

GRAFMETAL

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GRAFMETAL@GRAFMETAL.COM

Material Safety Data Sheet GRAFMETAL Metal etching paste

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

1.1 Product identifiers: GRAFMETAL Metal etching paste

1.2 Relevant identified uses of the substance or mixture and uses advised against

Product application: Metal surface modification

1.3 Details of the supplier of the safety data sheet

KARWYS Karol Wysokiński

Piłunowa 43

81-589 Gdynia

Poland, European Union

TAX ID NUMBER: PL9581590886

grafmetal@grafmetal.com

(+48) 575-737-991

1.4 Emergency telephone

Emergency telephone valid in your country.

+44 (0)870 8200418 (CHEMTREC)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition: mixture

Classification according to Regulation (EC) No 1272/2008:

H290 May be corrosive to metals. H302 Harmful if swallowed. H314 Causes severe skin burns and eye damage. H335 May cause respiratory irritation.

2.2. Label elements:

Pictogram:



Signal word: danger

Hazard statements: H290 May be corrosive to metals H302 Harmful if swallowed. H314 Causes severe skin burns and eye damage. H335 May cause respiratory irritation.

Precautionary statements: P280 Wear protective gloves/protective clothing/eye protection/face protection
P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. P305+P351+P338 IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.

2.3. Other hazards:

No information about meeting PBT or vPvB criteria according to the 12th appendix of the REACH regulation.

SECTION 3: Composition/information on ingredients

Sulfuric acid (CAS: 7664-93-9), maximum 35% content, H290 May be corrosive to metals. H302 Harmful if swallowed. H314 Causes severe skin burns and eye damage..

Iron(III) chloride (CAS: 10025-77-1), maximum 25% content, H290 May be corrosive to metals H302 Harmful if swallowed. H314 Causes severe skin burns and eye damage. H335 May cause respiratory irritation.

SECTION 4: First aid measures

4.1 Description of first-aid measures

General advice

No action should be taken that would pose a risk to anyone. If it is suspected that vapours are still present, the rescuer should put on an appropriate mask or breathing isolation apparatus. Wash contaminated clothing thoroughly with water before removing it or put on gloves.

If inhaled:

Immediately seek medical advice for sulfuric or hydrochloric acid burn or hydrochloric acid vapour poisoning. Remove the exposed person to fresh air. If vapours are suspected to still be present, the rescuer should put on an appropriate mask or breathing apparatus. If the person is not breathing, is breathing irregularly, or if breathing has stopped, qualified personnel should perform artificial respiration or administer oxygen. If the person is unconscious, place the person in the safe position and provide medical assistance.

If swallowed:

Immediately seek medical advice for internal burns with sulfuric or hydrochloric acids. Remove the exposed person to fresh air. Keep the person warm and calm. Rinse mouth with water and drink plenty of water.

In case of skin contact:

Immediately seek medical advice. Remove contaminated clothing, wash skin with plenty of soap and water. If worrisome symptoms persist, consult a doctor.

In case of eye contact:

Immediately flush eyes with large amounts of water with eyelids wide open, continue flushing for at least 15 minutes. Avoid a strong stream of water due to the risk of mechanical damage to the cornea. If worrisome symptoms persist, consult an ophthalmologist. People exposed to eye contamination should be instructed on the necessity and method of rinsing the eyes.

4.2 Most important symptoms and effects, both acute and delayed:

Eye contact: causes severe burns and eye damage. Risk of loss of vision.

Contact following inhalation: possible damage to respiratory system.

Contact following ingestion: Possible gastrointestinal burns, risk of death.

Contact with skin: causes skin burns. Possible inflammation.

4.3 Indication of any immediate medical attention and special treatment needed:

In case of any worrisome symptoms, immediately arrange medical help, show the product packaging or label.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media: use extinguishing medium suitable for the surrounding fire

Unsuitable extinguishing media: none

5.2 Special hazards arising from the substance or mixture

None

5.3 Advice for firefighters

In the event of fire, wear self-contained breathing apparatus and protective clothing.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

For emergency personnel: Familiarize yourself with information, materials (Section 8). Notify surroundings of the accident, order evacuation if necessary; call rescue teams. For other personnel: Avoid inhalation of vapours. Avoid contamination with the substance. Ensure sufficient ventilation. Evacuate the danger zone. Remove all sources of ignition - extinguish open flames, announce a ban on smoking and the use of sparking tools, protect packaging from heating - danger of explosion. Provide appropriate personal protective equipment.

6.2 Environmental precautions:

Do not allow the product to enter drains and waterways; secure drains and sumps; avoid direct contact with the released substance; remove sources of ignition; if possible, eliminate the leak (seal, place the damaged

container in emergency packaging); spilled substance, collect with liquid-absorbing materials, and clean the contaminated surface. If a large amount of product is released - notify the appropriate authorities.

6.3 Methods and materials for containment and cleaning up:

If possible and safe, eliminate or reduce the leak (seal, close the liquid supply, place the damaged container in emergency packaging).

SECTION 7: Handling and storage

7.1 Precautions for safe handling:

Wear protective clothing, protective gloves and safety glasses. Do not eat or drink near the mixture. Ensure effective air exchange (ventilation).

7.2 Conditions for safe storage, including any incompatibilities:

Store in closed containers at room temperature. Do not use containers made of metal.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Individual protective measures:

Threshold Limit Value: Generated vapours of hydrogen chloride: 8 mg/m³ (8 hours)

Individual protective measures:

Wash hands before and after work.

8.2 Exposure controls

Hand protection:

Wear protective gloves impervious to liquids.

Eye protection:

Wear safety goggles to protect against splashes.

Skin protection:

Wear protective clothing.

Respiratory tract protection:

Ensure adequate ventilation.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance: dense paste

Colour: grey

pH: not applicable

Odour: not applicable

Boiling point [°C]: 100

Flow temperature [°C]: not applicable

Melting point [°C]: <0

Flash point [°C]: not applicable

Autoignition temperature [°C]: not applicable

Explosive properties: product is not volatile nor explosive

Vapour pressure: no data available

Viscosity: no data available

Density at 20°C [g/cm³]: 1.65±0.15

Solubility:

in water: partially soluble

other solvents: partially miscible with alcohols

SECTION 10: Stability and reactivity

10.1 Stability:

The product is stable at recommended storage conditions

10.2 Reactivity

Under recommended conditions, the product is not reactive. The product reacts with metals and alkalis.

10.3 Incompatible materials:

Reactions with metals and alkalis.

10.4 Conditions to avoid:

Exposure to high temperatures.

10.5 Hazardous decomposition products:

Hydrogen chloride, sulfuric acid.

SECTION 11: Toxicological information

11.1. Information on toxicological effects:

LD50 lethal dose per hazardous component of paste (oral, rat): 7900 mg/kg.

Acute toxicity:

The product is toxic

Health risk:

The product is toxic, large exposure or ingestion can lead to serious injury.

Inhalation:

Causes damage to the respiratory tract. May cause cardiac arrhythmia.

Skin:

Causes skin burns. Can lead to tissue necrosis.

Eyes:

Causes burns and eye damage. May cause blindness.

Swallowing:

It causes damage to the digestive system and death.

SECTION 12: Ecological information

12.1 Toxicity:

Product toxic to aquatic organisms.

12.2 Mobility in soil:

No data available

12.3 Bioaccumulative potential:

No data available

12.4 Biodegradability:

No data available

12.5 Results of PBT and vPvB assessment:

Not applicable.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Do not flush larger quantities down the drain. Do not allow water pollution. 100 g of paste can lead to contamination of at least 1 m³ of water. Do not burn used packaging. Small amounts can be flushed with very large amounts of water. Larger amounts should be mixed with a large amount of chalk, and then such waste is already safe.

Waste treatment:

Waste classification (EWC):

08 01 12 Waste paint and varnish other than those mentioned in 08 01 11

Disposal method:

The product retains its properties for a long time, making it necessary to consider the consumption of the product before liquidation. If the product has dried out, a small amount of water can be added to it.

Container:

Used containers should be recycled.

SEKCJA 14: Informacje o transporcie

ADR/RID, ADN/ADNR, IMDG, IATA

UN Number: UN1727

Shipping name: fluoride-containing product

Transportation hazard class: 8

Packing group: II

Environmental hazard: no

Special precautions for users: no

SECTION 15: Regulatory information

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

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII)

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Observe work restrictions in accordance to Dir 92/85/EEC or stricter national regulations where applicable. Take note of Dir 94/33/EC on the protection of young people at work.

SECTION 16: Other information

Use in accordance to the User manual provided by the manufacturer.

The product is available for professional use only, the manufacturer is not accountable for its incorrect use.

Manufacturer:

KARWYS Karol Wysokiński

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