SAFETY DATA SHEET

STAPA NDF 3250 Aluminum Paste

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : STAPA NDF 3250 Aluminum Paste

Product code : 020203MA0

Manufacturer or supplier's details

Company name of supplier : ECKART GmbH

Address : Guentersthal 4
          Hartenstein  91235

Telephone : +499152770

Telefax : +499152777008

Emergency telephone : CHEMTREC: 800-424-9300
                      CHEMTREC: 1-703-527-3387 (International)

                      GBK Gefahrgut Buero 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

GHS Classification

Flammable solids : Category 1
Skin irritation : Category 3
Chronic aquatic toxicity : Category 3

GHS label elements

Hazard pictograms : 

Signal Word : Danger
Hazard Statements : H228 Flammable solid.
H316 Causes mild skin irritation.
H412 Harmful to aquatic life with long lasting effects.

Precautionary Statements:

**Prevention:**
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P240 Ground and bond container and receiving equipment.
P241 Use explosion-proof electrical/ ventilating/ lighting/ equipment.
P273 Avoid release to the environment.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

**Response:**
P332 + P313 If skin irritation occurs: Get medical advice/ attention.
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.

Hazardous ingredients which must be listed on the label:
Solvent naphtha (petroleum), light arom.
Benzene, 1,2,4-trimethyl-

**Other hazards**
None known.

### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Hazardous ingredients</th>
<th>CAS-No.</th>
<th>Concentration (% w/w)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminum</td>
<td>7429-90-5</td>
<td>&gt;= 70 - &lt; 90</td>
</tr>
<tr>
<td>Distillates (petroleum), hydrotreated light</td>
<td>64742-47-8</td>
<td>&gt;= 5 - &lt; 10</td>
</tr>
<tr>
<td>Solvent naphtha (petroleum), light arom.</td>
<td>64742-95-6</td>
<td>&gt;= 5 - &lt; 10</td>
</tr>
<tr>
<td>Benzene, 1,2,4-trimethyl-</td>
<td>95-63-6</td>
<td>&gt;= 1 - &lt; 5</td>
</tr>
</tbody>
</table>
SECTION 4. FIRST AID MEASURES

General advice: Move out of dangerous area.

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

In case of skin contact: If skin irritation persists, call a physician.
If on skin, rinse well with water.
If on clothes, remove clothes.

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.

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.

Most important symptoms and effects, both acute and delayed: Causes mild skin irritation.

SECTION 5. FIRE-FIGHTING MEASURES

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

Specific extinguishing methods: 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.

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

SECTION 6. ACCIDENTAL RELEASE MEASURES
SAFETY DATA SHEET

STAPA NDF 3250 Aluminum Paste

Version 1.0  Revision Date: 03/27/2018  SDS Number: 102000026709  Date of last issue: -  Date of first issue: 03/27/2018

Personal precautions, protective equipment and emergency procedures: Use personal protective equipment. Avoid dust formation. Avoid breathing dust. Remove all sources of ignition.

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.

Methods and materials for containment and cleaning up: Do not flush with water. Keep in suitable, closed containers for disposal.

SECTION 7. HANDLING AND STORAGE

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

Advice on safe handling: Avoid contact with skin and eyes. 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.

Hygiene measures: When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.

Conditions for safe storage: No smoking. Keep container tightly closed in a dry and well-ventilated place. Electrical installations / working materials must comply with the technological safety standards.

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

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

| Ingredients | CAS-No. | Value type (Form of Control parameters / Basis |
Personal protective equipment

Hand protection

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

Eye protection : Safety glasses

Skin and body protection : Dust impervious protective suit

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

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : solid
Color : silver
Odor : characteristic
Odor Threshold : No data available
pH : No data available
Melting point/freezing point : No data available
Initial boiling point and boiling range : No data available
SAFETY DATA SHEET
STAPA NDF 3250 Aluminum Paste

Version 1.0  Revision Date: 03/27/2018  SDS Number: 102000026709  Date of last issue: -
Date of first issue: 03/27/2018

Flash point: No data available
Evaporation rate: No data available
Flammability (solid, gas): The substance or mixture is a flammable solid with the category 1.

Upper explosion limit / Upper flammability limit: No data available
Lower explosion limit / Lower flammability limit: No data available
Vapor pressure: No data available
Relative density: No data available
Density: 1.8 - 1.95 g/cm³
Solubility/ies: No data available
Partition coefficient: n-octanol/water: No data available
Autoignition temperature: No data available
Decomposition temperature: No data available
Viscosity: No data available

SECTION 10. STABILITY AND REACTIVITY
Reactivity: No decomposition if stored and applied as directed.
Chemical stability: No decomposition if stored and applied as directed.
Possibility of hazardous reactions: Stable under recommended storage conditions.
Conditions to avoid: Heat, flames and sparks.

SECTION 11. TOXICOLOGICAL INFORMATION
Acute toxicity
Not classified based on available information.

Ingredients:
Solvent naphtha (petroleum), light arom.:
Acute oral toxicity: LD50 (Rat): 3,492 mg/kg

Acute dermal toxicity: LD50 (Rabbit): > 3,160 mg/kg

Benzene, 1,2,4-trimethyl-:
Acute inhalation toxicity: Assessment: The component/mixture is moderately toxic after
short term inhalation.

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

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**
Causes mild skin irritation.

**Ingredients:**
Distillates (petroleum), hydrotreated light:
Result: Skin irritation

**Serious eye damage/eye irritation**
Not classified based on available information.

**Respiratory or skin sensitization**

**Skin sensitization**
Not classified based on available information.

**Respiratory sensitization**
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.

**Ingredients:**
Distillates (petroleum), hydrotreated light:
Assessment: May cause drowsiness or dizziness.
Solvent naphtha (petroleum), light arom.:  
Assessment: May cause respiratory irritation., May cause drowsiness or dizziness.

Benzene, 1,2,4-trimethyl-:  
Assessment: The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with respiratory tract irritation.

STOT-repeated exposure  
Not classified based on available information.

Aspiration toxicity  
Not classified based on available information.

Ingredients:  
Distillates (petroleum), hydrotreated light:  
May be fatal if swallowed and enters airways.

Solvent naphtha (petroleum), light arom.:  
May be fatal if swallowed and enters airways.

Further information  
Ingredients:  
Fatty acids, C14-18 and C16-18-unsatd.:  
Remarks: No data available

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity  
Ingredients:  
Distillates (petroleum), hydrotreated light:  
Ecotoxicology Assessment  
Acute aquatic toxicity : Harmful to aquatic life.  
Chronic aquatic toxicity : Harmful to aquatic life with long lasting effects.
Solvent naphtha (petroleum), light arom.:

Ecotoxicology Assessment
Chronic aquatic toxicity : Toxic to aquatic life with long lasting effects.

Benzene, 1,2,4-trimethyl-:

Ecotoxicology Assessment
Chronic aquatic toxicity : Toxic to aquatic life with long lasting effects.

Persistence and degradability
No data available

Bioaccumulative potential
No data available

Other adverse effects
No data available

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

Additional ecological information : No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods
Waste from residues : The product should not be allowed to enter drains, water courses or the soil.
Do not contaminate ponds, waterways or ditches with chemical or used container.
Send to a licensed waste management company.
In accordance with local and national regulations.

Contaminated packaging : Empty remaining contents.
Dispose of as unused product.
Do not re-use empty containers.
Do not burn, or use a cutting torch on, the empty drum.
In accordance with local and national regulations.

SECTION 14. TRANSPORT INFORMATION

International Regulations
IATA-DGR
UN/ID No. : UN 1325
Proper shipping name : Flammable solid, organic, n.o.s. (Aluminium pigment paste)
Class : 4.1
Packing group : II
Labels : Flammable Solid
Packing instruction (cargo aircraft) : 448
Packing instruction (passenger aircraft) : 445

IMDG-Code
UN number : UN 1325
Proper shipping name : FLAMMABLE SOLID, ORGANIC, N.O.S. (Aluminium pigment paste)
Class : 4.1
Packing group : II
Labels : 4.1
EmS Code : F-A, S-G
Marine pollutant : no
Remarks : IMDG Code segregation group 15 - Powdered metals

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not applicable for product as supplied.

Domestic regulation

NOM-002-SCT
UN number : UN 1325
Proper shipping name : FLAMMABLE SOLID, ORGANIC, N.O.S. (Aluminium pigment paste)
Class : 4.1
Packing group : II
Labels : 4.1

Special precautions for user
Not applicable

SECTION 15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture
NOM-165-SEMARNAT-2013, Norm establishing a list of substances subject to report for the Registry of Emissions and Pollutant Transfer

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>CAS-No.</th>
<th>MPU (kg/year)</th>
<th>Transfer/Release (kg/year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benzene, dimethyl-</td>
<td>1330-20-7</td>
<td>5000 kg/year</td>
<td>1000 kg/year</td>
</tr>
<tr>
<td>Benzene, (1-methylethyl)-</td>
<td>98-82-8</td>
<td>5000 kg/year</td>
<td>1000 kg/year</td>
</tr>
</tbody>
</table>
MPU: Applicable reporting threshold when the substance, pure or in mixture in a composition of more than 1% by weight, is used for industrial activities at facilities that are subject to report or are produced by them

Federal Law for the control of chemical precursors, essential chemical products and machinery for producing capsules, tablets and pills.

The ingredients of this product are reported in the following inventories:

DSL: All components of this product are on the Canadian DSL

TSCA: On TSCA Inventory

SECTION 16. OTHER INFORMATION

Full text of other abbreviations

ACGIH : USA. ACGIH Threshold Limit Values (TLV)
MX OEL : Mexico. Occupational Exposure Limits
NOM-010-STPS-2014 : Mexico. Norm NOM-010-STPS-2014 on Chemicals Polluting the Work Environment - Identification, Assessment and Control - Appendix 1 Occupational Exposure Limits
ACGIH / TWA : 8-hour, time-weighted average
MX OEL / LMPE-PPT : Time weighted average
NOM-010-STPS-2014 / VLE-PPT : Time weighted average limit value

AICS - Australian Inventory of Chemical Substances; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; CPR - Controlled Products Regulations; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); 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; ERG - Emergency Response Guide; 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; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development;
SAFETY DATA SHEET

STAPA NDF 3250 Aluminum Paste

Version 1.0
Revision Date: 03/27/2018
SDS Number: 102000026709
Date of last issue:
Date of first issue: 03/27/2018

The information provided in this Material 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.

MX / Z8