1. Identification

Product identifier: Actigum™ VSX 20

Other means of identification:
- Synonyms: Actigum™ VSX 20 * Actigum™ VSX 20 P
- Recommended use: Texturizing agent used in cosmetic products.
- Recommended restrictions: None known.

Manufacturer/Importer/Supplier/Distributor information
- Company name: Cargill, Incorporated
- Address: 15407 McGinty Road W, Wayzata, MN 55391, US
- Telephone: 1-800-227-4455
- Emergency phone number: North America: 1-800-255-3924, International: +1-813-248-0585 Collect calls are accepted

2. Hazard(s) identification

Physical hazards: Not classified.

Health hazards: Not classified.

OSHA defined hazards: Combustible dust

Label elements:
- Hazard symbol: None.
- Signal word: Warning
- Hazard statement: May form combustible dust concentrations in air.
- Precautionary statement:
  - Response: Take off contaminated clothing and wash it before reuse. In case of fire: Use appropriate media to extinguish.
  - Storage: Store away from incompatible materials.
  - Disposal: Dispose of waste and residues in accordance with local authority requirements.

Hazard(s) not otherwise classified (HNOC): None known.

Supplemental information: None.

3. Composition/information on ingredients

Mixtures:

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scleroglucan</td>
<td>39464-87-4</td>
<td>Proprietary</td>
</tr>
<tr>
<td>Xanthan gum</td>
<td>11138-66-2</td>
<td>Proprietary</td>
</tr>
</tbody>
</table>

Composition comments: All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

The manufacturer has claimed the exact percentage as trade secret under the OSHA Hazard Communication Standard.

4. First-aid measures

Inhalation: If symptomatic, move to fresh air. Oxygen or artificial respiration if needed. Get medical attention if symptoms persist.
**Skin contact**
Wash off with soap and water. Get medical attention if irritation develops and persists.

**Eye contact**
Do not rub eyes. Any material that contacts the eye should be washed out immediately with water. If easy to do, remove contact lenses. Get medical attention if irritation develops and persists.

**Ingestion**
Rinse mouth. Get medical attention if symptoms occur.

**Most important symptoms/effects, acute and delayed**
Dusts may irritate the respiratory tract, skin and eyes.

**Indication of immediate medical attention and special treatment needed**
Treat symptomatically.

**General information**
Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

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**5. Fire-fighting measures**

**Suitable extinguishing media**

**Unsuitable extinguishing media**
None known.

**Specific hazards arising from the chemical**
Explosion hazard: 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. During fire, gases hazardous to health may be formed such as: Carbon oxides.

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

**Fire fighting equipment/instructions**
In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.

**Specific methods**
Use standard firefighting procedures and consider the hazards of other involved materials.

**General fire hazards**
May form combustible dust concentrations in air.

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**6. Accidental release measures**

**Personal precautions, protective equipment and emergency procedures**
Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Use only non-sparking tools. 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. Wear appropriate protective equipment and clothing during clean-up. Use a NIOSH/MSHA approved respirator if there is a risk of exposure to dust/fume at levels exceeding the exposure limits. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

**Methods and materials for containment and cleaning up**
Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Take precautionary measures against static discharge. Use only non-sparking tools. Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). Collect dust using a vacuum cleaner equipped with HEPA filter. This product is miscible in water. Stop the flow of material, if this is without risk.

Large Spills: Wet down with water and dike for later disposal. Shovel the material into waste container. Prevent runoff from entering drains, sewers, or streams. Following product recovery, flush area with water.

Small Spills: Sweep up or vacuum up spillage and collect in suitable container for disposal.

**Environmental precautions**
Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

**Avoid discharge into drains, water courses or onto the ground.**

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**7. Handling and storage**

**Precautions for safe handling**
Minimize dust generation and accumulation. Avoid significant deposits of material, especially on horizontal surfaces, which may become airborne and form combustible dust clouds and may contribute to secondary explosions. 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. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Explosion-proof general and local exhaust ventilation. Avoid contact with eyes, skin, and clothing. Wear appropriate personal protective equipment. Wash hands after handling. Wash contaminated clothing before reuse. Observe good industrial hygiene practices.
Conditions for safe storage, including any incompatibilities

- Keep containers tightly closed in a dry, cool and well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS).

- 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.

8. Exposure controls/personal protection

**Occupational exposure limits**

<table>
<thead>
<tr>
<th>US. OSHA Table Z-3 (29 CFR 1910.1000) Contains</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dust</td>
<td>TWA</td>
<td>5 mg/m³</td>
<td>Respirable fraction.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>15 mg/m³</td>
<td>Total dust.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>50 mppcf</td>
<td>Total dust.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>15 mppcf</td>
<td>Respirable fraction.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ACGIH Contains</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dust</td>
<td>TWA</td>
<td>10 mg/m³</td>
<td>Inhalable particles.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>US. ACGIH Threshold Limit Values Contains</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dust</td>
<td>TWA</td>
<td>3 mg/m³</td>
<td>Respirable particles.</td>
</tr>
</tbody>
</table>

**Biological limit values**

- No biological exposure limits noted for the ingredient(s).

**Appropriate engineering controls**

- Explosion-proof general and local exhaust ventilation. Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen-deficient environment. Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment). Use only appropriately classified electrical equipment and powered industrial trucks. Ensure adequate ventilation, especially in confined areas.

**Individual protection measures, such as personal protective equipment**

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

- **Skin protection**
  - **Hand protection**
    - Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove supplier.
  - **Other**
    - Wear suitable protective clothing. 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. Use a NIOSH/MSHA approved respirator if there is a risk of exposure to dust/fume at levels exceeding the exposure limits. Respirator type: Air-purifying respirator with an appropriate, government approved (where applicable), air-purifying filter, cartridge or canister.

- **Thermal hazards**
  - Wear appropriate thermal protective clothing, when necessary.

- **General hygiene considerations**
  - When using, do not eat, drink or smoke. 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.

9. Physical and chemical properties

**Appearance**

- **Physical state**
  - Solid.
### Form
- Powder.

### Color
- Creamy-white to light-brown.

### Odor
- None.

### Odor threshold
- Not available.

### pH
- 5 - 10

### Melting point/freezing point
- Decomposition from 120°C.

### Initial boiling point and boiling range
- Decomposition before ebullition.

### Flash point
- Not available.

### Evaporation rate
- Not available.

### Flammability (solid, gas)
- Combustible dust.

#### Upper/lower flammability or explosive limits

<table>
<thead>
<tr>
<th>Flammability limit - lower (%)</th>
<th>Not available.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flammability limit - upper (%)</td>
<td>Not available.</td>
</tr>
<tr>
<td>Explosive limit - lower (%)</td>
<td>Not available.</td>
</tr>
<tr>
<td>Explosive limit - upper (%)</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

### Vapor pressure
- Not available.

### Vapor density
- Not available.

### Relative density
- Not available.

### Solubility(ies)

<table>
<thead>
<tr>
<th>Solubility (water)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A complete dissolution can be obtained in cold conditions.</td>
</tr>
</tbody>
</table>

### Partition coefficient
- (n-octanol/water)
- Not available.

### Auto-ignition temperature
- Not available.

### Decomposition temperature
- Not available.

### Viscosity
- Not available.

### Other information

#### Dust explosion properties

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>$P_{\text{max}}$</td>
<td>9.5 bar</td>
</tr>
<tr>
<td>$K_{\text{st}}$</td>
<td>170 - 195 bar.m/s</td>
</tr>
<tr>
<td>$St_{\text{class}}$</td>
<td>1 Weak explosion (St 1)</td>
</tr>
<tr>
<td>Minimum ignition energy (MIE) - dust cloud</td>
<td>$&gt; 30$ mJ (normal moisture level)</td>
</tr>
</tbody>
</table>

#### Explosive properties
- Not explosive.

#### Oxidizing properties
- Not oxidizing.

### 10. Stability and reactivity

#### Reactivity
- The product is stable and non-reactive under normal conditions of use, storage and transport.

#### Chemical stability
- Material is stable under normal conditions.

#### Possibility of hazardous reactions
- No dangerous reaction known under conditions of normal use.

#### Conditions to avoid
- Keep away from heat, sparks and open flame. Contact with incompatible materials. Minimize dust generation and accumulation.

#### Incompatible materials
- Strong oxidizing agents.

#### Hazardous decomposition products
- No hazardous decomposition products are known.

### 11. Toxicological information

#### Information on likely routes of exposure

<table>
<thead>
<tr>
<th>Route</th>
<th>Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalation</td>
<td>Dust may irritate respiratory system.</td>
</tr>
</tbody>
</table>
Skin contact
Dust or powder may irritate the skin.

Eye contact
Dust may irritate the eyes.

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

Symptoms related to the physical, chemical and toxicological characteristics
Dusts may irritate the respiratory tract, skin and eyes.

Information on toxicological effects

Acute toxicity
Not expected to be acutely toxic.

Skin corrosion/irritation
Dust or powder may irritate the skin.

Serious eye damage/eye irritation
Dust may irritate the eyes.

Respiratory or skin sensitization

Respiratory sensitization
Not a respiratory sensitizer.

Skin sensitization
This product is not expected to cause skin sensitization.

Germ cell mutagenicity
No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity
Not classifiable as to carcinogenicity to humans.

IARC Monographs. Overall Evaluation of Carcinogenicity
Not listed.

NTP Report on Carcinogens
Not listed.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)
Not listed.

Reproductive toxicity
This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity - single exposure
Not classified.

Specific target organ toxicity - repeated exposure
Not classified.

Aspiration hazard
Not an aspiration hazard.

12. Ecological information

Ecotoxicity
The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Persistence and degradability
No data is available on the degradability of any ingredients in the mixture.

Bioaccumulative potential
No data available.

Mobility in soil
No data available.

Other adverse effects
No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions
Dispose in accordance with applicable federal, state, and local regulations.

Hazardous waste code
The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues / unused products
Dispose of in accordance with local regulations.

Contaminated packaging
Dispose in accordance with applicable federal, state, and local regulations.

14. Transport information

DOT
Not regulated as dangerous goods.

IATA
Not regulated as dangerous goods.

IMDG
Not regulated as dangerous goods.
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

15. Regulatory information

US federal regulations
This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)
Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)
Not listed.

SARA 304 Emergency release notification
Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)
Not listed.

Toxic Substances Control Act (TSCA)
All components of the mixture on the TSCA 8(b) inventory are designated “active”.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance
Not listed.

SARA 311/312 Hazardous chemical
Yes

Classified hazard categories
Combustible dust

SARA 313 (TRI reporting)
Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List
Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)
Not regulated.

Safe Drinking Water Act (SDWA)
Not regulated.

US state regulations

US. Massachusetts RTK - Substance List
Not regulated.

US. New Jersey Worker and Community Right-to-Know Act
Not listed.

US. Pennsylvania Worker and Community Right-to-Know Law
Not listed.

US. Rhode Island RTK
Not regulated.

International Inventories

<table>
<thead>
<tr>
<th>Country(s) or region</th>
<th>Inventory name</th>
<th>On inventory (yes/no)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>Australian Inventory of Chemical Substances (AICS)</td>
<td>No</td>
</tr>
<tr>
<td>Canada</td>
<td>Domestic Substances List (DSL)</td>
<td>Yes</td>
</tr>
<tr>
<td>Canada</td>
<td>Non-Domestic Substances List (NDSSL)</td>
<td>No</td>
</tr>
<tr>
<td>China</td>
<td>Inventory of Existing Chemical Substances in China (IECSC)</td>
<td>Yes</td>
</tr>
<tr>
<td>Europe</td>
<td>European Inventory of Existing Commercial Chemical Substances (EINECS)</td>
<td>Yes</td>
</tr>
<tr>
<td>Europe</td>
<td>European List of Notified Chemical Substances (ELINCS)</td>
<td>No</td>
</tr>
<tr>
<td>Japan</td>
<td>Inventory of Existing and New Chemical Substances (ENCS)</td>
<td>No</td>
</tr>
<tr>
<td>Korea</td>
<td>Existing Chemicals List (ECL)</td>
<td>No</td>
</tr>
<tr>
<td>New Zealand</td>
<td>New Zealand Inventory</td>
<td>Yes</td>
</tr>
<tr>
<td>Country(s) or region</td>
<td>Inventory name</td>
<td>On inventory (yes/no)*</td>
</tr>
<tr>
<td>------------------------------</td>
<td>---------------------------------------------</td>
<td>------------------------</td>
</tr>
<tr>
<td>Philippines</td>
<td>Philippine Inventory of Chemicals and Chemical Substances (PICCS)</td>
<td>No</td>
</tr>
<tr>
<td>Taiwan</td>
<td>Taiwan Chemical Substance Inventory (TCSI)</td>
<td>Yes</td>
</tr>
<tr>
<td>United States &amp; Puerto Rico</td>
<td>Toxic Substances Control Act (TSCA) Inventory</td>
<td>Yes</td>
</tr>
</tbody>
</table>

*A “Yes” indicates this product complies with the inventory requirements administered by the governing country(s). A “No” indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

- **Issue date**: 17-March-2020
- **Revision date**: -
- **Version #**: 01

Further information

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.

HMIS® ratings

- **Health**: 0
- **Flammability**: 2
- **Physical hazard**: 0

NFPA ratings

- **Health**: 0
- **Flammability**: 2
- **Physical hazard**: 0

List of abbreviations

- TWA: Time Weighted Average Value.
- DOT: Department of Transportation (49 CFR 172.101).
- IATA: International Air Transport Association.

Disclaimer

Cargill, Incorporated cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user’s responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.