

* Orbin Evolve Forte

Date revised: 16.10.2023

7040003511

Version: 2 / GB

Master No. MA-212

Print date: 07.05.2024

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

1.1. Product identifier

Trade name

Orbin Evolve Forte

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

Use of the substance/mixture

Cleaners

1.3. Details of the supplier of the safety data sheet

Address/Manufacturer

BÜFA Cleaning GmbH & Co. KG

August-Hanken-Str. 30

26125 Oldenburg

Telephone no. +49 441 9317 0

Fax no. +49 441 9317 100

Information provided Department product safety / +49 441 9317 108

by / telephone

E-Mail sds-cleaning@buefa.de

1.4. Emergency telephone number

Poison Information Center Goettingen: +49 551 19240

SECTION 2: Hazards identification ***

2.1. Classification of the substance or mixture

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

Skin Corr. 1A H314

Eye Dam. 1 H318

The product is classified and labelled in accordance with Regulation (EC) No 1272/2008

For explanation of abbreviations see section 16.

2.2. Label elements

Labelling according to regulation (EC) No 1272/2008**Hazard pictograms****Signal word**

Danger

Hazard statements

H314 Causes severe skin burns and eye damage.

Precautionary statements

P280.2 Wear protective gloves/ eye/ face protection.

P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

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

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P310

Immediately call a POISON CENTER or doctor.

Hazardous component(s) to be indicated on label (Regulation (EC) No. 1272/2008)

contains

Sodium hydroxide; Potassium hydroxide; D-Glucopyranose, oligomers, decyl octyl glycosides; D-Glucopyranose, oligomeric, C10-16 alkyl glycosides

2.3. Other hazards

The product contains no PBT substances. The product contains no vPvB substances. This product does not contain a substance that has endocrine disrupting properties with respect to human. The product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms.

SECTION 3: Composition/information on ingredients *****3.2. Mixtures****Hazardous ingredients *******potassium hydroxide ...%**

CAS No.	1310-58-3				
EINECS no.	215-181-3				
Registration no.	01-2119487136-33-XXXX				
Concentration	>= 10	<	16	%	
Acute Tox. 4	H302				
Skin Corr. 1A	H314				

Concentration limits (Regulation (EC) No. 1272/2008)

Eye Irrit. 2	H319	>= 0,5 < 2 %
Skin Corr. 1A	H314	>= 5 %
Skin Corr. 1B	H314	>= 2 < 5 %
Skin Irrit. 2	H315	>= 0,5 < 2 %

ATE oral 333 mg/kg

sodium hydroxide

CAS No.	1310-73-2				
EINECS no.	215-185-5				
Registration no.	01-2119457892-27-XXXX				
Concentration	>= 10	<	25	%	
Skin Corr. 1A	H314				
Met. Corr. 1	H290				

Concentration limits (Regulation (EC) No. 1272/2008)

Eye Irrit. 2	H319	>= 0,5 < 2 %
Skin Corr. 1A	H314	>= 5 %
Skin Corr. 1B	H314	>= 2 < 5 %
Skin Irrit. 2	H315	>= 0,5 < 2 %

D-Glucopyranose, oligomers, decyl octyl glycosides

CAS No.	68515-73-1				
EINECS no.	500-220-1				
Registration no.	01-2119488530-36-XXXX				
Concentration	>= 3	<	10	%	
Eye Dam. 1	H318				

D-Glucopyranose, oligomeric, C10-16 alkyl glycosides

CAS No.	110615-47-9				
EINECS no.	600-975-8				
Registration no.	01-2119489418-23-XXXX				
Concentration	>= 3	<	10	%	
Eye Dam. 1	H318				
Skin Irrit. 2	H315				

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Concentration limits (Regulation (EC) No. 1272/2008)

Eye Dam. 1	H318	>= 12 < 100 %
Skin Irrit. 2	H315	>= 30 %

Citric acid, anhydrous

CAS No.	77-92-9
EINECS no.	201-069-1
Registration no.	01-2119457026-42-XXXX
Concentration	>= 1 < 10 %
Eye Irrit. 2	H319
STOT SE 3	H335

For explanation of abbreviations see section 16.

SECTION 4: First aid measures**4.1. Description of first aid measures****After inhalation**

Ensure supply of fresh air. Summon a doctor immediately.

After skin contact

Wash off immediately with soap and water.

After eye contact

In case of contact with the eyes rinse thoroughly with plenty of water or with an eye-cleaning solution. Seek medical advice immediately.

After ingestion

Do not induce vomiting. Call in a physician immediately and show him the Safety Data Sheet.

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

There is no further relevant information available

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

There is no further relevant information available

SECTION 5: Firefighting measures**5.1. Extinguishing media****Suitable extinguishing media**

Carbon dioxide, Dry powder, Water spray jet, Extinguishing measures to suit surroundings

Non suitable extinguishing media

Full water jet

5.2. Special hazards arising from the substance or mixture

In case of combustion evolution of dangerous gases possible. If a fire breaks out nearby, pressure build-up and danger of bursting are possible.

5.3. Advice for firefightersUse self-contained breathing apparatus.
Cool endangered containers with water spray jet.**SECTION 6: Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures**

Keep people away and stay on the upwind side. Use breathing apparatus if exposed to vapours/dust/aerosol. Use personal protective clothing.

6.2. Environmental precautions

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Do not allow to enter drains or waterways.

6.3. Methods and material for containment and cleaning up

Take up with absorbent material (eg sand, kieselguhr, universal binder). When picked up, treat material as prescribed under Section 13 "Disposal".

6.4. Reference to other sections

Refer to protective measures listed in Sections 7 and 8.

SECTION 7: Handling and storage**7.1. Precautions for safe handling**

Provide good ventilation of working area (local exhaust ventilation if necessary).
Containers in danger should be cooled with water.

7.2. Conditions for safe storage, including any incompatibilities

Keep only in original packaging. Provide alkali-resistant floor. Store product in closed containers.
Do not store together with: Acids, Aluminium
Keep container tightly closed.

7.3. Specific end use(s)

No information available

SECTION 8: Exposure controls/personal protection**8.1. Control parameters****Exposure limit values****potassium hydroxide ...%**

List	EH40	
Type	WEL	
Short term exposure limit	2	mg/m ³

sodium hydroxide

List	EH40	
Type	WEL	
Short term exposure limit	2	mg/m ³

8.2. Exposure controls**General protective and hygiene measures**

Observe the usual precautions for handling chemicals. Personal protective equipment must comply with the Regulation (EC) No 2016/425 and the resulting CEN standards. The following information on personal protective equipment (PPE) is to be understood as a suggestion. The selection of the necessary PPE must be considered by the employer depending on the activities to be carried out and the local conditions. If it is determined during the on-site risk assessment that there is no danger to the employee, there is no need to wear PPE or the scope of the PPE to be used can be adjusted accordingly.

Respiratory protection

Breathing apparatus in the event of aerosol or mist formation. Short term: filter apparatus, Filter B

Hand protection

Chemical resistant gloves

Appropriate Material	nitrile	
Material thickness	>=	0,7 mm
Breakthrough time	>	480 min

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. Check leaktightness/impermeability prior to use. In the case of wanting to use the gloves again, clean them before taking off and air them well. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Eye protection

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Tightly fitting safety glasses

Body protection

Alkali-resistant protective clothing

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Physical state	liquid		
Colour	colourless to yellowish		
Odour	Product specific		
Melting point			
Remarks	not determined		
Boiling point			
Remarks	not determined		
Flammability			
evaluation	not determined		
Explosion limits			
Remarks	not determined		
Flash point			
Value	> 100		°C
Ignition temperature			
Remarks	not determined		
Thermal decomposition			
Remarks	Not relevant		
pH value			
Value	appr. 12,5		
Concentration/H ₂ O	1	%	
Viscosity			
Value	appr. 13		s
Temperature	20	°C	
Method	DIN 53211 4 mm		
Solubility in other solvents			
	not determined		
Octanol/water partition coefficient (log Pow)			
Remarks	Not relevant		
Vapour pressure			
Remarks	not determined		
Density			
Value	appr. 1,25		kg/l
Temperature	20	°C	
Vapour density			
Remarks	not determined		
Particle characteristics			
Remarks	irrelevant (liquid)		
9.2. Other information			
Odour threshold			
Remarks	No data available		
Solubility in water			
Remarks	miscible		

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SECTION 10: Stability and reactivity

10.1. Reactivity

Corrodes aluminium.

10.2. Chemical stability

The product is stable.

10.3. Possibility of hazardous reactions

Strong exothermic reaction with acids.

10.4. Conditions to avoid

Protect from heat and direct sunlight.

Thermal decomposition

Remarks Not relevant

10.5. Incompatible materials

Strong exothermic reaction with acids. Reactions with metals, with evolution of hydrogen.

10.6. Hazardous decomposition products

No hazardous decomposition products known.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute oral toxicity

ATE	3.330	mg/kg
Method	calculated value (Regulation (EC) No. 1272/2008)	
Based on available data, the classification criteria are not met.		

Acute oral toxicity (Components)

potassium hydroxide ...%

Reference substance	potassium hydroxide ...%	
ATE	333	mg/kg

Citric acid, anhydrous

Acute dermal toxicity

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

Acute dermal toxicity (Components)

Citric acid, anhydrous

Acute inhalational toxicity

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

Skin corrosion/irritation

evaluation	corrosive
The classification criteria are met.	

Skin corrosion/irritation (Components)

Reference substance	Citric acid, anhydrous
Species	rabbit
evaluation	non-irritant

Serious eye damage/irritation

evaluation	corrosive
The classification criteria are met.	

Serious eye damage/irritation (Components)

Reference substance	Citric acid, anhydrous
Species	rabbit

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evaluation

irritant

Sensitization

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

Sensitization (Components)

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

Mutagenicity

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

Reproductive toxicity

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

Carcinogenicity

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

Specific Target Organ Toxicity (STOT)**Single exposure**

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

Repeated exposure

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

Aspiration hazard

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

11.2 Information on other hazards**Endocrine disrupting properties with respect to humans**

The product does not contain a substance that has endocrine disrupting properties with respect to humans.

SECTION 12: Ecological information**12.1. Toxicity****Fish toxicity****Citric acid, anhydrous**

Reference substance	Citric acid, anhydrous			
Species	golden orfe (<i>Leuciscus idus</i>)			
LC50	440	to	760	mg/l
Duration of exposure	96	h		

sodium hydroxide

Reference substance	sodium hydroxide			
LC50	35	to	189	mg/l
Duration of exposure	96	h		

D-Glucopyranose, oligomers, decyl octyl glycosides

Reference substance	D-Glucopyranose, oligomers, decyl octyl glycosides			
Species	zebra fish (<i>Brachydanio rerio</i>)			
LC50	1,8			mg/l
Duration of exposure	28	d		

Daphnia toxicity**sodium hydroxide**

Reference substance	sodium hydroxide			
Species	Ceriodaphnia spec			
EC50	40,4			mg/l
Duration of exposure	48	h		

Citric acid, anhydrous

Reference substance	Citric acid, anhydrous			
Species	Daphnia magna			
EC50	appr. 120			mg/l
Duration of exposure	72	h		

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D-Glucopyranose, oligomers, decyl octyl glycosides

Reference substance	D-Glucopyranose, oligomers, decyl octyl glycosides		
Species	Daphnia magna		
EC50	> 100		mg/l
Duration of exposure	48	h	
Method	OECD 202		

Algae toxicity**Citric acid, anhydrous**

Reference substance	Citric acid, anhydrous		
Species	Scenedesmus quadricauda		
IC50	640		mg/l
Duration of exposure	7	d	

Bacteria toxicity**Citric acid, anhydrous**

Reference substance	Citric acid, anhydrous		
Species	Pseudomonas putida		
EC50	> 10000		mg/l
Duration of exposure	16	h	

D-Glucopyranose, oligomers, decyl octyl glycosides

Reference substance	D-Glucopyranose, oligomers, decyl octyl glycosides		
Species	Pseudomonas putida		
EC50	> 560		mg/l
Duration of exposure	6	h	

12.2. Persistence and degradability

The surfactant(s) contained in this preparation complies(comply) with the biodegradability criteria as laid down in Regulation (EC) No.648/2004 on detergents.Do not discharge product unmonitored into the environment.

Biodegradability**Citric acid, anhydrous**

Reference substance	Citric acid, anhydrous		
Value	97		%
Duration of test evaluation	28	d	
Method	readily degradable OECD 301 B		
Value	100		%
Duration of test evaluation	19	d	
Method	readily degradable OECD 301 E		

D-Glucopyranose, oligomers, decyl octyl glycosides

Reference substance	D-Glucopyranose, oligomers, decyl octyl glycosides		
Value	> 99,4		%
Duration of test evaluation	28	d	
Method	Readily biodegradable (according to OECD criteria)		

Chemical oxygen demand (COD)**Citric acid, anhydrous**

Reference substance	Citric acid, anhydrous		
Value	728		mg/g

Biochemical oxygen demand (BOD5)**Citric acid, anhydrous**

Reference substance	Citric acid, anhydrous		
Value	526		mg/g

12.3. Bioaccumulative potential

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For this subsection there is no ecotoxicological data available on the product as such.

Octanol/water partition coefficient (log Pow)

Remarks

Not relevant

12.4. Mobility in soil

For this subsection there is no ecotoxicological data available on the product as such.

12.5. Results of PBT and vPvB assessment**Results of PBT and vPvB assessment**

The product contains no PBT substances. The product contains no vPvB substances.

12.6 Endocrine disrupting properties**Endocrine disrupting properties with respect to the environment**

The product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms.

12.7. Other adverse effects

For this subsection there is no ecotoxicological data available on the product as such.

Behaviour in sewers [waste treatment plants]

The product is an alkaline solution. Neutralization is normally necessary before a waste water is discharged into sewage treatment plants.

SECTION 13: Disposal considerations**13.1. Waste treatment methods****Disposal recommendations for the product**

Allocation of a waste code number, according to the European Waste Catalogue (EWC), should be carried out in agreement with the regional waste disposal company.

Disposal recommendations for packaging

Completely emptied packagings can be given for recycling.

SECTION 14: Transport information

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	Land transport ADR/RID	Marine transport IMDG/GGVSee
14.1. UN number	1824	1824
14.2. UN proper shipping name	SODIUM HYDROXIDE SOLUTION	SODIUM HYDROXIDE SOLUTION
14.3. Transport hazard class(es)	8	8
14.4. Packing group	II	II
Label		
14.5. Environmental hazards	-	
Limited Quantity	1 I	1 I
Transport category	2	
Tunnel restriction code	E	
Hazard id. no.	80	
EmS		F-A, S-B

Information for all modes of transport**14.6. Special precautions for user**

Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Other information**14.7 Maritime transport in bulk according to IMO instruments**

Not relevant

SECTION 15: Regulatory information *****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****Ingredients (Regulation (EC) No 648/2004)****15 % or over but less than 30 %:**

non-ionic surfactants

less than 5 %:

polycarboxylates

Further ingredients ***

reaction mass of: 5-chloro-2- methyl-4-isothiazolin-3-one [EC no. 247-500-7]and 2-methyl-2H-isothiazol-3- one [EC no. 220-239-6] (3:1)

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VOC (EU) 0 %

Other information ***

The product does not contain substances according to: Candidate List for inclusion in Annex XIV of Regulation (EC) No. 1907/2006 (REACH).

15.2. Chemical safety assessment

For this preparation a chemical safety assessment has not been carried out.

SECTION 16: Other information**Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:**

Skin Corr. 1A	H314	Calculation method
Eye Dam. 1	H318	Calculation method

Hazard statements listed in Chapter 2/3

H290	May be corrosive to metals.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.

CLP categories listed in Chapter 2/3

Acute Tox. 4	Acute toxicity, Category 4
Eye Dam. 1	Serious eye damage, Category 1
Eye Irrit. 2	Eye irritation, Category 2
Met. Corr. 1	Substance or mixture corrosive to metals, Category 1
Skin Corr. 1A	Skin corrosion, Category 1A
Skin Irrit. 2	Skin irritation, Category 2
STOT SE 3	Specific target organ toxicity - single exposure, Category 3

Abbreviations

ADR: Accord européen relatif au transport international des marchandises Dangereuses par Route
 RID: Règlement concernant le transport international ferroviaire de marchandises dangereuses
 GGVSee: Gefahrgutverordnung See
 IMDG: International Maritime Code for Dangerous Goods
 CAS: Chemical Abstracts Service
 EAK: Europäischer Abfallkatalog
 EINECS: European Inventory of Existing Commercial Chemical Substances
 VOC: Volatile Organic Compound
 GefStoffV: Gefahrstoffverordnung
 TA Luft: Technische Anleitung zur Reinhaltung der Luft
 INCI: International Nomenclature of Cosmetic Ingredients
 n.a.g.: nicht anders genannt
 MAK: Maximale Arbeitsplatz-Konzentration
 AGW: Arbeitsplatzgrenzwert
 BGW: Biologischer Grenzwert
 TRGS: Technische Regeln für Gefahrstoffe
 OEL: Occupational exposure limit
 SUVA: Schweizerische Unfallversicherungsanstalt
 WEL: Workplace exposure limit
 MAC: Maximale aanvaarde concentratie (Netherlands)
 MEL: Maximum exposure limits
 NOEL: No observable effect level
 NOEC: No observable effect concentration
 LD: Lethal dose
 LC: Lethal concentration
 LLC: Lowest lethal concentration

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PBT: Persistent, Bioaccumulative and Toxic

vPvB: Very persistent and very bioaccumulative

SVHC: Substances of very high concern

DNEL: Derived no effect level

DMEL: Derived minimal effect level

PNEC: Predicted no effect concentration

PEC: Predicted environmental concentration

GHS: Globally Harmonized System of classification and Labelling of Chemicals

REACH: Registration, Evaluation, Autohorisation and Restriction of Chemicals

UN: United Nations

EG: Europäische Gemeinschaft

EWG: Europäische Wirtschaftsgemeinschaft

EU: European Union

HSNO: Hazardous Substances and New Organisms Act (New Zealand)

ATE: Acute Toxicity Estimate

STOT: Specific Target Organ Toxicity

Supplemental information

Relevant changes compared with the previous version of the safety data sheet are marked with: ***

This information is based on our present state of knowledge. However, it should not constitute a guarantee for any specific product properties and shall not establish a legally valid relationship.