# Quality Assurance Department

## Analytical Specification

<table>
<thead>
<tr>
<th>Product</th>
<th>POWER VANILLA 559E</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales Number</td>
<td>AR203150/00</td>
</tr>
</tbody>
</table>

**Chemical nature**: Multi-components mixture  
**Appearance**: LIQUID  
**Color**: VERY SLIGHTLY YELLOW TO PALE YELLOW  
**Odor**: VANILLA-LIKE, SWEET  
**Storage condition**: KEEP IN A DRY, WELL VENTILATED PLACE, IN PREFERABLY FULL, HERMETICALLY SEALED CONTAINERS AND AT A COOL TEMPERATURE (PREFERABLY AROUND 20°C / 68°F). KEEP AWAY FROM LIGHT.  
**Packaging type**: STORE IN ORIGINAL CONTAINER  
**Shelf life (days)**: 365

### Analysis

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Refractive index (25 °C)</td>
<td>1.5120 – 1.5220</td>
</tr>
<tr>
<td>Specific gravity (25/25°C)</td>
<td>1.0220 – 1.0320</td>
</tr>
<tr>
<td>Specific gravity (20/20°C)</td>
<td>1.0250 – 1.0350</td>
</tr>
<tr>
<td>Specific gravity (20/4°C)</td>
<td>1.0230 – 1.0330</td>
</tr>
<tr>
<td>Refractive index (20°C)</td>
<td>1.5140 – 1.5240</td>
</tr>
<tr>
<td>Sensory evaluation</td>
<td>Conforms to Standard</td>
</tr>
</tbody>
</table>

**Date**: 25/02/10  
**Time**: 14:16:02  
**Quality Control Manager**: Nicholas Tan

This computerized document is not signed.
1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product information

<table>
<thead>
<tr>
<th>Sales No.</th>
<th>AR203150/00 POWER VANILLA 559E</th>
</tr>
</thead>
</table>

Intended Use Fragrances: Perfume compound

Company: Givaudan Singapore Pte Ltd
1 Woodlands Avenue 8
739872
SINGAPORE

Emergency telephone: +6567519699
Telephone: +6567519100
Telefax: +6567591291
Responsible person: global.msdts_fragrances_raps@givaudan.com
E-mail address: global.msdts_fragrances_raps@givaudan.com

2. HAZARDS IDENTIFICATION

Risk advice to man and the environment

Harmful if swallowed.
May cause sensitization by skin contact.
Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous components

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No.</th>
<th>EINECS-No. ELINCS No.</th>
<th>Classification</th>
<th>Concentration [%]</th>
</tr>
</thead>
<tbody>
<tr>
<td>benzyl benzoate</td>
<td>120-51-4</td>
<td>204-402-9</td>
<td>Xn; R22</td>
<td>25 - 50</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>N; R51/53</td>
<td></td>
</tr>
<tr>
<td>vanillin</td>
<td>121-33-5</td>
<td>204-465-2</td>
<td>Xl; R43</td>
<td>1 - 5</td>
</tr>
<tr>
<td>terpineol</td>
<td>8000-41-7, 98-55-5</td>
<td>232-268-1</td>
<td>Xl; R38</td>
<td>1 - 5</td>
</tr>
<tr>
<td>benzyl alcohol</td>
<td>100-51-6</td>
<td>202-859-9</td>
<td>Xn; R20/22</td>
<td>1 - 5</td>
</tr>
<tr>
<td>coumarin</td>
<td>91-64-5</td>
<td>202-086-7</td>
<td>Xn; R22</td>
<td>1 - 5</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Xl; R43</td>
<td></td>
</tr>
<tr>
<td>allyl hexanoate</td>
<td>123-68-2</td>
<td>204-642-4</td>
<td>N; R51/53</td>
<td>0.1 - 1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Xl; R38</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Xn; R21/22</td>
<td></td>
</tr>
</tbody>
</table>

For the full text of the R-phrases mentioned in this Section, see Section 16.
### 4. FIRST AID MEASURES

**General advice**
- Move out of dangerous area.
- Consult a physician.
- Show this safety data sheet to the doctor in attendance.

**Inhalation**
- Move to fresh air in case of accidental inhalation of dust or fumes from overheating or combustion.
- If symptoms persist, call a physician.

**Skin contact**
- Take off contaminated clothing and shoes immediately.
- Wash off with soap and plenty of water.
- If symptoms persist, call a physician.

**Eye contact**
- Flush eyes with water as a precaution.
- Remove contact lenses.
- Keep eye wide open while rinsing.
- If eye irritation persists, consult a specialist.

**Ingestion**
- Clean mouth with water and drink afterwards plenty of water.
- Do not give milk or alcoholic beverages.
- Never give anything by mouth to an unconscious person.
- Obtain medical attention.

### 5. FIRE-FIGHTING MEASURES

**Suitable extinguishing media**
- Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Specific hazards during firefighting**
- Do not allow run-off from fire fighting to enter drains or water courses.

**Special protective equipment for fire-fighters**
- In the event of fire, wear self-contained breathing apparatus.
- Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
- Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

### 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions**
- Use personal protective equipment.
- Ensure adequate ventilation.

**Environmental precautions**
- Do not flush into surface water or sanitary sewer system.
- Prevent further leakage or spillage if safe to do so.
# Methods for cleaning up

If the product contaminates rivers and lakes or drains inform respective authorities.

Methods for cleaning up: Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).
Keep in suitable, closed containers for disposal.

## 7. HANDLING AND STORAGE

### Handling

Advice on safe handling: Avoid exceeding of the given occupational exposure limits (see section 8).
For personal protection see section 8.
Persons with a history of skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.
Smoking, eating and drinking should be prohibited in the application area.
Dispose of rinse water in accordance with local and national regulations.

Advice on protection against fire and explosion: Normal measures for preventive fire protection.

### Storage

Requirements for storage areas and containers: Keep container tightly closed in a dry and well-ventilated place.
Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Other data: No decomposition if stored and applied as directed.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Components with workplace control parameters

Contains no substances with occupational exposure limit values.

### Personal protective equipment

**Respiratory protection**: In the case of vapour formation use a respirator with an approved filter.

**Hand protection**: Polyvinyl alcohol or nitrile-butyl-rubber gloves
The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.
Before removing gloves clean them with soap and water.
SAFETY DATA SHEET

POWER VANILLA 559E
Version 1.0 Revision Date 23 FEB 2010 Print Date 26 FEB 2010

Eye protection: Tightly fitting safety goggles
Skin and body protection: Choose body protection according to the amount and concentration of the dangerous substance at the work place.
Hygiene measures: Handle in accordance with good industrial hygiene and safety practice.
When using do not eat or drink.
When using do not smoke.
Wash hands before breaks and at the end of workday.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance
Physical state: liquid
Form: liquid
Colour: Very slightly yellow, Pale yellow
Odour: Vanilla-like, sweet
Taste: no data available

Safety data
Flash point: 117 °C Grabner miniflash closed cup
Boiling point: not determined
Vapour pressure: 0,1243 hPa at 20 °C Calculated (99,9 %)
Density: 1.028,96 kg/m3 at 20 °C
Bulk density: not applicable
Solubility/qualitative: practically insoluble

10. STABILITY AND REACTIVITY

Hazardous reactions: No decomposition if used as directed.

11. TOXICOLOGICAL INFORMATION

Skin irritation: According to the classification criteria of the European Union,
the product is not considered as being a skin irritant.

Eye irritation : According to the classification criteria of the European Union, the product is not considered as being an eye irritant.

### 12. ECOLOGICAL INFORMATION

**Further information on ecology**

Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

### 13. DISPOSAL CONSIDERATIONS

**Product** : The product should not be allowed to enter drains, water courses or the soil. Do not contaminate ponds, waterways or ditches with chemical or used container. Offer surplus and non-recyclable solutions to a licensed disposal company.

**Contaminated packaging** : Empty remaining contents. Dispose of as unused product. Do not re-use empty containers.

Dispose of in accordance with local regulations.

### 14. TRANSPORT INFORMATION

Transport restriction APAC

Not restricted

### 15. REGULATORY INFORMATION

**Labelling according to EC Directives 1999/45/EC**

<table>
<thead>
<tr>
<th>R-phrase(s)</th>
<th>S-phrase(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>R22</td>
<td>S24</td>
</tr>
<tr>
<td>R43</td>
<td></td>
</tr>
<tr>
<td>R51/53</td>
<td></td>
</tr>
</tbody>
</table>

Harmful if swallowed. May cause sensitization by skin contact. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Avoid contact with skin.
SAFETY DATA SHEET

POWER VANILLA 559E

Version 1.0  Revision Date 23 FEB 2010  Print Date 26 FEB 2010

S37  Wear suitable gloves.
S57  Use appropriate container to avoid environmental contamination.
S60  This material and its container must be disposed of as hazardous waste.

Hazardous components which must be listed on the label:
Contains  benzyl benzoate

vanillin
coumarin

16. OTHER INFORMATION

Full text of R-phrases referred to under sections 2 and 3
R20/22  Harmful by inhalation and if swallowed.
R21/22  Harmful in contact with skin and if swallowed.
R22   Harmful if swallowed.
R38   Irritating to skin.
R43   May cause sensitization by skin contact.
R51/53  Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Further information
The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.