The all-in-one sports drink

‘Elite all-in-one sports drink to power your performance’

Some sport drinks manufacturers claim that their drinks will:

- Effectively hydrate;
- Boost energy production;
- Boost stamina and well being;
- Support intense training programme; and
- Help attain your personal best (PB).

Why? It’s because of the unique blend of carbohydrates, electrolytes and amino acids based on the latest sports science research.

**Recommended use:** Mix with water to get the best results.

Before exercise: Energise (hypotonic): Mix 0.75 scoops (25 g) in 500 ml of water and sip over 60 minutes.

During exercise: Sustain (Isotonic): Mix 1–1.25 scoops (30–40 g) in 500 ml of water.

After exercise: Recover (Hypertonic): Mix 2.5 scoops (75 g) in 500 ml of water.

**Nutrition Information**

<table>
<thead>
<tr>
<th>Electrolytes and amino acids</th>
<th>Per 100 g</th>
<th>Per 30 g</th>
<th>(1 serving = 30 g)</th>
<th>Per 100 g</th>
<th>Per 30 g</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Per 100 g</td>
<td>Per 30 g</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Leucine</td>
<td>960 mg</td>
<td>288 mg</td>
<td>Energy</td>
<td>386 kcal</td>
<td>116 kcal</td>
</tr>
<tr>
<td>Isoleucine</td>
<td>720 mg</td>
<td>216 mg</td>
<td>Protein</td>
<td>7.1 g</td>
<td>2.13 g</td>
</tr>
<tr>
<td>Valine</td>
<td>700 mg</td>
<td>210 mg</td>
<td>Carbohydrate</td>
<td>88 g</td>
<td>26 g</td>
</tr>
<tr>
<td>Taurine</td>
<td>250 mg</td>
<td>75 mg</td>
<td>Fat</td>
<td>0.4 g</td>
<td>0.12 g</td>
</tr>
<tr>
<td>Calcium</td>
<td>153 mg</td>
<td>46 mg</td>
<td>of which sugars</td>
<td>51 g</td>
<td>15 g</td>
</tr>
<tr>
<td>Potassium</td>
<td>150 mg</td>
<td>45 mg</td>
<td>Fibre</td>
<td>0.13 g</td>
<td>Trace</td>
</tr>
<tr>
<td>Magnesium</td>
<td>33 mg</td>
<td>10 mg</td>
<td>Sodium</td>
<td>0.53 g</td>
<td>0.19 g</td>
</tr>
</tbody>
</table>

**Questions**

1. Name the four essential salts lost from the body during intensive exercise.
2. Why do sports drinks contain electrolytes?
3. What do the following terms mean? Hypotonic, isotonic, hypertonic
4. Why do you think the drinks manufacturers recommend you mix different amounts of powder with water, before and after exercise?
5. Which key ingredient will provide the athlete with sustained and rapid energy release?
6. Name the process that is responsible for energy release during exercise.
7. In your own words, explain how this process works. You may wish to include chemical equations.
8. Why do you think branch chain amino acids been added to this drink?
9. Make up your own advertisement for an ‘all-in-one sports drink’. The advert can be presented in any medium including podcast, vodcast or poster/leaflet.