SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Lamesoft® PO 65

1.2. Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses: Lipid layer enhancer

1.3. Details of the supplier of the safety data sheet

Gracefruit Limited, 209 Glasgow Road, Longcroft, Bonnybridge, FK4 1QQ

Telephone: 01324 841353

SECTION 2: Hazards Identification

2.1. Classification of the substance or mixture

According to Regulation (EC) No 1272/2008 [CLP]

Eye Dam./Irrit. 1
H318

For the classifications not written out in full in this section the full text can be found in section 16.

2.2. Label elements

According to Regulation (EC) No 1272/2008 [CLP]

Pictogram:

Signal Word: Danger

Hazard Statement:
H318 Causes serious eye damage.

Precautionary Statements (Prevention):
P280 Wear eye/face protection.

Precautionary Statements (Response):
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER or doctor/physician.

According to Regulation (EC) No 1272/2008 [CLP]

Hazard determining component(s) for labelling: D-GLUCOPYRANOSE, OLIGOMERS, DECYL OCTYL GLYCOSIDE

2.3. Other hazards

According to Regulation (EC) No 1272/2008 [CLP]

No specific dangers known, if the regulations/notes for storage and handling are considered.

SECTION 3: Composition/Information on Ingredients

3.1. Substances

Not applicable

3.2. Mixtures
Chemical nature

Aqueous solution based on: Alkylpolyglucoside, Glycerides, C16-18 and C18-unsatd. mono- and di-, Citric acid

Hazardous ingredients (GHS) according to Regulation (EC) No. 1272/2008

D-Glucopyranose, oligomers, decyl octyl glycosides
Content (W/W): >= 10 % - < 20 %  Eye Dam./Irrit. 1
CAS Number: 68515-73-1  H318
EC-Number: 500-220-1
REACH registration number: 01-2119488530-36

D-Glucopyranose, oligomeric, C10-16-alkyl glycosides
Content (W/W): >= 10 % - < 20 %  Skin Corr./Irrit. 2
CAS Number: 110615-47-9
REACH registration number: 01-2119489418-23
Specific concentration limit:
Eye Irrit. 1: > 12 %
Skin Corr./Irrit. 2: > 30 %

Citric acid
Content (W/W): >= 1 % - < 5 %  Eye Dam./Irrit. 2
CAS Number: 77-92-9  H319
EC-Number: 201-069-1
REACH registration number: 01-2119457026-42

For the classifications not written out in full in this section, including the hazard classes and the hazard statements, the full text is listed in section 16.

SECTION 4: First-Aid Measures

4.1. Description of first aid measures
If adverse health effects develop seek medical attention.

If inhaled:
not relevant.

On skin contact:
After contact with skin, wash immediately with plenty of water.

On contact with eyes:
Rinse immediately with plenty of running water (for 10 minutes), seek medical attention from a specialist.

On ingestion:
Rinse mouth and then drink 200-300 ml of water.

4.2. Most important symptoms and effects, both acute and delayed
Symptoms: The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11., Further important symptoms and effects are so far not known.

Hazards: No hazard is expected under intended use and appropriate handling.

4.3. Indication of any immediate medical attention and special treatment needed
Treatment: Treat symptomatically.

SECTION 5: Fire-Fighting Measures

5.1. Extinguishing media
Suitable extinguishing media:
water spray, carbon dioxide, dry powder, foam

5.2. Special hazards arising from the substance or mixture
harmful vapours
Evolution of fumes/fog. The substances/groups of substances mentioned can be released in case of fire.

5.3. Advice for fire-fighters
Special protective equipment:
Wear self-contained breathing apparatus and chemical-protective clothing.

Further information:
Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

SECTION 6: Accidental Release Measures

6.1. Personal precautions, protective equipment and emergency procedures
Use personal protective clothing.

6.2. Environmental precautions
Do not discharge into drains/surface waters/groundwater.

6.3. Methods and material for containment and cleaning up
For small amounts: Pick up with suitable absorbent material.
For large amounts: Dike spillage. Pump off product.
Dispose of absorbed material in accordance with regulations.
6.4. Reference to other sections
Information regarding exposure controls/personal protection and disposal considerations can be found in section 8 and 13.

SECTION 7: Handling and Storage

7.1. Precautions for safe handling
Handle in accordance with good industrial hygiene and safety practice.

Protection against fire and explosion:
Take precautionary measures against static discharges. Avoid all sources of ignition: heat, sparks, open flame.

7.2. Conditions for safe storage, including any incompatibilities

Suitable materials for containers: High density polyethylene (HDPE)
Further information on storage conditions: Keep container tightly closed and dry; store in a cool place.
Above temperature limit the physical condition of the product will be change. Below temperature limit the product properties will change. The property change is reversible by stirring and heating. Please refer to the product specific data sheet for further information. Avoid all sources of ignition: heat, sparks, open flame.

Storage stability:
Storage temperature: 10 - 30 °C
Protect against moisture.

Protect from temperatures below: 10 °C
Below the temperature limit, the product is no longer pumpable.
Protect from temperatures above: 30 °C
Properties of the product change irreversibly on exceeding the limit temperature.

7.3. Specific end use(s)
For the relevant identified use(s) listed in Section 1 the advice mentioned in this section 7 is to be observed.

SECTION 8: Exposure Controls/Personal Protection

8.1. Control parameters

Components with occupational exposure limits

No occupational exposure limits known.

8.2. Exposure controls

Personal protective equipment
Respiratory protection:
Respiratory protection not required.

Hand protection:
Suitable are protective gloves with the following specification. The recommendation is valid for laboratory conditions, specific workplace conditions must be taken into consideration separately. Suitable materials also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN 374):
nitrile rubber (NBR) - 0.2 mm coating thickness

Eye protection:
Tightly fitting safety goggles (splash goggles) (e.g. EN 166)

Body protection:
Body protection must be chosen depending on activity and possible exposure, e.g. apron, protecting boots, chemical-protection suit (according to EN 14605 in case of splashes or EN ISO 13982 in case of dust).

General safety and hygiene measures
Handle in accordance with good industrial hygiene and safety practice. No eating, drinking, smoking or tobacco use at the place of work. Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls
For information regarding environmental exposure controls, see Section 6.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Form: paste, pasty
Colour: yellow
Odour: slight odour
Odour threshold: not applicable
pH value: 3.0 - 4.0 (20 °C) (DGF-H-III 1)
Softening temperature: 40 °C (DGF C-IV 3C)
Boiling temperature: > 100 °C
Flash point: > 101 °C (DIN 51755)
Evaporation rate: Value can be approximated from Henry’s Law Constant or vapor pressure.

Flammability: not flammable
Flammability of Aerosol Products: not applicable, the product does not form flammable aerosoles
Lower explosion limit: For liquids not relevant for classification and labelling.
Upper explosion limit: For liquids not relevant for classification and labelling.
Ignition temperature: not determined
Vapour pressure: not determined
Density: 1.06 - 1.10 g/cm³ (20 °C) (DIN 51757)
Relative vapour density (air): not applicable
Solubility in water: soluble
Solubility (qualitative) solvent(s): distilled water soluble
Partitioning coefficient n-octanol/water (log Kow): not determined
Self ignition: not applicable
Thermal decomposition: No decomposition if stored and handled as prescribed/indicated.
Viscosity, dynamic: 2,500 - 6,000 mPa*s (20 °C) (ASTM D 2196)
Viscosity, kinematic: not determined
Explosion hazard: not explosive
Fire promoting properties: not fire-propagating

9.2. Other information

Other Information:
If necessary, information on other physical and chemical parameters is indicated in this section.
No further information available.

SECTION 10: Stability and Reactivity

10.1. Reactivity
No hazardous reactions if stored and handled as prescribed/indicated.

10.2. Chemical stability
The product is stable if stored and handled as prescribed/indicated.

10.3. Possibility of hazardous reactions
None if used for intended purpose.

10.4. Conditions to avoid
See MSDS section 7 - Handling and storage.
10.5. Incompatible materials

Substances to avoid:
No substances known that should be avoided.

10.6. Hazardous decomposition products

No hazardous decomposition products if stored and handled as prescribed/indicated.

SECTION 11: Toxicological Information

11.1. Information on toxicological effects

Acute toxicity

Assessment of acute toxicity:
Virtually nontoxic after a single ingestion.

Experimental/calculated data:
LD50 (oral): > 2,000 mg/kg

Irritation

Assessment of irritating effects:
May cause severe damage to the eyes.

Not irritating to the skin.

Respiratory/Skin sensitization

Assessment of sensitization:
There is no evidence of a skin-sensitizing potential.

Germ cell mutagenicity

Assessment of mutagenicity:
The chemical structure does not suggest a specific alert for such an effect.

Carcinogenicity

Assessment of carcinogenicity:
The chemical structure does not suggest a specific alert for such an effect.

Reproductive toxicity

Assessment of reproduction toxicity:
The chemical structure does not suggest a specific alert for such an effect.
Developmental toxicity

Assessment of teratogenicity:
No data was available concerning toxicity to development.

Specific target organ toxicity (single exposure)

Assessment of STOT single:
Based on available Data, the classification criteria are not met.

Repeated dose toxicity and Specific target organ toxicity (repeated exposure)

Assessment of repeated dose toxicity:
The information available on the product provides no indication of toxicity on target organs after repeated exposure.

Aspiration hazard

No aspiration hazard expected.

Other relevant toxicity information

The product has not been tested. The statements on toxicology have been derived from the properties of the individual components.

SECTION 12: Ecological Information

12.1. Toxicity

Assessment of aquatic toxicity:
The product has not been tested. The statement has been derived from the properties of the individual components.

Toxicity to fish:
LC50 > 10 - 100 mg/l

Microorganisms/Effect on activated sludge:
EC0 > 100 mg/l

12.2. Persistence and degradability

Assessment biodegradation and elimination (H2O):
Readily biodegradable (according to OECD criteria).

Elimination information:
(Annex III, part A) The surfactant(s) contained in this preparation complies (comply) with the biodegradability criteria as laid down in Regulation (EC) No.648/2004 on detergents. Data to support
this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them at their direct request or at the request of a detergent manufacturer.

12.3. Bioaccumulative potential

Assessment bioaccumulation potential:
No data available.

12.4. Mobility in soil

Assessment transport between environmental compartments:
Volatility: not applicable

12.5. Results of PBT and vPvB assessment

According to Annex XIV of Regulation (EC) No.1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH): The product does not contain a substance fulfilling the PBT (persistent/bioaccumulative/toxic) criteria or the vPvB (very persistent/very bioaccumulative) criteria. Self classification

12.6. Other adverse effects

The product does not contain substances that are listed in Regulation (EC) 1005/2009 on substances that deplete the ozone layer.

12.7. Additional information

Other ecotoxicological advice:
Due to the pH-value of the product, neutralization is generally required before discharging sewage into treatment plants.

SECTION 13: Disposal Considerations

13.1. Waste treatment methods

Must be disposed of or incinerated in accordance with local regulations.

The UK Environmental Protection (Duty of Care) Regulations (EP) and amendments should be noted (United Kingdom). This product and any uncleaned containers must be disposed of as hazardous waste in accordance with the 2005 Hazardous Waste Regulations and amendments (United Kingdom)

SECTION 14: Transport Information

Land transport
**ADR**

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<th>Information</th>
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**RID**

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<td>Environmental hazards:</td>
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<td>Special precautions for user</td>
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**Inland waterway transport**

**ADN**

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<td>Special precautions for user</td>
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**Transport in inland waterway vessel**

Not evaluated

**Sea transport**

**IMDG**

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<td>Special precautions for user</td>
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Air transport

IATA/ICAO

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<tr>
<td>Special precautions for user</td>
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14.1. UN number
See corresponding entries for “UN number” for the respective regulations in the tables above.

14.2. UN proper shipping name
See corresponding entries for “UN proper shipping name” for the respective regulations in the tables above.

14.3. Transport hazard class(es)
See corresponding entries for “Transport hazard class(es)” for the respective regulations in the tables above.

14.4. Packing group
See corresponding entries for “Packing group” for the respective regulations in the tables above.

14.5. Environmental hazards
See corresponding entries for “Environmental hazards” for the respective regulations in the tables above.

14.6. Special precautions for user
See corresponding entries for “Special precautions for user” for the respective regulations in the tables above.

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

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<td>Ship Type:</td>
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</table>
**SECTION 15: Regulatory Information**

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

If other regulatory information applies that is not already provided elsewhere in this safety data sheet, then it is described in this subsection.

The data should be considered when making any assessment under the Control of Substances Hazardous to Health Regulations (COSHH), and related guidance, for example, 'COSHH Essentials' (United Kingdom).

15.2. Chemical Safety Assessment

Advice on product handling can be found in sections 7 and 8 of this safety data sheet.

**SECTION 16: Other Information**

Information on intended use: This product is of industrial quality and unless otherwise specified or agreed intended exclusively for industrial use. This includes the mentioned and recommended usage. Any other intended applications should be discussed with the manufacturer. In particular this concerns the application for products that are the object of special standards and regulations.

Full text of the classifications, including the hazard classes and the hazard statements, if mentioned in section 2 or 3:

<table>
<thead>
<tr>
<th>Classification</th>
<th>Hazard Statement</th>
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<tbody>
<tr>
<td>Eye Dam./Irrit.</td>
<td>Serious eye damage/eye irritation</td>
</tr>
<tr>
<td>Skin Corr./Irrit.</td>
<td>Skin corrosion/irritation</td>
</tr>
<tr>
<td>Eye Irrit.</td>
<td>Serious eye irritation</td>
</tr>
<tr>
<td>H318</td>
<td>Causes serious eye damage.</td>
</tr>
<tr>
<td>H315</td>
<td>Causes skin irritation</td>
</tr>
<tr>
<td>H319</td>
<td>Causes serious eye irritation</td>
</tr>
</tbody>
</table>

If you have any queries relating to this MSDS, its contents or any other product safety related questions, please write to the following e-mail address: product-safety-north@basf.com

The data contained in this safety data sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. This safety data sheet is neither a Certificate of Analysis (CoA) nor technical data sheet and shall not be mistaken for a specification agreement. Identified uses in this safety data sheet do neither represent an agreement on the corresponding contractual quality of the substance/mixture nor a contractually designated use. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.

Vertical lines in the left hand margin indicate an amendment from the previous version.