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

1.1 Product identifier
Trade name: STAPA NDF 200 Aluminum Paste

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
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)
Flammable solids, Category 1 H228: Flammable solid.
Chronic aquatic toxicity, Category 3 H412: Harmful to aquatic life with long lasting effects.

Classification (67/548/EEC, 1999/45/EC)
Highly flammable R11: Highly flammable.
Dangerous for the environment R52/53: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

2.2 Label elements
Labelling (REGULATION (EC) No 1272/2008)
Hazard pictograms:

Signal word: Danger

Hazard statements:
H228 Flammable solid.
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:

Prevention:
P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P273 Avoid release to the environment.

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.

Disposal:
P501 Dispose of contents/ container to an approved waste disposal plant.

2.3 Other hazards
No information available.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>aluminium</td>
<td>7429-90-5</td>
<td></td>
<td>F; R11</td>
<td>Flam. Sol. 1; H228</td>
<td>&gt;= 50 - &lt;= 100</td>
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<tr>
<td></td>
<td>231-072-3</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Naphtha</td>
<td>64742-48-9</td>
<td>265-150-3</td>
<td>Xn; R65</td>
<td>Asp. Tox. 1; H304 Asp. Tox. 1; H304</td>
<td>&gt;= 10 - &lt; 20</td>
</tr>
<tr>
<td>(petroleum),</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>hydrotreated</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>heavy</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Solvent naphtha</td>
<td>64742-95-6</td>
<td>265-199-0</td>
<td>Xn; R65 Xi; R37 N; R51/53 R10</td>
<td>Flam. Liq. 3; H226 Asp. Tox. 1; H304 STOT SE 3; H335, H336</td>
<td>&gt;= 2.5 - &lt; 10</td>
</tr>
<tr>
<td>(petroleum),</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>light arom.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
SECTION 4: First aid measures

4.1 Description of first aid measures

General advice: Move out of dangerous area.
    Move the victim to fresh air.
    Do not leave the victim unattended.

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

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

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.
    Immediately flush eye(s) with plenty of water.

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:  ABC powder, Carbon dioxide (CO2), Water, Foam

5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting:  Do not allow run-off from fire fighting to enter drains or water courses.

5.3 Advice for firefighters

Special protective equipment for firefighters:  Use personal protective equipment.

Wear self contained breathing apparatus for fire fighting if necessary.

Further information:  Use a water spray to cool fully closed containers. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions:  Avoid dust formation.

Remove all sources of ignition.

Evacuate personnel to safe areas.

Use personal protective equipment.

6.2 Environmental precautions

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.

6.3 Methods and materials for containment and cleaning up

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

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:
- 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.

Advice on protection against fire and explosion:
- Keep away from open flames, hot surfaces and sources of ignition.

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

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers:
- No smoking. Keep container tightly closed in a dry and well-ventilated place. Electrical installations / working materials must comply with the technological safety standards.
- Earthing of containers and apparatuses is essential. Reaction with water liberates extremely flammable gas (hydrogen). Take measures to prevent the build up of electrostatic charge. 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.

Further information on storage conditions:
- Protect from humidity and water.
Advice on common storage: Do not store near acids. Do not store together with oxidizing and self-igniting products. Keep away from oxidising agents and strongly acid or alkaline materials. Never allow product to get in contact with water during storage. Keep away from oxidising agents, strongly alkaline and strongly acid materials in order to avoid exothermic reactions.

German storage class: 4.1B, Flammable solid hazardous materials

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

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Value type (Form of exposure)</th>
<th>Control parameters</th>
<th>Update</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>aluminium</td>
<td>7429-90-5</td>
<td>TWA (Inhalable)</td>
<td>10 mg/m³</td>
<td>2011-12-01</td>
<td>GB EH40</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·m⁻³ 8-hour TWA of inhalable dust or 4 mg·m⁻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. Where no specific short-term exposure limit is listed, a figure three times the long-term exposure should be used.

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Value type (Form of exposure)</th>
<th>Control parameters</th>
<th>Update</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>aluminium</td>
<td>7429-90-5</td>
<td>TWA (Respirable)</td>
<td>4 mg/m³</td>
<td>2011-12-01</td>
<td>GB EH40</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·m⁻³ 8-hour TWA of inhalable dust or 4 mg·m⁻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. Where no specific short-term exposure limit is listed, a figure three times the long-term exposure should be used.
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\(^{-3}\) 8-hour TWA of inhalable dust or 4 mg.m\(^{-3}\) 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>
<thead>
<tr>
<th>Substance</th>
<th>CAS Number</th>
<th>TWA (Respirable)</th>
<th>Limit</th>
<th>Date</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>aluminium</td>
<td>7429-90-5</td>
<td>4 mg/m(^3)</td>
<td>2005-04-06</td>
<td>GB EH40</td>
<td></td>
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</tbody>
</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\(^{-3}\) 8-hour TWA of inhalable dust or 4 mg.m\(^{-3}\) 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...
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<table>
<thead>
<tr>
<th>DNEL:</th>
<th>End Use:</th>
<th>Exposure routes:</th>
<th>Potential health effects:</th>
<th>Value:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Naphtha (petroleum), hydrotreated heavy (64742-48-9)</td>
<td>Workers</td>
<td>Skin contact</td>
<td>long term – systemic effects</td>
<td>300 mg/kg</td>
</tr>
<tr>
<td>Naphtha (petroleum), hydrotreated heavy (64742-48-9)</td>
<td>Consumers</td>
<td>Ingestion</td>
<td>long term – systemic effects</td>
<td>300 mg/kg</td>
</tr>
<tr>
<td>Naphtha (petroleum), hydrotreated heavy (64742-48-9)</td>
<td>Consumers</td>
<td>Skin contact</td>
<td>long term – systemic effects</td>
<td>300 mg/kg</td>
</tr>
<tr>
<td>Naphtha (petroleum), hydrotreated heavy (64742-48-9)</td>
<td>Consumers</td>
<td>Inhalation</td>
<td>long term – systemic effects</td>
<td>900 mg/m³</td>
</tr>
<tr>
<td>Solvent naphtha (petroleum), light arom. (64742-95-6)</td>
<td>Consumers</td>
<td>Ingestion</td>
<td>long term – systemic effects</td>
<td>11 mg/kg</td>
</tr>
<tr>
<td>Solvent naphtha (petroleum), light arom. (64742-95-6)</td>
<td>Consumers</td>
<td>Skin contact</td>
<td>long term – systemic effects</td>
<td>11 mg/kg</td>
</tr>
<tr>
<td>Solvent naphtha (petroleum), light arom. (64742-95-6)</td>
<td>Consumers</td>
<td>Inhalation</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Potential health effects: long term – systemic effects
Value: 32 mg/m³

8.2 Exposure controls

Personal protective equipment
Eye protection: Eye wash bottle with pure water
Goggles

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

Remarks: The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Take note of the information given by the producer concerning permeability and breakthrough times, and of special workplace conditions (mechanical strain, duration of contact).
The exact breakthrough 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: Choose body protection according to the amount and concentration of the dangerous substance at the workplace.

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

Environmental exposure controls
General advice: 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.

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 : Pasty solid
Colour : silver
Odour : characteristic
pH : no data available
Freezing point : no data available
Boiling point/boiling range : 162 °C
Flash point : 45 °C

Bulk density : no data available
Flammability (solid, gas) : no data available
Auto-flammability : no data available
Upper explosion limit : no data available
Lower explosion limit : no data available
Vapour pressure : no data available
Density : no data available
Water solubility : no data available
Solubility in other solvents : no data available
Partition coefficient: n-octanol/water : no data available
Auto-ignition temperature : no data available
Thermal decomposition : no data available
Viscosity, dynamic : no data available
STAPA NDF 200 Aluminum Paste

Viscosity, kinematic : no data available
Flow time : 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 : Heat, flames and sparks.
                     Do not allow evaporation to dryness.

10.5 Incompatible materials
Materials to avoid : Acids
                  : Bases
                  : Oxidizing agents

10.6 Hazardous decomposition products

Other information : no data available

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

no data available
Skin corrosion/irritation
   no data available

Serious eye damage/eye irritation
   no data available

Respiratory or skin sensitisation
   no data available

Carcinogenicity
   no data available

Toxicity to reproduction/fertility
   no data available

Reprod.Tox./Development/Teratogenicity
   no data available

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

no data available

12.5 Results of PBT and vPvB assessment

no data available

12.6 Other adverse effects

Product:

Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal., Harmful to aquatic life with long lasting effects.

SECTION 13: Disposal considerations

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

13.1 Waste treatment methods

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

Do not contaminate ponds, waterways or ditches with
14.2 Proper shipping name

ADR : FLAMMABLE SOLID, ORGANIC, N.O.S. (Aluminium pigment paste)

IMDG : FLAMMABLE SOLID, ORGANIC, N.O.S. (Aluminium pigment paste)

IATA : FLAMMABLE SOLID, ORGANIC, N.O.S. (Aluminium pigment paste)

14.3 Transport hazard class

ADR : 4.1

IMDG : 4.1

IATA : 4.1

14.4 Packing group

ADR

Packaging group : II

Classification Code : F1

Hazard identification No : 40

Labels : 4.1

Tunnel restriction code : (E)

IMDG

Packaging group : II
STAPA NDF 200 Aluminum Paste

Version 1.1  Revision Date 09.04.2014  Print Date 20.11.2018

Labels : 4.1
EmS Number : F-G, S-G

IATA
Packing instruction (cargo aircraft) : 448
Packing instruction (passenger aircraft) : 445
Packing instruction (LQ) : Y441
Packaging group : II
Labels : 4.1

14.5 Environmental hazards

IMDG :

14.6 Special precautions for user

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

15.2 Chemical Safety Assessment

no data available

SECTION 16: Other information

Full text of R-Phrases

R10  Flammable.
R11  Highly flammable.
R37  Irritating to respiratory system.
R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
SAFETY DATA SHEET
according to Regulation (EC) No. 1907/2006

STAPA NDF 200 Aluminum Paste

Version 1.1
Revision Date 09.04.2014
Print Date 20.11.2018

R65 Harmful: may cause lung damage if swallowed.

Full text of H-Statements

H226 Flammable liquid and vapour.
H228 Flammable solid.
H304 May be fatal if swallowed and enters airways.
H335 May cause respiratory irritation.
H336 May cause drowsiness or dizziness.
H411 Toxic to aquatic life with long lasting effects.

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.