SECTION 1. IDENTIFICATION

Product name : VISIONAIRE Splendid Silver Sea
Product code : 022686S60

Manufacturer or supplier's details
Company name of supplier : ECKART GmbH
Address : Guentersthal 4
Hartenstein  91235
Telephone : +499152770
Telefax : +499152777008
Emergency telephone : CHEMTREC: 800-424-9300
CHEMTREC: 1-703-527-3387 (International)
GBK Gefahrgut Buro GmbH, Ingelheim, Germany:
From outside US: (001) 352-323-3500
(First call in English, response in your language is possible)
US & Canada (toll free):1-800-5355-053

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with 29 CFR 1910.1200
Flammable solids : Category 1
Combustible dust

GHS label elements
Hazard pictograms : ☢️

Signal Word : Danger
Hazard Statements : H228 Flammable solid.
May form combustible dust concentrations in air.
Precautionary Statements:

**Prevention:**
- P210: Keep away from heat/sparks/open flames/hot surfaces. No smoking.
- P240: Ground/bond container and receiving equipment.
- P241: Use explosion-proof electrical/ventilating/lighting/equipment.
- P280: Wear protective gloves/eye protection/face protection.

**Response:**
- P370 + P378: In case of fire: Use for extinction: Special powder for metal fires.
- P370 + P378: In case of fire: Use for extinction: Dry sand.

Other hazards
None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous ingredients

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS-No.</th>
<th>Concentration (% w/w)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminum</td>
<td>7429-90-5</td>
<td>&gt;= 90 - &lt; 100</td>
</tr>
<tr>
<td>Silica</td>
<td>7631-86-9</td>
<td>&gt;= 5 - &lt; 10</td>
</tr>
</tbody>
</table>

SECTION 4. FIRST AID MEASURES

General advice:
Take the victim into fresh air.
Move out of dangerous area.

If inhaled:
- If unconscious, place in recovery position and seek medical advice.
- If symptoms persist, call a physician.

In case of skin contact:
Wash off immediately with soap and plenty of water.
- If on skin, rinse well with water.
- If on clothes, remove clothes.

In case of 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.
If swallowed:
- Keep respiratory tract clear.
- Do not give milk or alcoholic beverages.
- Never give anything by mouth to an unconscious person.
- If symptoms persist, call a physician.

Most important symptoms and effects, both acute and delayed:
- None known.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media:
- Dry sand
- Special powder against metal fire

Unsuitable extinguishing media:
- ABC powder
- Carbon dioxide (CO2)
- Water
- Foam

Specific hazards during fire fighting:
- Contact with water liberates extremely flammable gas (hydrogen).

Further information:
- Standard procedure for chemical fires.
- Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Special protective equipment for fire-fighters:
- Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:
- Use personal protective equipment.
- Evacuate personnel to safe areas.
- Avoid dust formation.
- Remove all sources of ignition.

Environmental precautions:
- Prevent product from entering drains.
- Prevent further leakage or spillage if safe to do so.
- If the product contaminates rivers and lakes or drains inform respective authorities.

Methods and materials for containment and cleaning up:
- Use mechanical handling equipment.
- Do not use a vacuum cleaner.
Do not flush with water.
Keep in suitable, closed containers for disposal.

SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion:
- Use explosion-proof equipment.
- During processing, dust may form explosive mixture in air.
- Take measures to prevent the build up of electrostatic charge.
- When transferring from one container to another apply earthing measures and use conductive hose material.
- Keep away from open flames, hot surfaces and sources of ignition.

Advice on safe handling:
- Avoid creating dust.
- Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces.
- Store away from heat.
- For personal protection see section 8.
- Smoking, eating and drinking should be prohibited in the application area.
- Dispose of rinse water in accordance with local and national regulations.

Conditions for safe storage:
- Earthing of containers and apparatuses is essential.
- Reaction with water liberates extremely flammable gas (hydrogen)
- Use explosion-proof equipment.
- Store in original container.
- Keep containers tightly closed in a cool, well-ventilated place.
- Keep away from sources of ignition - No smoking.
- Keep container closed when not in use.
- No smoking.
- Keep container tightly closed in a dry and well-ventilated place.
- Electrical installations / working materials must comply with the technological safety standards.

Technical measures/Precautions:
- Protect from humidity and water.

Materials to avoid:
- Do not store together with oxidizing and self-igniting products.
- Never allow product to get in contact with water during
storage. Keep away from oxidizing agents, strongly alkaline and strongly acid materials in order to avoid exothermic reactions.

Further information on storage stability: Keep in a dry place.

### SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Ingredients with workplace control parameters

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>CAS-No.</th>
<th>Value type (Form of exposure)</th>
<th>Control parameters / Permissible concentration</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminum</td>
<td>7429-90-5</td>
<td>TWA (total dust)</td>
<td>50 Million particles per cubic foot</td>
<td>OSHA Z-3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA (Respirable)</td>
<td>5 mg/m³</td>
<td>NIOSH REL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA (total dust)</td>
<td>15 mg/m³</td>
<td>OSHA Z-3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA (total)</td>
<td>10 mg/m³</td>
<td>NIOSH REL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA (respirable fraction)</td>
<td>5 mg/m³</td>
<td>OSHA Z-3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA (respirable fraction)</td>
<td>15 Million particles per cubic foot</td>
<td>OSHA Z-3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA (Respirable fraction)</td>
<td>1 mg/m³</td>
<td>ACGIH</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>5 mg/m³ (Aluminum)</td>
<td>NIOSH REL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA (Total)</td>
<td>15 mg/m³ (Aluminum)</td>
<td>OSHA P0</td>
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<tr>
<td></td>
<td></td>
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</table>
## TWA (Respirable dust fraction) Limits

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<th>Standard</th>
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<td>NIOSH REL</td>
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<td>Silica</td>
<td>OSHA P0</td>
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</tr>
<tr>
<td>Silica</td>
<td>NIOSH REL</td>
<td>6 mg/m³</td>
</tr>
<tr>
<td>Aluminum</td>
<td>OSHA Z-3</td>
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</tr>
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<td>Aluminum</td>
<td>OSHA Z-3</td>
<td>80 mg/m³ / %SiO₂</td>
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<td>Aluminum</td>
<td>OSHA Z-3</td>
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<td>Aluminum</td>
<td>OSHA Z-3</td>
<td>80 mg/m³ / %SiO₂ (Silica)</td>
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<tr>
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<td>NIOSH REL</td>
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<td>Aluminum</td>
<td>OSHA Z-3</td>
<td>15 Million particles per cubic foot</td>
</tr>
<tr>
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<td>Threshold Limit (TWA)</td>
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<td>TWA (Total)</td>
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<td>TWA (Respirable fraction)</td>
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<td>TWA (welding fumes)</td>
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<td>TWA (pyro powders)</td>
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<tr>
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<td>TWA (Fumes)</td>
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<td>Silica</td>
<td>7631-86-9 TWA</td>
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<tr>
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<td>TWA (Dust)</td>
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<tr>
<td></td>
<td>TWA (Dust)</td>
<td>80 mg/m³ / %SiO₂</td>
</tr>
<tr>
<td></td>
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<tr>
<td></td>
<td>TWA</td>
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</table>
SAFETY DATA SHEET
VISIONAIRE Splendid Silver Sea

Version 1.0
Revision Date: 03/21/2018
SDS Number: 102000025044
Date of last issue: -
Date of first issue: 03/21/2018

Personal protective equipment
Respiratory protection: Use suitable breathing protection if workplace concentration requires.
Breathing apparatus with filter. P1 filter

Hand protection
Material: Leather
Glove length: Long sleeve gloves

Remarks: Leather gloves
The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other. The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Eye protection: Face-shield
Safety glasses

Skin and body protection: Anti-static and fire resistant protective clothing. DIN EN 11612; EN 533; EN 1149-1; Anti-static safety shoes Dust impervious protective suit
Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hygiene measures: Wash hands before breaks and at the end of workday.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: powder
Color: colored
Odor: No data available
Odor Threshold: No data available
pH: No data available
Melting point/freezing point: No data available
Initial boiling point and boiling range: No data available
Flash point: No data available
Evaporation rate: No data available
Flammability (solid, gas): The substance or mixture is a flammable solid with the category 1.
combustible dust
SAFETY DATA SHEET
VISIONAIRE Splendid Silver Sea

Version 1.0  Revision Date: 03/21/2018  SDS Number: 102000025044  Date of last issue: -  Date of first issue: 03/21/2018

Upper explosion limit / Upper flammability limit : No data available
Lower explosion limit / Lower flammability limit : No data available
Vapor pressure : No data available
Relative density : No data available
Solubility(ies)
  Water solubility : insoluble
Partition coefficient: n-octanol/water : No data available
Autoignition temperature : No data available
Decomposition temperature : No data available
Viscosity : No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity : No decomposition if stored and applied as directed.
Chemical stability : No decomposition if stored and applied as directed.
Possibility of hazardous reactions : Contact with acids and alkalis may release hydrogen. Stable under recommended storage conditions. Dust may form explosive mixture in air.
Conditions to avoid : Heat, flames and sparks.
Incompatible materials : Acids
  Bases
  Oxidizing agents
  Water

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity
Not classified based on available information.

Ingredients:
Silica:
Acute oral toxicity : LD50 (Rat): 5,000 mg/kg
                  (Mouse): 15,000 mg/kg
Acute inhalation toxicity : (Rat): 0.139 mg/l
                        Exposure time: 4 h
Acute dermal toxicity: LD50 (Rabbit): > 5,000 mg/kg

Skin corrosion/irritation
Not classified based on available information.

Serious eye damage/eye irritation
Not classified based on available information.

Respiratory or skin sensitization

Skin sensitization
Not classified based on available information.

Respiratory sensitization
Not classified based on available information.

Germ cell mutagenicity
Not classified based on available information.

Carcinogenicity
Not classified based on available information.

IARC
No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA
No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

NTP
No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Reproductive toxicity
Not classified based on available information.

STOT-single exposure
Not classified based on available information.

STOT-repeated exposure
Not classified based on available information.

Aspiration toxicity
Not classified based on available information.
Further information

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Ingredients:
Silica:
Toxicity to daphnia and other aquatic invertebrates: (Daphnia): 7,600 mg/l
Toxicity to algae: (Chlorella pyrenoidosa): 440 mg/l

Persistence and degradability
No data available

Bioaccumulative potential
No data available

Other adverse effects
No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods
Waste from residues: Do not dispose of waste into sewer.
Do not contaminate ponds, waterways or ditches with chemical or used container.
Send to a licensed waste management company.
In accordance with local and national regulations.

Contaminated packaging: Empty remaining contents.
Dispose of as unused product.
Do not re-use empty containers.
Do not burn, or use a cutting torch on, the empty drum.
In accordance with local and national regulations.

SECTION 14. TRANSPORT INFORMATION

International Regulations

IATA-DGR
UN/ID No.: UN 1309
Proper shipping name: Aluminium powder, coated
Class: 4.1
SAFETY DATA SHEET
VISIONAIRE Splendid Silver Sea

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IMDG-Code
UN number: UN 1309  Proper shipping name: ALUMINIUM POWDER, COATED


Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not applicable for product as supplied.

Domestic regulation

49 CFR
UN/ID/NA number: UN 1309  Proper shipping name: Aluminum powder, coated

Class: 4.1  Packing group: II  Labels: FLAMMABLE SOLID  ERG Code: 170  Marine pollutant: no

SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know
CERCLA Reportable Quantity
This material does not contain any components with a CERCLA RQ.

SARA 304 Extremely Hazardous Substances Reportable Quantity
This material does not contain any components with a section 304 EHS RQ.

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity
This material does not contain any components with a section 302 EHS TPQ.
SARA 311/312 Hazards: Flammable (gases, aerosols, liquids, or solids) Combustible dust

SARA 313: The following components are subject to reporting levels established by SARA Title III, Section 313:

<table>
<thead>
<tr>
<th>Component</th>
<th>SDS Number</th>
<th>Reporting Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminum</td>
<td>7429-90-5</td>
<td>&gt;= 90 - &lt;= 100%</td>
</tr>
</tbody>
</table>

Clean Air Act
This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).
This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).
This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).
This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCMI Intermediate or Final VOC’s (40 CFR 60.489).

Clean Water Act
This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.
This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.
This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

US State Regulations
Massachusetts Right To Know
<table>
<thead>
<tr>
<th>Component</th>
<th>SDS Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminum</td>
<td>7429-90-5</td>
</tr>
<tr>
<td>Silica</td>
<td>7631-86-9</td>
</tr>
</tbody>
</table>

Pennsylvania Right To Know
<table>
<thead>
<tr>
<th>Component</th>
<th>SDS Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminum</td>
<td>7429-90-5</td>
</tr>
<tr>
<td>Silica</td>
<td>7631-86-9</td>
</tr>
</tbody>
</table>

California Prop. 65
WARNING: This product can expose you to chemicals including lead and cadmium, which is/are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

California List of Hazardous Substances
<table>
<thead>
<tr>
<th>Component</th>
<th>SDS Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminum</td>
<td>7429-90-5</td>
</tr>
</tbody>
</table>
Silica 7631-86-9

**California Permissible Exposure Limits for Chemical Contaminants**

Aluminum 7429-90-5

Silica 7631-86-9

The ingredients of this product are reported in the following inventories:

- **DSL**: All components of this product are on the Canadian DSL
- **TSCA**: On TSCA Inventory

**TSCA list**

No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

**SECTION 16. OTHER INFORMATION**

**Full text of other abbreviations**

- **ACGIH**: USA. ACGIH Threshold Limit Values (TLV)
- **NIOSH REL**: USA. NIOSH Recommended Exposure Limits
- **OSHA P0**: USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
- **OSHA Z-1**: USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
- **OSHA Z-3**: USA. Occupational Exposure Limits (OSHA) - Table Z-3 Mineral Dusts
- **ACGIH / TWA**: 8-hour, time-weighted average
- **NIOSH REL / TWA**: Time-weighted average concentration for up to a 10-hour workday during a 40-hour workweek
- **OSHA P0 / TWA**: 8-hour time weighted average
- **OSHA Z-1 / TWA**: 8-hour time weighted average
- **OSHA Z-3 / TWA**: 8-hour time weighted average

**AICS**: Australian Inventory of Chemical Substances; **ASTM**: American Society for the Testing of Materials; **bw**: Body weight; **CERCLA**: Comprehensive Environmental Response, Compensation, and Liability Act; **CMR**: Carcinogen, Mutagen or Reproductive Toxicant; **DIN**: Standard of the German Institute for Standardisation; **DOT**: Department of Transportation; **DSL**: Domestic Substances List (Canada); **ECx**: Concentration associated with x% response; **EHS**: Extremely Hazardous Substance; **ELx**: Loading rate associated with x% response; **EmS**: Emergency Schedule...
The information provided in this Material 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.

Revision Date : 03/21/2018

US / Z8