ALLERGEN-FREE CULINARY LAB & SPECIALTY BAKERY

GLUTEN-FREE & DAIRY-FREE BAKING SUBSTITUTION GUIDE

Mastering Allergen-Free Baking: 1:1 Flour Blends, Starch Ratios, Plant Milk, Fats & Egg Binders

KITCHEN EDITION
Standard US Letter
Bespoke Printable

MASTER 1:1 ALL-PURPOSE GLUTEN-FREE FLOUR BLEND FORMULA (1,000G BATCH)

White Rice Flour (Fine): 400g (40%) *(Provides clean structural base)*

Brown Rice Flour: 200g (20%) *(Adds subtle nutty grain flavor & fiber)*

Potato Starch: 200g (20%) *(Delivers tenderness & moisture retention)*

Tapioca Flour: 150g (15%) *(Supplies chewiness & stretch elasticity)*

Xanthan Gum: 50g (5%) *(Crucial gluten binder replacement (omit if sensitive))*

Ratio Rule: 60% Grain Flours to 40% Starches | Rest all GF batters for 20 mins to eliminate grittiness!

SPECIALTY FLOURS

Almond Flour (Blanched)
Sub: 1:1 for wheat in quick breads
Liquid: Reduce liquids by 10%
Note: Dense, high healthy fats

Coconut Flour
Sub: 1/4 Cup per 1 Cup wheat
Liquid: Add 1 extra egg per 1/4 cup
Note: Ultra-absorbent fiber

Oat Flour (Certified GF)
Sub: 1:1 in cookies & muffins
Liquid: Equal liquid absorption
Note: Tender, velvety crumb

Buckwheat Flour (Grain-Free)
Sub: 1:1 in pancakes & crepes
Liquid: Whisk well; earthy flavor
Note: Naturally 100% gluten-free

DAIRY-FREE MILK & BUTTER

Whole Milk Replacement
Sub: 1:1 Unsweetened Almond Milk
or Oat Milk (creamiest texture)
or Soy Milk (highest protein)

Butter Replacement
Sub: 1:1 Plant-Based Vegan Butter
(Miyoko's / Country Crock Plant)
or Organic Refined Coconut Oil

Heavy Whipping Cream
Sub: 1:1 Canned Full-Fat Coconut Cream
Chill overnight; whip solid layer with
powdered sugar for dairy-free whip

Buttermilk Replacement
Sub: 1 Cup Soy/Almond Milk + 1 Tbsp
Apple Cider Vinegar or Lemon Juice
Rest 10 mins until curdled

EGG BINDERS & MOISTURE

Flaxseed Egg (1 Egg)
1 Tbsp Ground Flaxseed + 3 Tbsp Water
Rest 10 mins until gelatinous
Ideal for cookies & dark quick breads

Aquafaba (Chickpea Liquid)
3 Tbsp Aquafaba = 1 Egg
Whips like egg whites into vegan
meringues and light macaron shells

Unsweetened Applesauce
1/4 Cup Applesauce = 1 Egg
Delivers exceptional moisture to
brownies and breakfast loaf cakes

Mashed Ripe Banana
1/2 Ripe Banana = 1 Egg
Adds sweetness and structure to
muffins and morning pancakes

ALLERGEN-FREE BAKING TROUBLESHOOTING & TEXTURE SECRETS

CRUMBLY TEXTURE
- Add 1/4 tsp extra xanthan gum
- Increase moisture by 1-2 Tbsp
- Let baked goods cool 100% before cut

GUMMY CENTER
- Bake 5-10 mins longer at 25F lower
- Tent with foil if browning too fast
- Measure GF flour strictly by grams

GRITTY MOUTHFEEL
- Rest batter 20-30 mins before bake
- Starches must hydrate fully
- Use superfine ground rice flours

CUSTOM ALLERGEN RECIPE MODIFICATIONS & FLOUR BLEND NOTES: