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

#### 1.1. Product identifier

#### Trade name

Lavo E-Plus

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

#### Relevant identified uses

Heavy-duty detergent for professional users.

# 1.3. Details of the supplier of the safety data sheet

#### Supplier

KLEEN PURGATIS GmbH

Address

Dieselstraße 10

32120 Hiddenhausen

Germany

Telephone

+49 (0) 5223 9970-40

**Email** 

info@kleen-purgatis.de

Fax

+49 (0) 5223 9970-195

Web site

www.kleenpurgatis.de

# Contact person

Regulatory Affairs

#### <u>Email</u>

info@kleen-purgatis.de

# 1.4. Emergency telephone number

+49 (0)551 - 19240 (GIZ-Nord)

#### Available outside office hours

Yes

### **SECTION 2: Hazards identification**

### 2.1. Classification of the substance or mixture

The product is not classified as hazardous according to Regulation (EC) No 1272/2008.

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#### 2.2. Label elements

# Precautionary statements

P102 Keep out of reach of children.

P264 Wash hands thoroughly after handling.

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

P312 Call a POISON CENTER/doctor if you feel unwell.

#### 2.3. Other hazards

This mixture does not contain any substances that are classified as PBT or vPvB according to Article 57 / Annex XIII of the REACH regulation.

# **SECTION 3: Composition/information on ingredients**

#### 3.2. Mixtures

Chemical name	CAS No. EC No. REACH No. Index No.	Concentration	Classification	H-phrase M factor acute M factor chronic	Note
sodium carbonate	497-19-8 207-838-8 01-2119485498- 19-xxxx 011-005-00-2	20 - 30%	Eye Irrit. 2	H319 -	-
sodium percarbonate	15630-89-4 239-707-6 01-2119457268- 30-xxxx	5 - 15%	Ox. Sol. 3, Acute Tox. 4 - oral, Eye Dam. 1	H272, H302, H318 -	Eye Dam.1 >25% Eye Irrit.2 ≥7,5%- <25%
Benzenesulfonic acid, C10- 13-alkyl derivs., sodium salts	68411-30-3 270-115-0 01-2119489428- 22-xxxx	1 - 5%	Acute Tox. 4 - oral, Skin Irrit. 2, Eye Dam. 1, Aquatic Chronic 3	H302, H315, H318, H412 -	-
Alcohols, C13-15, branched and linear, ethoxylated	157627-86-6 - -	1 - 3%	Acute Tox. 4 - oral, Eye Dam. 1, Aquatic Chronic 3	H302, H318, H412 -	Eye Dam.1: C>10%
Alcohols, C13-15, branched and linear, ethoxylated	157627-86-6 - -	1 - <2.5%	Eye Irrit. 2, Aquatic Acute 1, Aquatic Chronic 3	H319, H400, H412 -	-
subtilisin	9014-01-1 232-752-2 01-2119480434- 38-xxxx 647-012-00-8	0.01 - <0.1%	Skin Irrit. 2, Eye Dam. 1, Resp. Sens. 1, STOT SE 3 - resp. tract irrit.	H315, H318, H334, H335 -	-

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#### Substance additional information

For the complete text of H- / EUH-statements mentioned in this section, see section 16.

#### **SECTION 4: First aid measures**

# 4.1. Description of first aid measures

#### **Description of first aid measures**

First responders: Pay attention to self-protection.

# **Inhalation**

Take the victim into fresh air. May cause respiratory irritation. Call a physician if irritation persists.

#### Skin contact

Wash off with soap and water. In the case of skin irritation or allergic reactions see a physician.

#### Eye contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Call a physician immediately.

#### **Ingestion**

Clean mouth with water and drink afterwards plenty of water. Do not induce vomiting. Consult a physician.

#### **Information for doctors**

Show this safety data sheet to the doctor in attendance.

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

Immediate effects can be expected after long-term exposure.

#### **Inhalation**

May cause throat irritation.

#### Skin contact

Skin irritation, redness.

#### Eye contact

Eye irritation, cloudy / blurred field of vision, excessive lachrymation.

#### <u>Ingestion</u>

Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.

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

Treat symptomatically. For specialist advice physicians should contact the Poisons Information Service.

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# **SECTION 5: Firefighting measures**

#### 5.1. Extinguishing media

# Suitable extinguishing media

Water spray, dry powder, foam, carbon dioxide (CO<sub>2</sub>). Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

### Unsuitable extinguishing media

Do not use a solid water stream as it may scatter and spread fire.

# 5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products formed under fire conditions.

#### 5.3. Advice for firefighters

# Special protective equipment for fire-fighters

In the event of fire, wear self contained breathing apparatus.

#### Measures in case of fire

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

#### **SECTION 6: Accidental release measures**

# 6.1. Personal precautions, protective equipment and emergency procedures

Wear personal protective equipment. Avoid direct contact with the material / product. Avoid dust formation. Remove all sources of ignition.

#### 6.2. Environmental precautions

Do not flush into surface water or sanitary sewer system.

## 6.3. Methods and material for containment and cleaning up

Use mechanical handling equipment. Rinse with water.

#### 6.4. Reference to other sections

For information on storage and handling see section 7.

For information on exposure and personal protective equipment, see Section 8.

For information on incompatible materials, see Section 10.

For information on disposal see section 13.

# **SECTION 7: Handling and storage**

#### 7.1. Precautions for safe handling

#### **Preventive handling precautions**

Avoid direct contact with the material / product.

### General hygiene

When using, do not eat, drink or smoke.

Wash hands before breaks and immediately after handling the product.

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# 7.2. Conditions for safe storage, including any incompatibilities

Store in a place accessible by authorized persons only.

Keep in a dry, cool place.

Storage class according to TRGS 510: 11 (Combustible Solids)

Store in original container.

Storage temperature: 10°C to 25°C

# 7.3. Specific end use(s)

PC35 - Washing and cleaning products (including solvent based products)

See section 1.2: Heavy-duty detergent

All other uses are discouraged.

# **SECTION 8: Exposure controls/personal protection**

# 8.1. Control parameters

# **DNEL/DMEL**

Product/Substance name (CAS No./EC No.)	Туре	Exposure	Value	Population	Effects
sodium carbonate (497-19-8/207-838-8)	DNEL	Chronic (long term) Inhalation	10 mg/m³	Workers	Local
sodium percarbonate (15630-89-4/239-707-6)	DNEL	Chronic (long term) Inhalation	5 mg/m³	Workers	Local
sodium percarbonate (15630-89-4/239-707-6)	DNEL	Chronic (long term) Dermal	12.8 mg/cm <sup>2</sup>	Workers	Local
Benzenesulfonic acid, C10-13-alkyl derivs., sodium salts (68411-30-3/270-115-0)	DNEL	Chronic (long term) Oral	0.85 mg/kg	Consumers	Systemic
Benzenesulfonic acid, C10-13-alkyl derivs., sodium salts (68411-30-3/270-115-0)	DNEL	Chronic (long term) Dermal	170 mg/kg	Workers	Systemic
Benzenesulfonic acid, C10-13-alkyl derivs., sodium salts (68411-30-3/270-115-0)	DNEL	Chronic (long term) Inhalation	12 mg/kg	Workers	Systemic

#### PNEC/PEC

Product/Substance name (CAS No./EC No.)	Туре	Environmental compartment	Value
sodium percarbonate	PNEC	Freshwater	0.035 mg/l

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Product/Substance name (CAS No./EC No.)	Туре	Environmental compartment	Value
(15630-89-4/239-707-6)			
sodium percarbonate (15630-89-4/239-707-6)	PNEC	Marine water	0.035 mg/l
sodium percarbonate (15630-89-4/239-707-6)	PNEC	Sewage Treatment Plant	16.24 mg/l
Benzenesulfonic acid, C10-13-alkyl derivs., sodium salts (68411-30-3/270-115-0)	PNEC	Sediment (freshwater)	8.1 mg/kg
Benzenesulfonic acid, C10-13-alkyl derivs., sodium salts (68411-30-3/270-115-0)	PNEC	Sewage Treatment Plant	3.43 mg/kg
Benzenesulfonic acid, C10-13-alkyl derivs., sodium salts (68411-30-3/270-115-0)	PNEC	Freshwater	0.268 mg/kg
subtilisin (9014-01-1/232-752-2)	PNEC	Freshwater	0.06 µg/l

#### 8.2. Exposure controls

# Appropriate engineering controls

Ensure adequate ventilation, especially in confined areas.

# Eye / face protection

Chemical-resistant safety glasses with side protection conforming to EN166.

#### **Hand protection**

Chemical-resistant protective gloves (EN 374)

#### Other skin protection

This type of personal protective equipment is not necessary under normal and foreseeable use of the product.

# Respiratory protection

This type of personal protective equipment is not necessary under normal and foreseeable use of the product.

#### Thermal hazards

Not applicable.

# Environmental exposure controls

No special environmental precautions required.

# **SECTION 9: Physical and chemical properties**

# 9.1. Information on basic physical and chemical properties

#### Physical state

Powder

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#### Colour

White with blue speckles

# **Odour**

perfumed

# Melting point / freezing point

Not applicable.

# Boiling point or initial boiling point and boiling range

Not applicable.

# **Flammability**

Not applicable.

#### Lower and upper explosion limit

The product / mixture has no explosive properties.

# Flash point

No data available

#### **Auto-ignition temperature**

Not applicable.

# **Decomposition temperature**

No data available

#### <u>pH</u>

10 - 11

#### Method

1 % aqueous solution

## Kinematic viscosity

No information available

# Viscosity, dynamic

No information available

### **Solubility**

Water soluble

# Water solubility

completely soluble

# Partition coefficient n-octanol/water

No information available

# Vapour pressure

Not applicable.

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# Density and/or relative density

650 kg/m3

#### Method

**Bulk density** 

#### Relative density

No information available

# Relative vapour density

Not applicable.

#### **Evaporation Rate**

Not applicable.

# **Explosive properties**

The product / mixture has no explosive properties.

#### Oxidising properties

The product / mixture has no oxidizing properties.

#### Particle characteristics

This product / mixture does not contain any nanomaterials or nanoforms as defined in Regulation (EC) 1907/2006.

#### 9.2. Other information

No data available

# **SECTION 10: Stability and reactivity**

#### 10.1. Reactivity

None under normal use.

#### 10.2. Chemical stability

Stable at normal conditions

### 10.3. Possibility of hazardous reactions

None under normal use.

#### 10.4. Conditions to avoid

Protect from moisture. Protect from frost, heat and sunlight.

#### 10.5. Incompatible materials

None known

# 10.6. Hazardous decomposition products

For information on combustion products, see Section 5.

Hazardous decomposition products formed under fire conditions.

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# **SECTION 11: Toxicological information**

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

Toxicology data for the components.

# Acute toxicity

Based on the available data, the classification criteria are not met.

Product / Sub- stance name CAS / EC no.	Dose descriptor	Value / Dose	Exposure route	Duration of exposure	Test animals	Method / Guideline
sodium carbonate 497-19-8 / 207-838-8	LC50	2.300 mg/m³	Inhalativ	2h	rat	-
sodium per- carbonate 15630-89-4 / 239-707-6	LD50	1.034-2.000 mg/kg	Oral	-	rat	-
sodium per- carbonate 15630-89-4 / 239-707-6	LD50	> 2000 mg/kg	Dermal	-	rabbit	-
Benzenesulfonic acid, C10-13- alkyl derivs., sodium salts 68411-30-3 / 270-115-0	LD50	~ 1020 mg/kg	Oral	-	rat	-
Alcohols, C13-15, branched and linear, ethoxylated 157627-86-6 /	LD50	>300 - 2.000 mg/kg	Oral	-	rat	literature value
sodium carbonate 497-19-8 / 207-838-8	LD50	2.800 mg/kg	Oral	-	rat	-
sodium carbonate 497-19-8 / 207-838-8	LD50	>2.000mg/kg	Dermal	-	rabbit	-

# Skin corrosion/irritation

Based on the available data, the classification criteria are not met.

# Serious eye damage/irritation

Based on the available data, the classification criteria are not met.

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#### Respiratory or skin sensitisation

Based on the available data, the classification criteria are not met.

#### Germ cell mutagenicity

Based on the available data, the classification criteria are not met.

#### Carcinogenicity

Based on the available data, the classification criteria are not met.

# Reproductive toxicity

Based on the available data, the classification criteria are not met.

#### STOT-single exposure

Based on the available data, the classification criteria are not met.

# STOT-repeated exposure

Based on the available data, the classification criteria are not met.

#### Aspiration hazard

Based on the available data, the classification criteria are not met.

#### 11.2. Information on other hazards

#### **Endocrine disrupting properties**

The mixture / product does not contain any ingredients with endocrine disrupting properties in terms of regulations (EC) 1907/2006 and (EU) 2018/605 and the delegated regulation (EU) 2017/2100.

# **SECTION 12: Ecological information**

#### 12.1. Toxicity

#### **Toxicity**

No information available

# Acute fish toxicity

Product / Substance name CAS / EC no.	Measurement type	Value / Result	Duration of exposure	Species
Alcohols, C13-15, branched and linear, ethoxylated 157627-86-6 /	LC50	>1 - 10 mg/l	96h	Brachydanio rerio
Benzenesulfonic acid, C10-13-alkyl derivs., sodium salts 68411-30-3 / 270-115-0	LC50	1,67 mg/l	96 h	Bluegill sunfish
sodium carbonate 497-19-8 / 207-838-8	LC50	300 mg/l	96h	Lepomis macrochirus

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Product / Substance name CAS / EC no.	Measurement type	Value / Result	Duration of exposure	Species
sodium percarbonate 15630-89-4 / 239-707-6	LC50	70,7 mg/l	96 h	Pimephales promelas

# Acute algae toxicity

Product / Substance name CAS / EC no.	Measurement type	Value / Result	Duration of exposure	Species
Alcohols, C13-15, branched and linear, ethoxylated 157627-86-6 /	EC50	>1 - 10 mg/l	72h	Scenedesmus sub- spicatus
Benzenesulfonic acid, C10-13-alkyl derivs., sodium salts 68411-30-3 / 270-115-0	EC50	29 mg/l	96 h	Pseudokirchneriella sub- capitata

# Acute crustacean toxicity

Product / Substance name CAS / EC no.	Measurement type	Value / Result	Duration of exposure	Species
sodium carbonate 497-19-8 / 207-838-8	EC50	200-227 mg/l	48h	Ceriodaphnia dubia
sodium percarbonate 15630-89-4 / 239-707-6	EC50	4,9 mg/l	48 h	Daphnia magna
Alcohols, C13-15, branched and linear, ethoxylated 157627-86-6 /	EC50	>1 - 10 mg/l	48h	Daphnia magna
Benzenesulfonic acid, C10-13-alkyl derivs., sodium salts 68411-30-3 / 270-115-0	EC50	2,9 mg/l	48 h	Daphnia magna

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# Micro-/macro organism toxicity

Product / Substance name CAS / EC no.	Measurement type	Value / Result	Species
Alcohols, C13-15, branched and linear, ethoxylated 157627-86-6 /	EC10	> 1.000 mg/l	Activated sludge

## 12.2. Persistence and degradability

#### Persistence and degradability

The surfactants contained in this mixture / product meet the requirements for biodegradability in accordance with Regulation (EC) No. 648/2004 on detergents.

# 12.3. Bioaccumulative potential

#### **Bioaccumulative potential**

Not available

#### 12.4. Mobility in soil

#### Mobility

No information available

# 12.5. Results of PBT and vPvB assessment

This mixture does not contain any substances that are classified as PBT or vPvB according to Article 57 / Annex XIII of the REACH regulation.

#### 12.6. Endocrine disrupting properties

The mixture / product does not contain any ingredients with endocrine disrupting properties in terms of regulations (EC) 1907/2006 and (EU) 2018/605 and the delegated regulation (EU) 2017/2100.

#### 12.7. Other adverse effects

# Other adverse effects

This product / mixture does not contain any substances within the meaning of Regulation (EC) No. 1005/2009 that deplete the ozone layer.

# **SECTION 13: Disposal considerations**

#### 13.1. Waste treatment methods

#### Disposal considerations

Dispose of as hazardous waste in compliance with local and national regulations.

#### **Packaging**

Do not re-use empty containers. Empty containers should be taken for local recycling, recovery or waste disposal.

Contaminated packaging: Dispose of as unused product.

Waste code	Waste description
20 01 29*	detergents containing hazardous substances

Please note - an asterisk (\*) next to a code denotes that it is HAZARDOUS WASTE.

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# **SECTION 14: Transport information**

#### 14.1. UN number

Not classified as dangerous in the meaning of transport regulations.

# 14.2. UN proper shipping name

# ADR / RID / ADN proper shipping name

Not classified as dangerous in the meaning of transport regulations.

#### 14.3. Transport hazard class(es)

# <u>Label</u>

Not classified as dangerous in the meaning of transport regulations.

#### 14.4. Packing group

Not classified as dangerous in the meaning of transport regulations.

#### 14.5. Environmental hazards

#### Environmental hazards

Not classified as dangerous in the meaning of transport regulations.

#### **IMDG Marine Pollutant**

No

#### 14.6. Special precautions for user

#### Special precautions for user

Handle in accordance with good industrial hygiene and safety practice.

#### 14.7. Maritime transport in bulk according to IMO instruments

Not applicable.

### Other

Not applicable

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# **SECTION 15: Regulatory information**

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

Regulation (EC) No. 648/2004 (detergents)

Ingredients according to Annex VII: 15-30 % zeolites, 5-15 % oxygen-based bleaching agents, <5 % polycarboxylates, non-ionic surfactants, anionic surfactants, soap, phosphonates, contains enzymes, PROTEASE, optical brighteners, perfumes.

Regulation (EC) No. 1907/2006 (REACH)

Substances subject to authorization according to Annex XIV: No

Substance restrictions according to Annex XVII: No Substances on the REACH candidate list (SVHC): No

Regulation (EC) No. 1272/2008 (CLP)

Regulation (EU) No. 528/2012 (BPR) Active ingredients: Not applicable.

Regulation (EU) 2019/1148 (explosives)

Restricted raw material according to Annex I: Not applicable. Notifiable raw materials according to Annex II: Not applicable.

Directive 2011/65 / EU (ROHS 2)

Substance restrictions according to Annex II: Not applicable.

Regulation (EU) 2019/1021 (POP) Persistent organic pollutants: No

Directive 2012/18/EU (Seveso III)

Seveso hazard category: Not applicable.

#### National regulations

In addition, comply with all national and local regulations for the handling of chemicals.

#### 15.2. Chemical safety assessment

The mixture has not been subjected to a safety assessment.

#### **SECTION 16: Other information**

#### Changes to previous revision

Adaptation to the amending regulation (EU) 2020/878

Section 7. Handling and storage

# Abbreviations

ADN - Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure

ADR - Accord relatif au transport international des marchandises Dangereuses par Route

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CAS - Chemical Abstract Service

CLP - Classification, Labelling and Packaging

DMEL - Derived Minimum Effect Level

DNEL - Derived no effect level

EC50 - Half maximal effective concentration 50%

GHS - Globally Harmonised System

IATA - International Air Transport Association

IMDG - International Maritime Dangerous Goods

LC50 - Lethal concentration 50%

LD50 - Lethal dosis 50 %

MARPOL - International Convention for the Prevention of Pollution from Ships

PBT - Persistent, bioaccumulative and toxic substance

PEC - Predicted Environmental Concentration

PNEC - predicted no effect concentration

REACH - Registration, Evaluation, Authorisation and Restriction of Chemicals

RID - Reglement concernant le transport international ferroviaire de marchandises Dangereuses

SVHC - Substance of very high concern

vPvB - Very persistent, very bioaccumulative substance

#### References to key literature and data sources

**REACH registration dossiers** 

ECHA C&L - Inventory

Safety data sheets from raw material suppliers

#### Evaluation methods for classification

Classification for mixtures and used evaluation method according to Article 9 of regulation (EC) 1272/2008 [CLP]:

The skin and/or eye classification of this product was derived using bridging principles (such as dilution, interpolation within one hazard category or substantially similar mixtures; with or without expert judgement) following Article 9(3) and Article 9(4) of Regulation (EC) No 1272/2008. DetNet logging number: 834

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#### Phrase meaning

Eye Irrit. 2 - Eye irritation, hazard category 2

Ox. Sol. 3 - Oxidising solids, hazard category 3

Acute Tox. 4 - oral - Acute toxicity, oral, hazard category 4

Eye Dam. 1 - Serious eye damage, hazard category 1

Aquatic Acute 1 - Hazardous to the aquatic environment — Acute hazard category 1

Aquatic Chronic 3 - Hazardous to the aquatic environment — Chronic hazard category 3

Skin Irrit. 2 - Skin irritation, hazard category 2

Resp. Sens. 1 - Respiratory sensitisation, hazard category 1

STOT SE 3 - resp. tract irrit. - Specific Target Organ Toxicity — Single exposure, hazard

category 3 - respiratory tract irritation

H272 May intensify fire; oxidiser.

H302 Harmful if swallowed.

H315 Causes skin irritation.

H318 Causes serious eye damage.

H319 Causes serious eye irritation.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H335 May cause respiratory irritation.

H400 Very toxic to aquatic life.

H412 Harmful to aquatic life with long lasting effects.

#### Additional information

This safety data sheet is prepared in accordance with Commission Regulation (EU) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878.

#### Manufacturer's notes

Legal disclaimer: The above information is believed to be correct. This company shall not be held liable for any damage resulting from handling or from contact with the above product.