1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier
- **Product Code**: 988
- **Product Name**: SLA 92
- **Contains**: Calcium hexa-aluminate, CAS 12005-50-4
  - Aluminum oxide, CAS 1344-28-1
- **Synonyms**: Lightweight aggregate, SLA 92

1.2. Relevant identified uses of the substance or mixture and uses advised against
- **Recommended Use**: Refractory
- **Uses advised against**: No information available

1.3. Details of the supplier of the safety data sheet
- Almatis GmbH
  - Lyoner Str. 9
  - 60528 Frankfurt
  - Germany
  - Phone: +49 69 9573410
- Almatis GmbH
  - Giulinistrasse 2
  - 67065 Ludwigshafen
  - Germany
  - Phone: +49 621 57070

For further information, please contact
- **E-mail address**: info@almatis.com

1.4. Emergency telephone number
- **Emergency Telephone Number**: 3E Global Incident Response Hotline (Almatis access code: 334735)
  - GB: +44 20 35147487
  - UK: 0 800 680 0425
  - US: +01 760 476 3961
  - US: +01 760 476 3959

2. HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture
- **REGULATION (EC) No 1272/2008**: Not a dangerous substance or mixture according to the Globally Harmonized System (GHS)

Classification according to Regulation (EC) No. 1272/2008 [CLP]
- **No data available**

2.2. Label Elements
- **Symbol(s)**: Not applicable
Signal word
None

Hazard statements
None

2.3. Other information
No information available

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS No.</th>
<th>Weight-%</th>
<th>REACH Reg. No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcium hexa-aluminate</td>
<td>12005-50-4</td>
<td>&gt;90</td>
<td>01-2119457640-40-0000</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>01-2119457640-40-0001</td>
</tr>
<tr>
<td>Aluminum oxide</td>
<td>1344-28-1</td>
<td>&lt;10</td>
<td>01-2119529248-35-0024</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>01-2119529248-35-0125</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>01-2119529248-35-0086</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>01-2119529248-35-0238</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

4.1. Description of first aid measures
Eye Contact
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Skin Contact
Wash skin with soap and water.

Ingestion
Rinse mouth

Inhalation
Remove to fresh air

General Advice
If symptoms persist, call a physician
Show this safety data sheet to the doctor in attendance

4.2. Most important symptoms and effects, both acute and delayed
No information available

4.3. Indication of any immediate medical attention and special treatment needed

Notes to Physician
Treat symptomatically

5. FIRE-FIGHTING MEASURES

5.1. Extinguishing media
Suitable Extinguishing Media
The product itself does not burn
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment

Extinguishing media which must not be used for safety reasons
No information available

5.2. Special hazards arising from the substance or mixture
Special exposure hazards arising from the substance or preparation itself, combustion products, resulting gases
None in particular.

5.3. Advice for firefighters
Special protective equipment for fire-fighters
As in any fire, wear self-contained breathing apparatus and full protective gear.
6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures
Wear personal protective equipment
Avoid dust formation

6.2. Environmental precautions
No special environmental precautions required

6.3. Methods and material for containment and cleaning up
Recover product. Place into appropriate container for disposal.
Methods for Cleaning Up
Sweep up and shovel into suitable containers for disposal

6.4. Reference to other sections
See Section 12 for additional information.

7. HANDLING AND STORAGE

7.1. Precautions for Safe Handling
Handling
Provide appropriate exhaust ventilation at places where dust is formed

General Hygiene Considerations
Handle in accordance with good industrial hygiene and safety practice

Exposure scenario
No information available

7.2. Conditions for safe storage, including any incompatibilities
Keep in a dry place
Protect from moisture.

7.3. Specific end use(s)
No information available

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>EU</th>
<th>United Kingdom</th>
<th>France</th>
<th>Spain</th>
<th>Germany OEL (TWA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcium hexa-aluminate</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>1.25 mg/m³</td>
</tr>
<tr>
<td>12005-50-4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>6.0 mg/m³</td>
</tr>
<tr>
<td>Aluminum oxide</td>
<td></td>
<td></td>
<td>VME: 10 mg/m³</td>
<td>VLA-ED: 10 mg/m³</td>
<td>1.25 mg/m³</td>
</tr>
<tr>
<td>1344-28-1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>6.0 mg/m³</td>
</tr>
</tbody>
</table>

(a) GOEL - Germany - TRGS 900 - Occupational Exposure Limits - TWAs, (a) exempt facilities listed in 2.4(8) and (9)

<table>
<thead>
<tr>
<th>Component</th>
<th>Italy</th>
<th>Portugal</th>
<th>Netherlands</th>
<th>Finland</th>
<th>Denmark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcium hexa-aluminate</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>12005-50-4 (&gt;90)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aluminum oxide</td>
<td></td>
<td>TWA: 10 mg/m³</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1344-28-1 (&lt;10)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Component</th>
<th>OSHA PEL</th>
<th>ACGIH TWA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcium hexa-aluminate</td>
<td>15 mg/m³ TWA (total dust); 5 mg/m³ TWA (respirable fraction)</td>
<td>1 mg/m³ TWA (respirable fraction)</td>
</tr>
<tr>
<td>12005-50-4 (&gt;90)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aluminum oxide</td>
<td>15 mg/m³ TWA (total dust); 5 mg/m³ TWA (respirable fraction)</td>
<td>1 mg/m³ TWA (respirable fraction)</td>
</tr>
<tr>
<td>1344-28-1 (&lt;10)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Derived No Effect Level (DNEL) 3 mg/m³, respirable, 8 hour TWA

Predicted No Effect Concentration (PNEC) No information available

8.2. Exposure controls
Personal protective equipment
Eye Protection Wear safety glasses with side shields (or goggles)
Skin Protection No special protective equipment required.
Hand Protection No special protective equipment required.
Respiratory Protection In case of insufficient ventilation, wear suitable respiratory equipment
When workers are facing concentrations above the exposure limit they must use appropriate certified respirators

Environmental exposure controls No information available

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties
Physical State Granular, Powder
Color Off-white
Odor None
pH Not applicable
Flash point (°C) DEGREES Not applicable
Autoignition temp (°F) DEGREES Does not ignite
Solubility Insoluble
Density 0.7-0.9 g/cm³
Bulk Density 400-500 kg/m³
Explosives None

10. STABILITY AND REACTIVITY

10.1. Reactivity
None under normal processing

10.2. Chemical Stability
Stable under normal conditions

10.3. Possibility of Hazardous Reactions
None under normal processing

10.4. Conditions to Avoid
No decomposition if stored and applied as directed

10.5. Incompatible materials
None under normal processing

10.6. Hazardous Decomposition Products
None under normal processing

11. TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects
Acute Toxicity
Acute toxicity - Oral Conclusive but not sufficient for classification
Acute toxicity - Dermal Conclusive but not sufficient for classification
Acute toxicity - Inhalation (Dusts/Mists) Conclusive but not sufficient for classification
Oral LD50 > 5000 mg/kg (rat)
Dermal LD50 No effect
Inhalation LC50 > 5 mg/m^3 (rat)

Chronic Toxicity

Irritation Conclusive but not sufficient for classification
Corrosivity Conclusive but not sufficient for classification
Sensitization Conclusive but not sufficient for classification
Mutagenic Effects Conclusive but not sufficient for classification
Carcinogenic effects Conclusive but not sufficient for classification
Reproductive Effects Conclusive but not sufficient for classification
Developmental Effects Conclusive but not sufficient for classification
Aspiration Hazard Conclusive but not sufficient for classification

12. ECOLOGICAL INFORMATION

12.1. Toxicity
Ecotoxicity effects
Water hazard class 1 (German Regulation): slightly hazardous for water (WGK: 2652, WGK: nwg)

12.2. Persistence and degradability
Not readily biodegradable.

12.3. Bioaccumulative potential
No information available

12.4. Mobility in soil
No information available

12.5. Results of PBT and vPvB assessment
No information available

12.6. Other adverse effects

13. DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods
Waste from Residues/Unused Products
Disposal should be in accordance with applicable regional, national and local laws and regulations

Contaminated Packaging
Empty containers should be taken to an approved waste handling site for recycling or disposal

14. TRANSPORT INFORMATION

Note: Not classified as dangerous in the meaning of transport regulations

IMDG/IMO Not regulated.
RID Not regulated.
ADR Not regulated
ICAO Not regulated
IATA Not regulated

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

International Inventories

<table>
<thead>
<tr>
<th>International Inventory</th>
<th>Compliance</th>
</tr>
</thead>
<tbody>
<tr>
<td>TSCA</td>
<td>Complies</td>
</tr>
<tr>
<td>EINECS/ELINCS</td>
<td>Complies</td>
</tr>
<tr>
<td>DSL/NDSL</td>
<td>Complies</td>
</tr>
<tr>
<td>PICCS</td>
<td>Complies</td>
</tr>
<tr>
<td>ENCS</td>
<td>Complies</td>
</tr>
<tr>
<td>IECSC</td>
<td>Complies</td>
</tr>
<tr>
<td>AICS</td>
<td>Complies</td>
</tr>
<tr>
<td>KECL</td>
<td>Complies</td>
</tr>
</tbody>
</table>

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
PICCS - Philippines Inventory of Chemicals and Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
AICS - Australian Inventory of Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances

15.2. Chemical Safety Assessment

A Chemical Safety Assessment has been carried out

16. OTHER INFORMATION

Key literature references and sources for data
www.ChemADVISOR.com/

Prepared By
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Revision Note
Revision 12, March 2018
Updated Prepared By

Updates
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End of Safety Data Sheet