



SAFETY DATA SHEET

DATE OF COMPILATION: 01.10.2016

REVISION: 24.05.2022

VERSION NUMBER: 3.0

Safety data sheet in accordance with COMMISSION REGULATION (EU) 2020/878 of 18 June 2020 amending Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. PRODUCT IDENTIFIER

Trade name: **2-PHASE TOILET BLOCK "DUO FORCE" LEMON**

Contains: Benzenesulfonic acid, C10-13-alkyl derivs., sodium salts; Sulfonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts

UFI: 4X95-70RG-D009-J53Y

1.2. RELEVANT IDENTIFIED USES OF THE SUBSTANCE OR MIXTURE AND USES ADVISED AGAINST

Identified uses: Product for cleaning and refreshing toilet bowls.

Uses advised against: any type of uses not mentioned above and in point 7.3.

1.3. DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET:

Manufacturer: "POL-HUN" M. BIELSKA SP. J.

Address: 11 Listopada 65, 95-040 Koluszki, Poland

Telephone: +48 (44) 725 30 00

E-mail address for a person responsible for the SDS: polhun@polhun.pl

1.4. EMERGENCY TELEPHONE NUMBER

+48 (44) 725 30 19 (LABORATORY „POL-HUN” M. BIELSKA SP. J. (available during working days from 7⁰⁰ a.m. up 20⁰⁰ p.m.)

112 EMERGENCY TELEPHONE NUMBER

SECTION 2 : HAZARDS IDENTIFICATION

2.1. CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

The mixture is classified according to REGULATION (EC) No 1272/2008 as:

Eye Dam. 1 - Eye Damage of category 1 with hazard statement:
H318 Causes serious eye damage.

Skin Irrit. 2 - Skin Irritation of category 2 with hazard statement:
H315 Causes skin irritation.

Aquatic Chronic 3 - Hazardous to the aquatic environment – Chronic Hazard of category 3 with hazard statement:
H412 Harmful to aquatic life with long lasting effects.

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2.2. LABEL ELEMENTS

Hazard pictogram:



Signal word: **Danger**

Hazard statements:

H318 Causes serious eye damage.
H315 Causes skin irritation.
H412 Harmful to aquatic life with long lasting effects.

Precautionary Statements:

P102 Keep out of reach of children.
P101 If medical advice is needed, have product container or label at hand.
P280 Wear protective gloves and eye protection.
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/doctor.
P302+P352 IF ON SKIN: Wash with plenty of soap and water.
P501 Dispose of contents/container to the person entitled to the disposal of waste or stored in a place designated by the municipality.
Contains: Benzenesulfonic acid, C10-13-alkyl derivs., sodium salts; Sulfonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts.
EUH208 Contains: Dipentene, Alpha-n-hexylcinnamaldehyde, p-mentha-1,4(8)-diene. May produce an allergic reaction.

Detergent labeling according to Detergent Regulation 648/2004/EC:

Constituents: anionic surfactants >30%; non-ionic surfactants <5%; oxygen-based bleaching agents <5%, perfumes, Limonene, Hexyl Cinnamal, Citral.

2.3. OTHER HAZARDS

The substances of the mixture do not meet the criteria for persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB) (at a concentration equal to or greater than 0,1 % by weight) in accordance with Annex XIII of (REACH) regulation.

The substances of the mixture are not included in the list established in accordance with Article 59(1) of (REACH) regulation for having endocrine disrupting properties (at a concentration equal to or greater than 0,1 % by weight).

The substances of the mixture are not identified as having endocrine disrupting properties (at a concentration equal to or greater than 0,1 % by weight) in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100(3) or Commission Regulation (EU) 2018/605(4).

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SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**3.1. SUBSTANCES**

not applicable.

3.2. MIXTURES

Hazard substances and substances for which there are Community workplace exposure limits:

Substance name	Concentration (% m/m)	Number CAS	Number WE	Number registration	Classification in accordance with Directive (WE) nr 1272/2008
Benzenesulfonic acid, C10-13-alkyl derivs., sodium salts	15 - 20	68411-30-3	270-115-0	01-2119489428-22-0039	Acute Tox. 4; H302 Eye Dam. 1; H318 Skin Irrit. 2; H315 Aquatic Chronic 3; H412
Sodium carbonate	10-15	497-19-8	207-838-8	01-2119485498-19-xxxx	Eye Irrit. 2; H319
Sulfonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts	10 - 16	68439-57-6	270-407-8 [931-534-0]	01-2119513401-57-xxxx	Eye Dam. 1, H318 Skin Irrit. 2, H315
Sulfuric acid, mono-C12-18-alkyl esters, sodium salts	1 - 5	68955-19-1	273-257-1	01-2119490225-39-xxxx	Skin Irrit. 2, H315 Eye Dam. 1, H318 Aquatic Chronic 3; H412 Specific concentration limits: Eye Dam. 1; H318 C>= 20% Eye Irrit. 2; H319 10%<=C < 20%
Disodium carbonate, compound with hydrogen peroxide (2:3)	0,3 – 0,8	15630-89-4	239-707-6	01-2119457268-30-xxxx	Ox. Sol. 2, H272 Acute Tox. 4, H302 Eye Dam.1, H318
Dipentene (<i>ingredient of fragrance</i>)	0,4 - 0,6	138-86-3	205-341-0	-	Flam. Liq. 3, H226, Skin Irrit. 2; H315, Skin Sens. 1B; H317, Asp. Tox. 1; H304, Aquatic Acute 1; H400, Aquatic Chronic 1; H410 M=1

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(2E)-2-(Phenylmethylidene)octanal // Alpha-n-hexylcinnamaldehyde (ingredient of fragrance)	0,2 – 0,3	165184-98-5/101-86-0	639-566-4	01-2119533092-50-xxxx	Skin Sens. 1B; H317 Aquatic Chronic 2; H411 Aquatic Acute 1; H400 M=1
p-mentha-1,4(8)-diene (ingredient of fragrance)	0,05 - 0,2	586-62-9	209-578-0	01-2119982325-32-xxxx	Skin Sens. 1B; H317 Asp. Tox. 1; H304 Aquatic Acute 1; H400 Aquatic Chronic 1; H410 M=1

Full texts of hazard statements is listed in section 16.

SECTION 4 : FIRST AID MEASURES**4.1 DESCRIPTION OF FIRST AID MEASURES****Inhalation:**

- no an inhalation hazard under normal conditions of use;

Eye:

- flush with plenty of water for at least 10-15 minutes with the eyelids held wide open, avoid strong stream of water, which can cause cornea injury;
- do not use any medicines before getting medical attention;
- remove any contact lenses;
- seek medical attention;

Skin:

- remove contaminated clothing;
- flush with plenty of water;
- seek medical advice.

Ingestion:

- rinse mouth with plenty of water;
- do not induce vomiting;
- if vomiting occurs, the head should be kept low so that the vomit does not enter the lungs (aspiration);
- seek medical attention.

4.2. MOST IMPORTANT SYMPTOMS AND EFFECTS BOTH ACUTE AND DELAYED

- inhalation – none;
- skin contact - irritation, redness;
- eye contact – serious eye damage, irritation, pain, watering, redness;
- ingestion – irritant to mouth, throat and stomach.

4.3. INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED

No data available.

SECTION 5. FIREFIGHTING MEASURES**5.1. EXTINGUISHING MEDIA**

Suitable extinguishing media: extinguishing dry chemical powder, foam.
 Unsuitable extinguishing media: direct water jet.

5.2. SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE

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Combustion products: sulphur oxides and carbon oxides.

5.3. **ADVICE FOR FIREFIGHTERS**

Wear full fire resistant protective clothing and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. **PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES**

For non-emergency personnel:

- avoid contact with skin and eyes;
- wear chemical protection gloves and suits;
- wear appropriate goggles.

For emergency responders:

Suitable fabric for personal protective clothing:

- appropriate: gloves - nitrile rubber, neoprene, PVC, according to EN 374; suitability and durability of gloves is dependent on application, frequency, duration of contact, chemical resistance of glove material.
- not appropriate: no data.

6.2. **ENVIRONMENTAL PRECAUTIONS**

- keep away from drains, surface- and ground-water and soil.

6.3. **METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING UP**

- clean up spillage promptly;
- collect free product and transfer it to suitable tanks or containers for safe disposal;
- dispose of according to the local regulations.

6.4. **REFERENCE TO OTHER SECTIONS**

Information regarding safe handling – see section 7.

SECTION 7: HANDLING AND STORAGE

7.1. **PRECAUTIONS FOR SAFE HANDLING**

- handle in accordance with good manufacturing practices and personal hygiene;
- avoid contact with skin and eyes;
- wash hands after use;
- wash any exposed skin immediately after any chemical contact;
- do not eat, drink and smoke in work areas;
- remove contaminated clothing and protective equipment before entering eating areas;
- wear protective equipment.

7.2. **CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES**

- store in a cool, dry, well ventilated area;
- keep containers upright and tightly closed;
- keep away from food, oxidising substances, acids.

7.3. **SPECIFIC END USE(S)**

No data available.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. **CONTROL PARAMETERS**

The mixture does contain substances with the national occupational exposure limit values that correspond to Union occupational exposure limit values in accordance with Directive 98/24/EC, including any notations as referred to in Article 2(3) of Commission Decision 2014/113/EU;

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Substance name and CAS number	OEL-TWA		STEL		Country, Publication
	ppm	mg/m ³	ppm	mg/ m ³	
Titanium dioxide [13463-67-7]	-	10	-	-	[Poland] Regulation of the Minister of Family, Labour and Social Policy of 12 June 2018 (DZ.U. 2018 poz. 286)
Titanium dioxide [13463-67-7]	-	10	-	-	[Belgium]
Titanium dioxide [13463-67-7]	-	6 total dust	-	12 total dust	[Denmark]
Titanium dioxide [13463-67-7]	-	11 inhalable aerosol	-	-	[France]
Titanium dioxide [13463-67-7]	-	0,3 (1)(2)(3)	-	2,4 (1)(2)(3)(4)	[Germany]
Titanium dioxide [13463-67-7]	-	10 (1) 4 (2)	-	-	[Ireland]
Titanium dioxide [13463-67-7]	-	10	-	-	[Latvia]
Titanium dioxide [13463-67-7]	-	10	-	15 (1)	[Romania]
Titanium dioxide [13463-67-7]	-	10 Inhalable aerosol	-	-	[Spain]
Titanium dioxide [13463-67-7]	-	5 Inhalable aerosol	-	-	[Sweden]
Titanium dioxide [13463-67-7]	-	10 inhalable aerosol 4 respirable aerosol	-	-	[United Kingdom]

Remarks:

Germany: (1) Excluding ultrafine particles (2) Respirable fraction (3) Multiplied by the material density (4) 15 minutes average value.

Ireland: (1) Inhalable fraction (2) Respirable fraction.

Romania: (1) 15 minutes average value.

Source: Based on GESTIS International Limit values Database.

Substance name and CAS number	OEL-TWA		STEL		Country, Publication
	ppm	mg/m ³	ppm	mg/ m ³	
D-Limonene [5989-27-5]	25	140	50	280	[Finland]
D-Limonene [5989-27-5]	5	28	20	110	[Germany (AGS)]

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D-Limonene [5989-27-5]	25	140	-	-	[Norway]
D-Limonene [5989-27-5]	30	168	-	-	[Spain]
D-Limonene [5989-27-5]	7	40	14	80	[Switzerland]

Substance name and CAS number	OEL-TWA		STEL		Country, Publication
	ppm	mg/m ³	ppm	mg/ m ³	
Citral [5392-40-5]	5(1)(2)	32(1)(2)	-	-	[Belgium]
Citral [5392-40-5]	-	27	-	54	[Poland]
Citral [5392-40-5]	5(1)	-	-	-	[Spain]

Remarks:

Belgium: (1) Inhalable fraction and vapour (2) Additional indication "D" means that the absorption of the agent through the skin, mucous membranes or eyes is an important part of the total exposure. It can be the result of both direct contact and its presence in the air.

Spain: (1) Skin.

Source: Based on GESTIS International Limit values Database.

The mixture does not contain substances with the national occupational exposure limit values that correspond to Union limit values in accordance with Directive 2004/37/EC, including any notations as referred to in Article 2(3) of Decision 2014/113/EU;

The mixture does not contain substances with the national biological limit values that correspond to Union biological limit values in accordance with Directive 98/24/EC, including any notations as referred to in Article 2(3) of Decision 2014/113/EU;

DNEL (Derived No Effect Level) VALUES determined for Benzenesulfonic acid, C10-13-alkyl derivs., sodium salts CAS No [68411-30-3]:

Exposure time	Population	Route of exposure	Value
Long-term	Workers	dermal	170 mg/kg bw/day
Long-term	Workers	inhalation	12 mg/m ³
Long-term	Consumers	oral	0,85 mg/kg bw/day
Long-term	Consumers	dermal	85 mg/kg bw/day
Long-term	Consumers	inhalation	3 mg/m ³

DNEL (Derived No Effect Level) Values determined for Sodium Carbonate CAS No [497-19-8]:

Exposure time	Population	Route of exposure	Value
Long-term	Workers	inhalation	10 mg/m ³

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DNEL (Derived No Effect Level) Values determined for Sulfuric acid, mono-C12-18-alkyl esters, sodium salts CAS No [68955-19-1]:

Exposure time	Population	Route of exposure	Value
Long-term	Workers	dermal	4060 mg/kg bw/day
Long-term	Workers	inhalation	285 mg/m ³
Long-term	Consumers	oral	24 mg/kg bw/day
Long-term	Consumers	dermal	2440 mg/kg bw/day
Long-term	Consumers	inhalation	85 mg/m ³

DNEL (Derived No Effect Level) Values determined for Sulfonic acids, C14-16 (even numbered)-alkane hydroxy and C14-16 (even numbered)-alkene, sodium salts CAS No [68439-57-6]:

Exposure time	Population	Route of exposure	Value
Long-term systemic	Workers	dermal	2158.33 mg/kg bw/day
Long-term	Workers	inhalation	152.22 mg/m ³
Long-term	Consumers	dermal	1295 mg/kg bw/day
Long-term	Consumers	oral	12.95 mg/kg bw/day

DNEL (Derived No Effect Level) Values determined for Amides, C12-18(even-numbered) and C18(unsatd.), N-hydroxyethyl No CAS [90622-77-8]:

Exposure time	Group	Route of exposure	Value
Long-term systemic	Worker	dermal	4,16 mg/kg bw/day
Long-term systemic	Worker	inhalation	73,4 mg/m ³
Long-term systemic	Consumer	oral	6,25 mg/kg bw/day
Long-term systemic	Consumer	dermal	2,5 mg/kg bw/day
Long-term systemic	Consumer	inhalation	21,73 mg/m ³

DNEL (Derived No Effect Level) Values determined for Titanium Dioxide No CAS [13463-67-7]:

Exposure time	Group	Route of exposure	Value
Long-term, systemic	Worker	inhalation	10 mg/m ³
Long-term, systemic	Consumer	oral	700 mg/kg bw/day

PNEC Values (Predicted No Effect Concentration) for Benzenesulfonic acid, C10-13-alkyl derivs., sodium salts CAS No [68411-30-3]:

Route of exposure	Value
Water	0,268 mg/L
Sewage treatment plant STP	3,43 mg/L
Marine Water	0,0268 mg/L
Sediment (Fresh Water)	8,1 mg/kg

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PNEC Values (*Predicted No Effect Concentration*) for **Sulfonic acids, C14-16 (even numbered)-alkane hydroxy and C14-16 (even numbered)-alkene, sodium salts CAS No [68439-57-6]:**

Route of exposure	Value
Fresh Water	0,024mg/L
Sewage treatment plant STP	4 mg/L
Marine Water	0,0024 mg/L
Sediment (Fresh Water)	0,767 mg/kg
Sediment (Marine Water)	0,0767 mg/kg
Soil	1,21 mg/kg

PNEC Values (*Predicted No Effect Concentration*) for **Sulfuric acid, mono-C12-18-alkyl esters, sodium salts CAS No [68955-19-1]:**

Route of exposure	Value
Water	0,098 mg/L
Sewage treatment plant STP	1084 mg/L
Marine Water	0,0098 mg/L
Sediment	3,45 mg/kg
Sediment (Marine)	0,345 mg/kg
Soil	0,631 mg/kg

PNEC Values (*Predicted No Effect Concentration*) for **Amides, C12-18(even-numbered) and C18(unsatd.), N-hydroxyethyl No CAS [90622-77-8]:**

Route of exposure	Value
Fresh Water	0,007mg/L
Sewage treatment plant STP	830 mg/L
Marine Water	0,0007 mg/L
Sediment (fresh water)	1,201 mg/kg
Sediment (marine water)	0,120 mg/kg
Soil	0,2354 mg/kg

PNEC Values (*Predicted No Effect Concentration*) for **Titanium Dioxide No CAS [13463-67-7]:**

Route of exposure	Value
Fresh Water	0,127mg/L
Sewage treatment plant STP	100 mg/L
Marine Water	1 mg/L
Sediment (fresh water)	1000 mg/kg
Sediment (marine water)	100 mg/kg
Soil	100 mg/kg

8.2. EXPOSURE CONTROLS

Personal protective equipment:

Respiratory protection:

- is not required during normal operations in a workplace.

Eye protection:

- use protective goggles if eye contact might occur.

Skin protection:

- in case of long contact with product use protective gloves (nitrile rubber, neoprene, PVC) according to EN 374.

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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

Physical state	solid
Colour:	one part - yellow, the second part – white
Odour :	characteristic, lemon
Melting point/freezing point:	not determined for mixture; 198,5°C for <u>Benzenesulfonic acid, C10-13- alkyl derivs., sodium salts CAS No [68411-30-3]</u> :
Boiling point or initial boiling point and boiling range:	not determined
Flammability:	the mixture is ignitable
Lower and upper explosion limit:	does not apply
Flash point:	does not apply
Auto-ignition temperature:	does not apply
Decomposition temperature:	does not apply
pH:	9 – 11,4 (5% solution)
Kinematic viscosity:	does not apply
Solubility:	soluble in water; 250 g/l for Benzenesulfonic acid, C10-13-alkyl derivs., sodium salts CAS No [68411-30-3]
Partition coefficient: n-octanol/water (log value):	does not apply
Vapour pressure:	not determined for mixture; 3*10 ⁻¹³ Pa (25°C) for Benzenesulfonic acid, C10-13-alkyl derivs., sodium salts CAS No [68411-30-3]
Density and/or relative density:	1400 – 1600kg/m ³
Relative vapour density:	does not apply
Particle characteristics:	not determined

9.2. OTHER INFORMATION

No data available.

SECTION 10: STABILITY AND REACTIVITY

10.1. REACTIVITY

The reactivity hazards of mixture has not been tested.

10.2. CHEMICAL STABILITY

Product is stable under recommended conditions of storage.

10.3. POSSIBILITY OF HAZARDOUS REACTIONS

None under normal conditions.

10.4. CONDITIONS TO AVOID

Keep away from humidity, high temperatures; keep away from source of heat and source of fire.

10.5. INCOMPATIBLE MATERIALS

Strong mineral acids.

10.6. HAZARDOUS DECOMPOSITION PRODUCTS

Sulphur oxides.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. INFORMATION ON HAZARD CLASSES DEFINED IN REGULATION (EC) No 1272/2008

Acute toxicity:

The mixture has not been tested. Based on the available data of the ingredients the classification criteria are not met.

ATE mix (oral) = 5100 mg/kg. (calculated according point 3.1.3.6.1. Annex I of Regulation CLP 1272/2008).

Acute toxicity of Benzenesulfonic acid, C10-13-alkyl derivs., sodium salts CAS No[68411-30-3]:

LD50 (oral): 1020 mg/kg (rat);

LD50 (dermal): >2000 mg/kg (rat).

Acute toxicity of Sodium carbonate CAS No [497-19-8]:

LD50 (oral): 2800 mg/kg (rat);

LD50 (dermal): >2000mg/kg (rabbit);

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LC50 (inhalation): 2300mg/m³ (rat);
 LC50 (inhalation): 1200mg/m³ (mouse);
 LC50 (inhalation): 800mg/m³ (guinea pig).
Acute toxicity of Sulfonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts CAS No [68439-57-6]:
 LD50 (oral): 2079 mg/kg (rat);
 LD50 (dermal): 6300-13500mg/kg (rabbit);
 LC50 (inhalation): >52 mg/l/4hours (rat).
Acute toxicity of Sulfuric acid, mono-C12-18-alkyl esters, sodium salts CAS No [68955-19-1]:
 LD50 (oral): >2600 mg/kg.

Skin corrosion/irritation:

The mixture has not been tested. Based on the available data of the ingredients the mixture is classified as - **Causes skin irritation.**

Irritant effect of Benzenesulfonic acid, C10-13-alkyl derivs., sodium salts CAS No [68411-30-3]:

Causes skin irritation. (test OECD 404 , rabbit).

Irritant effect of Sodium carbonate CAS No [497-19-8]:

Not irritant to skin.

Irritant effect of Sulfonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts CAS No [68439-57-6]:

Test OECD 404 Acute Dermal Irritation/Corrosion – rabbit- Causes skin irritation.

Irritant effect of Sulfuric acid, mono-C12-18-alkyl esters, sodium salts CAS No [68955-19-1]:

Causes skin irritation.

Serious eye damage/eye irritation:

The mixture has not been tested. Based on the available data of the ingredients the mixture is classified as - **Causes serious eye damage.**

Irritant effect of Benzenesulfonic acid, C10-13-alkyl derivs., sodium salts CAS No [68411-30-3]:

Causes serious eye damage (test OECD 405, rabbit).

Irritant effect of Sodium carbonate CAS No [497-19-8]:

Causes serious eye irritation. (test OECD 405, rabbit).

Irritant effect of Sulfonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts CAS No [68439-57-6]:

Test OECD 405 Acute Eye Irritation (rabbit) – causes eye damage.

Irritant effect of Sulfuric acid, mono-C12-18-alkyl esters, sodium salts CAS No [68955-19-1]:

Causes serious eye damage.

Respiratory or skin sensitization:

The mixture has not been tested. Based on the available data of the ingredients the classification criteria are not met, but the mixture contains: Dipentene, Alpha-n-hexylcinnamaldehyde, p-mentha-1,4(8)-diene; may produce an allergic reaction.

Skin sensitization of Benzenesulfonic acid, C10-13-alkyl derivs., sodium salts CAS No [68411-30-3]:

Not classified (test OECD 406, guinea pig).

Skin sensitization of Sodium carbonate CAS No [497-19-8]; Sulfuric acid, mono-C12-18-alkyl esters, sodium salts CAS No [68955-19-1]:

No available data.

Sensitization effect of Sulfonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts CAS No [68439-57-6]:

Test OECD 406 skin sensitization (dermal, guinea pig), result - has no sensitization properties.

Germ cell mutagenicity:

The mixture has not been tested. Based on the available data of the ingredients the classification criteria are not met.

Mutagenicity effect of Benzenesulfonic acid, C10-13-alkyl derivs., sodium salts CAS No [68411-30-3]:

Test OECD 471 Bacterial Reverse Mutation test – result: negative.

Test OECD 476 In vitro Mammalian Cell Gene Mutation test – result: negative.

Test OECD 473 In vitro Mammalian Chromosomal Aberration test – result: negative.

Mutagenicity effect of Sulfonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts CAS No [68439-57-6]:

Test OECD 471 Bacterial Reverse Mutation Test, result- negative;

Test OECD 476 In vitro Mammalian Cell Gene Mutation Test, result- negative;

Test OECD 473 In vitro Mammalian Chromosomal Aberration Test, result- negative.

Mutagenicity effect of Sulfuric acid, mono-C12-18-alkyl esters, sodium salts CAS No [68955-19-1]:

No available data.

Mutagenicity effect of Sodium carbonate CAS No [497-19-8]:

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Substance does not meet the criteria - *Escherichia coli* Chromotest- result – negative.

Carcinogenicity:

The mixture has not been tested. Based on the available data of the ingredients the classification criteria are not met.

Carcinogenicity of Benzenesulfonic acid, C10-13-alkyl derivs., sodium salts CAS No [68411-30-3]:

No known significant effects or critical hazards.

Carcinogenicity of Sulfonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts CAS No [68439-57-6]:

Test – rat – exposure time: 2 years (oral), result- negative.

Test – mouse - exposure time : 92 weeks (3 days in week, dermal), result- negative.

Carcinogenicity of Sulfuric acid, mono-C12-18-alkyl esters, sodium salts CAS No [68955-19-1]:

No available data.

Carcinogenicity of Sodium carbonate CAS No [497-19-8]:

Substance does not meet the criteria.

Reproductive toxicity:

The mixture has not been tested. Based on the available data of the ingredients the classification criteria are not met.

Reproductive toxicity of Benzenesulfonic acid, C10-13-alkyl derivs., sodium salts CAS No [68411-30-3]:

Test OECD 416 Two-Generation Reproduction Toxicity Study (rat) – oral: NOAEL: 350 mg/kg bw/day.

Reproductive toxicity of Sulfonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts CAS No [68439-57-6]:

Test OECD 414 Prenatal Developmental Toxicity Study, rabbit, result: 2 mg/kg NOAEL.

Reproductive toxicity of Sulfuric acid, mono-C12-18-alkyl esters, sodium salts CAS No [68955-19-1]:

No available data.

Reproductive toxicity of Sodium carbonate CAS No [497-19-8]:

Substance does not meet the criteria.

STOT – single exposure:

The mixture has not been tested. Based on the available data of the ingredients the classification criteria are not met.

STOT – single exposure of Benzenesulfonic acid, C10-13-alkyl derivs., sodium salts CAS No [68411-30-3]:

Substance does not meet the criteria.

STOT – repeated exposure:

The mixture has not been tested. Based on the available data of the ingredients the classification criteria are not met.

STOT-repeated exposure of Sulfuric acid, mono-C12-18-alkyl esters, sodium salts CAS No [68955-19-1]; Sulfonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts CAS No [68439-57-6]:

No available data.

STOT-repeated exposure of Benzenesulfonic acid, C10-13-alkyl derivs., sodium salts CAS No [68411-30-3]; Sodium carbonate CAS No [497-19-8]:

Substance does not meet the criteria.

Aspiration hazard:

Not applicable, the mixture is solid.

Information on likely routes of exposure

The mixture has not been tested – no available data.

Symptoms related to the physical, chemical and toxicological characteristics:

inhalation – none;

skin contact - irritation, redness and pain of skin;

eye contact – serious damage to eyes; irritation, pain, watering, redness ;

ingestion – irritant to mouth, throat and stomach, may cause nausea, vomiting.

Delayed and immediate effects as well as chronic effects from short and long-term exposure:

No available data.

Interactive effects:

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No available data.

11.2. INFORMATION ON OTHER HAZARDS

Endocrine disrupting properties

The substances of the mixture are not identified as having endocrine disrupting properties for human health (at a concentration equal to or greater than 0,1 % by weight) in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100(3) or Commission Regulation (EU) 2018/605(4).

Other information

No data.

SECTION 12: ECOLOGICAL INFORMATION

12.1. TOXICITY

The mixture has not been tested. Based on the available data of the ingredients the mixture is classified as **Harmful to aquatic life with long lasting effects.**

Acute toxicity of Benzenesulfonic acid, C10-13-alkyl derivs., sodium salts CAS No [68411-30-3]:

Fish - **LC50: 1-5 mg/L/96h;**

Algae– **EC50: 29 mg/L/96h;**

Daphnia – **EC50: 1-5 mg/L/48h.**

Long term study: NOEC (Fish, 28-196 days): 0,23 – 3,2 mg/L

Long term study: NOEC (Algae, 15-28 days): 3,1 – 4,0 mg/L.

Long term study: NOEC (Daphnia, 2-32 days): 0,59 – 4,5mg/L.

Acute toxicity of Sulfonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts CAS No [68439-57-6]:

Test ISO 10253:2006 - Marine algal growth inhibition test with Skeletonema costatum and Phaeodactylum tricornutum
EC50: 5,2mg/L/72 hours.

Test OECD 202 Daphnia sp. Acute Immobilisation Test, **EC50: 4,53 mg/L/48hours.**

Test OECD 209 Activated Sludge, Respiration Inhibition Test, **IC50: 230 mg/L/3 hours**, bacteria.

Test OECD 203 Fish, Acute Toxicity Test, **LC50: 4,2 mg/L/96 hours.**

Acute toxicity of Sodium carbonate CAS No [497-19-8]:

Fish - **LC50: 300 mg/L/96h.**(*Lepomis macrochirus*);

Daphnia – **LC50: 200-227mg/L/48h.**(*Ceriodaphnia*);

Acute toxicity of Sulfuric acid, mono-C12-18-alkyl esters, sodium salts CAS No [68955-19-1]:

Fish – **LC50: 17 mg/L/96 hours;**

Algae– **ERC50: >20mg/L/72 hours;**

Daphnia – **EC50: 15 mg/L/48 hours.**

Long term study: NOEC (Fish, 42 days): < 1,357mg/L

Long term study: NOEC (Algae, 72 hours): < 3,0 mg/L.

Long term study: NOEC (Daphnia, 7 days): <0,419mg/L.

12.2. PERSISTENCE AND DEGRADABILITY

The mixture has not been tested - no available data.

Persistence and degradability of Benzenesulfonic acid, C10-13-alkyl derivs., sodium salts CAS No [68411-30-3]:

Biodegradation: >99%, (OECD Screening test 301D and 303A);

Biodegradation: readily biodegradable in the OECD 301B CO₂ Evolution test: 85% biodegradability in 29 days.

Ready Biodegradability:>70% (OECD 301D);

Ready Biodegradability: >60% Oxygen uptake (OECD 301F);

Inherent test: 95-98% (OECD 302 A, B);

Simulation test: 80-95% (OECD 303A).

Persistence and degradability of Sodium carbonate CAS No [497-19-8]:

Substance is inorganic and disassociate in water.

Persistence and degradability of Sulfonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts CAS No [68439-57-6]:

Readily biodegradable.

Persistence and degradability of Sulfuric acid, mono-C12-18-alkyl esters, sodium salts CAS No [68955-19-1]:

Biodegradation: 98-100%, (OECD Screening test);

Ready Biodegradability:88-96% (OECD 301-E);

Ready Biodegradability: 63-95% (Closed Bottle Test);

Ready Biodegradability: 64-96% Sturm(OECD 301B).

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12.3. BIOACCUMULATIVE POTENTIAL

The mixture has not been tested - no available data.

Bioaccumulative potential of Benzenesulfonic acid, C10-13-alkyl derivs., sodium salts CAS No [68411-30-3]:

BCF: 2-1000. It is not bioaccumulative.

Bioaccumulative potential of Sulfuric acid, mono-C12-18-alkyl esters, sodium salts CAS No [68955-19-1]:

BCF: -2,1. No potential for bioaccumulation.

Bioaccumulative potential of Sulfonic acids, C14-16-alkane hydroxy and C14-16-alkene, sodium salts CAS No [68439-57-6]:

LogPow: -1,3;

BCF: 70,8;

It has low potential to accumulate.

Bioaccumulative potential of Sodium carbonate CAS No [497-19-8]:

Substance is inorganic and disassociate in water.

12.4. MOBILITY IN SOIL

The mixture has not been tested - no available data.

12.5. RESULTS OF PBT AND vPvB ASSESSMENT

The mixture has not been tested - no available data.

The components of mixture are not PBT and vPvB.

12.6. ENDOCRINE DISRUPTING PROPERTIES

The substances of the mixture are not identified as having endocrine disrupting properties for the environment (at a concentration equal to or greater than 0,1 % by weight) in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100(3) or Commission Regulation (EU) 2018/605(4).

12.7. OTHER ADVERSE EFFECTS

The mixture has not been tested - no available data.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. WASTE TREATMENT METHODS

- dispose of according to local regulations;
- avoid disposing into drainage systems and into the environment;
- contaminated packaging dispose in the same way as the product itself.
- non-contaminated packages may be recycled

SECTION 14: TRANSPORT INFORMATION

ADR/RID/ADN/IMDG/IATA:

14.1. UN number or ID number : not applicable.

14.2. UN proper shipping name: not applicable.

14.3. TRANSPORT HAZARD CLASS(ES): not applicable.

14.4. PACKING GROUP: not applicable.

14.5. ENVIRONMENTAL HAZARDS:

The mixture has not been tested - no available data.

14.6. SPECIAL PRECAUTIONS FOR USER

See sections 6 to 8 of this Safety Data Sheet.

14.7. MARITIME TRANSPORT IN BULK ACCORDING TO IMO INSTRUMENTS

Not applicable.

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SECTION 15: REGULATORY INFORMATION

The mixture is not subject to *Regulation (EC) No 1005/2009 of the European Parliament and of the Council of 16 September 2009 on substances that deplete the ozone layer*, *Regulation (EC) No 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC* or *Regulation (EC) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of dangerous chemicals*

15.1 **SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS/LEGISLATION SPECIFIC FOR THE SUBSTANCE OR MIXTURE**

REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC.

REACH (Article 59) – Candidate List of Substances of Very High Concern for Authorization – not applicable.

REACH (Annex XVII) – Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles - not applicable.

REACH (Annex XVII) – Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles - not applicable.

REACH (Annex XIV) – List of substances subject to authorization.- not applicable.

REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

COMMISSION REGULATION (EU) 2020/878 of 18 June 2020 amending Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

Regulation (EC) No 648/2004 of the European Parliament and of the Council of 31 March 2004 on detergents.

Council Directive 98/24/EC of 7 April 1998 on the protection of the health and safety of workers from the risks related to chemical agents at work.

Commission Directive 2000/39/EC of 8 June 2000 establishing a first list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

Commission Directive 2006/15/EC of 7 February 2006 establishing a second list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC and amending Directives 91/322/EEC and 2000/39/EC.

Commission Directive 2009/161/EU of 17 December 2009 establishing a third list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC and amending Commission directive 2000/39/EC.

COMMISSION DIRECTIVE (EU) 2017/164 of 31 January 2017 establishing a fourth list of indicative occupational exposure limit values pursuant to Council Directive 98/24/EC, and amending Commission Directives 91/322/EEC, 2000/39/EC and 2009/161/EU

Directive 2004/37/EC of the European Parliament and of the Council of 29 April 2004 on the protection of workers from the risks related to exposure to carcinogens or mutagens at work .

15.2. **CHEMICAL SAFETY ASSESSMENT**

The chemical safety assessment has not been carried out for the mixture.

SECTION 16: OTHER INFORMATION

Changes- section 1, 2, 3, 9, 11, 12, 14, 15, 16.

The classification of the mixture is based on:

- the category “acute toxicity” – an additive method;
- the category “skin corrosion/irritation” – an additive method;
- the category “serious eye damage/eye irritation” - an additive method;
- the category “respiratory or skin sensitization” – contents of sensitizing ingredients;
- the category “mutagenicity”- contents of classified ingredients;
- the category “carcinogenicity” – contents of classified ingredients;
- the category “reproductive toxicity” contents of classified ingredients;
- the category “STOT repeated exposure” contents of classified ingredients;
- the category “STOT single exposure” contents of classified ingredients;
- the category “aspiration hazard” – an additive method;
- the category ‘ecotoxicological properties’ – an additive method.

Abbreviations and acronyms used in the safety data sheet:

PBT – *Persistent, Bioaccumulative, Toxic*;

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vPvB – *Very Persistent and very Bioaccumulative*;
 LD50 – *Lethal Dose, 50%*;
 LC50 – *Lethal Concentration 50%*;
 EC50 - *half maximal effective concentration*;
 IC50 - *half maximal inhibitory concentration*;
 OECD – *Organization for Economic Cooperation and Development*;
 NOAEL - *No Observed Adverse Effect Level*;
 NOEC – *No Observed Effect Concentration*;
 BCF - *bioconcentration factor*.
 logPow – *octanol - water partition coefficient*;
 OEL – *Occupational Exposure Limit*;
 TWA – *Eight – hour Time Weighted Average*;
 STEL – *Short Term Exposure Limit*.
 ADR – *European Agreement concerning the International Carriage of Dangerous Goods by Road*.
 RID – *Regulations concerning the International Carriage of Dangerous Goods by Rail (RID)*.
 ADN – *European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways*.
 IMDG – *International Maritime Dangerous Goods Code*.
 IATA – *International Air Transport Association*.

List of relevant hazard statements which are not written out in full under Sections 2 to 15:

Flam. Liq. 3	Flammable liquid of category 3.
Ox. Sol. 2	Oxidising solid of category 2.
Acute Tox. 4	Acute toxicity of category 4.
Eye Dam. 1	Eye Damage of category 1.
Eye Irrit. 2	Eye Irritation of category 2.
Skin Irrit. 2	Skin Irritation of category 2.
Skin Sens. 1B	Skin Sensitization of category 1B.
Asp. Tox. 1	Aspiration hazard of category 1
Aquatic Acute 1	Hazardous to the aquatic environment - Acute Hazard of category 1.
Aquatic Chronic 1	Hazardous to the aquatic environment - Chronic Hazard of category 1.
Aquatic Chronic 2	Hazardous to the aquatic environment - Chronic Hazard of category 2.
Aquatic Chronic 3	Hazardous to the aquatic environment - Chronic Hazard of category 3.
H226	Flammable liquid and vapour.
H272	May intensify fire; oxidiser.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters air ways.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

The information corresponds to the present state of our knowledge and is intended as a general description of our products and their possible applications. This document is neither a quality description of the product nor a guarantee of particular properties. The information are to be treated as aid to safety in transport, storage and usage of the product. This does not free the user from the responsibility of improper usage of the information above and also of improper compliance with the law norms in the field. Due to possible changes in our products and applicable national and international regulations and laws, the status of our products could change.