POT & LADLE (PASSARO INTERNATIONAL) • CHENNAI, INDIA

Technical Datasheet (TDS): OEM Pet Bone Broth Portfolio

Retort-Processed, Ambient Shelf-Stable Liquid Functional Toppers & Hydration Broths for Companion Animals

> **Manufacturing & Regulatory Overview:** All six formulations are engineered and manufactured exclusively in Chennai, India, under Better Process Control School (BPCS) certified thermal processing supervision. Formulations comply with U.S. FDA Low-Acid Canned Foods (LACF, 21 CFR Part 113) commercial sterilization parameters, AAFCO companion animal ingredient guidelines, and international export veterinary protocols.

1. SHARED THERMAL PROCESSING, PACKAGING & SAFETY STANDARDS

Every SKU across the Pot & Ladle pet bone broth range adheres to strict baseline process controls to ensure commercial sterility, hermetic pouch seal integrity, and clean-label compliance without artificial preservatives.

Process / Quality Parameter	Standardized Specification & Validation Protocol
Thermal Extraction	18–24 hours controlled slow simmer at 85°C–95°C in stainless-steel jacketed kettles to hydrolyze native collagen into bioavailable gelatin and amino acids without scorching.
Botanical & Veg Infusion	Staged addition to protect heat-sensitive actives and clarity: pet-safe vegetables (carrot, pumpkin, celery) infused in final 2–3 hrs; delicate herbs (parsley, chamomile, rosemary, turmeric) steeped in final 30–45 mins.
Filtration & Defatting	Multi-stage fine-mesh filtration followed by high-speed centrifugal separation to achieve residual lipid content < 0.5%–1.0%, preventing lipid oxidation and heat-seal contamination.
Commercial Sterilization	Validated horizontal retort autoclave processing achieving $F_0 \geq 6.0$ min (12-D *Clostridium botulinum* reduction) for Low-Acid Canned Food (pH > 4.6, a_w > 0.85) commercial sterility.
Mandatory Exclusions	100% free from added salt (NaCl), onions, garlic, leeks, chives (alliums), MSG, artificial flavors, synthetic colors, gums/thickeners, and chemical preservatives.
Packaging Formats	Multi-layer, BPA-free high-barrier retort pouches: 100–150 ml single-serve sachets, 250–300 ml stand-up pouches, and 500–1,000 ml resealable spouted retort pouches.
Shelf Life & Storage	18–24 months at ambient room temperature (15°C–30°C) unopened. Refrigerate at ≤ 4°C after opening and consume within 5–7 days.

2. SKU 01 — WATER BUFFALO BONE BROTH (NOVEL PROTEIN FLAGSHIP)

Product Code: PL-PBB-BUF-01 | Grass-Fed Indian Water Buffalo (*Bubalus bubalis*)

Target Species: Dogs & Cats (All Life Stages) • Positioning: Hypoallergenic Novel Red-Meat Protein

Specification Attribute	Technical Value / Description
Primary Ingredients	Purified RO water, grass-fed water buffalo femur marrow bones, knuckles, joints, and trotters, organic apple cider vinegar (extraction aid). Optional: carrot, pumpkin, parsley.
Organoleptic Profile	Deep mahogany-amber translucent liquid; rich savory roasted marrow aroma; forms a natural soft-to-firm gelatin gel when chilled below 8°C.
Physicochemical Specs	pH: 5.8 – 6.4 | Brix: 3.5° – 5.0° | Residual Fat: < 0.8% | Sterilization Value: $F_0 \geq 6.0$ min.
Functional Actives	Type I & II hydrolyzed collagen, glycine, proline, hydroxyproline, bioavailable calcium, phosphorus, and magnesium.
Commercial Advantage	Sourced from APEDA-certified Indian water buffalo supply chains; ideal alternative for dogs sensitive to conventional cattle beef or poultry.

3. SKU 02 — GOAT / MUTTON BONE BROTH (ULTRA-PREMIUM MOBILITY)

Product Code: PL-PBB-GOT-02 | Pasture-Raised Goat & Mutton Marrow & Trotters

Target Species: Senior Dogs, Large Breeds, Convalescing Pets • Positioning: Joint & Digestive Care

Specification Attribute	Technical Value / Description
Primary Ingredients	Purified RO water, goat/mutton trotters (*kaal*), knee cartilage, ribs, and marrow bones, organic apple cider vinegar. Optional: turmeric, ginger, pumpkin.
Organoleptic Profile	Warm golden-amber translucent liquid; mild, clean savory meat aroma; high gelatin viscosity upon refrigeration.
Physicochemical Specs	pH: 5.9 – 6.5 | Brix: 3.5° – 5.0° | Residual Fat: < 0.8% | Sterilization Value: $F_0 \geq 6.0$ min.
Functional Actives	Naturally occurring glucosamine, chondroitin sulfate, Type II cartilage collagen, and easily digestible short-chain amino acids.
Commercial Advantage	Low-allergen, gentle-on-stomach formulation tailored for senior mobility support, post-surgical recovery, and picky eaters.

4. SKU 03 — CHICKEN BONE BROTH (HIGH-TURN CORE VOLUME ANCHOR)

Product Code: PL-PBB-CHK-03 | Collagen-Dense Chicken Paws, Necks & Frames

Target Species: Dogs & Cats (Daily Kibble Topper) • Positioning: Everyday Hydration & Gut Health

Specification Attribute	Technical Value / Description
Primary Ingredients	Purified RO water, cleaned chicken feet (paws), necks, backs, and wing tips, organic apple cider vinegar. Optional: carrot, celery, chamomile, parsley.
Organoleptic Profile	Clear pale-golden liquid; classic mild poultry broth aroma; firm, glossy gelatin set when refrigerated.
Physicochemical Specs	pH: 5.8 – 6.4 | Brix: 3.5° – 4.8° | Residual Fat: < 0.7% | Sterilization Value: $F_0 \geq 6.0$ min.
Functional Actives	High-density gelatin, hyaluronic acid, L-glutamine, glycine, and proline supporting intestinal mucosal lining integrity.
Commercial Advantage	Highest consumer familiarity and subscription reorder rate; serves as the foundational entry SKU for private-label retail lines.

5. SKU 04 — MARINE FISH BONE BROTH (FELINE & SKIN/COAT SPECIALTY)

Product Code: PL-PBB-FSH-04 | Wild-Caught Ocean Fish Frames, Heads & Skin

Target Species: Cats (Urinary Hydration) & Dogs • Positioning: Marine Collagen & Coat Wellness

Specification Attribute	Technical Value / Description
Primary Ingredients	Purified RO water, wild-caught marine fish frames, heads, and collagen-rich skin (processed under rapid cold-chain handling), organic apple cider vinegar.
Organoleptic Profile	Light ivory-to-beige opalescent broth; clean, appetizing oceanic aroma (free from rancid or oxidized fish notes).
Physicochemical Specs	pH: 6.0 – 6.6 | Brix: 3.0° – 4.5° | Residual Fat: < 0.8% | Sterilization Value: $F_0 \geq 6.0$ min.
Functional Actives	Low-molecular-weight Type I marine collagen peptides (rapid absorption) and trace marine Omega-3 fatty acids (EPA/DHA).
Commercial Advantage	High palatability for obligate carnivores (cats) to encourage daily moisture intake for urinary and renal health, plus skin/coat luster.

6. SKU 05 — BLACK SOLDIER FLY (BSF) PROTEIN BROTH (SUSTAINABLE NOVEL)

Product Code: PL-PBB-BSF-05 | Defatted *Hermetia illucens* Larvae Protein Base
Target Species: Dogs & Cats with Severe Allergies • Positioning: Eco-Sustainable Hypoallergenic

Specification Attribute	Technical Value / Description
Primary Ingredients	Purified RO water, food-grade defatted Black Soldier Fly larvae (*Hermetia illucens*) protein / hydrolysate, functional vegetable extract (pumpkin, carrot).
Organoleptic Profile	Earthy warm-brown smooth liquid; mild nutty-umami savory profile highly accepted by dogs and cats.
Physicochemical Specs	pH: 5.8 – 6.4 | Brix: 3.5° – 5.0° | Residual Fat: < 0.8% | Sterilization Value: $F_0 \geq 6.0$ min.
Functional Actives	Complete essential amino acid profile, natural medium-chain lauric acid, and antimicrobial peptides supporting gut microbiome balance.
Commercial Advantage	Zero prior dietary exposure in companion animals makes it ideal for veterinary elimination diets and low-carbon-footprint pet brands.

7. SKU 06 — 70:30 EGG-BLENDED BONE BROTH (COST-OPTIMIZED HYBRID)

Product Code: PL-PBB-EGG-06 | 70% Meat/Bone Extract + 30% Whole Egg Protein
Target Species: Active Dogs, Working Breeds & Value Lines • Positioning: High-Digestibility Hybrid

Specification Attribute	Technical Value / Description
Primary Ingredients	70% primary meat/bone extract (chicken or goat/mutton base) + 30% pasteurized liquid whole egg protein (thermal-stabilized to prevent coagulation/curdling), purified RO water.
Organoleptic Profile	Creamy pale-gold homogeneous liquid; rich, velvety mouthfeel and mild savory egg-and-broth aroma.
Physicochemical Specs	pH: 6.0 – 6.6 | Brix: 4.0° – 5.5° | Residual Fat: < 1.0% | Sterilization Value: $F_0 \geq 6.0$ min.
Functional Actives	100% biological-value complete essential amino acids (including methionine & lysine), natural biotin, choline, and collagen peptides.
Commercial Advantage	Stabilizes raw material cost volatility for high-volume private-label contracts while boosting total bioavailable protein digestibility.

8. QUALITY ASSURANCE, EXPORT DOCUMENTATION & TECHNICAL CONTACT

Every commercial production lot is released with a batch-specific Certificate of Analysis (COA) verifying pH, Brix, residual fat, hermetic seam/seal integrity, and incubated commercial sterility clearance. Export documentation supports U.S. FDA facility registration, veterinary health certification, Certificate of Origin, and custom nutritional panel calculations.

Technical Consultation & OEM Sample Requests:
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