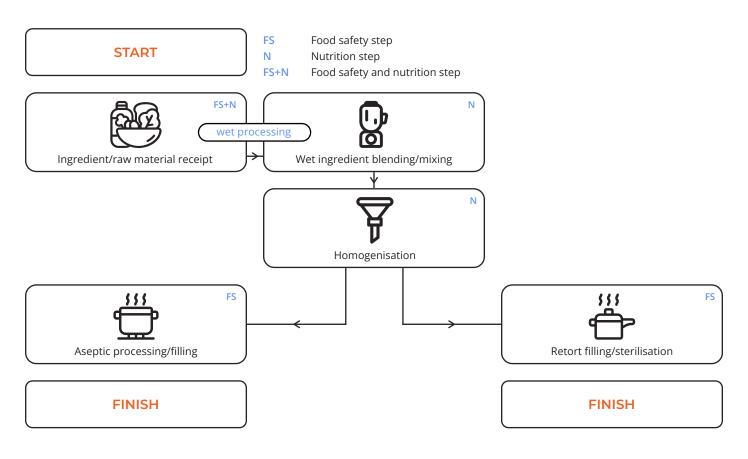
Liquid FSDU Flowchart

ISOI International Special Dietary Foods Industries

Examples of liquid FSDU are infant formula, follow-up formula, products for young children, formula foods for use in weight control diets, formula foods for use in very low energy diets for weight reduction and foods for special medical purposes (FSMPs)



INGREDIENT/RAW MATERIAL RECEIPT

FOOD SAFETY & NUTRITION

Raw incoming ingredients are tested to confirm they are acceptable, which could include nutritional, sensory and microbiological analyses, among others.

WET INGREDIENT BLENDING/MIXING

The ingredients are mixed well to ensure they are uniformly dispersed into a homogeneous wet mix. This ensures the correct amount of each ingredient is dispersed throughout the formulation.

HOMOGENISATION

NUTRITION

The liquid is pumped through a small opening under high pressure, causing the large oil particles to break up into many smaller particles that become uniformly dispersed in the mixture and are less likely to separate over time. This helps ensure a uniform distribution of nutrients in the product.

ASEPTIC PROCESSING/FILLING FOOD SAFETY

The product is exposed to extremely high temperatures for a few seconds to sterilise it and then rapidly cooled to limit nutrient degradation. It is then filled into containers in a sterile (aseptic) environment to prevent external contamination. This makes it "shelf stable", meaning it does not need to be refrigerated to remain safe to consume.

RETORT FILLING/STERILISATION

FOOD SAFETY

The unsterilised liquid is first filled into its package. The package is then loaded into a retort (a large vessel similar to a pressure cooker). This exposes it to a combination of water, steam and pressure, sterilising both the package and the liquid.