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

1.1 Product identifier
   Trade name : SHINEDECOR 2000
   Product code : 023843HD0 023843HD0

1.2 Relevant identified uses of the substance or mixture and uses advised against
   This information is not available.

1.3 Details of the supplier of the safety data sheet
   Company : ECKART GmbH
              Guentersthal 4
              91235 Hartenstein
   Telephone : +499152770
   Telefax : +49915277708
   E-mail address of person responsible for the SDS : msds.eckart@altana.com

1.4 Emergency telephone number
   GBK Gefahrgut Büro 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

2.1 Classification of the substance or mixture
   Classification (REGULATION (EC) No 1272/2008)
   Not a dangerous substance according to GHS.

2.2 Label elements
   Labelling (REGULATION (EC) No 1272/2008)
   Not a dangerous substance or mixture according to the Globally Harmonised System (GHS).

   Additional Labelling
   EUH210 Safety data sheet available on request.

2.3 Other hazards
   This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.
SECTION 3: Composition/information on ingredients

3.2 Mixtures

Hazardous components

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS-No. EC-No. Index-No. Registration number</th>
<th>Classification REGULATION (EC) No 1272/2008</th>
<th>Concentration (% w/w)</th>
</tr>
</thead>
<tbody>
<tr>
<td>aluminium powder (stabilised)</td>
<td>7429-90-5 231-072-3 013-002-00-1 01-2119529243-45</td>
<td>Flam. Sol. 1; H228</td>
<td>&gt;= 20 - &lt; 25</td>
</tr>
<tr>
<td>2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol</td>
<td>95-38-5 202-414-9 01-2119777867-13-0000</td>
<td>Acute Tox. 4; H302 Skin Corr. 1C; H314 STOT RE 2; H373 Aquatic Acute 1; H400 Aquatic Chronic 1; H410</td>
<td>&gt;= 1 - &lt; 2.5</td>
</tr>
</tbody>
</table>

For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice: Move the victim to fresh air. Do not leave the victim unattended.

No hazards which require special first aid measures.

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.

In case of eye contact: Immediately flush eye(s) with plenty of water.

Remove contact lenses. 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.

4.2 Most important symptoms and effects, both acute and delayed

None known.
4.3 Indication of any immediate medical attention and special treatment needed
This information is not available.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media:
- Dry sand
- ABC powder
- Foam

Unsuitable extinguishing media:
- Water

5.2 Special hazards arising from the substance or mixture

5.3 Advice for firefighters

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

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

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions:
- Evacuate personnel to safe areas.

6.2 Environmental precautions

6.3 Methods and material for containment and cleaning up

Methods for cleaning up:
- Use mechanical handling equipment.
- Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).
- Wipe up with absorbent material (e.g. cloth, fleece).
- Do not flush with water.
- Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

For personal protection see section 8.

SECTION 7: Handling and storage

7.1 Precautions for safe handling
SAFETY DATA SHEET
according to Regulation (EC) No. 1907/2006

SHINEDECOR 2000

Version: 1.0
Revision Date: 08.05.2018
SDS Number: 102000029532
Print Date: 19.11.2018
Date of first issue: 08.05.2018

Advice on safe handling: For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area.

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

Hygiene measures: General industrial hygiene practice.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers: Earthing of containers and apparatuses is essential. Take measures to prevent the build up of electrostatic charge. Use explosion-proof equipment. Store in original container.

Electrical installations / working materials must comply with the technological safety standards.

Advice on common storage: Do not store near acids. Do not store together with oxidizing and self-igniting products. Keep away from oxidizing agents and strongly acid or alkaline materials.

Keep away from oxidizing agents, strongly alkaline and strongly acid materials in order to avoid exothermic reactions.

Further information on storage stability: No decomposition if stored and applied as directed.

7.3 Specific end use(s)
This information is not available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Value type (Form of exposure)</th>
<th>Control parameters</th>
<th>Basis (Version Date)</th>
</tr>
</thead>
<tbody>
<tr>
<td>aluminium powder (stabilised)</td>
<td>7429-90-5</td>
<td>TWA (Inhalable)</td>
<td>10 mg/m³</td>
<td>GB EH40 (2011-12-01)</td>
</tr>
</tbody>
</table>

Further information: The COSHH definition of a substance hazardous to health includes dust of any kind when present at a concentration in air equal to or greater than 10 mg/m³ 8-hour TWA of inhalable dust or 4 mg/m³ 8-hour TWA of respirable dust. This means that any dust will be subject to COSHH if people are exposed above these levels. Some dusts have been assigned specific WELs and exposure to these must comply with the appropriate limit. Where no specific short-term exposure limit is listed, a figure three times the long-term exposure should be used.

| TWA (Respirable) | 4 mg/m³ | GB EH40 (2011-12-01) |

Further information: The COSHH definition of a substance hazardous to health includes dust of any kind when present at a concentration in air equal to or greater than 10 mg/m³ 8-hour TWA of respirable dust. This means that any dust will be subject to COSHH if people are exposed above these levels. Some dusts have been assigned specific WELs and exposure to these must comply with the appropriate limit. Where no specific short-term exposure limit is listed, a figure three times the long-term exposure should be used.

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<table>
<thead>
<tr>
<th>TWA (Inhalable)</th>
<th>10 mg/m\textsuperscript{3}</th>
<th>GB EH40 (2005-04-06)</th>
</tr>
</thead>
</table>

Further information

For the purposes of these limits, respirable dust and inhalable dust are those fractions of airborne dust which will be collected when sampling is undertaken in accordance with the methods described in MDHS14/3 General methods for sampling and gravimetric analysis of respirable and inhalable dust. The COSHH definition of a substance hazardous to health includes dust of any kind when present at a concentration in air equal to or greater than 10 mg.m\textsuperscript{-3} 8-hour TWA of inhalable dust or 4 mg.m\textsuperscript{-3} 8-hour TWA of respirable dust. This means that any dust will be subject to COSHH if people are exposed above these levels. Some dusts have been assigned specific WELs and exposure to these must comply with the appropriate limit. Most industrial dusts contain particles of a wide range of sizes. The behaviour, deposition and fate of any particular particle after entry into the human respiratory system and the body response that it elicits, depend on the nature and size of the particle. HSE distinguishes two size fractions for limit-setting purposes termed ‘inhalable’ and ‘respirable’. Inhalable dust approximates to the fraction of airborne material that enters the nose and mouth during breathing and is therefore available for deposition in the respiratory tract. Respirable dust approximates to the fraction that penetrates to the gas exchange region of the lung. Fuller definitions and explanatory material are given in MDHS14/3. Where dusts contain components that have their own assigned WEL, all the relevant limits should be complied with. Where no specific short-term exposure limit is listed, a figure three times the long-term exposure should be used.

<table>
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<th>4 mg/m\textsuperscript{3}</th>
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6 / 15

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<table>
<thead>
<tr>
<th></th>
<th>TWA (inhalable dust)</th>
<th>10 mg/m(^3)</th>
<th>GB EH40 (2011-12-01)</th>
</tr>
</thead>
</table>
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<table>
<thead>
<tr>
<th></th>
<th>TWA (Respirable dust)</th>
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</thead>
</table>
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### Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

<table>
<thead>
<tr>
<th>Substance name</th>
<th>End Use</th>
<th>Exposure routes</th>
<th>Potential health effects</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>aluminium powder (stabilised)</td>
<td>Workers</td>
<td>Inhalation</td>
<td>long term – local effects</td>
<td>3.72 mg/m³</td>
</tr>
<tr>
<td></td>
<td>Consumers</td>
<td>Oral</td>
<td>long term – systemic effects</td>
<td>3.95 mg/kg</td>
</tr>
<tr>
<td>2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol</td>
<td>Workers</td>
<td>Skin contact</td>
<td>long term – systemic effects</td>
<td>0.06 mg/kg</td>
</tr>
<tr>
<td></td>
<td>Workers</td>
<td>Inhalation</td>
<td>long term – systemic effects</td>
<td>0.46 mg/m³</td>
</tr>
<tr>
<td></td>
<td>Workers</td>
<td>Skin contact</td>
<td>short term – systemic effects</td>
<td>2 mg/kg</td>
</tr>
<tr>
<td></td>
<td>Workers</td>
<td>Inhalation</td>
<td>short term – systemic effects</td>
<td>14 mg/m³</td>
</tr>
</tbody>
</table>

### Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

<table>
<thead>
<tr>
<th>Substance name</th>
<th>Environmental Compartment</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>aluminium powder (stabilised)</td>
<td>Fresh water</td>
<td>0.0749 mg/l</td>
</tr>
<tr>
<td></td>
<td>clarification plant</td>
<td>20 mg/l</td>
</tr>
<tr>
<td>2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol</td>
<td>Fresh water</td>
<td>0.00003 mg/l</td>
</tr>
<tr>
<td></td>
<td>Marine water</td>
<td>0.000003 mg/l</td>
</tr>
<tr>
<td></td>
<td>Fresh water sediment</td>
<td>0.376 mg/kg</td>
</tr>
<tr>
<td></td>
<td>Marine sediment</td>
<td>0.0376 mg/kg</td>
</tr>
<tr>
<td></td>
<td>Soil</td>
<td>0.075 mg/kg</td>
</tr>
<tr>
<td></td>
<td>clarification plant</td>
<td>0.27 mg/l</td>
</tr>
</tbody>
</table>

### 8.2 Exposure controls

**Personal protective equipment**

Eye protection : Goggles

Safety glasses

Hand protection Material : Solvent-resistant gloves (butyl-rubber)

Remarks : Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact). Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. Recommended preventive skin protection Skin should be
washed after contact. The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Respiratory protection: Use suitable breathing protection if workplace concentration requires.

No personal respiratory protective equipment normally required.

**Environmental exposure controls**

**Water**: The product should not be allowed to enter drains, water courses or the soil.

### SECTION 9: Physical and chemical properties

#### 9.1 Information on basic physical and chemical properties

- **Appearance**: liquid
- **Colour**: silver
- **Odour**: characteristic
- **Odour Threshold**: No data available
- **pH**: No data available
- **Freezing point**: No data available
- **Boiling point/boiling range**: No data available
- **Flash point**: > 100 °C
- **Evaporation rate**: No data available
- **Flammability (solid, gas)**: No data available
- **Self-ignition**: No data available
- **Auto-ignition temperature**: No data available
- **Smoldering temperature**: No data available
- **Decomposition temperature**: No data available
- **Explosive properties**: No data available
- **Oxidizing properties**: No data available
- **Upper explosion limit / Upper**: No data available
9.2 Other information
No data available

SECTION 10: Stability and reactivity

10.1 Reactivity
No decomposition if stored and applied as directed.

10.2 Chemical stability
No decomposition if stored and applied as directed.

10.3 Possibility of hazardous reactions
Hazardous reactions:
Contact with acids and alkalis may release hydrogen.
Stable under recommended storage conditions.

10.4 Conditions to avoid
Conditions to avoid:
Do not allow evaporation to dryness.
No data available
10.5 Incompatible materials

<table>
<thead>
<tr>
<th>Materials to avoid</th>
<th>Acids</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Bases</td>
</tr>
<tr>
<td></td>
<td>Oxidizing agents</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>10.6 Hazardous decomposition products</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contact with water or humid air</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Thermal decomposition</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

---

**SECTION 11: Toxicological information**

**11.1 Information on toxicological effects**

**Acute toxicity**
Not classified based on available information.

**Product:**

<table>
<thead>
<tr>
<th>Acute oral toxicity</th>
<th>Acute toxicity estimate: &gt; 2,000 mg/kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Method: Calculation method</td>
<td></td>
</tr>
</tbody>
</table>

**Components:**

<table>
<thead>
<tr>
<th>aluminium powder (stabilised):</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute inhalation toxicity</td>
</tr>
<tr>
<td>LC50 (Rat): &gt; 5 mg/l</td>
</tr>
<tr>
<td>Exposure time: 4 h</td>
</tr>
<tr>
<td>Test atmosphere: dust/mist</td>
</tr>
</tbody>
</table>

**Skin corrosion/irritation**
Not classified based on available information.

**Product:**

<table>
<thead>
<tr>
<th>Result: No skin irritation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Remarks: Based on available data, the classification criteria are not met.</td>
</tr>
</tbody>
</table>

**Components:**

<table>
<thead>
<tr>
<th>2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Remarks: Extremely corrosive and destructive to tissue.</td>
</tr>
</tbody>
</table>

**Serious eye damage/eye irritation**
Not classified based on available information.
SAFETY DATA SHEET
according to Regulation (EC) No. 1907/2006

SHINEDECOR 2000

Version 1.0
Revision Date: 08.05.2018
SDS Number: 102000029532
Print Date: 19.11.2018
Date of first issue: 08.05.2018

Product:
Result: No eye irritation
Remarks: Based on available data, the classification criteria are not met.

Components:
2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol:
Remarks: May cause irreversible eye damage.

Respiratory or skin sensitisation
Skin sensitisation
Not classified based on available information.

Respiratory sensitisation
Not classified based on available information.

Germ cell mutagenicity
Not classified based on available information.

Carcinogenicity
Not classified based on available information.

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

Product:
Remarks: No data available

Components:
2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol:
Remarks: No data available
SECTION 12: Ecological information

12.1 Toxicity

**Product:**

Ecotoxicology Assessment

Acute aquatic toxicity : This product has no known ecotoxicological effects.

Chronic aquatic toxicity : This product has no known ecotoxicological effects.

**Components:**

2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol:

M-Factor (Acute aquatic toxicity) : 10

M-Factor (Chronic aquatic toxicity) : 1

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

**Product:**

Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher..

12.6 Other adverse effects

**Product:**

Additional ecological information : No data available

**Components:**

2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol:

Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Very toxic to aquatic life with long lasting effects.
SECTION 13: Disposal considerations

European Waste Catalogue : 08 01 11 - waste paint and varnish containing organic solvents or other dangerous substances

13.1 Waste treatment methods

Product : In accordance with local and national regulations.

Contaminated packaging : Empty containers should be taken to an approved waste handling site for recycling or disposal. In accordance with local and national regulations.

SECTION 14: Transport information

14.1 UN number

ADR : Not regulated as a dangerous good
IMDG : Not regulated as a dangerous good
IATA : Not permitted for transport

14.2 UN proper shipping name

ADR : Not regulated as a dangerous good
IMDG : Not regulated as a dangerous good
IATA : Not permitted for transport

14.3 Transport hazard class(es)

ADR : Not regulated as a dangerous good
IMDG : Not regulated as a dangerous good
IATA : Not permitted for transport

14.4 Packing group

ADR : Not regulated as a dangerous good
IMDG : Not regulated as a dangerous good
IATA (Cargo) : Not permitted for transport
IATA (Passenger) : Not permitted for transport

14.5 Environmental hazards

ADR : Not regulated as a dangerous good
IMDG : Not regulated as a dangerous good

14.6 Special precautions for user

Remarks : Due to the risk of hydrogen development we recommend to refrain from airfreighting this/these product(s). Not classified as dangerous in the meaning of transport
14.7 Transport in bulk according to Annex II of Marpol and the IBC Code
Not applicable for product as supplied.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59).

15.2 Chemical safety assessment
This information is not available.

SECTION 16: Other information

Full text of H-Statements
H228 : Flammable solid.
H302 : Harmful if swallowed.
H314 : Causes severe skin burns and eye damage.
H373 : May cause damage to organs through prolonged or repeated exposure.
H400 : Very toxic to aquatic life.
H410 : Very toxic to aquatic life with long lasting effects.

Full text of other abbreviations
Acute Tox. : Acute toxicity
Aquatic Acute : Acute aquatic toxicity
Aquatic Chronic : Chronic aquatic toxicity
Flam. Sol. : Flammable solids
Skin Corr. : Skin corrosion
STOT RE : Specific target organ toxicity - repeated exposure
GB EH40 : UK. EH40 WEL - Workplace Exposure Limits
GB EH40 / TWA : Long-term exposure limit (8-hour TWA reference period)

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research
on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50% of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

**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.

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