

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

Product form : Mixture
Product name : Heliowash Ink Remover Gel
Product code : 1285210
Type of product : Detergent
Product group : Cleaning product.

1.2. Relevant identified uses of the substance or mixture and uses advised against**1.2.1. Relevant identified uses**

Main use category : Professional use

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

MDC Max Daetwyler GmbH
Raiffeisenstraße 27
DE 64347 Griesheim
Duitsland
T +49615587130, F +49615564210
info@daetwylergmbh.de, www.daetwylergmbh.com

1.4. Emergency telephone number

Country/Area	Organisation	Emergency number
Germany	Giftinformationszentrum der Länder Rheinland-Pfalz und Hessen. Klinische Toxikologie. Universitätsmedizin der Johannes Gutenberg-Universität Mainz. Langenbeckstraße 1. Gebäude 601 55131 Mainz.	+49 (0) 6131 19240

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture****Classification according to Regulation (EC) No. 1272/2008 [CLP]**

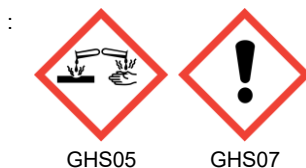
Corrosive to metals, Category 1 H290
Acute toxicity (oral), Category 4 H302
Skin corrosion/irritation, Category 1, Sub-Category 1A H314
Full text of H-statements: see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements**Labelling according to Regulation (EC) No. 1272/2008 [CLP]**

Hazard pictograms (CLP)



Signal word (CLP)

: Danger

Contains

: Potassium hydroxide; Ethanolamine

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Hazard statements (CLP)	: H290 - May be corrosive to metals. H302 - Harmful if swallowed. H314 - Causes severe skin burns and eye damage.
Precautionary statements (CLP)	: P280 - Wear protective gloves, protective clothing, eye protection, face protection. P301+P330+P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting. P303+P361+P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P310 - Immediately call a POISON CENTER or doctor/physician. P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3. Other hazards

Contains no PBT and/or vPvB substances $\geq 0.1\%$ assessed in accordance with REACH Annex XIII

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or substance(s) are not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Potassium hydroxide	CAS-No.: 1310-58-3 EC-No.: 215-181-3 REACH-no: 01-2119487136-33	5 – 15	Met. Corr. 1, H290 Acute Tox. 4 (Oral), H302 Skin Corr. 1A, H314 Eye Dam. 1, H318
Ethanolamine substance with a Community workplace exposure limit	CAS-No.: 141-43-5 EC-No.: 205-483-3 EC Index-No.: 603-030-00-8 REACH-no: 01-2119486455-28	< 5	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation), H332 Skin Corr. 1B, H314 Eye Dam. 1, H318 STOT SE 3, H335 Aquatic Chronic 3, H412
2-(2-butoxyethoxy)ethanol	CAS-No.: 112-34-5 EC-No.: 203-961-6 EC Index-No.: 603-096-00-8 REACH-no: 01-2119475104-44	< 5	Eye Irrit. 2, H319

Specific concentration limits:

Name	Product identifier	Specific concentration limits (%)
Potassium hydroxide	CAS-No.: 1310-58-3 EC-No.: 215-181-3 REACH-no: 01-2119487136-33	(0.5 $\leq$ C < 2) Eye Irrit. 2; H319 (0.5 $\leq$ C < 2) Skin Irrit. 2; H315 (2 $\leq$ C < 5) Skin Corr. 1B; H314 (5 $\leq$ C $\leq$ 100) Skin Corr. 1A; H314
Ethanolamine	CAS-No.: 141-43-5 EC-No.: 205-483-3 EC Index-No.: 603-030-00-8 REACH-no: 01-2119486455-28	(5 $\leq$ C $\leq$ 100) STOT SE 3; H335

Full text of H-statements: see section 16

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SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: In all cases of doubt, or when symptoms persist, seek medical attention.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. Take to hospital.
First-aid measures after skin contact	: Take off contaminated clothing. Rinse skin with water/shower. Transport to hospital immediately.
First-aid measures after eye contact	: First prolonged rinsing with water (contact lenses to be removed if this is easily done), then take to a doctor.
First-aid measures after ingestion	: Rinse mouth out with water. Do NOT induce vomiting. Transport to hospital immediately.

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

Symptoms/effects after inhalation	: Unconsciousness. Dizziness. Headache. Nausea. Drowsiness.
Symptoms/effects after skin contact	: Pungent. Severe burns. Redness. Pain.
Symptoms/effects after eye contact	: Pungent. Pain. Redness. Blurred vision.
Symptoms/effects after ingestion	: Caustic, lack of breath, vomiting, blisters on lips and tongue, burning pain in mouth and throat, gullet and stomach.

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

None.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Water spray, powder, foam, CO2.
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5.2. Special hazards arising from the substance or mixture

Fire hazard	: None.
Explosion hazard	: None.

5.3. Advice for firefighters

Precautionary measures fire	: No special precautions required.
Firefighting instructions	: No specific firefighting instructions required.
Protection during firefighting	: No specific measures are necessary.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	: Do not touch spilled material. Do not breathe fumes. Do not breathe spray. Do not breathe dust. Remove contaminated clothing and shoes.
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6.1.1. For non-emergency personnel

No additional information available

6.1.2. For emergency responders

No additional information available

6.2. Environmental precautions

Prevent entry to sewers and public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up	: Absorb the product onto porous material.
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6.4. Reference to other sections

Reference to other sections (8, 13).

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Handle carefully. Avoid spillage.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep container tightly closed and in well ventilated place. Keep out of frost.
Packaging materials : Suitable packing materials: Plastic.

7.3. Specific end use(s)

Cleaning product.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

Ethanalamine (141-43-5)	
EU - Indicative Occupational Exposure Limit (IOEL)	
IOEL TWA	2.5 mg/m ³ (8 Hr).
	1 ppm
IOEL STEL	7.6 mg/m ³ (8 Hr).
	3 ppm

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

No additional information available

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:

The level of protection and types of measures depend on workplace conditions. Adequate ventilation must be provided so that exposure limits are not exceeded. For more information, see section 7.

8.2.2. Personal protection equipment

Personal protective equipment:

Gloves. Safety glasses. Protective clothing.

Personal protective equipment symbol(s):



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8.2.2.1. Eye and face protection

Eye protection:

Safety glasses. Face-shield

8.2.2.2. Skin protection

Skin and body protection:

Impermeable clothing

Hand protection:

Nitrile rubber gloves. Breakthrough time: > 480 Min, (EN 374). Layer thickness : 0,35 mm. Always wash hands after handling the product

8.2.2.3. Respiratory protection

Respiratory protection:

Ensure adequate air ventilation. In case of insufficient ventilation, wear suitable respiratory equipment

Respiratory protection			
Device	Filter type	Condition	Standard
Mask	ABEK		

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Environmental exposure controls:

Comply with relevant environmental regulations limiting discharges to air, water and soil. Protect the environment by applying proper control measures to prevent or reduce releases. For more information, see sections 6 and 13.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Colourless.
Odour	: Characteristic.
Odour threshold	: Not available
Melting point	: 0 °C
Freezing point	: Not available
Boiling point	: 100 – 233 °C
Flammability	: Not applicable.
Explosive properties	: Not applicable.
Oxidising properties	: Not applicable.
Lower explosive limit (LEL)	: 0.85 Vol-%
Upper explosive limit (UEL)	: 24.6 Vol-%
Flash point	: /.
Auto-ignition temperature	: 200 °C /.
Decomposition temperature	: No data available.
pH	: 14.3 @ 20 °C
pH solution	: /.
Viscosity, kinematic	: 1532 mm²/s @ 20 °C
Viscosity, dynamic	: 1780 mPa·s @ 20 °C
Solubility	: Water: Completely soluble.
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: 2332 Pa @ 20 °C
Vapour pressure at 50°C	: Not available
Density	: 1.162 kg/l @ 20 °C
Relative density	: Not available
Relative vapour density at 20°C	: Not applicable.
Relative gas density	: Not applicable.
Particle characteristics	: Not applicable

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9.2. Other information

9.2.1. Information with regard to physical hazard classes

Critical temperature : Not applicable.

9.2.2. Other safety characteristics

Relative evaporation rate (butylacetate=1) : 0.3
VOC content : 2.13 %

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable at ambient temperature and under normal conditions of use.

10.2. Chemical stability

Extremely high or low temperatures.

10.3. Possibility of hazardous reactions

None.

10.4. Conditions to avoid

Protect from sunlight. Do not expose to temperatures exceeding 50 °C.

10.5. Incompatible materials

Keep away from (strong) acids.

10.6. Hazardous decomposition products

No hazardous decomposition products known.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral) : Harmful if swallowed.
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

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ATE CLP (oral)	1778.107 mg/kg bodyweight
ATE CLP (dermal)	> 2000 mg/kg

Potassium hydroxide (1310-58-3)

LD50 oral rat	356 mg/kg
LD50 dermal rabbit	≥ 5000 mg/kg
LC50 Inhalation - Rat	≥ 50 mg/l/4h

Ethanolamine (141-43-5)

LD50 oral rat	1089 mg/kg
LD50 dermal rabbit	1100 mg/kg
LC50 Inhalation - Rat	11 mg/l/4h

2-(2-butoxyethoxy)ethanol (112-34-5)

LD50 oral rat	3305 mg/kg
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2-(2-butoxyethoxy)ethanol (112-34-5)

LD50 dermal rabbit	≥ 2764 mg/kg
LC50 Inhalation - Rat	≥ 50 mg/l/4h
Skin corrosion/irritation	: Causes severe skin burns. pH: 14.3 @ 20 °C

Potassium hydroxide (1310-58-3)

pH	> 14 @ 20 °C.
Serious eye damage/irritation	: Assumed to cause serious eye damage pH: 14.3 @ 20 °C

Potassium hydroxide (1310-58-3)

pH	> 14 @ 20 °C.
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified

Ethanolamine (141-43-5)

STOT-single exposure	May cause respiratory irritation.
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified

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Viscosity, kinematic	1532 mm²/s @ 20 °C
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Potassium hydroxide (1310-58-3)

Viscosity, kinematic	1 mm²/s @ 20 °C.
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11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

No additional information available

11.2.2. Other information

No additional information available

SECTION 12: Ecological information

12.1. Toxicity

Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Not classified

Ethanolamine (141-43-5)

LC50 - Fish [1]	349 mg/l (Cyprinus carpio, 4d)
EC50 - Crustacea [1]	65 mg/l (Daphnia)
EC50 72h - Algae [1]	2.1 – 2.8 mg/l
NOEC chronic fish	1.24 mg/l (Oryzias latipes, 41d)
NOEC chronic crustacea	0.85 mg/l (21d)
NOEC chronic algae	1 mg/l (72h)

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2-(2-butoxyethoxy)ethanol (112-34-5)

LC50 - Fish [1]	1300 mg/l (96 hr, (Lepomis microlophus)
EC50 - Crustacea [1]	> 100 mg/l (Daphnia)
ErC50 algae	> 100 mg/l

12.2. Persistence and degradability

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Persistence and degradability	This surfactant complies with the biodegradability criteria as laid down in Regulation (EC) No.648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them, at their direct request or at the request of a detergent manufacturer.
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Potassium hydroxide (1310-58-3)

Persistence and degradability	Not rapidly degradable
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Ethanolamine (141-43-5)

Persistence and degradability	Rapidly degradable
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2-(2-butoxyethoxy)ethanol (112-34-5)

Persistence and degradability	Rapidly degradable
Biodegradation	100 % 28 days (OECD 302 B)

12.3. Bioaccumulative potential

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Bioaccumulative potential	No data available.
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Potassium hydroxide (1310-58-3)

Bioaccumulative potential	No data available.
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Ethanolamine

Partition coefficient n-octanol/water (Log Pow)	-2.3 – -1.31
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12.4. Mobility in soil

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Ecology - soil	WGK 1. Completely soluble in water.
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Potassium hydroxide (1310-58-3)

Ecology - soil	WGK 2. Completely soluble in water.
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12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

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Other information	No data available
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Potassium hydroxide (1310-58-3)

Other information

No data available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional waste regulation : Comply with local regulations for disposal.
Waste treatment methods : In case the undiluted product is discharged accidentally, neutralize to pH 7.
Product/Packaging disposal recommendations : Disposal must be done according to official regulations.

SECTION 14: Transport information

In accordance with ADR

14.1. UN number or ID number

UN-No. (ADR) : UN 1719

14.2. UN proper shipping name

Proper Shipping Name (ADR) : Caustic alkali liquid, n.o.s.
Transport document description (ADR) (ADR) : UN 1719 Caustic alkali liquid, n.o.s. (Mixture with potassium hydroxide), 8, II, (E)

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR) : 8
Danger labels (ADR) : 8
:



14.4. Packing group

Packing group (ADR) : II

14.5. Environmental hazards

Other information : No supplementary information available

14.6. Special precautions for user

Overland transport

Hazard identification number (Kemler No.) : 80
Orange plates :



Tunnel restriction code (ADR) : E

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

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SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

REACH Annex XVII (Restriction List)

Contains no substance(s) listed on REACH Annex XVII (Restriction Conditions)

REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

Ozone Regulation (2024/590)

Not listed on the Ozone Depletion list (Regulation EU 2024/590)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 2024/590 on substances that deplete the ozone layer)

Council Regulation (EC) for the control of dual-use items

Contains no substance subject to the COUNCIL REGULATION (EC) for the control of dual-use items

VOC Directive (2004/42)

VOC content : 2.13 %

Detergent Regulation (EC 648/2004)

Contains no ingredient(s) required to be listed according to the Detergent Regulation (648/2004).

Explosives Precursors Regulation (EU 2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

Drug Precursors Regulation (EC 273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

15.1.2. National regulations

Germany

Water hazard class (WGK) : WGK 1, Slightly hazardous to water (Classification according to AwSV, Annex 1).

List of sensitizing substances (TRGS 907) : Contains sensitizing substances according TRGS 907.

VOC content : 2.13 %

15.2. Chemical safety assessment

No data available

SECTION 16: Other information

Indication of changes

Section	Changed item	Comments
11		
16		

Full text of H- and EUH-statements:

Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4
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Full text of H- and EUH-statements:

Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Chronic 3	Hazardous to the aquatic environment – Chronic Hazard, Category 3
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Met. Corr. 1	Corrosive to metals, Category 1
Skin Corr. 1A	Skin corrosion/irritation, Category 1, Sub-Category 1A
Skin Corr. 1B	Skin corrosion/irritation, Category 1, Sub-Category 1B
Skin Irrit. 2	Skin corrosion/irritation, Category 2
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation
H290	May be corrosive to metals.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H412	Harmful to aquatic life with long lasting effects.

Safety Data Sheet (SDS), EU

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.