

Safety Data Sheet

acc. to OSHA HCS

Printing date 02/06/2024

Reviewed on 01/19/2024

1 Identification

Product identifier

Trade name: **Hellmanex III**

Application of the substance / the mixture Cleaning material/ Detergent

Details of the supplier of the safety data sheet

Manufacturer:

Hellma GmbH & Co. KG
 Klosterrunsstrasse 5
 79379 Müllheim
 Deutschland
 Telefon: +49 7631 182 1000
 Telefax: +49 7631 182 1011

Supplier:

Hellma GmbH & Co. KG
 Klosterrunsstrasse 5
 79379 Müllheim
 Deutschland
 Telefon: +49 7631 182 1000
 Telefax: +49 7631 182 1011

Information department: +49 7631 182 1010; www.hellma.com

Emergency telephone number:

National Capital Poison Center 24 hour emergency contact: 1 800 222 1222

2 Hazard(s) identification

Classification of the substance or mixture



GHS05 Corrosion

Corrosive to Metals 1

H290 May be corrosive to metals.

Skin Corrosion 1B

H314 Causes severe skin burns and eye damage.

Eye Damage 1

H318 Causes serious eye damage.



GHS07

Specific Target Organ Toxicity - Single Exposure 3 H335 May cause respiratory irritation.

Label elements

GHS label elements

The product is classified and labeled according to the Globally Harmonized System (GHS).

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Trade name: **Hellmanex III**

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Hazard pictograms

GHS05 GHS07

Signal word Danger**Hazard-determining components of labeling:**

tripotassium phosphate

potassium hydroxide

Hazard statements

May be corrosive to metals.

Causes severe skin burns and eye damage.

May cause respiratory irritation.

Precautionary statements

Keep only in original container.

Do not breathe dusts or mists.

Wash hands thoroughly after handling.

Use only outdoors or in a well-ventilated area.

Wear protective gloves/protective clothing/eye protection/face protection.

If swallowed: Rinse mouth. Do NOT induce vomiting.

If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Immediately call a poison center/doctor.

Specific treatment (see on this label).

Wash contaminated clothing before reuse.

Absorb spillage to prevent material damage.

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

Store locked up.

Store in corrosive resistant container with a resistant inner liner.

Dispose of contents/container in accordance with local/regional/national/international regulations.

Other hazards

The substances in the mixture do not meet PBT/vPvB criteria according to REACH Annex XIII.

Results of PBT and vPvB assessment**PBT:** Not applicable.**vPvB:** Not applicable.

3 Composition/information on ingredients

Chemical characterization: Mixtures**Description:** Mixture of the substances listed below with nonhazardous additions.

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Dangerous components:

| | | |
|----------------|------------------------|----------|
| CAS: 7778-53-2 | tripotassium phosphate | ≥15–<30% |
| CAS: 1310-58-3 | potassium hydroxide | <1% |

4 First-aid measures

Description of first aid measures

General information: Immediately remove any clothing soiled by the product.

After inhalation:

In case of unconsciousness place patient stably in side position for transportation.
Supply fresh air.

After skin contact: Immediately wash with water and soap and rinse thoroughly.

After eye contact:

Rinse opened eye for several minutes under running water. Then consult a doctor.

After swallowing: Drink copious amounts of water and provide fresh air. Immediately call a doctor.

Information for doctor:**Most important symptoms and effects, both acute and delayed**

No further relevant information available.

Indication of any immediate medical attention and special treatment needed

No further relevant information available.

5 Fire-fighting measures

Extinguishing media The product does not burn

Suitable extinguishing agents:

Use fire fighting measures that suit the environment.

Water spray

Foam

Fire-extinguishing powder

For safety reasons unsuitable extinguishing agents: Full water jet

Special hazards arising from the substance or mixture

During heating or in case of fire poisonous gases are produced.

Advice for firefighters

Protective equipment: Mouth respiratory protective device.

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

Mount respiratory protective device.

Wear protective equipment. Keep unprotected persons away.

Environmental precautions:

Dilute with plenty of water.

Do not allow to enter sewers/ surface or ground water.

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Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Use neutralizing agent.

Dispose contaminated material as waste according to section 13.

Ensure adequate ventilation.

Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

Protective Action Criteria for Chemicals**PAC-1:**

| | | |
|----------------|------------------------|------------------------|
| CAS: 7778-53-2 | tripotassium phosphate | 15 mg/m ³ |
| CAS: 1310-58-3 | potassium hydroxide | 0.18 mg/m ³ |

PAC-2:

| | | |
|----------------|------------------------|-----------------------|
| CAS: 7778-53-2 | tripotassium phosphate | 170 mg/m ³ |
| CAS: 1310-58-3 | potassium hydroxide | 2 mg/m ³ |

PAC-3:

| | | |
|----------------|------------------------|-----------------------|
| CAS: 7778-53-2 | tripotassium phosphate | 980 mg/m ³ |
| CAS: 1310-58-3 | potassium hydroxide | 54 mg/m ³ |

7 Handling and storage

Handling:**Precautions for safe handling**

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

Information about protection against explosions and fires:

Keep respiratory protective device available.

Conditions for safe storage, including any incompatibilities**Requirements to be met by storerooms and receptacles:** No special requirements.**Information about storage in one common storage facility:** Do not store together with acids.**Further information about storage conditions:**

Optimum storage temperature 20°C. For details, see the product label.

Storage class (TRGS 510): 8 B**Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

Additional information about design of technical systems: No further data; see section 7.

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Control parameters**Components with limit values that require monitoring at the workplace:**

The following constituent is the only constituent of the product which has a PEL, TLV or other recommended exposure limit.

At this time, the remaining constituent has no known exposure limits.

CAS: 1310-58-3 potassium hydroxideREL Ceiling limit value: 2 mg/m³TLV Ceiling limit value: 2 mg/m³

Additional information: The lists that were valid during the creation were used as basis.

Exposure controls

Control potential exposure through measures such as encapsulated or self-contained systems, properly designed and maintained installations and sufficient ventilation standards. Shut down systems and empty pipelines before opening the plant. Wherever possible, shut down and flush the plant before maintenance work. If there is potential for exposure: Ensure that key personnel have been informed regarding the nature of the exposure and basic methods for minimising exposure. Ensure that suitable personal protective equipment is available. In agreement with legal requirements, absorb any spills and dispose of waste. Monitor the effectiveness of control measures; consider the need for health monitoring; identify and implement corrective measures.

General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes.

Avoid contact with the eyes and skin.

Breathing equipment:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

Protection of hands:

The protective gloves to be used must satisfy the specification of EC Directive 89/686/EEC and the resulting EN374 standard.



Protective gloves

Material of gloves

Recommended thickness of the material: ≥ 0.7 mm

Nitrile rubber, NBR

Penetration time of glove material Penetration time: > 480 min.

Eye protection:

Tightly sealed goggles

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9 Physical and chemical properties

Information on basic physical and chemical properties

General Information

Appearance:

| | |
|------------------------|----------------------|
| Form: | Fluid |
| Color: | Colourless to yellow |
| Odor: | Characteristic |
| Odor threshold: | Not determined. |

pH-value at 20 °C (68 °F): 13.2

Change in condition

| | |
|-------------------------------------|-----------------|
| Melting point/Melting range: | Not relevant |
| Boiling point/Boiling range: | 100 °C (212 °F) |

Flash point: Not relevant

Flammability (solid, gaseous): Not applicable.

Decomposition temperature: >230 °C (>446 °F)

Ignition temperature: Product is not selfigniting.

Danger of explosion: Product does not present an explosion hazard.

Explosion limits:

| | |
|---------------|-----------------|
| Lower: | Not applicable. |
| Upper: | Not applicable. |

Oxidizing properties Not relevant

Vapor pressure at 20 °C (68 °F): 23 hPa (17.3 mm Hg)

Density at 20 °C (68 °F): 1.4 g/cm³ (11.7 lbs/gal)

Vapor density Not relevant

Evaporation rate Not relevant

Solubility in / Miscibility with

Water: Fully miscible.

Partition coefficient (n-octanol/water): Not determined.

Viscosity:

| | |
|-------------------|-----------------|
| Dynamic: | Not determined. |
| Kinematic: | Not determined. |

VOC content: 0.10 %
1.4 g/l / 0.01 lb/gal

Other information No further relevant information available.

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10 Stability and reactivity

Reactivity No further relevant information available.

Chemical stability

Thermal decomposition / conditions to be avoided: Thermal decomposition above 230 °C.

Possibility of hazardous reactions Exothermic reaction with: Acids

Conditions to avoid No further relevant information available.

Incompatible materials: Do not store together with acids.

Hazardous decomposition products:

Thermal decomposition can cause the release of irritant gases and vapours.

11 Toxicological information

Information on toxicological effects

Acute toxicity:

LD/LC50 values that are relevant for classification:

CAS: 7778-53-2 tripotassium phosphate

| | | |
|--------|------|---------------------|
| Dermal | LD50 | 7340 mg/kg (Rabbit) |
|--------|------|---------------------|

CAS: 1310-58-3 potassium hydroxide

| | | |
|------|------|---------------------|
| Oral | LD50 | 333–388 mg/kg (Rat) |
|------|------|---------------------|

Primary irritant effect:

on the skin: Caustic effect on skin and mucous membranes.

on the eye:

Strong caustic effect.

Strong irritant with the danger of severe eye injury.

Sensitization: No sensitizing effects known.

Additional toxicological information:

The product shows the following dangers according to internally approved calculation methods for preparations:

Corrosive

Irritant

Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

Carcinogenic categories

NTP (National Toxicology Program)

None of the ingredients is listed.

OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

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12 Ecological information

Toxicity

Aquatic toxicity:

CAS: 7778-53-2 tripotassium phosphate

| | |
|----------|---------------------|
| LC50/96h | >100 mg/l (Fish) |
| EC50/48h | >100 mg/l (Daphnia) |
| EC50/72h | >100 mg/l (Algae) |

Behavior in environmental systems:

Bioaccumulative potential No further relevant information available.

Mobility in soil No further relevant information available.

Additional ecological information:

CSB-value: 125.00 g/kg

General notes:

Water hazard class 1 (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Must not reach bodies of water or drainage ditch undiluted or unneutralized.

Rinse off of bigger amounts into drains or the aquatic environment may lead to increased pH-values. A high pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably reduced, so that after the use of the product the aqueous waste, emptied into drains, is only low water-dangerous.

Results of PBT and vPvB assessment No further relevant information available.

PBT: Not applicable.

vPvB: Not applicable.

Other adverse effects No further relevant information available.

13 Disposal considerations

Waste treatment methods

Recommendation:

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

Uncleaned packagings:

Recommendation: Disposal must be made according to official regulations.

Recommended cleansing agent: Water, if necessary with cleansing agents.

14 Transport information

UN-Number

DOT, IMDG, IATA

UN3266

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UN proper shipping name**DOT, IATA**Corrosive liquid, basic, inorganic, n.o.s.
(tripotassium phosphate)**IMDG**CORROSIVE LIQUID, BASIC, INORGANIC,
N.O.S. (tripotassium phosphate)**Transport hazard class(es)****DOT****Class**

8 Corrosive substances

Label

8

IMDG, IATA**Class**

8 Corrosive substances

Label

8

Packing group**DOT, IMDG, IATA**

II

Environmental hazards:

Not applicable.

Special precautions for user

Warning: Corrosive substances

Hazard identification number (Kemler code): 80**EMS Number:**

F-A,S-B

Segregation groups

(SGG18) Alkalis

Stowage Category

A

Stowage Code

SW2 Clear of living quarters.

Segregation Code

SG35 Stow "separated from" SGG1-acids

**Transport in bulk according to Annex II of
MARPOL73/78 and the IBC Code**

Not applicable.

Transport/Additional information:**DOT****Quantity limitations**

On passenger aircraft/rail: 1 L

On cargo aircraft only: 30 L

IMDG**Limited quantities (LQ)**

1L

Excepted quantities (EQ)

Code: E2

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 500 ml

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UN "Model Regulation":

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 UN 3266 CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (TRIPOTASSIUM PHOSPHATE), 8, II

15 Regulatory information

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

No further relevant information available.

Sara

Section 355 (extremely hazardous substances):

None of the ingredients is listed.

TSCA (Toxic Substances Control Act):

CAS: 7778-53-2 | tripotassium phosphate | ACTIVE

CAS: 1310-58-3 | potassium hydroxide | ACTIVE

Proposition 65

Chemicals known to cause cancer:

None of the ingredients is listed.

Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

Carcinogenic categories

EPA (Environmental Protection Agency)

None of the ingredients is listed.

NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

GHS label elements

The product is classified and labeled according to the Globally Harmonized System (GHS).

Hazard pictograms



GHS05 GHS07

Signal word Danger

Hazard-determining components of labeling:

tripotassium phosphate

potassium hydroxide

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Hazard statements

May be corrosive to metals.
 Causes severe skin burns and eye damage.
 May cause respiratory irritation.

Precautionary statements

Keep only in original container.
 Do not breathe dusts or mists.
 Wash hands thoroughly after handling.
 Use only outdoors or in a well-ventilated area.
 Wear protective gloves/protective clothing/eye protection/face protection.
 If swallowed: Rinse mouth. Do NOT induce vomiting.
 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 Immediately call a poison center/doctor.
 Specific treatment (see on this label).
 Wash contaminated clothing before reuse.
 Absorb spillage to prevent material damage.
 Store in a well-ventilated place. Keep container tightly closed.
 Store locked up.
 Store in corrosive resistant container with a resistant inner liner.
 Dispose of contents/container in accordance with local/regional/national/international regulations.

Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

The information in this safety data sheet is correct to the best of our knowledge at the time of printing. The information is intended to provide you with reference points for the safe handling of the product specified in this safety data sheet when storing, processing, transporting and disposing of it. The information is not transferable to other products. Insofar as the product is mixed or processed with other materials, or is subject to processing, the information in this safety data sheet, unless expressly indicated otherwise, cannot be transferred to the resulting new material.

Department issuing SDS: +49 7631 182 1010; www.hellma.com

Contact: +49 7631 182 1010; www.hellma.com

Date of preparation / last revision 01/19/2024

Abbreviations and acronyms:

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

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vPvB: very Persistent and very Bioaccumulative
NIOSH: National Institute for Occupational Safety
OSHA: Occupational Safety & Health
TLV: Threshold Limit Value
PEL: Permissible Exposure Limit
REL: Recommended Exposure Limit
Corrosive to Metals 1: Corrosive to metals – Category 1
Skin Corrosion 1B: Skin corrosion/irritation – Category 1B
Eye Damage 1: Serious eye damage/eye irritation – Category 1
Specific Target Organ Toxicity - Single Exposure 3: Specific target organ toxicity (single exposure) – Category 3
*** Data compared to the previous version altered.**

US