

Appendix F:

Space Tortilla Formulation (Recipe)

<u>Ingredients</u>	<u>% by Mass</u>
Wheat	61.79
Water	26.58
Glycerin	4.02
Shortening	3.71
Mono/Diglycerides	1.24
Salt	0.99
Baking Powder	0.87
Dough Conditioner	0.31
Fumaric Acid	0.19
Potassium Sorbate	0.15
Carboxymethyl Cellulose	0.12
Calcium Propionate	0.03
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	100.00%

Preparation:

1. Dry ingredients are combined in a mixer using the wire beater attachments on a stir setting for 1 minute.
2. Shortening and mono/diglycerides are then added and blended to cornmeal consistency. Mix about 3–5 minutes using the wire beater attachment on speed 2.
3. Fumaric acid and potassium sorbate are weighed separately, added to 100 ml water, and set aside.
4. Glycerin and the remainder of water are combined and added to the mix using the dough hook attachment.
5. The fumaric acid and potassium sorbate solution is added to the dough and mixed on speed 2. Mix for about 10 minutes.
6. After mixing, allow the dough to rest 5 minutes, and then divide into 32 equal portions using a dough divider.
7. Round each individual piece by hand, place into muffin pans, and cover with plastic wrap.
8. Place into a 35.5-degree Celsius proofing chamber for 1 to 2 hours.
9. Dust each dough ball lightly with flour, and then form in a tortilla press.

Cooking:

10. Place pressed tortilla in a preheat frying pan (190–204 degrees Celsius).
11. When uncooked surface begins to bubble, flip tortilla to cook the other side.
12. After both sides are baked, remove tortillas to a cool surface lined with waxed paper and allow to cool. Turn the tortillas to prevent condensation from forming between the waxed paper and the tortilla.

Packaging:

13. After cooling to room temperature, two tortillas are folded in half and placed in a three-ply foil laminate pouch (outside diameter: 6 1/2 X 8 1/8”).
14. Insert an oxygen absorber into each pouch before the sealing operation.
15. Place the filled pouch in a vacuum seal chamber and back-flush with nitrogen three times and seal at 10 in. Hg vacuum.

