the listed allergens present higher risk. Alternatively, it may be incomplete allergen disclosure, a concerning possibility for sensitive consumers.

#### ## How We Make Your Smoothie: Quality Indicators {#how-we-make-your-smoothie-quality-indicators}

The collaboration with Finn Cold Press, mentioned in the product description, provides insight into processing methodology. Cold-press technology involves hydraulic pressing at temperatures below 40–45°C, preserving heat-sensitive nutrients and enzymes that conventional thermal processing degrades. This suggests the fruit components undergo minimal thermal exposure, maximising retention of vitamin C, polyphenols, and other heat-sensitive compounds.

However, "cold-pressed" as a marketing term lacks regulatory definition in most jurisdictions, creating potential for varied interpretation. True cold-press processing for smoothies might involve pressing whole fruits to extract juice, then blending with protein, or it might simply mean the final product is never heated above a specified temperature. The presence of fruit fibre (evidenced by the substantial fibre content from whole fruits) suggests this product includes fruit puree or pulp rather than exclusively pressed juice, showing "cold press" likely refers to temperature control during blending rather than traditional hydraulic juice extraction.

The pea protein source remains unspecified—no indication of organic certification, non-GMO verification, or geographic origin appears in the provided data. Pea protein on the global market originates primarily from Canada, France, and China, with significant quality variation based on processing methods. Canadian yellow pea protein generally commands premium pricing due to established non-GMO protocols and stringent processing standards, while Chinese pea protein offers cost advantages but variable quality control. Without sourcing transparency, you cannot assess whether the protein component aligns with your preferences regarding agricultural practices or processing standards.

The fruit sourcing similarly lacks specification. Mango, orange, and passionfruit are all warm-climate crops not commercially grown in Australia at scale sufficient for year-round production, showing imported fruit or concentrate likely comprises at least a portion of the blend. The use of whole fruit (evidenced by fibre content) rather than concentrate is a quality indicator, as reconstituted concentrate smoothies show reduced nutrient density and altered flavour profiles compared to whole-fruit products. This whole-food approach aligns with the real-food philosophy that distinguishes our meal formulations from supplement-based meal replacement programs—a distinction supported by peer-reviewed research published in *Cell Reports Medicine* demonstrating superior microbiome outcomes with whole-food meal delivery versus industrial supplement-based formulations.

#### ## What We Leave Out: Clean-Label Commitment {#what-we-leave-out-clean-label-commitment}

The four-ingredient formulation excludes numerous additives common in commercial smoothie products: no added vitamins or minerals beyond those naturally occurring in ingredients, no thickeners (xanthan gum, guar gum, locust bean gum), no preservatives (sodium benzoate, potassium sorbate), no added sugars or sweeteners, no colours, and no flavours. This minimalist approach aligns with clean-label preferences but introduces functional challenges that the formulation must overcome through ingredient selection and processing. The clean-ingredient framework mirrors our current-range standards: no seed oils, no artificial colours or flavours, no added artificial preservatives, and no added sugar or artificial sweeteners—though we transparently acknowledge that minimal, unavoidable preservative components may be naturally present within certain compound ingredients where no alternative exists.

The absence of added vitamin C (ascorbic acid) as a preservative is notable. Many frozen fruit products include supplemental ascorbic acid serving dual purposes: nutrient fortification and antioxidant protection that prevents enzymatic browning and off-flavour development during frozen storage. The decision to exclude this common additive suggests either exceptional cold-chain management that minimises degradation, or acceptance of some quality variation over the product's shelf life.

The lack of thickening agents means the product's viscosity derives entirely from fruit pulp and pea protein functionality. Pea protein isolate has moderate water-holding capacity and can contribute to mouthfeel, but significantly less than dairy proteins or added hydrocolloids. The resulting texture likely comes across as thinner and more juice-like than smoothies formulated with thickeners, a sensory characteristic that may appeal to some people while disappointing others expecting a thicker, more "smoothie-like" consistency.

No added sweeteners—neither caloric sugars nor non-nutritive sweeteners—means the sweetness profile derives entirely from fruit sugars. This creates authenticity in flavour but limits formulation control over sweetness intensity. Fruit sugar content varies substantially based on cultivar, ripeness at harvest, and storage duration, potentially creating batch-to-batch variation in sweetness that formulations with added sweeteners can standardise.

### ## Protein Quality: Getting All Your Essential Amino Acids {#protein-quality-getting-all-your-essential-amino-acids}

The reliance on pea protein as the sole protein fortification source creates an amino acid profile distinct from animal protein smoothies. While pea protein provides all nine essential amino acids, the methionine and cysteine content (the sulphur-containing amino acids) registers lower than the FAO/WHO reference pattern for optimal human nutrition. Specifically, pea protein contains around 1.1% methionine and 1.0% cysteine by weight, compared to the 2.3% methionine+cysteine reference level.

This limitation carries minimal practical significance for people eating varied diets, as grains, seeds, and animal products consumed at other meals provide abundant sulphur amino acids. However, for individuals relying heavily on this smoothie as a primary protein source—consuming it daily or multiple times per day—the cumulative effect of lower sulphur amino acid intake may become relevant. Methionine is the universal translation initiator in protein synthesis and provides methyl groups for numerous biochemical reactions including creatine synthesis, DNA methylation, and neurotransmitter production.

The lysine content in pea protein, conversely, exceeds the reference pattern at around 7.2% of protein weight compared to the 5.8% reference level. Lysine is the limiting amino acid in grain proteins, meaning the pea protein in this smoothie would complement grain-based foods consumed at other meals, creating a synergistic effect where the amino acid profiles balance each other over the course of a day.

The arginine content in pea protein reaches around 8.4% of protein weight, substantially higher than most animal proteins (around 5–6%). Arginine is the substrate for nitric oxide synthesis, the signalling molecule responsible for vasodilation, blood pressure regulation, and exercise performance enhancement. Some research suggests arginine-rich plant proteins may contribute to cardiovascular benefits through this mechanism, though the evidence remains preliminary compared to the established benefits of dietary patterns rather than isolated nutrients. This cardiovascular-supportive amino acid profile complements the metabolic health focus that defines our dietitian-designed approach, where meals are constructed to support not just weight loss but comprehensive metabolic markers including blood pressure, lipid profiles, and insulin sensitivity.

### ## Mineral Absorption: What You Need to Know About Phytate {#mineral-absorption-what-you-need-to-know-about-phytate}

Pea protein isolate retains variable amounts of phytic acid (phytate), the primary storage form of phosphorus in legume seeds. Phytate functions as an antinutrient by binding minerals—particularly iron, zinc, calcium, and magnesium—in the digestive tract, reducing their absorption. The phytate content in pea protein isolate ranges from 0.5–2.5% depending on processing method, with alkaline extraction and washing reducing but not eliminating phytate.

At 20 grams of pea protein isolate containing 1.5% phytate (mid-range estimate), this smoothie would deliver around 300 mg of phytic acid. Research on phytate's inhibitory effects suggests this quantity could reduce iron absorption from the meal by 20–50% and zinc absorption by 15–30%. However, the fruit component provides ascorbic acid, which counteracts phytate's inhibitory effect on iron absorption through chelation that maintains iron in the soluble, absorbable ferrous form.

The net effect on mineral bioavailability depends on the complete dietary context: people with adequate mineral status consuming varied diets likely experience negligible impact, while individuals with marginal iron or zinc status relying heavily on plant-based diets may experience cumulative effects of phytate across multiple meals. The absence of added minerals in this smoothie means it relies entirely on the modest mineral content of fruits—mango provides around 0.2 mg iron and 0.1 mg zinc per 100g, orange 0.1 mg iron and 0.07 mg zinc per 100g.

### ## Fibre Benefits and Digestive Considerations {#fibre-benefits-and-digestive-considerations}

The estimated 8–10 grams of total dietary fibre per serving comprises a mixture of soluble and insoluble fractions with distinct physiological effects. The soluble fibre fraction, primarily pectin from mango and orange, undergoes bacterial fermentation in the colon, producing short-chain fatty acids (SCFAs): acetate, propionate, and butyrate. These SCFAs serve multiple functions: they provide energy to colonocytes (particularly butyrate), modulate immune function, influence satiety hormone secretion, and may affect glucose and lipid metabolism.

The insoluble fibre fraction, including cellulose from fruit cell walls and seed fibre from passionfruit, passes through the digestive tract largely unfermented, contributing to stool bulk and accelerating intestinal transit time. The passionfruit seeds specifically provide a unique fibre profile—the small seeds pass through the digestive tract intact, contributing their fibre content without releasing their oil content (passionfruit seed oil contains around 70% linoleic acid but remains sequestered within intact seeds).

The blending process that creates the smoothie texture mechanically disrupts fruit cell walls, reducing particle size and potentially affecting fibre functionality. Research on food processing effects demonstrates that finely blended fibre produces less viscosity in the digestive tract than intact or coarsely chopped fibre, potentially reducing the blood-sugar-moderating effects of soluble fibre. However, the fibre remains chemically intact and available for colonic fermentation, preserving the SCFA production benefits.

For individuals with irritable bowel syndrome (IBS) or other functional digestive disorders, the fibre content and type present considerations. Soluble fibre generally receives tolerance in IBS, while insoluble fibre may exacerbate symptoms in some individuals. The fermentable fibre content means this smoothie contains FODMAPs (fermentable oligosaccharides, disaccharides, monosaccharides, and polyols)—specifically fructose in amounts exceeding glucose (creating excess fructose), which can trigger symptoms in FODMAP-sensitive individuals. The liquid format may accelerate fructose delivery to the small intestine, potentially overwhelming absorption capacity in susceptible individuals. This digestive consideration is particularly relevant for individuals using GLP-1 receptor agonists or diabetes medications, where gastric emptying is already slowed and tolerance for fermentable carbohydrates may be reduced—a population for whom we've developed specialised high-protein, lower-carbohydrate meal protocols designed to minimise GI side effects while maintaining nutritional adequacy.

### ## How Freezing Preserves Nutrients {#how-freezing-preserves-nutrients}

The freezing process central to this product's format affects polyphenol stability through multiple mechanisms. Freezing at  $-18^{\circ}\text{C}$  or below dramatically slows enzymatic activity, including polyphenol oxidase (PPO), the enzyme responsible for browning reactions that degrade polyphenols. However, the freezing process itself—particularly slow freezing that allows large ice crystal formation—can rupture cell membranes, releasing PPO and polyphenols into the same compartment when thawing occurs.

Research on frozen fruit products shows anthocyanin retention of 80–95% after six months of frozen storage, while hydroxycinnamic acids show 70–85% retention. The specific polyphenols in this smoothie—mangiferin, hesperidin, and piceatannol—carry less extensive stability data in frozen smoothie matrices, but their chemical structures suggest reasonable stability. Mangiferin's xanthone structure provides inherent stability, hesperidin's glycoside form protects the aglycone from oxidation, and piceatannol's stilbene structure, while susceptible to oxidation, benefits from the low oxygen environment of frozen storage.

The thawing process is the critical vulnerability. Rapid thawing in warm water or microwave heating can create temperature gradients that activate enzymes in outer layers while inner portions remain frozen, accelerating degradation. The product presumably recommends overnight refrigerator thawing, the method that minimises enzyme activation and preserves maximum polyphenol content. However, consumer behaviour may deviate from recommendations, introducing quality variation based on thawing method. The snap-frozen delivery model employed here parallels our meal distribution system, where snap-freezing immediately after preparation locks in nutrient content and provides a compliance-friendly format: consistent portions, consistent macros, minimal decision fatigue, and extended shelf life without chemical preservatives.

## Who This Smoothie Is Perfect For {#who-this-smoothie-is-perfect-for}

The nutritional architecture of this smoothie—moderate protein (18–22g), moderate-to-high natural sugars (40–45g), substantial fibre (8–10g), and whole-food phytonutrient density—positions it as suitable for specific metabolic contexts while requiring caution in others. For active individuals with high energy expenditure and intact glucose metabolism, the combination delivers rapid carbohydrate replenishment alongside muscle-supporting protein and recovery-enhancing polyphenols, making it appropriate as a post-exercise recovery option or active-lifestyle breakfast.

For individuals with insulin resistance, prediabetes, Type 2 diabetes, or those in perimenopause and menopause experiencing metabolic shifts, the 40–45g natural sugar load warrants careful consideration. While the protein and fibre content provide some blood sugar buffering, the liquid format and disrupted fruit matrix will generate a more pronounced blood glucose excursion than whole-fruit consumption. Individuals managing blood glucose should consider pairing this smoothie with additional protein or healthy fats to further moderate the blood sugar response, consuming it post-exercise when insulin sensitivity is elevated, or selecting lower-carbohydrate meal options at other eating occasions to maintain overall daily carbohydrate targets.

This metabolic nuance reflects the same personalisation approach that we apply through our free 15-minute dietitian consultations, where accredited dietitians match customers to meal plans based on individual metabolic status, medication use, activity levels, and health goals. For individuals using GLP-1 receptor agonists (semaglutide, liraglutide) or other appetite-suppressing medications, the liquid format and natural sweetness may improve palatability during periods of medication-induced appetite suppression, though the sugar content would need to be accounted for within daily carbohydrate targets. The protein content supports the lean-mass preservation that is critical during medication-assisted weight loss, aligning with the high-protein-at-every-meal philosophy that underpins our specialised programs for individuals on weight-loss and diabetes medications.

For women in perimenopause and menopause, this smoothie has both advantages and drawbacks. The high protein content supports muscle mass preservation during the accelerated sarcopenia that accompanies oestrogen decline, and the polyphenol density may contribute to cardiovascular and

metabolic benefits during this high-risk transition period. However, the natural sugar content works against the reduced insulin sensitivity and increased central fat storage that characterise the menopausal metabolic shift. Women in this demographic seeking small-to-moderate weight loss (3–10 kg) to improve insulin sensitivity and reduce abdominal adiposity—precisely the population we serve through our Metabolism Reset and Protein+ Reset programs—would benefit from consuming this smoothie strategically (post-exercise, early in the eating window) while relying on lower-carbohydrate, higher-protein meals at other times to maintain the energy deficit and metabolic support needed for fat loss during midlife.

#### ## How This Smoothie Fits Into Your Day {#how-this-smoothie-fits-into-your-day}

When evaluated as a meal replacement rather than a beverage accompaniment, this smoothie's macronutrient profile requires context. At an estimated 250–300 calories (depending on exact fruit proportions and any unlisted ingredients), 18–22g protein, 40–45g carbohydrate, and minimal fat (likely 2–4g from residual fruit fats and trace amounts in pea protein), the smoothie provides insufficient energy and fat for most adults' complete meal requirements, but appropriate macronutrient ratios for a high-protein breakfast or recovery meal when paired with additional fat sources (nuts, seeds, nut butter, avocado).

The protein-to-energy ratio reaches around 0.07–0.09 g protein per calorie, comparable to many commercial protein smoothies and well above the 0.04–0.05 ratio of fruit-only smoothies, but below the 0.10–0.15 ratio that characterises very-high-protein meal replacements. This positions the product as a protein-enhanced fruit smoothie rather than a protein shake with fruit flavouring—a distinction that matters for how long you'll feel full and muscle protein synthesis optimisation.

For individuals following structured meal plans with defined macronutrient targets—such as our Metabolism Reset (~800–900 kcal/day, ~40–70g carbs/day) or Protein+ Reset (1200–1500 kcal/day)—this smoothie would need to be strategically incorporated within daily targets rather than added on top of planned meals. At 40–45g carbohydrate, it would be the majority of daily carbohydrate allocation on the Metabolism Reset protocol, making it incompatible with that program's structure but potentially suitable as one component of the higher-calorie Protein+ Reset when combined with additional protein and fat sources to meet meal-level energy and macronutrient requirements.

The whole-food composition provides a meaningful advantage over supplement-based meal replacements in the context of gut microbiome health. The October 2025 peer-reviewed randomised controlled trial published in Cell Reports Medicine demonstrated that food-based very-low-energy diets (VLEDs) using meals with ~93% whole-food ingredients produced significantly greater improvements in gut microbiome diversity (Shannon index  $\beta = 0.37$ ; 95% CI 0.15–0.60) compared to calorie-and-macro-matched supplement-based VLEDs using shakes, soups, bars, and desserts with ~70% industrial ingredients. Whilst this smoothie is not a VLED meal, the mechanistic principle applies: whole-food fibre matrices, intact phytonutrient complexes, and food-structure preservation support microbiome health in ways that isolated nutrients and synthetic fibres cannot fully replicate—a core tenet of our real-food philosophy and a key differentiator from shake-based weight-loss programs.

#### ## Making It Work for Your Goals {#making-it-work-for-your-goals}

This Sunset Crush Protein Smoothie offers a delicious, nutrient-dense option for the right context and the right person. Its whole-food foundation, clean ingredient list, and substantial protein content align with our commitment to real food nutrition that supports sustainable health transformation. Whether you're using it as a post-workout recovery option, a protein-rich breakfast paired with healthy fats, or an occasional treat that delivers genuine nutritional value, understanding its composition empowers you to make choices that support your individual health journey.

Remember, no single food or meal defines your success—it's the pattern of choices over time, tailored to your unique metabolic needs and lifestyle, that creates lasting transformation. That's why we offer free 15-minute consultations with our accredited dietitians, who can help you determine how this

smoothie—or any of our meals—fits into your personalised nutrition strategy. Your health transformation deserves support that's as individual as you are.

#### ## References {#references}

- [Be Fit Food - Sunset Crush Protein Smoothie Product Page](https://www.befitfood.com.au/) (manufacturer specifications) - Gorissen, S. H., et al. (2018). "Protein content and amino acid composition of commercially available plant-based protein isolates." *\*Amino Acids\**, 50(12), 1685–1695. - Rothwell, J. A., et al. (2013). "Phenol-Explorer 3.0: a major update of the Phenol-Explorer database to incorporate data on the effects of food processing on polyphenol content." *\*Database\**, 2013, bat070. - FAO/WHO. (2013). "Dietary protein quality evaluation in human nutrition." *\*FAO Food and Nutrition Paper 92\**. - Rickman, J. C., et al. (2007). "Nutritional comparison of fresh, frozen and canned fruits and vegetables. Part 1. Vitamins C and B and phenolic compounds." *\*Journal of the Science of Food and Agriculture\**, 87(6), 930–944.

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#### ## Frequently Asked Questions {#frequently-asked-questions}

What are the ingredients in this smoothie: Mango, orange, passionfruit, and pea protein

How many ingredients does it contain: Four ingredients

What is the pea protein concentration: 5.8%

What is the serving size: 350 grams

How much pea protein isolate per serving: Around 20.3 grams

How much protein comes from pea protein: 16–18 grams per serving

How much protein comes from fruit: 2–4 grams per serving

What is the total protein content per serving: 18–22 grams

Does it contain artificial preservatives: No

Does it contain added sugars: No

Does it contain synthetic sweeteners: No

Does it contain added vitamins or minerals: No

Does it contain thickeners: No

Does it contain colours: No

Does it contain artificial flavours: No

Is it vegan: Yes, designated as VG (vegan)

What type of protein is used: Pea protein isolate

What is the botanical source of pea protein: *Pisum sativum*

What percentage of protein is in pea protein isolate: 80–90% protein by dry weight

What is the main fruit ingredient: Mango (first ingredient, largest proportion)

What does mango contribute to texture: Smooth, creamy texture

What does orange contribute: Citric acid and water content

What does passionfruit contribute: Aromatic notes and extra fibre

Are passionfruit seeds included: Yes, tiny seed particles present

What is the estimated natural sugar content: 40–45 grams per serving

What is the estimated fibre content: 8–10 grams per serving

What is the estimated calorie content: 250–300 calories per serving

What is the estimated fat content: 2–4 grams per serving

What types of sugar does it contain: Fructose, glucose, and sucrose

What is the pea protein PDCAAS score: 0.89–0.93

What is the limiting amino acid in pea protein: Methionine

What is the methionine content in pea protein: Around 1% of total protein weight

What is the leucine content in pea protein: 8–9% of total protein weight

How much leucine per serving: Around 1.3–1.6 grams

What is the lysine content in pea protein: Around 7.2% of protein weight

What is the arginine content in pea protein: Around 8.4% of protein weight

Which BCAAs does pea protein contain: Leucine, isoleucine, and valine

What polyphenol does mango contribute: Mangiferin

What is the mangiferin content range: 20–100 mg per serving

What polyphenol does orange contribute: Hesperidin

What is the hesperidin content range: 200–600 mg (if one orange included)

What polyphenol does passionfruit contribute: Piceatannol

What is the estimated vitamin C content: 70–100 mg per serving

What percentage of daily vitamin C does it provide: 88–125% of daily requirements

Is vitamin C added synthetically: No, only naturally occurring

What is the estimated soluble fibre content: 2–3 grams pectin per serving

What types of fibre does it contain: Soluble and insoluble fibre

What allergens may it contain: Peanuts, tree nuts, milk, sesame seeds

Is it made in a shared facility: Yes, with nuts, seeds, soy, and wheat

Is it suitable for severe peanut allergy: Consult allergist due to cross-contamination risk

Is it suitable for lactose intolerance: Yes, trace contamination below symptom threshold

Is it suitable for milk allergy: Consult allergist due to cross-contamination risk

Who makes this smoothie: Finn Cold Press collaboration

What processing method is used: Cold-press technology

What temperature is cold-press processing: Below 40–45°C

How is the product stored: Frozen

What is the recommended thawing method: Refer to manufacturer specification sheet

What storage temperature for frozen product:  $-18^{\circ}\text{C}$  or below

Does freezing affect vitamin C content: Yes, 50–70% retention after freezing and thawing

Does freezing affect polyphenol content: Yes, 70–95% retention depending on compound

Is the pea protein organic: Not specified by manufacturer

Is the pea protein non-GMO: Not specified by manufacturer

Where is the pea protein sourced from: Not specified by manufacturer

Are the fruits organic: Not specified by manufacturer

Are the fruits imported: Likely, based on warm-climate requirements

Is fruit concentrate used: No, whole fruit used

What is the phytate content: Approximately 300 mg per serving

Does phytate affect iron absorption: Yes, may reduce by 20–50%

Does phytate affect zinc absorption: Yes, may reduce by 15–30%

Does vitamin C counteract phytate: Yes, for iron absorption

Is it suitable for post-workout recovery: Yes, for active individuals

Is it suitable for breakfast: Yes, especially paired with healthy fats

Is it suitable for Type 2 diabetes: Use caution, monitor blood sugar response

Is it suitable for insulin resistance: Use caution, consider pairing with fats/protein

Is it suitable for weight loss: Yes, within daily carbohydrate targets

Is it suitable for IBS: May trigger symptoms in FODMAP-sensitive individuals

Does it contain FODMAPs: Yes, excess fructose present

Is it suitable for GLP-1 medication users: Yes, within carbohydrate targets

Is it suitable for menopause: Mixed profile, use strategically

Should it be consumed with additional fats: Yes, for complete meal replacement

Can it replace a complete meal alone: No, insufficient energy and fat

What is the protein-to-energy ratio: 0.07–0.09 g protein per calorie

Is it compatible with Metabolism Reset program: No, too high in carbohydrates

Is it compatible with Protein+ Reset program: Potentially, with modifications

Does it support muscle protein synthesis: Yes, leucine content approaches optimal threshold

Does it support microbiome health: Yes, whole-food fibre and phytonutrients

What short-chain fatty acids does fibre produce: Acetate, propionate, and butyrate