**GENERAL SPECIFICATION**

**Graviola Bark Extract Powder (extract ratio 10:1)**  
GRAEP10b

### General Information

<table>
<thead>
<tr>
<th>Productcode</th>
<th>GRAEP10b</th>
<th>Quality assurance:</th>
<th>NORMAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Batch code</td>
<td>HJ................</td>
<td>Best before</td>
<td>.......</td>
</tr>
<tr>
<td>Substance</td>
<td>Graviola Bark Extract Powder (extract ratio 10:1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Species</td>
<td>Annona muricata</td>
<td>Plant part used</td>
<td>bark</td>
</tr>
<tr>
<td>Appearance</td>
<td>Yellow brown fine powder</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flavor / Aroma</td>
<td>Characteristic</td>
<td>Taric custom code:</td>
<td>1302.1980.00</td>
</tr>
<tr>
<td>Country of production / packaging</td>
<td>China</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Analyses

<table>
<thead>
<tr>
<th>Composition specification</th>
<th>Specification</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extract ratio</td>
<td>10 : 1</td>
<td></td>
</tr>
</tbody>
</table>

### Physical Property

<table>
<thead>
<tr>
<th>Particle Size</th>
<th>100% through 80 mesh</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loss on Drying</td>
<td>5% max</td>
</tr>
<tr>
<td>Sulphated ash</td>
<td>5% max</td>
</tr>
</tbody>
</table>

### Chemical Property

<table>
<thead>
<tr>
<th>Heavy Metals</th>
<th>≤ 10ppm</th>
</tr>
</thead>
</table>

### Microbiological Tests

<table>
<thead>
<tr>
<th>Total Aerobic Count</th>
<th>≤ 10,000cfu/g</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yeast &amp; Mold</td>
<td>≤ 1,000cfu/g</td>
</tr>
<tr>
<td>E. Coli</td>
<td>Negative</td>
</tr>
<tr>
<td>Salmonella</td>
<td>Negative</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Typical nutritional values (per 100 grams)</th>
<th>?</th>
<th>Total proteins (%)</th>
<th>?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy (kJ)</td>
<td>?</td>
<td>Sugar (%)</td>
<td>?</td>
</tr>
<tr>
<td>Total carbohydrates (%)</td>
<td>?</td>
<td>Dietary fibers (%)</td>
<td>?</td>
</tr>
<tr>
<td>Fat (%)</td>
<td>?</td>
<td>Sodium (%)</td>
<td>?</td>
</tr>
</tbody>
</table>

### Directions for use

As single ingredient advised maximum dosage for adults: 1 gram/day

### Statement

Allergens not specified, but not likely. Avoid with a known allergy or sensitivity to graviola. Pah's and pesticides only controlled by random re-testing. Manufacturer is HACCP and ISO22000-2005 certified by SGS, Zurich, Switzerland. 

### Storage

Store in a cool dry place, avoiding sunlight directly

### Shelf Life

At least 3 years when stored properly.

### Standard packaging

Food grade polyethylene bags in cardboard box or drum

### As stated by our supplier

The manufacturer/supplier of this product or ingredient is carefully selected according HACCP-principles. Nevertheless this data is purely informative and does not absolve you of the need to check the goods for (specific) use yourself. You remain fully and at all times responsible for the product, the purpose for or in which it is used and the possible consequences in which it can result. Under no circumstances Benseng Foodsupplements BV can be held responsible for the application of it’s products in violation with existing regulations and/or licenses. Except per contractual agreement, this data sheet is subject to change without prior notice. Benseng Foodsupplements BV’s policy is to prevent any genetic modification of it’s products or their ingredients. Copyright © 2013 Benseng Foodsupplements BV, Veghel, The Netherlands.
MATERIAL SAFETY DATA SHEET (MSDS)

Graviola Bark Extract Powder (extract ratio 10:1)

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product name: Graviola Bark Extract Powder (ratio 10:1)

Supplier of MSDS:
Benseng Foodsupplements BV

CAS Number : 93265-81-2

ESIS EC# (EINECS) : 296-969-4

Synonyms: Soursop ext.

Chemical name: Annona muricata

Emergency phone: +31-413-355361

2. COMPOSITION/INFORMATION ON INGREDIENTS

Composition:

<table>
<thead>
<tr>
<th>Name</th>
<th>CAS#</th>
<th>% by Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Graviola bark Extract Powder (ratio 10:1)</td>
<td>93265-81-2</td>
<td>100%</td>
</tr>
</tbody>
</table>

Toxicological Data on Ingredients:
The LD50 of an aqueous extract of A. muricata leaves was determined to be < 5g/kg body weight; orally; rat.
The LD50 calculated from toxicity study for ethanolic extract of Annona muricata L was 859mg/kg.
The LD50 of Annona muricata in mice was determined to be 178 mg/kg by intraperitoneal injection.

3. HAZARDS IDENTIFICATION

3.1 Classification of the substance or mixture

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.
This substance is not classified as dangerous according to Directive 67/548/EEC.

3.2 Label elements

The product does not need to be labelled in accordance with EC directives or respective national laws.

3.3 Other hazards - none

Potential Acute Health Effects: Slightly hazardous in case of skin contact (irritant in high concentration), of eye contact (irritant), of ingestion, of inhalation.
Potential Chronic Health Effects:
CARCINOGENIC EFFECTS: Not available.
MUTAGENIC EFFECTS: Not available.
TERATOGENIC EFFECTS: Not available.
DEVELOPMENTALTOXICITY: Not available.

4. FIRST AID MEASURES

4.1 Description of first aid measures

If inhaled
If breathed in, move person into fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
In case of skin contact
Wash off with soap and plenty of water. Cover the irritated skin with an emollient. Get medical attention if irritation develops. Cold water may be used.
In case of eye contact
Check for and remove any contact lenses. Flush eyes with water as a precaution. Cold water may be used.
If swallowed
Never give anything by mouth to an unconscious person. Rinse mouth with water. Do NOT induce vomiting unless directed to do so by medical personnel.

4.2 Most important symptoms and effects, both acute and delayed

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

4.3 Indication of any immediate medical attention and special treatment needed: no data available

5. FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture

Nature of decomposition products not known.

5.3 Advice for firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

5.4 Further information

Special Remarks on Fire Hazards: As with most organic solids, fire is possible at elevated temperatures
Special Remarks on Explosion Hazards: Fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures
Avoid dust formation. Avoid breathing vapors, mist or gas.

6.2 Environmental precautions
Do not let product enter drains.
6.3 Methods and materials for containment and cleaning up
Sweep up and shovel. Keep in suitable, closed containers for disposal.
6.4 Reference to other sections
For disposal see section 13.
6.5 Small Spill:
Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.
6.6 Large Spill:
Use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

7. HANDLING AND STORAGE
7.1 Precautions for safe handling
Keep away from heat. Keep away from sources of ignition. Provide appropriate exhaust ventilation at places where dust is formed. Do not ingest. Do not breathe dust.
7.2 Conditions for safe storage, including any incompatibilities
Store in cool place. Keep packaging tightly closed in a dry and well-ventilated place.
Recommended storage temperature: below 25 °C
7.3 Specific end uses
no data available

8. EXPOSURE CONTROLS/PERSONAL PROTECTION
8.1 Control parameters
Components with workplace control parameters
8.2 Exposure controls
Appropriate engineering controls
General industrial hygiene practice.
Personal protective equipment
Eye/face protection
Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).
Skin protection
The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.
Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices.
Wash and dry hands.
Body Protection
Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
Respiratory protection
Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

9. PHYSICAL AND CHEMICAL PROPERTIES
9.1 Information on basic physical and chemical properties
a) Appearance Form: powder, Colour: Yellow brown
b) Odour/ taste: no data available
c) Odour Threshold: no data available
d) pH : no data available
e) Melting point/freezing point: no data available
f) Initial boiling point and boiling range: no data available
g) Flash point no data available
h) Evaporation rate no data available
i) Flammability (solid, gas) no data available
j) Upper/lower flammability or explosive limits: no data available
k) Vapour pressure no data available
l) Vapour density no data available
m) Relative density: no data available
n) Water solubility: no data available
o) Partition coefficient: noctanol/water: no data available
p) Autoignition temperature: no data available
q) Decomposition temperature: no data available

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10. STABILITY AND REACTIVITY
Stability: The product is stable.
Instability Temperature: Not available.
Conditions of Instability: Excess heat, incompatible materials
Incompatibility with various substances: Not available.
Corrosivity: Not available.
Special Remarks on Reactivity: No information available at this time.
Special Remarks on Corrosivity: Not available.
Polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION
11.1 Information on toxicological effects
Acute toxicity
see point 2)
Skin corrosion/irritation
no data available
Serious eye damage/eye irritation
no data available
Respiratory or skin sensitization
no data available
Germ cell mutagenicity
no data available
Carcinogenicity
no data available
Reproductive toxicity
no data available
Specific target organ toxicity - single exposure
no data available
Specific target organ toxicity - repeated exposure
no data available
Aspiration hazard
no data available
Potential health effects
Inhalation May be harmful if inhaled. May cause respiratory tract irritation.
Ingestion May be harmful if swallowed.
Skin May be harmful if absorbed through skin. May cause skin irritation.
Eyes May cause eye irritation.
Signs and Symptoms of Exposure
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.
Additional Information
RTECS: Not available

12. ECOLOGICAL INFORMATION
12.1 Toxicity
no data available
12.2 Persistence and degradability
The product itself and its products of degradation are not toxic
12.3 Bioaccumulative potential
no data available
12.4 Mobility in soil
no data available
12.5 Results of PBT and vPvB assessment
no data available
12.6 Other adverse effects
no data available

13. DISPOSAL CONSIDERATIONS
Waste Disposal: Waste must be disposed of in accordance with federal, state and local environmental control regulations.

14. TRANSPORT INFORMATION
DOT Classification: Not a DOT controlled material (United States).
Identification: Not applicable.
15. REGULATORY INFORMATION

Federal and State Regulations: No products were found.
Other Regulations: Not available.
Other Classifications:
WHMIS (Canada): Not controlled under WHMIS (Canada).
DSCL (EEC):
This product is not classified according to the EU regulations. Not applicable.
HMIS (U.S.A.):
Health Hazard: 1
Fire Hazard: 1
Reactivity: 0
Personal Protection: a
National Fire Protection Association (U.S.A.):
Health: 1
Reactivity: 0
Specific hazard:
Protective Equipment:
Lab coat, Safety glasses, Dust respirator.

16. GHS Classification and labelling information ECHA

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.
16.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
no data available
16.2 Chemical Safety Assessment
no data available
16.3 Label elements: self classification:

<table>
<thead>
<tr>
<th>Hazard Symbol / pictogram</th>
<th>Signal word</th>
<th>Hazard Statement</th>
<th>Precautionary statement</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>H320  Causes eye irritation</td>
<td>P261  Avoid breathing dust/fume/gas/mist/vapours/spray.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>H335  May cause respiratory irritation</td>
<td>P281  Use personal protective equipment as required</td>
</tr>
</tbody>
</table>

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall supplier be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if supplier has been advised of the possibility of such damages.