

**STAPA IL HYDROLAN 9157 55900/G
Aluminium Paste**

Version 1.0 Revision Date: 03/27/2018 SDS Number: 102000000226 Date of last issue: -
Date of first issue: 03/27/2018

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : STAPA IL HYDROLAN 9157 55900/G Aluminium Paste

Product code : 005416HV0

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

Eye irritation : Category 2A

Specific target organ
systemic toxicity - single
exposure : Category 3 (Central nervous system)

GHS label elements

Hazard pictograms :



STAPA IL HYDROLAN 9157 55900/G Aluminium Paste

| | | | |
|----------------|------------------------------|-----------------------------|--|
| Version 1.0 | Revision Date: 03/27/2018 | SDS Number: 102000000226 | Date of last issue: - Date of first issue: 03/27/2018 |
|----------------|------------------------------|-----------------------------|--|

Signal Word : Danger

Hazard Statements : H228 Flammable solid.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.

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. |
| P261 | Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray. |
| P264 | Wash skin thoroughly after handling. |
| P271 | Use only outdoors or in a well-ventilated area. |
| P280 | Wear protective gloves/ protective clothing/ eye protection/ face protection. |

Response:

P304 + P340 + P312 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/ physician if you feel unwell.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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.

Storage:

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up.

Disposal:

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

Hazardous ingredients which must be listed on the label:

2-Propanol

STAPA IL HYDROLAN 9157 55900/G
Aluminium Paste

Version 1.0 Revision Date: 03/27/2018 SDS Number: 10200000226 Date of last issue: -
 Date of first issue: 03/27/2018

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**Hazardous ingredients**

| Chemical name | CAS-No. | Concentration (% w/w) |
|---------------|-----------|-----------------------|
| Aluminum | 7429-90-5 | >= 50 -< 70 |
| 2-Propanol | 67-63-0 | >= 30 -< 50 |
| Silica | 7631-86-9 | >= 1 -< 5 |

SECTION 4. FIRST AID MEASURES

- General advice : Take the victim into fresh air.
Do not leave the victim unattended.
Move out of dangerous area.
Show this material safety data sheet to the doctor in attendance.
- If inhaled : Consult a physician after significant exposure.
If unconscious, place in recovery position and seek medical advice.
- In case of skin contact : Wash off immediately with soap and plenty of water.

If on skin, rinse well with water.
If on clothes, remove clothes.
- In case of eye contact : Immediately flush eye(s) with plenty of water.

Immediately flush eye(s) with plenty of water.
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 : Causes serious eye irritation.

STAPA IL HYDROLAN 9157 55900/G Aluminium Paste

| | | | |
|----------------|------------------------------|-----------------------------|--|
| Version 1.0 | Revision Date: 03/27/2018 | SDS Number: 102000000226 | Date of last issue: - Date of first issue: 03/27/2018 |
|----------------|------------------------------|-----------------------------|--|

and effects, both acute and delayed

May cause drowsiness or dizziness.

SECTION 5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media : Dry sand
Special powder against metal fire
- Unsuitable extinguishing media : Water
Foam
Carbon dioxide (CO₂)
ABC powder
- Specific extinguishing methods : Standard procedure for chemical fires.
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Special protective equipment for fire-fighters : Use personal protective equipment.
- Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Evacuate personnel to safe areas.
Use personal protective equipment.
Use personal protective equipment.
Avoid dust formation.
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 : Use mechanical handling equipment.
Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).
Do not flush with water.

STAPA IL HYDROLAN 9157 55900/G

Aluminium Paste

| | | | |
|---------|----------------|-------------|---------------------------------|
| Version | Revision Date: | SDS Number: | Date of last issue: - |
| 1.0 | 03/27/2018 | 10200000226 | Date of first issue: 03/27/2018 |

Keep in suitable, closed containers for disposal.

SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion : Earthing of containers and apparatuses is essential.
Take measures to prevent the build up of electrostatic charge.
Use explosion-proof equipment.

Avoid dust formation.
Keep away from open flames, hot surfaces and sources of ignition.

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

Avoid formation of respirable particles.
Do not breathe vapors/dust.
Avoid exposure - obtain special instructions before use.
Avoid contact with skin and eyes.
For personal protection see section 8.
Smoking, eating and drinking should be prohibited in the application area.
Provide sufficient air exchange and/or exhaust in work rooms.
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 : 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.

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

Materials to avoid : Do not store together with oxidizing and self-igniting products.
Never allow product to get in contact with water during

STAPA IL HYDROLAN 9157 55900/G Aluminium Paste

Version 1.0 Revision Date: 03/27/2018 SDS Number: 102000000226 Date of last issue: -
Date of first issue: 03/27/2018

storage.
Keep away from oxidizing agents, strongly alkaline and strongly acid materials in order to avoid exothermic reactions.

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 exposure) | Control parameters / Permissible concentration | Basis |
|-------------|-----------|-------------------------------|--|-------------------|
| Aluminum | 7429-90-5 | LMPE-PPT | 10 mg/m ³ | MX OEL |
| | | LMPE-PPT (Dust) | 10 mg/m ³ | MX OEL |
| | | TWA (Respirable fraction) | 1 mg/m ³ | ACGIH |
| | | TWA (Respirable fraction) | 1 mg/m ³ (Aluminum) | ACGIH |
| 2-Propanol | 67-63-0 | VLE-PPT | 200 ppm | NOM-010-STPS-2014 |
| | | VLE-CT | 400 ppm | NOM-010-STPS-2014 |
| | | TWA | 200 ppm | ACGIH |
| | | STEL | 400 ppm | ACGIH |
| Silica | 7631-86-9 | LMPE-PPT (Respirable) | 3 mg/m ³ | MX OEL |
| | | LMPE-PPT (Inhalable) | 10 mg/m ³ | MX OEL |

Biological occupational exposure limits

| Ingredients | CAS-No. | Control parameters | Biological specimen | Sampling time | Permissible concentration | Basis |
|-------------|---------|--------------------|---------------------|-----------------|---------------------------|--------|
| 2-Propanol | 67-63-0 | Acetone | Urine | End of shift at | 40 mg/l | MX BEI |

STAPA IL HYDROLAN 9157 55900/G
Aluminium Paste

Version 1.0 Revision Date: 03/27/2018 SDS Number: 10200000226 Date of last issue: -
 Date of first issue: 03/27/2018

| | | | | | | |
|--|--|---------|-------|---|---------|--------------|
| | | | | end of workwe k | | |
| | | Acetone | Urine | End of shift at end of workwe k | 40 mg/l | ACGIH BEI |

Personal protective equipment

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

In the case of dust or aerosol formation use respirator with an approved filter.

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

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.

Eye protection : Wear face-shield and protective suit for abnormal processing problems.

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.

STAPA IL HYDROLAN 9157 55900/G

Aluminium Paste

| | | | |
|---------|----------------|--------------|---------------------------------|
| Version | Revision Date: | SDS Number: | Date of last issue: - |
| 1.0 | 03/27/2018 | 102000000226 | Date of first issue: 03/27/2018 |

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

| | |
|--|---|
| Appearance | : Pasty solid |
| Color | : silver |
| Odor | : solvent |
| Odor Threshold | : No data available |
| pH | : No data available |
| Melting point/freezing point | : No data available |
| Boiling point/boiling range | : 82 °C |
| Flash point | : 13 °C |
| Evaporation rate | : No data available |
| Flammability (solid, gas) | : No data available |
| Auto-flammability | : not auto-flammable |
| 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 | : 1.3 - 2.0 g/cm ³ |
| 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 |
| Explosive properties | : Not explosive Vapors may form explosive mixture with air. |

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 | : 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. Vapors may form explosive mixture with air. Stable under recommended storage conditions. |
| Conditions to avoid | : Do not allow to dry. |

STAPA IL HYDROLAN 9157 55900/G
Aluminium Paste

| | | | |
|---------|----------------|--------------|---------------------------------|
| Version | Revision Date: | SDS Number: | Date of last issue: - |
| 1.0 | 03/27/2018 | 102000000226 | Date of first issue: 03/27/2018 |

Heat, flames and sparks.

Incompatible materials : Acids
Bases
Oxidizing agents
Highly halogenated compounds

SECTION 11. TOXICOLOGICAL INFORMATION**Acute toxicity**

Not classified based on available information.

Ingredients:**2-Propanol:**

Acute oral toxicity : LD50 (Rat): > 2,000 mg/kg

Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg

Silica:

Acute oral toxicity : LD50 (Rat): 5,000 mg/kg

(Mouse): 15,000 mg/kg

Acute inhalation toxicity : (Rat): 0.139 mg/l
Exposure time: 4 h

Acute dermal toxicity : LD50 (Rabbit): > 5,000 mg/kg

Skin corrosion/irritation

Not classified based on available information.

Serious eye damage/eye irritation

Causes serious eye irritation.

Respiratory or skin sensitization**Skin sensitization**

Not classified based on available information.

Respiratory sensitization

Not classified based on available information.

STAPA IL HYDROLAN 9157 55900/G
Aluminium Paste

| | | | |
|---------|----------------|-------------|---------------------------------|
| Version | Revision Date: | SDS Number: | Date of last issue: - |
| 1.0 | 03/27/2018 | 10200000226 | Date of first issue: 03/27/2018 |

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

May cause drowsiness or dizziness.

STOT-repeated exposure

Not classified based on available information.

Aspiration toxicity

Not classified based on available information.

Further information

SECTION 12. ECOLOGICAL INFORMATION**Ecotoxicity****Ingredients:****Silica:**Toxicity to daphnia and other : (Daphnia): 7,600 mg/l
aquatic invertebrates

Toxicity to algae : (Chlorella pyrenoidosa): 440 mg/l

Persistence and degradability

No data available

Bioaccumulative potential

No data available

Other adverse effects

No data available

SECTION 13. DISPOSAL CONSIDERATIONS**Disposal methods**Waste from residues : Do not dispose of waste into sewer.
Do not contaminate ponds, waterways or ditches with

STAPA IL HYDROLAN 9157 55900/G Aluminium Paste

| | | | |
|---------|----------------|--------------|---------------------------------|
| Version | Revision Date: | SDS Number: | Date of last issue: - |
| 1.0 | 03/27/2018 | 102000000226 | Date of first issue: 03/27/2018 |

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)

STAPA IL HYDROLAN 9157 55900/G Aluminium Paste

| | | | |
|---------|----------------|--------------|---------------------------------|
| Version | Revision Date: | SDS Number: | Date of last issue: - |
| 1.0 | 03/27/2018 | 102000000226 | Date of first issue: 03/27/2018 |

| | |
|---------------|-------|
| 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

Federal Law for the control of chemical precursors, : Not applicable
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) |
| ACGIH BEI | : ACGIH - Biological Exposure Indices (BEI) |
| MX BEI | : Official Mexican Norm NOM-047-SSA1-2011, Environmental Health - Biological exposure indices for workers occupationally exposed to chemical agents |
| 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 |
| ACGIH / STEL | : Short-term exposure limit |
| MX OEL / LMPE-PPT | : Time weighted average |
| NOM-010-STPS-2014 / VLE- PPT | : Time weighted average limit value |
| NOM-010-STPS-2014 / VLE- CT | : Short term exposure 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 -

STAPA IL HYDROLAN 9157 55900/G
Aluminium Paste

| | | | |
|---------|----------------|--------------|---------------------------------|
| Version | Revision Date: | SDS Number: | Date of last issue: - |
| 1.0 | 03/27/2018 | 102000000226 | Date of first issue: 03/27/2018 |

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; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

Revision Date : 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