

# **STAPA HFG 212 Aluminium Paste**

Version Revision Date: SDS Number: Date of last issue: -

1.0 03/21/2018 102000020066 Date of first issue: 03/21/2018

#### **SECTION 1. IDENTIFICATION**

Product name : STAPA HFG 212 Aluminium Paste

Product code : 053322GD0

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

number 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 in accordance with 29 CFR 1910.1200

Flammable solids : Category 1

Eye irritation : Category 2A

Specific target organ toxicity

- single exposure

: Category 3 (Central nervous system)

**GHS** label elements

Hazard pictograms





Signal word : Danger



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Hazard statements : H228 Flammable solid.

H319 Causes serious eye irritation. H336 May cause drowsiness or dizziness.

Precautionary statements

Prevention:

P210 Keep away from heat/sparks/open flames/hot

surfaces. No smoking.

P240 Ground/bond container and receiving

equipment.

P241 Use explosion-proof electrical/ ventilating/

lighting equipment.

P261 Avoid breathing dust/ fume/ gas/ mist/

vapours/ spray.

P264 Wash skin thoroughly after handling.

P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves/ eye protection/ face

protection.

Response:

P337 + P313

P304 + P340 + P312 IF INHALED: Remove person to fresh

air and keep comfortable for breathing. Call a POISON CENTER/doctor 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.

If eye irritation persists: 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.

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 components which must be listed on the label:

2-Propanol

Other hazards

None known.



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#### **SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

#### **Hazardous components**

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 : Move the victim to fresh air.

Do not leave the victim unattended.

Move out of dangerous area.

Show this 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.

Remove contact lenses.

Keep eye wide open while rinsing.

If eye irritation persists, consult a specialist.

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 and effects, both acute and

delayed

Causes serious eye irritation.

May cause drowsiness or dizziness.



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#### **SECTION 5. FIREFIGHTING MEASURES**

Suitable extinguishing media : Dry sand

Special powder against metal fire

Unsuitable extinguishing

media

: Water Foam

Carbon dioxide (CO2)

ABC powder

Further information : Standard procedure for chemical fires.

Use extinguishing measures that are appropriate to local

circumstances and the surrounding environment.

Special protective equipment :

for firefighters

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.

Avoid dust formation.

Remove all sources of ignition.
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.

Keep in suitable, closed containers for disposal.

#### **SECTION 7. HANDLING AND STORAGE**



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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 vapours/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.

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.

Observe label precautions.

Electrical installations / working materials must comply with

the technological safety standards.

Technical

measures/Precautions

Protect from humidity and water.

Do not allow to dry.

Materials to avoid : 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.

Further information on

storage stability

No decomposition if stored and applied as directed.



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# **SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

# Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Aluminum	7429-90-5	TWA (total dust)	50 Million particles per cubic foot	OSHA Z-3
		TWA (Respirable)	5 mg/m3	NIOSH REL
		TWA (total dust)	15 mg/m3	OSHA Z-3
		TWA (total)	10 mg/m3	NIOSH REL
		TWA (respirable fraction)	5 mg/m3	OSHA Z-3
		TWA (respirable fraction)	15 Million particles per cubic foot	OSHA Z-3
		TWA (Respirable fraction)	1 mg/m3	ACGIH
		TWA	5 mg/m3 (Aluminium)	NIOSH REL
		TWA (Total)	15 mg/m3 (Aluminium)	OSHA P0
		TWA (Respirable fraction)	5 mg/m3 (Aluminium)	OSHA P0
		TWA (total dust)	15 mg/m3 (Aluminium)	OSHA Z-1
		TWA (respirable fraction)	5 mg/m3 (Aluminium)	OSHA Z-1
		TWA (Total dust)	15 mg/m3 (Aluminium)	OSHA P0
		TWA (respirable dust fraction)	5 mg/m3 (Aluminium)	OSHA P0
		TWA (welding fumes)	5 mg/m3 (Aluminium)	NIOSH REL
		TWA (pyro	5 mg/m3	NIOSH REL



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		powders)	(Aluminium)	
		TWA	1 mg/m3	ACGIH
		(Respirable	(Aluminium)	
		fraction)	5/ O	OCUA DO
		TWA	5 mg/m3	OSHA P0
2 Dropopol	67-63-0	(Fumes)	200 ppm	ACGIH
2-Propanol	07-03-0			
		STEL	400 ppm	ACGIH
		TWA	400 ppm 980 mg/m3	NIOSH REL
		ST	500 ppm 1,225 mg/m3	NIOSH REL
		TWA	400 ppm 980 mg/m3	OSHA Z-1
		TWA	400 ppm 980 mg/m3	OSHA P0
		STEL	500 ppm 1,225 mg/m3	OSHA P0
Silica	7631-86-9	TWA	6 mg/m3	NIOSH REL
		TWA (Dust)	20 Million particles per cubic foot	OSHA Z-3
		TWA (Dust)	80 mg/m3 / %SiO2	OSHA Z-3
		TWA (Dust)	20 Million particles per cubic foot (Silica)	OSHA Z-3
		TWA (Dust)	80 mg/m3 / %SiO2 (Silica)	OSHA Z-3
		TWA	6 mg/m3 (Silica)	NIOSH REL

# **Biological occupational exposure limits**

•	•					
Components	CAS-No.	Control parameters	Biological specimen	Samplin g time	Permissible concentratio n	Basis
2-Propanol	67-63-0	Acetone	Urine	End of shift at end of workwee	40 mg/l	ACGIH BEI



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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.

Hygiene measures : When using do not eat or drink.

When using do not smoke.

Wash hands before breaks and at the end of workday.

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES** 

Appearance : Pasty solid Colour : silver



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Odour solvent-like : No data available Odour Threshold pΗ : No data available Melting point/freezing point : No data available

Boiling point/boiling range : 82 °C

: 13 °C Flash point

Evaporation rate : No data available Flammability (solid, gas) No data available Auto-flammability not auto-flammable No data available

Upper explosion limit / Upper

flammability limit

Lower explosion limit / Lower

flammability limit

Vapour pressure No data available Relative density No data available Density 1.93 g/cm3

Solubility(ies) No data available Partition coefficient: n-No data available

octanol/water

No data available Auto-ignition temperature Decomposition temperature No data available Viscosity No data available

Explosive properties Not explosive Vapours may form explosive mixture with air.

#### **SECTION 10. STABILITY AND REACTIVITY**

Reactivity No decomposition if stored and applied as directed.

: No data available

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.

Vapours may form explosive mixture with air. Stable under recommended storage conditions.

Conditions to avoid : Do not allow to dry.

Heat, flames and sparks.

Incompatible materials : Acids

Bases

Oxidizing agents



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Highly halogenated compounds

#### SECTION 11. TOXICOLOGICAL INFORMATION

#### **Acute toxicity**

Not classified based on available information.

**Components:** 

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 sensitisation

Skin sensitisation

Not classified based on available information.

Respiratory sensitisation

Not classified based on available information.

Germ cell mutagenicity

Not classified based on available information.

Carcinogenicity

Not classified based on available information.

IARC No component of this product present at levels greater than or

equal to 0.1% is identified as probable, possible or confirmed



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human carcinogen by IARC.

OSHA No component of this product present at levels greater than or

equal to 0.1% is on OSHA's list of regulated carcinogens.

NTP No component of this product present at levels greater than or

equal to 0.1% is identified as a known or anticipated carcinogen

by NTP.

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**

### **Components:**

Silica:

Toxicity to daphnia and other :

aquatic invertebrates

(Daphnia (water flea)): 7,600 mg/l

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

Persistence and degradability

No data available

Bioaccumulative potential

No data available

Other adverse effects

No data available



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#### **SECTION 13. DISPOSAL CONSIDERATIONS**

**Disposal methods** 

Waste from residues : Do not dispose of waste into sewer.

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 : 448

aircraft)

Packing instruction : 445

(passenger aircraft)

**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.

#### **National Regulations**



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**49 CFR** 

UN/ID/NA number : UN 1325

Proper shipping name : Flammable solids, organic, n.o.s.

(Aluminum pigment paste)

Class : 4.1 Packing group : II

Labels : FLAMMABLE SOLID

ERG Code : 133 Marine pollutant : no

#### **SECTION 15. REGULATORY INFORMATION**

# **EPCRA - Emergency Planning and Community Right-to-Know Act**

#### **CERCLA Reportable Quantity**

This material does not contain any components with a CERCLA RQ.

#### SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

#### SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 Hazards : Flammable (gases, aerosols, liquids, or solids)

Serious eye damage or eye irritation

Specific target organ toxicity (single or repeated exposure)

SARA 313 : The following components are subject to reporting levels

established by SARA Title III, Section 313:

Aluminum 7429-90-5 >= 50 - < 70 %

2-Propanol 67-63-0 >= 30 - < 50 %

#### Clean Air Act

This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

The following chemical(s) are listed under the U.S. Clean Air Act Section 111 SOCMI Intermediate or Final VOC's (40 CFR 60.489):

2-Propanol 67-63-0 35 %



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#### **Clean Water Act**

This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.

This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

#### **US State Regulations**

### **Massachusetts Right To Know**

Aluminum	7429-90-5
2-Propanol	67-63-0
Silica	7631-86-9

#### Pennsylvania Right To Know

Aluminum	7429-90-5
2-Propanol	67-63-0
Silica	7631-86-9

# California Prop. 65



WARNING: This product can expose you to chemicals including lead and cadmium, which is/are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

## California List of Hazardous Substances

Aluminum	7429-90-5
2-Propanol	67-63-0
Silica	7631-86-9

#### **California Permissible Exposure Limits for Chemical Contaminants**

Aluminum	7429-90-5
2-Propanol	67-63-0
2-1 Topanoi	07-03-0



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Silica 7631-86-9

#### The components of this product are reported in the following inventories:

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

TSCA : On TSCA Inventory

#### **TSCA list**

No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

#### **SECTION 16. OTHER INFORMATION**

#### Full text of other abbreviations

ACGIH : USA. ACGIH Threshold Limit Values (TLV)
ACGIH BEI : ACGIH - Biological Exposure Indices (BEI)
NIOSH REL : USA. NIOSH Recommended Exposure Limits

OSHA PO : USA. OSHA - TABLE Z-1 Limits for Air Contaminants -

1910.1000

OSHA Z-1 : USA. Occupational Exposure Limits (OSHA) - Table Z-1

Limits for Air Contaminants

OSHA Z-3 : USA. Occupational Exposure Limits (OSHA) - Table Z-3

Mineral Dusts

ACGIH / TWA : 8-hour, time-weighted average ACGIH / STEL : Short-term exposure limit

NIOSH REL / TWA : Time-weighted average concentration for up to a 10-hour

workday during a 40-hour workweek

NIOSH REL / ST : STEL - 15-minute TWA exposure that should not be exceeded

at any time during a workday

OSHA P0 / TWA : 8-hour time weighted average OSHA P0 / STEL : Short-term exposure limit OSHA Z-1 / TWA : 8-hour time weighted average OSHA Z-3 / TWA : 8-hour time weighted average

AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; 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; HMIS - Hazardous Materials Identification System; IARC -



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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; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified: NFPA - National Fire Protection Association: NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; 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: RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation. Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; 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

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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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