SAFETY DATA SHEET
according to Regulation (EC) No. 1907/2006

STAPA WM REFLEXAL 2156/80 Aluminium Paste

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

1.1 Product identifier
Trade name: STAPA WM REFLEXAL 2156/80 Aluminium Paste
Material number: 051051GD0

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: +499152777008
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.
Classification (67/548/EEC, 1999/45/EC)
Not a hazardous substance or mixture.

2.2 Label elements
Labelling (REGULATION (EC) No 1272/2008)
Not a dangerous substance or mixture according to the Globally Harmonised System (GHS).
2.3 Other hazards
Combustible Solids
No information available.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS-No.</th>
<th>EC-No.</th>
<th>Registration number</th>
<th>Classification (67/548/EEC)</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</td>
<td>231-072-3</td>
<td>01-2119529243-45</td>
<td>F; R11</td>
<td>Flam. Sol. 1; H228</td>
<td>&gt;= 50 - &lt;= 100</td>
</tr>
</tbody>
</table>

For the full text of the R-phrases mentioned in this Section, see Section 16.
For the full text of the H-Statements mentioned in this Section, see Section 16.
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
Symptoms: No information available.
Risks: No information available.

4.3 Indication of any immediate medical attention and special treatment needed
Treatment: No information available.

SECTION 5: Firefighting measures

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

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

5.2 Special hazards arising from the substance or mixture
This information is not available.

5.3 Advice for firefighters
Special protective equipment for firefighters: Use personal protective equipment.
- 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.
- Use personal protective equipment.
- Remove all sources of ignition.
- Avoid dust formation.

6.2 Environmental precautions
This information is not available.

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).

Sweep up and shovel.
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

Advice on safe handling
Keep away from heat and sources of ignition.
Avoid dust formation.
Ensure adequate ventilation.

For personal protection see section 8.
Smoking, eating and drinking should be prohibited in the application area.

Advice on protection against fire and explosion
Keep away from open flames, hot surfaces and sources of ignition. Earthing of containers and apparatuses is essential.

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
Store in original container. Keep containers tightly closed in a cool, well-ventilated place. Keep container closed when not in use. Keep away from sources of ignition - No smoking.

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

Further information on storage conditions
Protect from humidity and water. Do not allow to dry.

Advice on common storage
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.

Storage class (TRGS 510)
11, Combustible Solids

Other data
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

| Components                  | CAS-No.  | Value type (Form of exposure) | Control parameters | Basis  
|-----------------------------|----------|-------------------------------|--------------------|--------
| aluminium powder           | 7429-90-5| NGV (Total)                   | 5 mg/m3            | SE AFS (2011-12-16) |
| (stabilised)                |          |                               |                    |        |

Further information
Inhalable dust refers to the dust fraction as defined in the Swedish Standard SS-EN 481, Workplace Atmospheres - Size fraction definitions for measurement of airborne particles, 1st ED., 1993., Section 2.3 and having sampling characteristics as specified in paragraph 5.1. Respirable dust refers to the dust fraction as defined in the Swedish Standard SS-EN 481, Workplace Atmospheres - Size fraction definitions for measurement of airborne particles, 1st ED., 1993., Section 2.11 and having sampling characteristics as specified in paragraph 5.3. Total dust refers to all the particles (aerosols) trapped in a filter in the sampling apparatus described in Methods, Sampling of total dust and respirable dust, method nr 1010, published by the National Board of Occupational Safety and Health, now Work Environment Authority. The filter diameter shall normally be 37 mm but can also be 25 mm. Despite its name, not the total amount of airborne particles is measured by this method.

| White mineral oil           | 8042-47-5| NGV (Respirable)              | 2 mg/m3            | SE AFS (2011-12-16) |
| (petroleum)                 |          |                               |                    |        |

Further information
Inhalable dust refers to the dust fraction as defined in the Swedish Standard SS-EN 481, Workplace Atmospheres - Size fraction definitions for measurement of airborne particles, 1st ED., 1993., Section 2.3 and having sampling characteristics as specified in paragraph 5.1. Respirable dust refers to the dust fraction as defined in the Swedish Standard SS-EN 481, Workplace Atmospheres - Size fraction definitions for measurement of airborne particles, 1st ED., 1993., Section 2.11 and having sampling characteristics as specified in paragraph 5.3. Total dust refers to all the particles (aerosols) trapped in a filter in the sampling apparatus described in Methods, Sampling of total dust and respirable dust, method nr 1010, published by the National Board of Occupational Safety and Health, now Work Environment Authority. The filter diameter shall normally be 37 mm but can also be 25 mm. Despite its name, not the total amount of airborne particles is measured by this method.

| White mineral oil           | 8042-47-5| NGV                             | 1 mg/m3            | SE AFS (2010-11-16) |
| (petroleum)                 |          |                                 |                    |        |

Further information
Certain oils when heated give rise to polycyclic aromatic hydrocarbons (PAH) which can be carcinogenic. In addition, mineral oils in themselves can contain such substances. For mist from aqueous cutting fluid or suchlike, which may also include substances other than oils, the value is applied as a total content with regard to the non-aqueous part. For substances with individual lower limit values, these are applied.
Further information

Certain oils when heated give rise to polycyclic aromatic hydrocarbons (PAH) which can be carcinogenic. In addition, mineral oils in themselves can contain such substances. For mist from aqueous cutting fluid or suchlike, which may also include substances other than oils, the value is applied as a total content with regard to the non-aqueous part. For substances with individual lower limit values, these are applied.

White mineral oil (petroleum) | 8042-47-5 | KTV (Mist) | 3 mg/m³ | SE AFS (2011-12-16)
--- | --- | --- | --- | ---
Further information

Certain oils when heated give rise to polycyclic aromatic hydrocarbons (PAH) which can be carcinogenic. In addition, mineral oils in themselves can contain such substances. For mist from aqueous cutting fluid or suchlike, which may also include substances other than oils, the value is applied as a total content with regard to the non-aqueous part. For substances with individual lower limit values, these are applied.

8.2 Exposure controls

**Personal protective equipment**

**Eye protection**

: Safety glasses

**Hand protection**

<table>
<thead>
<tr>
<th>Material</th>
<th>Solvent-resistant gloves</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nitrile rubber</td>
<td></td>
</tr>
<tr>
<td>Glove thickness</td>
<td>&gt;= 0,11 mm</td>
</tr>
</tbody>
</table>

**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). The exact break through time can be obtained from the protective glove producer and this has to be observed. 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.

**Skin and body protection**

: Long sleeved clothing

Safety shoes

Choose body protection according to the amount and
concentration of the dangerous substance at the work place.

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

Filter type : Combined acidic, inorganic gas/vapour and organic vapour type (ABE)

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

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Pasty solid</td>
</tr>
<tr>
<td>Colour</td>
<td>silver</td>
</tr>
<tr>
<td>Odour</td>
<td>characteristic</td>
</tr>
<tr>
<td>Odour Threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>No data available</td>
</tr>
<tr>
<td>Freezing point</td>
<td>No data available</td>
</tr>
<tr>
<td>Boiling point/boiling range</td>
<td>No data available</td>
</tr>
<tr>
<td>Flash point</td>
<td>215 °C</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Combustible Solids</td>
</tr>
<tr>
<td>Auto-flammability</td>
<td>not auto-flammable</td>
</tr>
<tr>
<td>Upper explosion limit</td>
<td>No data available</td>
</tr>
<tr>
<td>Lower explosion limit</td>
<td>No data available</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative vapour density</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative density</td>
<td>No data available</td>
</tr>
<tr>
<td>Density</td>
<td>1,3 - 2,0 g/cm³</td>
</tr>
<tr>
<td>Bulk density</td>
<td>No data available</td>
</tr>
<tr>
<td>Water solubility</td>
<td>No data available</td>
</tr>
<tr>
<td>Solubility in other solvents</td>
<td>No data available</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>No data available</td>
</tr>
<tr>
<td>Ignition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, dynamic</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, kinematic</td>
<td>No data available</td>
</tr>
<tr>
<td>Flow time</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>Not explosive</td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>No data available</td>
</tr>
</tbody>
</table>

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: Reacts with alkalis, acids, halogenes and oxidizing agents. Contact with acids and alkalis may release hydrogen. Mixture reacts slowly with water resulting in evolution of hydrogen. Vapour/air-mixtures are explosive at intense warming.
Stable under recommended storage conditions.

10.4 Conditions to avoid
Conditions to avoid: Do not allow to dry.
No data available

10.5 Incompatible materials
Materials to avoid: Acids, bases, oxidizing agents, highly halogenated compounds

10.6 Hazardous decomposition products
Contact with water or humid air: This information is not available.
Thermal decomposition: This information is not available.

SECTION 11: Toxicological information

11.1 Information on toxicological effects
Acute toxicity
Components:
7429-90-5: Acute inhalation toxicity: LC50 (Rat): > 5 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
SECTION 12: Ecological information

12.1 Toxicity
No data available

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
Not relevant

12.6 Other adverse effects

Product:

Additional ecological information: Remarks: No data available

SECTION 13: Disposal considerations

European Waste Catalogue: 12 01 04 - non-ferrous metal dust and particles

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

14.2 UN proper shipping name

14.3 Transport hazard class(es)

14.4 Packing group

14.5 Environmental hazards

14.6 Special precautions for user

Remarks : Not classified as dangerous in the meaning of transport regulations.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 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).

: This product does not contain substances of very high concern (Regulation (EC) No 1907/2006 (REACH), Article 57).

15.2 Chemical safety assessment

This information is not available.

SECTION 16: Other information

Full text of R-Phrases

R11 : Highly flammable.

Full text of H-Statements

H228 : Flammable solid.

Full text of other abbreviations

Flam. Sol. : Flammable solids

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
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STAPA WM REFLEXAL 2156/80 Aluminium Paste

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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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