

According to Regulation (EC) No 1907/2006

Lavo E-Plus

Version number: 5
Issued: 2022-03-21
Replaces SDS: 2018-03-07



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

1.1. Product identifier

Trade name

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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

Street 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

Email address

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.

Lavo E-Plus

Version number: 5
 Issued: 2022-03-21
 Replaces SDS: 2018-03-07



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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 - -	-

Lavo E-Plus

Version number: 5
Issued: 2022-03-21
Replaces SDS: 2018-03-07



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

Ingestion

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.

Lavo E-Plus

Version number: 5
Issued: 2022-03-21
Replaces SDS: 2018-03-07



SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Water spray, extinguishing powder, foam or carbon dioxide. 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. Wear personal protective equipment.

General hygiene

When using, do not eat, drink or smoke. Wash hands before breaks and immediately after handling the product.

Lavo E-Plus

Version number: 5
 Issued: 2022-03-21
 Replaces SDS: 2018-03-07



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: 13 (non-combustible solids)

Store in original container.

Storage temperature: 10°C to 40°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.)	Type	Exposure	Value	Population	Effects
Sodium carbonate (497-19-8/207-838-8)	DNEL	Chronic (long term) Inhalation	10 mg/m ³	Workers	Local
Sodium percarbonate (15630-89-4/239-707-6)	DNEL	Chronic (long term) Inhalation	5 mg/m ³	Workers	Local
Sodium percarbonate (15630-89-4/239-707-6)	DNEL	Chronic (long term) Dermal	12.8 mg/cm ²	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.)	Type	Environmental compartment	Value
Sodium percarbonate	PNEC	Freshwater	0.035 mg/l

Lavo E-Plus

Version number: 5
 Issued: 2022-03-21
 Replaces SDS: 2018-03-07

Product/Substance name (CAS No./EC No.)	Type	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 (EN 166)

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

According to Regulation (EC) No 1907/2006

Lavo E-Plus

Version number: 5
Issued: 2022-03-21
Replaces SDS: 2018-03-07



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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

pH

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.

Lavo E-Plus

Version number: 5
Issued: 2022-03-21
Replaces SDS: 2018-03-07



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.

Lavo E-Plus

Version number: 5
 Issued: 2022-03-21
 Replaces SDS: 2018-03-07

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 / Substance 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/m ³	Inhalativ	2h	rat	-
Sodium percarbonate 15630-89-4 / 239-707-6	LD50	1.034-2.000 mg/kg	Oral	-	rat	-
Sodium percarbonate 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.

According to Regulation (EC) No 1907/2006

Lavo E-Plus

Version number: 5
 Issued: 2022-03-21
 Replaces SDS: 2018-03-07



Serious eye damage/irritation

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

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.

Genotoxicity

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

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	Method / Guideline
Alcohols, C13-15,	LC50	>1 - 10 mg/l	96h	Brachydanio rerio	literature value

Lavo E-Plus

Version number: 5
 Issued: 2022-03-21
 Replaces SDS: 2018-03-07



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Product / Substance name CAS / EC no.	Measurement type	Value / Result	Duration of exposure	Species	Method / Guideline
branched and linear, ethoxylated 157627-86-6 /				(zebra fish)	
Sodium carbonate 497-19-8 / 207-838-8	LC50	300 mg/l	96h	Lepomis macrochirus	-
Sodium percarbonate 15630-89-4 / 239-707-6	LC50	70,7 mg/l	96 h	Pimephales promelas	-
Benzenesulfonic acid, C10-13-alkyl derivs., sodium salts 68411-30-3 / 270-115-0	LC50	1,67 mg/l	96 h	Bluegill sunfish	-

Acute algae toxicity

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

Acute crustacean toxicity

Product / Substance name CAS / EC no.	Measurement type	Value / Result	Duration of exposure	Species	Method / Guideline
Alcohols, C13-15, branched and linear, ethoxylated 157627-86-6 /	EC50	>1 - 10 mg/l	48h	Daphnia magna (Water flea)	literature value
Sodium carbonate 497-19-8 / 207-838-8	EC50	200-227 mg/l	48h	Ceriodaphnia dubia	-

Lavo E-Plus

Version number: 5
 Issued: 2022-03-21
 Replaces SDS: 2018-03-07



KLEEN
PURGATIS

Product / Substance name CAS / EC no.	Measurement type	Value / Result	Duration of exposure	Species	Method / Guideline
Sodium percarbonate 15630-89-4 / 239-707-6	EC50	4,9 mg/l	48 h	Daphnia magna (Water flea)	-
Benzenesulfonic acid, C10-13-alkyl derivs., sodium salts 68411-30-3 / 270-115-0	EC50	2,9 mg/l	48 h	Daphnia magna	-

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.

Lavo E-Plus

Version number: 5
 Issued: 2022-03-21
 Replaces SDS: 2018-03-07



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	Description
20 01 30	detergents other than those mentioned in 20 01 29

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

SECTION 14: Transport information

14.1. UN number

Not classified as dangerous in the meaning of transport regulations.

14.2. UN proper shipping name

Not classified as dangerous in the meaning of transport regulations.

14.3. Transport hazard class(es)

Label

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

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

According to Regulation (EC) No 1907/2006

Lavo E-Plus

Version number: 5
Issued: 2022-03-21
Replaces SDS: 2018-03-07



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

Lavo E-Plus

Version number: 5
Issued: 2022-03-21
Replaces SDS: 2018-03-07



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
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

Lavo E-Plus

Version number: 5
Issued: 2022-03-21
Replaces SDS: 2018-03-07



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.

Other

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.