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

1.1 Product identifier
Brandname: STARDESIGN™ 05340
CAS No: 9087-61-0
REACH status: Exempt

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS No</th>
<th>EC#</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminum Starch Octenylsuccinate</td>
<td>9087-61-0</td>
<td></td>
</tr>
</tbody>
</table>

Revision date: 21-03-2016

1.2 Relevant identified uses of the substance or mixture and uses advised against
Relevant identified uses of the substance
For use in cosmetics.

1.3. Details of the supplier of the safety data sheet
Company identification
Cargill B.V.
Nijverheidsstraat 1
NL-4551 LA Sas van Gent
The Netherlands
Non emergency telephone: +31 (0)115 459 126
E-mail address: FSQR_SvG@cargill.com

1.4 Emergency telephone number
Emergency telephone: +31 (0)115 459 000 (24/7)

SECTION 2: Hazards identification

2.1 Classification of the substance/mixture
Classification according to Regulation (EC) No 1272/2008 as amended
Hazard summary
Low hazard for recommended handling by trained personnel.

2.2. Label elements
Label according to Regulation (EC) No. 1272/2008 as amended
Contains:
Starch

Hazard statement
Not assigned.

Precautionary statements
Prevention
Not assigned.

Response
Not assigned.

Storage
Not assigned.

Disposal
Not assigned.

Supplemental label information
None.

2.3 Other hazards
None known.

SECTION 3: Composition/information on ingredients

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS No</th>
<th>EC#</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminum Starch Octenylsuccinate</td>
<td>9087-61-0</td>
<td></td>
</tr>
</tbody>
</table>

SECTION 4: First aid measures

General information
Not available.

4.1 Description of first aid measures

Inhalation
If symptomatic, move to fresh air. Get medical attention if symptoms persist.

Skin contact
Wash skin with soap and water. Get medical attention promptly if symptoms occur after washing.

Eye contact
Any material that contacts the eye should be washed out immediately with water. If easy to do, remove contact lenses. Get medical attention promptly if symptoms occur after washing.

Ingestion
Seek medical advice.

4.2. Most important symptoms and effects, both acute and delayed
Dust may irritate the eyes and the respiratory system.
4.3. Indication of any immediate medical attention and special treatment needed
Treat symptomatically.

SECTION 5: Firefighting measures

General fire hazards
Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.

5.1 Extinguishing media

Suitable extinguishing media
Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).

Unsuitable extinguishing media
None known.

5.2 Special hazards arising from the substance or mixture

Dust may form explosive mixture with air.
This product is a dust explosion class St-1 at normal moisture level.
Minimum Ignition Energy (MIE): 30 mJ< MIE (1mH)< 100mJ at normal moisture level.
Minimum Ignition Energy (MIE): 300 mJ< MIE (0mH)< 1000mJ at normal moisture level.
Minimal Ignition Temperature : 420°C
Lower Explosion Limit : 40g/m3
Upper Explosion Limit : not applicable
Pmax: 7.1 bar
Kst: 110bar.m/s

5.3 Advice for firefighters

Special protective equipment for firefighters
Self-contained breathing apparatus, operated in positive pressure mode and full protective clothing must be worn in case of fire.

Special firefightings procedures
None known.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedure

For non-emergency personnel
Wear appropriate personal protective equipment.

For emergency responders
Keep unnecessary personnel away.
6.2 Environmental precautions
Prevent runoff from entering drains, sewers, or streams.

6.3 Methods and material for containment and cleaning up
Sweep up spilled substance and remove to safe place. Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). Nonsparking tools should be used.

6.4 Reference to other sections
For personal protection, see section 8. For waste disposal, see Section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling
Avoid handling which leads to dust formation. Observe good industrial hygiene practices.

7.2. Conditions for safe storage, including any incompatibilities
Keep container closed. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres. Refer to NFPA 654, Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids, for safe handling.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters
Occupational exposure limits
For national occupational exposure limits see section 15, National regulations

Recommended monitoring procedures
Not established.

DNEL
Not available.

PNEC
Not available.

8.2 Exposure controls
Appropriate engineering controls
Ensure adequate ventilation, especially in confined areas.

Individual protection measures, such as personal protective equipment
General information
Personal protective equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.

Eye/face protection
Wear safety glasses with side shields (or goggles).

Skin protection

Hand protection
Chemical resistant gloves are recommended.

Other
Wear chemical-resistant gloves, footwear and protective clothing appropriate for risk of exposure. Contact glove manufacturer for specific information.

Respiratory protection
If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. Respirator type: Air-purifying respirator with an appropriate, government approved (where applicable), air-purifying filter, cartridge or canister.

Thermal hazards
Not applicable.

Hygiene measures
Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

Environmental exposure controls
Environmental manager must be informed of all major releases.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>White or slightly yellow powder.</td>
</tr>
<tr>
<td>Odour</td>
<td>Not available.</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>Not available.</td>
</tr>
<tr>
<td>pH</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Melting Point/ freezing point</td>
<td>Not available.</td>
</tr>
<tr>
<td>Boiling point, initial boiling point and boiling range</td>
<td>Not available.</td>
</tr>
<tr>
<td>Flash Point</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>210°C</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not available.</td>
</tr>
<tr>
<td>Upper/lower explosive limits</td>
<td>LEL 40g/m3</td>
</tr>
</tbody>
</table>
### Flammability

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flammability limit lower</td>
<td>Not available.</td>
</tr>
<tr>
<td>Flammability limit upper</td>
<td>Not available.</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>MIE: 30 mJ&lt; MIE(1mH)&lt;100mJ at normal moisture level, Pmax: 7.1 bar, Kst: 110 bar.m/s</td>
</tr>
<tr>
<td>Explosive limit</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Vapour density</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Relative density</td>
<td>Not available.</td>
</tr>
<tr>
<td>Solubility in water</td>
<td>Insoluble/partly soluble</td>
</tr>
<tr>
<td>Partition coefficient (Log K octanol/water)</td>
<td>Not available.</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>290°C</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Not available.</td>
</tr>
<tr>
<td>Percent volatile</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

**SECTION 10: Stability and reactivity**

10.1 Reactivity
None known.

10.2 Chemical stability
Stable under the prescribed storage conditions.

10.3 Possibility of hazardous reactions
Hazardous polymerization does not occur.

10.4 Conditions to avoid
Incompatible materials. Minimize dust generation and accumulation.

10.5 Incompatible materials
Strong oxidizing agents.

10.6 Hazardous decomposition products
No hazardous decomposition products are known.

**SECTION 11: Toxicological information**

General information
Under normal conditions of intended use, this material does not pose a risk to health.
Information on likely routes of exposure

Ingestion
No harmful effects expected in amounts likely to be ingested by accident.

Inhalation
Under normal conditions of intended use, this material is not expected to be an inhalation hazard.

Skin contact
None known.

Eye contact
Direct contact with eyes may cause temporary irritation.

Symptoms
Dust may irritate the eyes and the respiratory system.

11.1 Information on toxicological effects

Acute toxicity
Dust may irritate the eyes and the respiratory system.

Skin corrosion/irritation
Not assigned.

Serious eye damage/eye irritation
Direct contact with eyes may cause temporary irritation.

Respiratory sensitization
None known.

Skin sensitization
None known.

Germ cell mutagenicity
Not assigned.

Carcinogenicity
This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

Reproductive toxicity
None known.

Specific target organ toxicity - single exposure
None known.

Specific target organ toxicity - repeated exposure
None known.

Aspiration hazard
Not applicable.

Mixture versus substance information
Not available.

Other information
Not available.

SECTION 12: Ecological information

12.1 Toxicity
No toxicity data noted for the ingredient(s).

12.2 Persistence and degradability
No data available.

12.3 Bioaccumulative potential
No data available.

Mobility
Not available.

Environmental fate - Partition coefficient
Not available.

12.4 Mobility in soil
Not available.

12.5 Results of PBT and vPvB assessment
Not available.

12.6 Other adverse effects
None known.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Residual waste
Dispose of in accordance with local regulations.

Contaminated packaging
Since emptied containers may retain product residue, follow label warnings even after container is emptied.

EU waste code
Waste codes should be assigned by the user based on the application for which the product was used.

SECTION 14: Transport information

14.3 Transport hazard class(es)

ADR  Not regulated as dangerous goods.
RID  Not regulated as dangerous goods.
ADN  Not regulated as dangerous goods.
IATA Not regulated as dangerous goods.
IMDG  Not regulated as dangerous goods.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
No information available.

SECTION 15: Regulatory information

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

Other regulations
This product is in compliance with EC Regulation 1223/2009 and subsequent amendments on cosmetic products.
The product is classified and labelled in accordance with EC directives or respective national laws. This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006

Commission Regulation (EU) No. 2015/830

SECTION 16: Other information

List of abbreviations
Not available.

REFERENCES
Not available.

Revision information
Date of first issue  23-08-2011
Supersedes date  21-03-2016

Information on revision
Reason for changes
Align with REACH regulation.

Disclaimer:

The information contained herein is believed to be true and accurate. However, all statements, recommendations or suggestions are made without any guarantee, representation or warranty, express or implied, on our part. Therefore, no warranty is made or to be implied that the information set out in this document is accurate or complete, and we accordingly exclude all liability in connection with the use of this information or the products referred to herein. All such risks are assumed by the purchaser/user. For the avoidance of doubt, however, nothing in this document excludes or limits our liability for death or personal injury caused by our negligence or for fraudulent misrepresentation.