Globally Harmonized System of Classification and Labelling of Chemicals (GHS)

STAPA WM REFLEXAL 211/80 Aluminium Paste

| Version 2.0 | Revision Date 09.12.2019 | Print Date 25.02.2022 |
|-------------|--------------------------|-----------------------|
| | | |

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

1.1 Product identifier

| Trade name | : | STAPA WM REFLEXAL 211/80 Aluminium Paste |
|-----------------|---|--|
| Material number | : | 050667GD0 |

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 | : msds.eckart@altana.com |
| Responsible/issuing person | |

1.4 Emergency telephone number

NCEC:

(contract no.: ECKART29003-NCEC) +44 1235 239671 (Middle East/Africa, call and response in your language) +1 215 207 0061 (Americas, call and response in your language) +65 3158 1074 (Asia-Pacific, call and response in your language)

SECTION 2: Hazards identification

GHS Classification

Not a hazardous substance or mixture.

GHS-Labelling

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| | | |

Not a hazardous substance or mixture.

Hazardous components which must be listed on the label

Other hazards which do not result in classification

Combustible Solids

SECTION 3: Composition/information on ingredients

| Substance name | : STAPA WM REFLEXAL 211/80 |
|----------------|----------------------------|
| Substance No. | : |

Hazardous components

| Chemical name | CAS-No. EINECS-No. | Classification and labelling | Concentration[%] |
|--|-------------------------|------------------------------|------------------|
| aluminium powder (stabilised) | 7429-90-5 231-072-3 | Flam. Sol.;1;H228 | 50 - 100 |
| Fatty acids, C14-18 and C16-18- unsatd. | 67701-06-8 266-930-6 | Acute Tox.;5;H313 | 1 - 10 |

For the full text of the H-Statements mentioned in this Section, 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 | |
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| | | |
| | | |
| | 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

This information is not available.

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, 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 | : Use personal protective equipment. | |
|------------------------------|--------------------------------------|--|
| for firefighters | | |

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| | | |
| | | |
| | Wear self-contained breathing apparatune necessary. | is for firefighting if |
| Further information | : Standard procedure for chemical fires. measures that are appropriate to local o 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 materials 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

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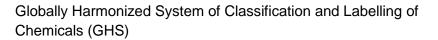
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|---|---|---|
| | | |
| Advice on safe handling | : Keep away from heat and sources of ig formation. Ensure adequate ventilation | |
| | For personal protection see section 8. drinking should be prohibited in the app | |
| Advice on protection against fire and explosion | : Keep away from open flames, hot surfa ignition. Earthing of containers and app | |
| | Normal measures for preventive fire pre- | otection. |
| Hygiene measures | : General industrial hygiene practice. | |
| 7.2 Conditions for safe storage, i | ncluding any incompatibilities | |
| Requirements for storage areas and containers | : Store in original container. Keep contai cool, well-ventilated place. Keep contai use. Keep away from sources of ignitio | iner closed when not in |
| | Electrical installations / working materia the technological safety standards. | als must comply with |
| Further information on storage conditions | : Protect from humidity and water. Do no | ot allow to dry. |
| Advice on common storage | : Do not store together with oxidizing and Never allow product to get in contact w storage. Keep away from oxidizing age and strongly acid materials in order to a reactions. | ith water during ents, strongly alkaline |
| Other data | : No decomposition if stored and applied | as directed. |

7.3 Specific end use(s)

This information is not available.

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SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Germany:

| Components | CAS-No. | Value type (Form of exposure) | Control parameters | Update | Basis |
|--|---|---|--|---------------|-------------|
| aluminium powder (stabilised) | 7429-90-5 | AGW (Inhalable fraction) | 10 mg/m3 | 2014-04-02 | DE TRGS 900 |
| Peak-limit: exc factor (categor | | 2;(II) | | | |
| Further informa | ation | | dangerous substan unds at the work pl on). | | |
| aluminium powder (stabilised) | 7429-90-5 | AGW (Alveolate fraction) | 1,25 mg/m3 | 2014-04-02 | DE TRGS 900 |
| Peak-limit: exc factor (categor | | 2;(II) | | | |
| Further informa | ation | Commission for dangerous substancesSenate commission for the review of compounds at the work place dangerous for the health (MAK-commission). | | | |
| White mineral oil (petroleum) | 8042-47-5 | AGW (Alveolate fraction) | 5 mg/m3 | 2015-11-06 | DE TRGS 900 |
| Peak-limit: excursion4;(II)factor (category) | | | | | |
| Further informa | Further information Senate commission for the review of compounds at the work place dangerous for the health (MAK-commission).When there i compliance with the OEL and biological tolerance values, there no risk of harming the unborn child | | | When there is | |

United States of America (USA):

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| Components | CAS-No. | Value type (Form of exposure) | Control parameters | Update | Basis |
|-------------------------------------|-----------|-------------------------------------|--|------------|----------------------|
| aluminium powder (stabilised) | 7429-90-5 | TWA (total dust) | 50 Million particles per cubic foot | 2012-07-01 | |
| aluminium powder (stabilised) | 7429-90-5 | TWA (Respirable) | 5 mg/m3 | 2013-10-08 | |
| aluminium powder (stabilised) | 7429-90-5 | TWA (total dust) | 15 mg/m3 | 2012-07-01 | |
| aluminium powder (stabilised) | 7429-90-5 | TWA (total) | 10 mg/m3 | 2013-10-08 | |
| aluminium powder (stabilised) | 7429-90-5 | TWA (respirable fraction) | 5 mg/m3 | 2012-07-01 | |
| aluminium powder (stabilised) | 7429-90-5 | TWA (respirable fraction) | 15 Million particles per cubic foot | 2012-07-01 | |
| aluminium powder (stabilised) | 7429-90-5 | PEL (Total dust) | 10 mg/m3 | 2014-11-26 | |
| aluminium powder (stabilised) | 7429-90-5 | PEL (respirable dust fraction) | 5 mg/m3 | 2014-11-26 | |
| aluminium powder (stabilised) | 7429-90-5 | TWA (Respirable fraction) | 1 mg/m3 | 2008-01-01 | |
| aluminium powder (stabilised) | 7429-90-5 | TWA | 5 mg/m3 | 2005-09-01 | |
| aluminium powder (stabilised) | 7429-90-5 | TWA (Total) | 15 mg/m3 | 1989-01-19 | |
| aluminium powder (stabilised) | 7429-90-5 | TWA (Respirable fraction) | 5 mg/m3 | 1989-01-19 | |
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| aluminium powder (stabilised) | 7429-90-5 | TWA (total dust) | 15 mg/m3 | 2011-07-01 | |
|-------------------------------------|-----------|---------------------------------|----------|------------|--|
| aluminium powder (stabilised) | 7429-90-5 | TWA (respirable fraction) | 5 mg/m3 | 2011-07-01 | |
| aluminium powder (stabilised) | 7429-90-5 | TWA (Total dust) | 15 mg/m3 | 1989-01-19 | |
| aluminium powder (stabilised) | 7429-90-5 | TWA (respirable dust fraction) | 5 mg/m3 | 1989-01-19 | |
| aluminium powder (stabilised) | 7429-90-5 | TWA (welding fumes) | 5 mg/m3 | 2013-10-08 | |
| aluminium powder (stabilised) | 7429-90-5 | TWA (pyro powders) | 5 mg/m3 | 2013-10-08 | |
| aluminium powder (stabilised) | 7429-90-5 | TWA (Respirable fraction) | 1 mg/m3 | 2013-03-01 | |
| aluminium powder (stabilised) | 7429-90-5 | TWA (Fumes) | 5 mg/m3 | 1989-01-19 | |
| aluminium powder (stabilised) | 7429-90-5 | PEL (Welding fumes) | 5 mg/m3 | 2017-10-02 | |
| aluminium powder (stabilised) | 7429-90-5 | PEL (Pyro powders) | 5 mg/m3 | 2017-10-02 | |
| White mineral oil (petroleum) | 8042-47-5 | TWA (Mist) | 5 mg/m3 | 2011-07-01 | |
| White mineral oil (petroleum) | 8042-47-5 | TWA | 5 mg/m3 | 1989-01-19 | |
| White mineral oil | 8042-47-5 | TWA (Mist) | 5 mg/m3 | 2013-10-08 | |
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| (petroleum) | | | | | |
|-------------|-----------|-------------------|----------|------------|--|
| White | 8042-47-5 | ST (Mist) | 10 mg/m3 | 2013-10-08 | |
| mineral oil | | | | | |
| (petroleum) | | | | | |
| White | 8042-47-5 | TWA (Inhalable | 5 mg/m3 | 2013-03-01 | |
| mineral oil | | fraction) | | | |
| (petroleum) | | | | | |
| White | 8042-47-5 | TWA (Mist) | 5 mg/m3 | 1989-01-19 | |
| mineral oil | | | | | |
| (petroleum) | | | | | |
| White | 8042-47-5 | PEL (particulate) | 5 mg/m3 | 2014-11-26 | |
| mineral oil | | | | | |
| (petroleum) | | | | | |

8.2 Exposure controls

Personal protective equipment

Eye protection

: Safety glasses

| Hand protection Material | : | Solvent-resistant gloves | |
|-----------------------------|--|--|----------------------|
| 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 co | ontact. |
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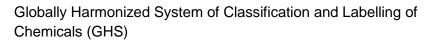
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|---------------------------|--|------------------------|
| | | |
| | The suitability for a specific workplace with the producers of the protective glue | |
| Skin and body protection | : Long sleeved clothing Safety shoes | |
| | Choose body protection according to the concentration of the dangerous substant | |
| Respiratory protection | : Use suitable breathing protection if wo requires. | orkplace concentration |
| Environmental exposure co | ntrols | |
| Water | : The product should not be allowed to courses or the soil. | enter drains, water |

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

| Appearance | : | Pasty solid |
|-----------------------------|---|--------------------|
| Colour | : | silver |
| Odour | : | characteristic |
| рН | : | No data available |
| Freezing point | : | No data available |
| Boiling point/boiling range | : | No data available |
| Flash point | : | No data available |
| Bulk density | : | No data available |
| Flammability (solid, gas) | : | Combustible Solids |
| | | |

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| Auto-flammability | : not auto-flammable |
|--|----------------------------------|
| Upper explosion limit | : No data available |
| Lower explosion limit | : No data available |
| Vapour pressure | : No data available |
| Density | : 1,3 - 2,0 g/cm3 |
| Water solubility | : No data available |
| Miscibility with water | : immiscible |
| Solubility in other solvents | : No data available |
| Partition coefficient: n-octanol/water | : No data available |
| Ignition temperature | : No data available |
| Thermal decomposition | : No data available |
| Viscosity, dynamic | : No data available |
| Viscosity, kinematic | : No data available |
| Flow time | : No data available |
| Explosive properties | : Not explosive Not explosive |

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

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| | | |
| Hazardous reactions | Reacts with alkalis, acids, halogenes Contact with acids and alkalis may re Mixture reacts slowly with water resul hydrogen. Vapour/air-mixtures are explosive at i Stable under recommended storage of | lease hydrogen. ting in evolution of ntense warming. |
| 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 | |
| Hazardous decomposition products | : No data available | |
| Other information | : No data available | |
| SECTION 11: Toxicological ir | formation | |
| 11.1 Information on toxicologica | l effects | |

Acute toxicity

Components:

Fatty acids, C14-18 and C16-18-unsatd. :

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| | | |
| Acute oral toxicity | : LD50 Rat: >5 000 mg/kg | |
| Acute inhalation toxicity | : LC50 Rat: > 46 mg/l | |
| | Exposure time: 1 h | |
| | Test atmosphere: dust/mist | |
| Acute dermal toxicity | : LD50 Rabbit: >3 160 mg/kg | |
| Skin corrosion/irritation | | |
| No data available | | |
| Serious eye damage/eye irritat | ion | |
| No data available | | |
| Respiratory or skin sensitisation | on | |
| No data available | | |
| Carcinogenicity | | |
| No data available | | |
| Toxicity to reproduction/fertilit | y | |
| No data available | | |
| Reprod.Tox./Development/Tera | atogenicity | |
| No data available | - | |
| | | |

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| | | |

STOT - single exposure

No data available

STOT - repeated exposure

No data available

Aspiration toxicity

No data available

Further information

Product

No data available

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

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| | | |

No data available

12.5 Results of PBT and vPvB assessment

No data available

12.6 Other adverse effects

Product:

| Additional ecological | : | No data available |
|-----------------------|---|-------------------|
| information | | |

SECTION 13: Disposal considerations

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. |

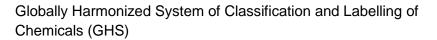
SECTION 14: Transport information

14.1 UN number

14.2 Proper shipping name

- 14.3 Transport hazard class
- 14.4 Packing group
- 14.5 Environmental hazards

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14.6 Special precautions for user

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

No data available

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

| Prohibition/Restriction REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59). | : Not applicable |
|--|------------------|
| Prohibition/Restriction Regulation (EC) No 1005/2009 on substances that deplete the ozone layer | : Not applicable |
| Prohibition/Restriction Regulation (EC) No 850/2004 on persistent organic pollutants | : Not applicable |

15.2 Chemical safety assessment

No data available

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SECTION 16: Other information

Full text of H-Statements

| H228 | : | Flammable solid. |
|------|---|--------------------------------------|
| H313 | : | May be harmful in contact with skin. |

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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