ANNEXURES
Annexure I

Consent Form

I …………………………………………………….give my consent to participate in the survey.

(Name of the participant)

Date: 
Place: 
Signature of the participant

TEAR FROM HERE

Survey on Consumption and Labeling of Processed Packaged Foods

This survey is a part of doctoral dissertation and the information collected will be purely for research work. The personal information will be kept strictly confidential. The study has been approved by the Departmental Medical Ethical Committee. We request you to kindly spare your valuable time and complete the questionnaire. A brief background of the study is given below.

India is witnessing a breathtaking rise in grocery retail market. Over the last few decades food processing has grown at a rate of 7.1 percent per annum which shows that there is an increasing consumption of processed foods in the population. Processed packaged foods carry information on symbols and logos, nutrient claims, health claims, ingredients list, allergen declaration, Nutrition Facts Panel (NFP), information on colors, flavors and preservatives, manufacture and best before date and other miscellaneous information. This information serves as an important educational tool for consumers to make healthy food choices. This survey is an attempt to assess the most commonly consumed processed foods in the population and to understand whether the labeling information is consumer friendly and easy to understand. The information gathered through the survey will enable us to know whether the commonly consumed processed packaged foods are healthy or not so healthy. Further, the survey will also enable us to arrive at effective and consumer friendly food labeling.

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Gujarat

By: Dr. Suneeta Chandorkar and Meenu Singh, Dept. of Foods & Nutrition, The M.S. University of Baroda, Vadodara
Annexure II

Questionnaire on Quantity and Frequency of Processed Packaged Food Consumption

Demographic Profile

Code no……………

1. Name………………………………
2. Age………………………………
3. Gender
   (a) Male…………………………
   (b) Female………………………
4. Educational level………………
5. Family Income (approx.)
6. Profession…………………..
7. Marital status…………………
8. Height (in cms)……………….. 
9. Weight (in kg)…………………
10. Medical condition (if any):
   (a) Yes…………………………
   (b) No…………………………
11. Allergic to any food/ingredient (if any)………………………
12. Family Type
   (a) Living Single……………….. 
   (b) Nuclear Family………………
   (c) Joint Family…………………
13. Mb. No………………………
14. E-mail………………………..
15. Present Address……………….

Operational definition

Processed packaged foods are the foods which undergoes few or many processing techniques like grinding, roasting, baking, frying, preservation by the preservatives etc. to make the product easy to cook or eat with minimum efforts.

Key For Frequency of Consumption

1) Once a month (rarely)  4) 2-3 days a week
2) Twice a month  5) 4-5 days per week
3) Once a week (sometimes)  6) Every day
<table>
<thead>
<tr>
<th>S.No.</th>
<th>Food categories</th>
<th>Brand</th>
<th>Quantity of consumption per sitting</th>
<th>Frequency of consumption</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Cornflakes, oats and muesli (no. of bowls)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Noodles, pasta and macaroni</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Salty Biscuits (in nos. 1, 2, ....)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Sweet biscuits (in nos. 1, 2, ....)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Sweet cream wafers (in nos. 1, 2, ....)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>Chocolates (in nos. 1, 2, ....)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>Cakes (slices)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>Canned fruits (g)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>Jam, marmalades and jellies (no. of tbsp)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>Butter and cheese (no. of tbsp)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11.</td>
<td>Spreads and dips (no. of tbsp)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12.</td>
<td>Malted beverages (in ml)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13.</td>
<td>Soft drinks (ml)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14.</td>
<td>Energy drinks (ml)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15.</td>
<td>Juices (ml)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16.</td>
<td>Squashes (ml)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17.</td>
<td>Ready to cook foods (g)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18.</td>
<td>Ready to use spice mixes (g)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19.</td>
<td>Ready to make cake and ice cream mixes (g)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20.</td>
<td>Ready to eat sweets (g)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21.</td>
<td>Soups (ml)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22.</td>
<td>Pickles (no. of tbsp)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>23.</td>
<td>Papads (in nos. 1, 2, ....)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24.</td>
<td>Chutneys (no. of tbsp)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25.</td>
<td>Ketchups and sauces (no. of tbsp)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>26.</td>
<td>Namkeens and savories (g)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>27.</td>
<td>Chips (g)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>28.</td>
<td>Popcorn (g)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>29.</td>
<td>Cereal and milk based baby foods (no. of bowls)</td>
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</tbody>
</table>
# Annexure III

## Proforma for Assessing Food Labeling on Processed Packaged Foods

<table>
<thead>
<tr>
<th>Product Name</th>
<th>Pack Size</th>
<th>Serving Size</th>
<th>No. of Servings</th>
<th>Manufacture and Best Before Date</th>
<th>Kind of NFP</th>
<th>Nutrients on NFP</th>
<th>Symbols and Logos</th>
<th>Health Claims</th>
<th>Nutrient Claims</th>
<th>Ingredients List</th>
<th>Allergen Declaration</th>
<th>Information about Colors, Flavors and Preservatives</th>
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<tr>
<td>Product 1</td>
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<td>Product 2</td>
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<td>Product 11</td>
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<tr>
<td>Product 12</td>
<td></td>
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<td></td>
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<td>Product 13</td>
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<td>Product 14</td>
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<td></td>
</tr>
</tbody>
</table>
Annexure IV
Consumer Awareness and Practices Survey on Food Labeling

Code no………………

1. Name………………………………… 3. Gender………………………………………………
2. Age…………………………………… 4. Mb. No………………………………………………

Part I: Knowledge, Attitude and Practices

1. Why do you purchase processed packaged foods?
   a. For convenience  d. For variety and taste
   b. Do not have time to cook  e. For status
   c. Do not know how to cook  f. Others

2. Do you look for nutrition labels when you purchase processed packaged foods?
   a. Always  c. Rarely
   b. Sometimes  d. Never

3. If yes, why do you look for nutrition labels?
   a. For general knowledge  d. Calorie count
   b. Concern about overall health  e. Others
   c. Concern only about certain nutrients

4. If no, then why don’t you look for nutrition labels?
   a. Not interested/think its useless  d. Do not have time
   b. Will not change my mind about food items I prefer  e. Others
   c. Do not understand
5. What information do you look for on the package while purchasing the processed food?

a. Attractive package  
b. Its popular  
c. Advertisement  
d. Recommended by someone  
e. Method of cooking/instructions  
f. Brand  
g. Pack size  
h. Discount/offer on the product  
i. Your medical need

j. Information about allergens if any  
k. Taste  
l. Price  
m. Type of food (veg/non veg)  
n. Manufacture and best before date  
o. Nutrition quality symbols  
p. Ingredients list  
q. Nutrition panel information

6. Do you read the ingredients list on the package?

a. Always  
b. Sometimes  
c. Rarely  
d. Never

7. In what ways the information about ingredients is useful for a consumer?

__________________________________________________________________________  
__________________________________________________________________________  

8. Do you read nutritional panel facts?

a. Always  
b. Sometimes  
c. Rarely  
d. Never

9. In what ways the nutritional panel facts is useful for a consumer?

__________________________________________________________________________  
__________________________________________________________________________
10. What do you particularly look in the nutrition panel information?

- a. Energy
- b. Energy from fat
- c. Total fats
- d. Saturated fat
- e. Polyunsaturated fat
- f. Monounsaturated fat
- g. Trans fat
- h. Cholesterol
- i. Protein
- j. Sugar
- k. Vitamins
- l. Minerals
- m. Sodium
- n. Potassium
- o. Iron
- p. Fibre

11. Do you look for nutrition quality symbols on the label?

- a. Always
- b. Sometimes
- c. Rarely
- d. Never

12. In what ways the nutrition quality symbols on the label are useful for a consumer?

________________________________________________________________________

________________________________________________________________________
Part II: Symbols and Logos

1. SMART CHOICES PROGRAM
   GUIDING FOOD CHOICES

2. GOVERNMENT OF INDIA

3.圆

4. 方

5. FPO

6. HEALTHY CHOICE

7. WACC Certificate
Kindly provide the following information after examining the symbols and logos given on page ‘4’

<table>
<thead>
<tr>
<th>Symbols and Logos</th>
<th>Are you familiar with the symbol?</th>
<th>What does it stand for?</th>
<th>Does this symbol influence your product selection?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>(a) Yes</td>
<td>(a)...................</td>
<td>(a) Yes</td>
</tr>
<tr>
<td></td>
<td>(b) No</td>
<td>(b) Don’t know</td>
<td>(b) No</td>
</tr>
<tr>
<td>2.</td>
<td>(a) Yes</td>
<td>(a)...................</td>
<td>(a) Yes</td>
</tr>
<tr>
<td></td>
<td>(b) No</td>
<td>(b) Don’t know</td>
<td>(b) No</td>
</tr>
<tr>
<td>3.</td>
<td>(a) Yes</td>
<td>(a)...................</td>
<td>(a) Yes</td>
</tr>
<tr>
<td></td>
<td>(b) No</td>
<td>(b) Don’t know</td>
<td>(b) No</td>
</tr>
<tr>
<td>4.</td>
<td>(a) Yes</td>
<td>(a)...................</td>
<td>(a) Yes</td>
</tr>
<tr>
<td></td>
<td>(b) No</td>
<td>(b) Don’t know</td>
<td>(b) No</td>
</tr>
<tr>
<td>5.</td>
<td>(a) Yes</td>
<td>(a)...................</td>
<td>(a) Yes</td>
</tr>
<tr>
<td></td>
<td>(b) No</td>
<td>(b) Don’t know</td>
<td>(b) No</td>
</tr>
<tr>
<td>6.</td>
<td>(a) Yes</td>
<td>(a)...................</td>
<td>(a) Yes</td>
</tr>
<tr>
<td></td>
<td>(b) No</td>
<td>(b) Don’t know</td>
<td>(b) No</td>
</tr>
<tr>
<td>7.</td>
<td>(a) Yes</td>
<td>(a)...................</td>
<td>(a) Yes</td>
</tr>
<tr>
<td></td>
<td>(b) No</td>
<td>(b) Don’t know</td>
<td>(b) No</td>
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</table>
Part III: Nutrition Facts Panel

### NFP 1

<table>
<thead>
<tr>
<th>NUTRITIONAL INFORMATION (after popping)</th>
<th>Quantity per 100 g (Approx.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy (Kcal)</td>
<td>503</td>
</tr>
<tr>
<td>Protein (g)</td>
<td>8</td>
</tr>
<tr>
<td>Total Carbohydrate (g)</td>
<td>57</td>
</tr>
<tr>
<td>- Sugars (g)</td>
<td>0</td>
</tr>
<tr>
<td>- Dietary Fibre (g)</td>
<td>8</td>
</tr>
<tr>
<td>Total Fatty Acids (g)</td>
<td>28</td>
</tr>
<tr>
<td>- Saturated Fatty Acids (g)</td>
<td>14</td>
</tr>
<tr>
<td>- Polyunsaturated Fatty Acids (g)</td>
<td>4</td>
</tr>
<tr>
<td>- Monounsaturated Fatty Acids (g)</td>
<td>10</td>
</tr>
<tr>
<td>- Trans Fatty Acids (g)</td>
<td>0</td>
</tr>
<tr>
<td>Cholesterol (mg)</td>
<td>0</td>
</tr>
<tr>
<td>Sodium (g)</td>
<td>0.4</td>
</tr>
</tbody>
</table>

### NFP 2

<table>
<thead>
<tr>
<th>Nutrient</th>
<th>Best For</th>
<th>Per 100g[^1]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vitamin A</td>
<td>Good vision, healthy skin</td>
<td>3150 IU</td>
</tr>
<tr>
<td>Vitamin B₂</td>
<td>Growth, proper functioning of heart and nervous system</td>
<td>9600 μg</td>
</tr>
<tr>
<td>Vitamin B₆</td>
<td></td>
<td>960 μg</td>
</tr>
<tr>
<td>Riboflavin</td>
<td></td>
<td>1060 μg</td>
</tr>
<tr>
<td>Folic Acid</td>
<td>Healthy blood and body tissues</td>
<td>240 μg</td>
</tr>
<tr>
<td>Calcium</td>
<td>Healthy bones and teeth</td>
<td>76 mg</td>
</tr>
<tr>
<td>Vitamin C</td>
<td>Protection against infections/cold</td>
<td>40 mg</td>
</tr>
<tr>
<td>Phosphorus</td>
<td>Kidney, heart and cell growth</td>
<td>38 mg</td>
</tr>
</tbody>
</table>

[^1]: Approx. nutrients, when packed

<table>
<thead>
<tr>
<th>Nutritional Information</th>
<th>Per 100 g[^2]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy</td>
<td>376 Kcal</td>
</tr>
<tr>
<td>Carbohydrate</td>
<td>94 g</td>
</tr>
<tr>
<td>Fat</td>
<td>0 g</td>
</tr>
<tr>
<td>Protein</td>
<td>0 g</td>
</tr>
</tbody>
</table>

[^2]: Approx. nutrients, when packed

### NFP 3

#### Nutritional Facts

<table>
<thead>
<tr>
<th>Serving Size: 20 g</th>
<th>Per serving</th>
<th>Per 100g</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy</td>
<td>372 KJ</td>
<td>1858 KJ</td>
</tr>
<tr>
<td>Protein</td>
<td>2.5g</td>
<td>12.4g</td>
</tr>
<tr>
<td>Carbohydrate</td>
<td>8g</td>
<td>46g</td>
</tr>
<tr>
<td>of which sugars</td>
<td>7g</td>
<td>34g</td>
</tr>
<tr>
<td>Fat</td>
<td>5g</td>
<td>23g</td>
</tr>
<tr>
<td>of which saturates</td>
<td>0.5g</td>
<td>2.6g</td>
</tr>
<tr>
<td>Fibre</td>
<td>3.4g</td>
<td>17g</td>
</tr>
<tr>
<td>Sodium</td>
<td>0.4g</td>
<td>2g</td>
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</tbody>
</table>

### NFP 4

#### NUTRITION FACTS

<table>
<thead>
<tr>
<th>Serving Size 10g</th>
<th>Serving Per Pack 5</th>
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</thead>
<tbody>
<tr>
<td>Calories (Kcal)</td>
<td>492 Kcal</td>
</tr>
<tr>
<td>Total Fat 2g</td>
<td>1%</td>
</tr>
<tr>
<td>Saturated Fat</td>
<td>0%</td>
</tr>
<tr>
<td>Polyunsaturated Fat</td>
<td>0g</td>
</tr>
<tr>
<td>Trans Fat 0g</td>
<td>0%</td>
</tr>
<tr>
<td>Cholesterol 0g</td>
<td>0%</td>
</tr>
<tr>
<td>Sodium 360mg</td>
<td>15%</td>
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<tr>
<td>Total Carbohydrate 5g</td>
<td>2%</td>
</tr>
<tr>
<td>Dietary Fibre 0.25g</td>
<td>1%</td>
</tr>
<tr>
<td>Sugars 2g</td>
<td>0%</td>
</tr>
<tr>
<td>Protein 1g</td>
<td>0%</td>
</tr>
<tr>
<td>Vitamin A 0.5%</td>
<td>0%</td>
</tr>
<tr>
<td>Vitamin C 0%</td>
<td>0%</td>
</tr>
<tr>
<td>Calcium 1%</td>
<td>0%</td>
</tr>
<tr>
<td>Iron 2%</td>
<td>0%</td>
</tr>
</tbody>
</table>

*Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs.

Calories per gram:
- Fat: 9
- Carbohydrate: 4
- Protein: 4

---

By: Dr. Suneeta Chandorkar & Meenu Singh, Dept. of Foods & Nutr., The M.S. University of Baroda
Kindly provide the following information after examining all the labels given on page ‘6’

1. Rate the products as healthy, less health and unhealthy based on the NFPs given on page ‘6’

<table>
<thead>
<tr>
<th>NFPs</th>
<th>Healthy and why?</th>
<th>Less healthy and why?</th>
<th>Unhealthy and why?</th>
</tr>
</thead>
<tbody>
<tr>
<td>NFP 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NFP 2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NFP 3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NFP 4</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. Grade the NFPs as easy to understand, difficult to understand and do not understand at all.

<table>
<thead>
<tr>
<th>NFPs</th>
<th>Easy to understand</th>
<th>Difficult to understand</th>
<th>Do not understand at all</th>
</tr>
</thead>
<tbody>
<tr>
<td>NFP 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NFP 2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NFP 3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NFP 4</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
3. On which NFP would you like to have more nutrition information?

____________________________________________________________________

4. Tick the terms which you found difficult to understand on the Nutrition Information Panels?

   a) % Daily value (% DV)
   b) I.U.
   c) µg
   d) Of which sugar/saturates
   e) KJ
   f) Per serving
   g) Polyunsaturated fatty acids
   h) Monounsaturated fatty acids
   i) Trans fatty acids
   j) Calories from fat
   k) Sodium
A B C of FOOD LABEL

OTHER HEALTH CLAIMS
Heart related health claims
• Good for heart
• Healthy heart
• Reduces the risk of heart diseases

Bone related health claims
• Good for bones

The product should be a good source of calcium (more than 20%DV)

OTHER LOGO
Non-Vegetarian Logo

INGREDIENTS
An ideal ingredients list:
- Should have ingredients in the decreasing order of their weight expressed in percentages.
- If ingredients are not given in percentages then pay attention to the order of the ingredients.
- If ingredients like sugar, fat/oil, salt, monosodium glutamate or their alternative sources appear in 1st, 2nd or 3rd position then the food is unhealthy.
- If there are more than one source of fat, sodium, MSG and sugar or their alternative sources, the food may be unhealthy.
- Foods with too many preservatives, additives, colors and flavors are unhealthy.

ALTERNATIVE SOURCES OF INGREDIENTS TO BE LIMITED/AVOIED
SALT/SODIUM
• Sodium
• Carbonate/bicarbonate
• Sodium citrate
• Di-sodium inosinate/glutamate
• Soy sauce
• Sodium meta-bi-sulphite
• Black Salt
• Monosodium glutamate (MSG)

FAT
• Shortening
• Hydrogenated oils
• Partially Hydrogenated Oils/Fat
• Choera
• Margarine
• Butter

SUGAR
• Sucrose, Dextrose, Fructose
• Maltose, Maltodextrin
• Cane sugar
• High-Fructose corn syrup
• Honey
• Maple syrup
• Jaggery
• Invert syrup, liquid glucose
• Mollases
• Caramelised sugar

MONO-SODIUM GLUMATE
• Autoalyzed vegetable protein
• Hydrolyzed vegetable protein
• Calcium caseinate
• Sodium caseinate
• Textured protein
• Yeast extract

OTHER QUALITY SYMBOLS
Fruit Product Order (FPO)
Agricultural Marketing (AGMARK)
International Standards Organization (ISO)
Smart Choice

USING NFP FOR MAKING HEALTHY FOOD CHOICES
• Fat Reported
• Fat Calculated
• Total Energy or Calories in the Product X 0.022 = Fat amount that should be in the product

1. If reported fat > calculated fat = Unhealthy Product

Sodium Reported
Sodium Calculated
Sodium (mg) + No. of meals per day = Calculated sodium for a meal

2. If reported sodium > calculated sodium = Unhealthy Product

When Nutrition Facts are given in % Daily Value (%DV) then,
- Nutrients to be limited/avoided [Total Fat, Saturated Fat, Trans Fat, Cholesterol and Sodium] should be < 5% DV
- Nutrients to be taken liberally [Fiber, Iron, Calcium, Vitamin A and Vitamin C] should be ≥ 20% DV

3. If Nutrients to be limited/avoided > 5% DV = Unhealthy Product

OTHER NUTRITION CLAIMS
• Low Sugar
• Low Sodium
• Low Salt
• Trans Fat free/Zero trans fat
• Cholesterol free/Zero
• Cholesterol/ No Cholesterol
• Good source of Vitamins
• Good source of Minerals
• Added Vitamin B12
• Reduced Fat
• High in Iron and Calcium/Calcium and Iron rich
• Source of Fiber/High in Fiber
• Source of Protein
• High in Vitamin B1, B2, B3, B6
• Sugar-free
• No added sugar

BACK OF PACK (BOP)

INGREDIENTS
• MULTIGRAIN FLOUR (80.5%)
[82% WHEAT, 6% RAGI]
\[\text{INS 627, INS 631} \]
[CARROT, ONION, GARLIC], SALT, SUGAR,
[VEGETABLE OIL (CORN OIL),
[YEAST EXTRACT (INS 627, INS 631),
[FLAVOR ENHANCERS (INS 631, 627)]

NUTRITION FACTS PANEL (NFP)

Cooking Instructions
1. Add noodles and entire contents of tastemaker powder to 2 cups of cold water and stir well.
2. Bring to boil and simmer for 3 minutes.

INGREDIENTS:
• SUGAR
• SALT
• SODIUM GLUTAMATE
• MONOGLUCOSIDE
• SALT/SODIUM
• SODIUM CARBONATE
• SODIUM CITRATE
• DI SODIUM INOSINATE/GLUTAMATE
• SOY SAUCE
• SODIUM METABISULPHITE
• BLACK SALT
• MONOSODIUM GLUTAMATE (MSG)
• FAT
• HYDROGENATED OILS
• PARTIALLY HYDROGENATED OILS/FAT
• OILS
• OILS
• MILK
• EGGS
• SEAFOODS
• MUSTARD
• SESAME OIL

Pack Size

Price, Batch Number, Manufacture and Best Before Date

Manufacturer's Address

Butter

FRUIT PRODUCT ORDER (FPO)

Hazard Analysis Critical Control Point (HACCP)

Agricultural Marketing (AGMARK)

Agricultural Marketing (AGMARK)

INTRODUCTION AND THE IMPORTANCE OF FOOD LABELING

FOOD LABEL
Gives an idea about overall quality, standard and safety related to packaged food being consumed

SYMBOLES & LOGOS
Assure quality
NUTRITION AND HEALTH CLAIMS
Help in selecting food according to the physiological and health conditions

INGREDIENTS
Help in verifying nutrition and health claims
NUTRITION FACTS PANEL
Help in comparing nutrient values among products of different brands to make healthy food choices

At the Back of Pack

What have we learnt?

1. Food Label
Gives an idea about overall quality, standard and safety related to packaged food being consumed

2. Symbols & Logos
Assure quality

3. Nutrition and Health Claims
Help in selecting food according to the physiological and health conditions

4. Ingredients
Help in verifying nutrition and health claims

5. Nutrition Facts Panel
Help in comparing nutrient values among products of different brands to make healthy food choices

So, what have we learnt?

FOOD LABEL
Gives an idea about overall quality, standard and safety related to packaged food being consumed

SYMBOLES & LOGOS
Assure quality

NUTRITION AND HEALTH CLAIMS
Help in selecting food according to the physiological and health conditions

INGREDIENTS
Help in verifying nutrition and health claims

NUTRITION FACTS PANEL
Help in comparing nutrient values among products of different brands to make healthy food choices

Developed By: Dr. Suneeta Chandorkar & Ms. Meenu Singh, Department of Foods & Nutrition, The M.S. University of Baroda, Vadodara- 390 002, Gujarat
Project Funded by Gujarat Council of Science & Technology (GJUCST)
Quick tips to make healthy food selection

- Look for logos and symbols for quality assurance (for more information refer page 3).
- Verify the nutrition and health claims by looking at the ingredients list and NFP.
- Check NFP of products that claim to have "zero cholesterol", "no trans fat", "low sodium" or "sugar free." Products with such claims should have zero/nit cholesterol/trans fat and least sodium/sugar.
- Consume products having least/no preservatives, additives, colors and flavors.
- Always look for trans fat free product. If consuming trans fat containing food then limit the consumption or number of servings of such foods.” Make sure that the calories coming from fat should be less than those from carbohydrates and proteins (refer page 10 to calculate calories from fat, protein and carbohydrate as per thumb rule).
- Check ingredients list and NFP for the products claiming to be "heart healthy", "good for heart" or "reduces the risk of heart." They should not have more than one source of fat/oil in ingredients list and should have zero cholesterol and zero trans fat. * Individuals with allergies must look at the ingredients list for allergy causing substances, additives, preservatives, artificial colors and flavors (for more information on allergens refer page 5).
- Diabetics should look for sugar free or minimum sugar containing products. They should also verify from the ingredients list that no alternative source of sugar is used in the product (for sources of sugar refer page 6).
- People with high blood pressure or heart related diseases should look for foods with minimum sodium, total fat and saturated fat (each less than 5%DV) and zero cholesterol and zero trans fat on NFP. They should verify from the ingredients list that no more than one source of sodium and oil/fat are used in the product. Also the product should not contain hydrogenated fat or its sources (for sources of sodium and fat refer page 6).

The above tips will help you select a healthy product.

For further reading refer:
- http://www.codexindia.nic.in/key.htm
- http://www.fssai.gov.in/

For queries contact
- Dr. Suneeta Chandorkar [E-mail: suneetachandorkar@hotmail.com]
- Ms. Meenu Singh [E-mail: somvanshi.meenu@gmail.com]
About The Booklet

This booklet on food labeling aims to provide information on importance of food labels and how to read them. It is mandatory for the food manufacturers to provide information on ingredients, allergens, natural or artificial colors and flavors, nutrition content on Nutrition Facts Panel, nutrition and health claims, logos and quality symbols and other miscellaneous information like manufacture and best before date, batch number, manufacturer's address, pack size and method of cooking. The information provided on the labels is an important tool for the consumers to make healthy food choices and therefore is of public health significance. Therefore, consumers should be able to read and understand food labels in order to make informed healthy food choices. This booklet provides you information on the following:

- A typical food label-What does it look like?
- Symbols and logos-What do they stand for?
- Nutrition and Health Claims.
- Ingredients list-Importance and its utility.
- Ingredients to be limited/avoided and their alternative sources and names.
- Types of Nutrition Facts Panel (NFP).
  - NFP 1 with values "per serving" and "% Daily Value (%DV)."
  - NFP 2 with values "per 100g."
  - NFP 3 with values "per 100g" and "per serving."
- Nutrition Facts Panel-How to read it?
- Five easy steps to read and understand Type 2 and Type 3 NFP.
- Selecting a healthy product.
- Quick tips to make healthy food selection.
Symbols and logos - What do they stand for?

**INTERNATIONAL STANDARDS ORGANIZATION**
- International standard for food safety management
- On products like ready to eat vegetable’s desserts

**HAZARD ANALYSIS AND CRITICAL POINT**
- Product having no chemical, physical or biological hazard
- On products like ready to cook, ready to eat, etc.

**AGRICULTURAL MARKETING (AGMARK)**
- Government Certificate for quality product
- On products like Ghee, Spices, Grains etc.

**FRUIT PRODUCT ORDER**
- Government Certificate for quality product
- On products like jam, ketchup, pickles, fruit, juices, etc.

**SMART CHOICE**
- Food many not healthy in the absolute sense but merely heathier in a relative sense with other products in the same food category
- On products like biscuits, cookies, etc.

**HEALTHY CHOICE**
- Products are lower in total fat, saturated fat, sodium and sugar and higher in dietary fiber and calcium compared to similar products within the same food category
- On products like biscuits, cookies, noodles, etc.

**VEGETARIAN SYMBOL**
- Product contains only vegetarian ingredients

**NON-VEGETARIAN SYMBOL**
- Products contain non-vegetaria ingredients like egg, fish, chicken, shrimp, gelatin etc.

Symbols and logos assure quality and help you select foods based on your food habits and health conditions

Health and Nutrition Claims

**HEALTH CLAIMS**

**Heart Related Health Claims**
- Good for heart
- Healthy heart
- Reduces the risk of heart diseases

The product should have zero cholesterol, no trans fat, low saturated fat, low salt or sodium

**Bone Related Health Claims**
- Good for bones

The product should be a good source of calcium (more than 20%DV)

**NUTRITION CLAIMS**

- Low Sugar
- Low Sodium
- Low Salt
- Trans Fat free/Zero trans fat
- Cholesterol free/Zero
- Cholesterol/ No Cholesterol
- Good source of Vitamins
- Good source of Minerals
- Added Vitamin B12
- Reduced Fat
- High in Iron and Calcium/ Calcium and Iron rich
- Source of Fiber/High in Fiber
- Source of Protein
- High in Vitamin B1,B2,B3,B6
- Sugar-free
- No added sugar

**ALLEGREN INFORMATION**

- Gelatin free
- Gluten free
- Contains no MSG
- Contains soy, milk, corn, nuts, mustard seeds, eggs, MSG

Nutrition and Health Claims help in selecting food according to the physiological and health conditions. To verify these claims pay attention to the ingredients list and NFP for the sources and amount of nutrients, respectively.
Ingredients list-importance and its utility

An ideal ingredients list:

- Should have ingredients in the decreasing order of their weight expressed in percentages.
- If ingredients are not given in percentages then pay attention to the order of the ingredients.
- The ingredients list provides information on allergens. The potential allergens are:
  - Cereals containing gluten (wheat, rye, barley, oats, etc.)
  - Soybean
  - Nuts (Groundnuts, Almond, Walnut, Cashewnut, Pistachio nut)
  - Celery
  - Mustard and Sesame oil and seeds.
  - Milk
  - Eggs
  - Sea foods (i.e. fish, crabs, lobsters, crayfish, shrimp, etc.)
  - Sulphur dioxide and sulphites at concentrations of more than 10 mg/kg or 10 mg/litre expressed as SO2
  - Preservatives.

Ingredients list can be used to verify nutrition and health claims as stated below:

- If ingredients like sugar, fat/oil, salt, monosodium glutamate or their alternative sources appear in 1st, 2nd or 3rd position then the food is unhealthy.
- If there are more than one source of fat, sodium, MSG and sugar or their alternative sources, the food may be unhealthy.
- Foods with too many preservatives, additives, colors and flavors are unhealthy.

Ingredients to be limited / avoided and their alternative names or sources

- Shortening
- Hydrogenated oils
- Partially Hydrogenated Oils/Fat
- Olestra
- Margarine
- Butter
- Sodium carbonate/bicarbonate
- Sodium citrate
- Di-sodium inosinate/glutamate
- Soy sauce
- Sodium meta-bi-sulphite
- Black Salt
- Monosodium glutamate (MSG)
- Sucrose, Dextrose, Fructose
- Maltose, Maltodextrin
- Cane sugar
- High- Fructose corn syrup
- Honey
- Maple syrup
- Jaggery
- Invert syrup, liquid glucose
- Mollases
- Caramelised sugar
- Autolyzed vegetable protein
- Hydrolyzed vegetable protein
- Calcium caseinate
- Sodium caseinate
- Textured protein
- Yeast extract

The above ingredients should be taken in minimal amount as per the % Daily Value Thumb Rule (discussed in next few pages). These ingredients or their alternative sources should not appear more than once in the ingredients list.

INGREDIENTS

An ideal ingredients list should look like this:

Whole Wheat Flour (35%), Dehydrated Vegetables (7%) Edible Vegetable oil, Spices & Condiments, Salt (0.6%), Sugar (0.4%), Green Chilli Powder, Flavor Enhancers (E627, E631), Acidity Regulators [E330, E451(ii)], Anti Caking Agent (E551), Softening Agent (E550), Thickener (E412).

Contains Gluten
### Types of Nutrition Facts Panel (NFP)

#### Type 1: NFP with information per serving and %DV

<table>
<thead>
<tr>
<th>Nutrition Facts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serving Size: 75 g</td>
</tr>
<tr>
<td>Servings Per Pack: 2</td>
</tr>
<tr>
<td>Amount Per Serving</td>
</tr>
<tr>
<td>Calories (Kcal): 375</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>% Daily Value*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Fat: 16g</td>
</tr>
<tr>
<td>Saturated Fat: 7.2g</td>
</tr>
<tr>
<td>Trans Fat: 0.6g</td>
</tr>
<tr>
<td>Cholesterol: 0mg</td>
</tr>
<tr>
<td>Sodium: 950mg</td>
</tr>
<tr>
<td>Potassium: 220mg</td>
</tr>
<tr>
<td>Dietary Fiber: 0.9g</td>
</tr>
<tr>
<td>Sugars: 0.2g</td>
</tr>
</tbody>
</table>

**Protein:** 8g

Vitamin A: 6%

Vitamin C: 10%

Calcium: 22%

Iron: 4%

*Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs.

#### Type 2: NFP with information per 100g

<table>
<thead>
<tr>
<th>Nutritional Facts per 100g</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy: 444Kcal</td>
</tr>
<tr>
<td>Protein: 12.4g</td>
</tr>
<tr>
<td>Carbohydrate: 46g</td>
</tr>
<tr>
<td>of which sugars: 34g</td>
</tr>
<tr>
<td>Fat: 23g</td>
</tr>
<tr>
<td>of which saturates: 2.6g</td>
</tr>
<tr>
<td>Fiber: 17g</td>
</tr>
<tr>
<td>Sodium: 2g</td>
</tr>
</tbody>
</table>

#### Type 3: NFP with information per 100g and per serving

<table>
<thead>
<tr>
<th>Nutritional Facts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serving Size: 20g</td>
</tr>
<tr>
<td>Servings Per Pack: 4</td>
</tr>
<tr>
<td>Calories: 89Kcal</td>
</tr>
<tr>
<td>Protein: 2.5g</td>
</tr>
<tr>
<td>Carbohydrate: 9g</td>
</tr>
<tr>
<td>of which sugars: 7g</td>
</tr>
<tr>
<td>Fat: 5g</td>
</tr>
<tr>
<td>of which saturates: 0.5g</td>
</tr>
<tr>
<td>Fiber: 3.4g</td>
</tr>
<tr>
<td>Sodium: 0.4g</td>
</tr>
</tbody>
</table>

*Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs.

NFP helps in comparing nutrient values among products of different brands to make healthy food choices.

**Quick Guide to % DV**
- 5% or less is Low
- 20% or more is High

**Color coded %DV key**
- TO BE AVOIDED: Keep them 0% DV
- TO BE LIMITED: Keep them below 5% DV or near to 0% DV
- TAKE ADEQUATELY: Keep them between 5% DV to 20% DV
- TAKE LIBERALLY: Keep them 20% DV and above

**Note:** Color coded NFP is not present on Indian packaged foods. Colors in the above NFP are given to facilitate better understanding.
Let us examine each part of the NFP

1. **Serving Size 75g**
   - **Servings per Pack 2**

   ▶ Look at the serving size and the number of servings in the food package.
   ▶ The more the number of servings you eat the greater the amount of nutrients you tend to consume.
   ▶ Avoid consuming more servings of the foods which are high in nutrients “to be avoided” and “to be limited.”
   ▶ For e.g. in the sample NFP, one serving is equal to 75g and if you consume 2 servings then you will actually be eating double the amount of one serving i.e. 150g which doubles all the nutrients as explained in the chart below:

<table>
<thead>
<tr>
<th>Pack size = Serving size × number of servings per container</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Amount Per Serving 75g</strong></td>
</tr>
<tr>
<td>Calories 375 Calories from Fat 149</td>
</tr>
</tbody>
</table>

2. **General Guide to Calories (based on 2,000 Kcal diet)**
   - 40 Calories is low
   - 100 Calories is moderate
   - 400 Calories or more is high

3. **“Total calories” is the sum of calories from fat, carbohydrates and protein. It can be calculated by using the thumb rule.**

   - Calories from Fat=9 × fat (g)
   - Calories from Carbohydrates=4 × Carbohydrates (g)
   - Calories from Protein=4 ×Protein (g)

4. **Getting more calories from fat is unhealthy and leads to overweight and obesity.**
   - “Calories from fat” is the amount of energy per serving derived from fat. For e.g. in the sample NFP, total 375 calories are provided by a single serving and 149 calories from fat, which means a little less than half of the calories are coming from fat. If you eat the whole package i.e. 2 servings then the total calories you will be consuming would be 750 and from fat it would be 298.
   - Amount and type of fat or fatty acids are also important. Fats are made up of Saturated fatty acids (SFA), Mono unsaturated fatty acids (MUFA), PUFA (Poly unsaturated fatty acids) and Trans fatty acids (TFA)). As compared to MUFA and PUFA, SFA and TFA are harmful.

5. **Eating too much Total fat, Saturated fat, Sodium and Sugars may increase the risk of certain health conditions like overweight, obesity and high blood pressure.**

6. **These nutrients need to be completely avoided as they have adverse health effects.**

   ▶ Taking small amount over a longer period may also lead to certain diseases like high blood pressure, heart disease etc.

   ▶ As per legislation, product containing 0.2g trans fat per serving of food can be labeled as “0/zero." Therefore, if you eat more than one food containing “0 trans fat” or several servings, then you may end up eating more than the recommended limit which is less than 2g a day.
TAKE ADEQUATELY

- These nutrients if taken in adequate amount help in keeping good health and if taken in excess may lead to health problems. For instance, an obese individual taking more than adequate carbohydrates will tend to put on more weight. Similarly, an individual with kidney malfunction consuming excess protein will damage kidneys more rapidly.
- Adequate potassium helps in normal body functions, healthy heart and muscles.

TAKE LIBERALLY

- Liberal intake of these nutrients improves health.
- Dietary fiber improves digestion and prevents constipation.
- Vitamin A is good for eyes.
- Vitamin C helps in fighting against infections.
- Calcium is good for bone health.
- Iron improves haemoglobin level in blood and prevents anaemia.

FOOTNOTE

- The nutrient intake goal should be “less than” the recommended DV for nutrients like total fat, saturated fat, cholesterol and sodium and “atleast or more than” the recommended DV for dietary fiber.
- The DVs for total fat, saturated fat, carbohydrates and dietary fiber changes with the change in the total calorie requirement while for cholesterol and sodium, it remains the same as these two are required in minimal amount.
- The recommended DVs in the footnote do not change from product to product. If a product does not have a footnote then you can refer to the footnote from any product to make comparisons among the brands.
- DVs help in calculating % DV

No % DV is recommended for Trans Fat, Sugars and Protein.

Five easy steps to read and understand Type 2 and Type 3 NFP

Example: Calculation of carbohydrate “% intake” and its comparison with “%DV thumb rule” in the sample NFP

**STEP 1:** Decide the “intake amount (in grams)”

Intake amount = 20 g.

**STEP 2:** Calculate “nutrients per gram” by dividing each nutrient by 100.

- Carbohydrate in 100g = 46 g
- Carbohydrate per gram = \(\frac{46}{100} = 0.46\)

**STEP 3:** Calculate “actual nutrient intake” by multiplying “nutrient per gram” and “intake amount”

- Actual carbohydrate intake = Carbohydrate per gram × Intake amount
- = 0.46 × 20 = 9.2g
**Selecting a healthy product**

Nutrients to be limited or avoided are in higher amount in Brand 1 than Brand 2. Nutrients to be taken liberally are lesser in amount in Brand 1 than Brand 2. Therefore, Brand 2 is healthier than Brand 1.

**STEP 4**: Calculation of "% Actual nutrient intake"

Percent actual nutrient intake = \( \frac{\text{Actual nutrient intake}}{\text{Recommended nutrient DV}} \times 100 \)

**STEP 5**: Comparison of "% actual nutrient intake" with "%DV thumb rule"

Therefore, from 20 g of this food you will get 3 % carbohydrate (rounded value) which is lower than 5%. Hence, this food is low in carbohydrate.

The chart below showing 5 steps as discussed above for each nutrient:

### Nutritional Facts per 100g

<table>
<thead>
<tr>
<th>Nutrient</th>
<th>Per 100g</th>
<th>Nutrient Intake Per 20g</th>
<th>% Actual Nutrient Intake</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy(g)</td>
<td>444</td>
<td>88.8</td>
<td>-</td>
</tr>
<tr>
<td>Protein(g)</td>
<td>12.4</td>
<td>2.48</td>
<td>-</td>
</tr>
<tr>
<td>Carbohydrate(g)</td>
<td>46</td>
<td>9.2</td>
<td>3%</td>
</tr>
<tr>
<td>of which sugars(g)</td>
<td>34</td>
<td>6.8</td>
<td>7%</td>
</tr>
<tr>
<td>of which saturates(g)</td>
<td>2.6</td>
<td>0.52</td>
<td>3%</td>
</tr>
<tr>
<td>Fiber(g)</td>
<td>17</td>
<td>3.4</td>
<td>14%</td>
</tr>
<tr>
<td>Sodium(g)</td>
<td>2</td>
<td>0.4</td>
<td>17%</td>
</tr>
</tbody>
</table>

With the change in the “intake amount” of the food the “% Actual Nutrient intake” will also change. Consume as much quantity of food that will keep the nutrients within recommended %DV

### NUTRITIONAL FACTS

<table>
<thead>
<tr>
<th>Serving Size:20g Servings Per Pack-4</th>
<th>Per 100g</th>
<th>Per Serving</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy</td>
<td>444Kcal</td>
<td>89Kcal</td>
</tr>
<tr>
<td>Protein</td>
<td>12.4g</td>
<td>2.5g</td>
</tr>
<tr>
<td>Carbohydrate</td>
<td>46g</td>
<td>9g</td>
</tr>
<tr>
<td>of which sugars</td>
<td>34g</td>
<td>7g</td>
</tr>
<tr>
<td>Fat</td>
<td>23g</td>
<td>5g</td>
</tr>
<tr>
<td>of which saturates</td>
<td>2.6g</td>
<td>0.5g</td>
</tr>
<tr>
<td>Fiber</td>
<td>17g</td>
<td>3.4g</td>
</tr>
<tr>
<td>Sodium</td>
<td>2g</td>
<td>0.4g</td>
</tr>
</tbody>
</table>

**Type 3: NFP with information per 100g and per serving**

- **STEP 4** to get % Actual nutrient intake from per serving
- **STEP 5** to compare with %DV

**Quick Guide to % DV**

- **5% or less is Low**
- **20% or more is High**

**Comparison Table**

<table>
<thead>
<tr>
<th>Nutrition Information</th>
<th>Brand-1</th>
<th>% Daily Value</th>
<th>Brand-2</th>
<th>% Daily Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy (Kcal)</td>
<td>310</td>
<td>-</td>
<td>248</td>
<td>-</td>
</tr>
<tr>
<td>Protein(g)</td>
<td>7.8</td>
<td>-</td>
<td>12</td>
<td>-</td>
</tr>
<tr>
<td>Carbohydrate(g)</td>
<td>45</td>
<td>15%</td>
<td>50</td>
<td>18%</td>
</tr>
<tr>
<td>of which Sugar(g)</td>
<td>3</td>
<td>-</td>
<td>1.4</td>
<td>-</td>
</tr>
<tr>
<td>Fat(g)</td>
<td>11</td>
<td>17%</td>
<td>2.9</td>
<td>4%</td>
</tr>
<tr>
<td>of which saturates(g)</td>
<td>1.8</td>
<td>9%</td>
<td>0.2</td>
<td>1%</td>
</tr>
<tr>
<td>Cholesterol (mg)</td>
<td>1.5</td>
<td>0.5%</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Fiber(g)</td>
<td>0.5</td>
<td>2%</td>
<td>3</td>
<td>12%</td>
</tr>
<tr>
<td>Sodium (mg)</td>
<td>288</td>
<td>12%</td>
<td>72</td>
<td>3%</td>
</tr>
</tbody>
</table>

Let us compare Brand 1 and Brand 2 of product XYZ and arrive at a healthier brand

**Nutrients to be limited or avoided are in higher amount in Brand 1 than Brand 2. Nutrients to be taken liberally are lesser in amount in Brand 1 than Brand 2. Therefore, Brand 2 is healthier than Brand 1.**
Annexure VII
Impact Evaluation Survey

1. Name………………………………
2. Age………………………………
3. Gender: Male ☐ Female ☐
6. Contact no…………………………

Based on the two food labels "Food label 1" and "Food Label 2" answer the following questions

Food Label 1

1. Indicate whether the given package has the following information and name them.

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Information</th>
<th>Yes</th>
<th>If yes, name it</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Quality Symbols</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Logos</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Health claims</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Nutrition Claims</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Allergen Information</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>Information about Preservatives</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>Information about Colors and Flavors</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. INGREDIENTS LIST

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Information</th>
<th>Yes</th>
<th>If yes, name them</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Does the ingredients list follow the 3 basic principles of listing ingredients?</td>
<td></td>
<td></td>
<td>Not applicable</td>
</tr>
<tr>
<td>2.</td>
<td>Are there any harmful ingredients in large quantity in the ingredients list?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Are there any alternative sources of harmful ingredients being used in the ingredients?</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
3. Indicate (tick) whether the nutrients given on NFP are high or low?

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Nutrients</th>
<th>High</th>
<th>Low</th>
<th>Cannot calculate on the basis of this kind of NFP</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Total Fat</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Saturated Fat</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Cholesterol</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Sodium</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Carbohydrate</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>Fiber</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Food Label 2

1. Indicate whether the given package has the following information and name them.

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Information</th>
<th>Yes</th>
<th>If yes, name it</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Symbols</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Logos</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Health claims</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Nutrition Claims</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Allergen Information</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>Information about Preservatives</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>Information about Colors and Flavors</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. INGREDIENTS LIST

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Does the ingredients list follow the 3 basic principles of listing ingredients?</th>
<th>Yes</th>
<th>If yes, name them</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
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<td></td>
<td></td>
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</tr>
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<td></td>
</tr>
<tr>
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<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
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<tr>
<th>S. No.</th>
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<th>High</th>
<th>Low</th>
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</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Total Fat</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Saturated Fat</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Cholesterol</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>Sodium</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Carbohydrate</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>Fiber</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Annexure VIII (a)- Food Label 1

Sun
Baked Namkeen Mixture

Taste difficult to forget

✓ Zero Cholesterol
✓ Zero trans fat
✓ Low sodium
✓ No MSG
✓ No preservatives

Sun
Baked Namkeen Mixture

A delicious ready-to-eat crispy Indian savory snack made from latest oil free technology

Store in a cool dry place, away from direct sunlight. Once opened keep in an airtight container.

Net wt: 250g

BEST BEFORE 6 MONTHS FROM PACKAGING

INgredients: Gram flour (40%), Split green gram (20%), Ground nut (20%), Rice flakes (8%), Tamarind powder (1%), Iodized salt (0.2%), Refined edible oil (Safflower oil) (0.15%), Condiments & Spices

Nutritional Information

<table>
<thead>
<tr>
<th>Nutritional Information</th>
<th>Per 100 g</th>
<th>Per Serving (50g)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy(Kcal)</td>
<td>420</td>
<td>210</td>
</tr>
<tr>
<td>Protein(g)</td>
<td>12</td>
<td>6</td>
</tr>
<tr>
<td>Carbohydrate(g)</td>
<td>80</td>
<td>40</td>
</tr>
<tr>
<td>Added sugar(g)</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Total Fat(g)</td>
<td>5</td>
<td>2.5</td>
</tr>
<tr>
<td>of which saturates(g)</td>
<td>0.8</td>
<td>0.4</td>
</tr>
<tr>
<td>Trans fat(g)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Cholesterol(mg)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Sodium(mg)</td>
<td>402</td>
<td>201</td>
</tr>
<tr>
<td>Potassium(mg)</td>
<td>82</td>
<td>41</td>
</tr>
</tbody>
</table>

MRP (INCL. OF ALL TAXES) Rs.: 35/-
Batch No.: B445231
Pack/Mfg: 4 Jan 2013

Product Contains Nuts

For Mfg. address, read the first character of Batch No.
Manufactured by: ABC Ltd, 7 XYZ Road, Mumbai, India

By: Dr. Suneeta Chandorkar & Meenu Singh, Dept. of Foods & Nutr., The M.S. University of Baroda

Page 1
## Annexure VIII (a)-Food Label 2

### Chicken Soup with Vegetables

**Genuine**

- **Easy to cook**
- **Good to eat**

### NUTRITION FACTS

<table>
<thead>
<tr>
<th>Serving Size: 110ml</th>
<th>Serving Per Pack: 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amount Per Serving:</td>
<td></td>
</tr>
<tr>
<td>Calories (Kcal): 88.9</td>
<td>Calories From Fat: 46.8</td>
</tr>
<tr>
<td>% Daily Value:</td>
<td></td>
</tr>
<tr>
<td>Total Fat: 5.2 g</td>
<td>8%</td>
</tr>
<tr>
<td>Saturated Fat: 1.2 g</td>
<td>8%</td>
</tr>
<tr>
<td>Trans Fat: 0 g</td>
<td>0%</td>
</tr>
<tr>
<td>Cholesterol: 0 g</td>
<td>0%</td>
</tr>
<tr>
<td>Sodium: 360 mg</td>
<td>15%</td>
</tr>
<tr>
<td>Total Carbohydrate: 9 g</td>
<td>3%</td>
</tr>
<tr>
<td>Dietary Fiber: 0.5 g</td>
<td>2%</td>
</tr>
<tr>
<td>Sugar: 2 g</td>
<td></td>
</tr>
<tr>
<td>Protein: 1 g</td>
<td></td>
</tr>
<tr>
<td>Vitamin A: 0.6%</td>
<td></td>
</tr>
<tr>
<td>Vitamin C: 0%</td>
<td></td>
</tr>
<tr>
<td>Calcium: 1%</td>
<td></td>
</tr>
<tr>
<td>Iron: 2%</td>
<td></td>
</tr>
</tbody>
</table>

*Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs.

### Ingredients:
- Refined Wheat Flour
- Edible Vegetable Fat
- Salt
- Sugar
- Dehydrated Chicken Shreds
- Dehydrated Vegetables (Lettuce, Spinach, Carrot, Green Onion, Carrot)
- Yeast Extract
- Butter
- Sodium Citrate
- Hydrolyzed Vegetable Protein
- Spices & Condiments
- Acidity Regulator - 330, Flavor Enhancer - 627, 651

### Instructions:
- Mix contents of pack in 4 cups water (600ml) in a pan and stir so that no lumps are formed.
- Place the pan on stove and bring to boil while stirring continuously. Simmer for 3 minutes.
- Optional: Add more chicken to taste.

**MRF (INCL., OF ALL TAXES) Rs.: 32/-
Batch No.: ZZ56897
Pkt./Mfg.: 10 Feb 2013
Best Before: 10 Aug 2013**

For Mfg. address, read the first character of Batch No.
Manufactured by: XYZ Ltd, 7 ABC Road, Kolkata, India

### With 100% Real Chicken & Vegetables

Net wt: 47 g

### May contain traces of Soya & Nuts.

Contains permitted natural color 100(b) & added flavor - nature identical flavoring substances.
Annexure IX

Standard Graph for Sodium

Flamephotometer Reading

Working Standard Concentration (ppm) of Sodium

Annexure X

Standard Graph for Potassium

Flamephotometer Reading vs. Working Standard Concentration (ppm) of Potassium
Annexure XI

Standard Graph for Sucrose

Spectrophotometer Reading vs Sucrose Concentration (μl)
Annexure XII

37-FAME Mix Standard Graph (Standard Chromatogram)
Annexure XIII
Chromatogram for Ghee Sample