Safety Data Sheet

According to Regulation (EC) No 1907/2006

Divo PS VB7

Revision: 2024-08-07 **Version:** 09.1

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

1.1 Product identifier

Trade name: Divo PS VB7

UFI: 6JY3-30T9-C001-KN0M

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

Product use:	Bottle wash. For professional and industrial use only.
Uses advised against:	Uses other than those identified are not recommended.

SWED - Sector-specific worker exposure description :
AISE_SWED_PW_8b_2
AISE_SWED_IS_8b_2
AISE_SWED_PW_1_1
AISE_SWED_PW_4_1
AISE_SWED_IS_1_1
AISE_SWED_IS_4_1

1.3 Details of the supplier of the safety data sheet

Diversey Europe Operations BV, De Corridor 4, 3621ZB Breukelen [Maarssenbroeksedijk 2, 3542DN Utrecht], The Netherlands

Contact details
Diversey Ltd
Weston Favell Centre, Northampton NN3 8PD, United Kingdom
Tel: 01604 405311, Fax: 01604 406809
Regulatory Email: customerservice.uk@solenis.com

1.4 Emergency telephone number

Seek medical advice (show the label or safety data sheet where possible)
For medical or environmental emergency only:
call 0800 052 0185

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Serious eye damage, Category 1 (H318)
Corrosive to metals, Category 1 (H290)

2.2 Label elements

Signal word: Danger.

Contains 1-hydroxyethane-1,1-diphosphonic acid (Etidronic Acid)

Hazard statements:
H290 - May be corrosive to metals.
H318 - Causes serious eye damage.

Precautionary statements:
P280 - Wear eye or face 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 CENTRE, doctor or physician.

2.3 Other hazards

No other hazards known.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Ingredient(s)	EC number	CAS number	REACH number	Classification	Notes	Weight percent
1-hydroxyethane-1,1-diphosphonic acid	220-552-8	2809-21-4	01-2119510391-53	Acute toxicity - Oral, Category 4 (H302) Serious eye damage, Category 1 (H318) Corrosive to metals, Category 1 (H290)		10-20
nitrilotrimethylenetris(phosphonic acid)	229-146-5	6419-19-8	01-2119487988-08	Eye irritation, Category 2 (H319) Corrosive to metals, Category 1 (H290)		10-20

Workplace exposure limit(s), if available, are listed in subsection 8.1.
ATE, if available, are listed in section 11.
For the full text of the H and EUH phrases mentioned in this Section, see Section 16..

SECTION 4: First aid measures

4.1 Description of first aid measures

Inhalation: Get medical attention or advice if you feel unwell.

Skin contact: Wash skin with plenty of lukewarm, gently flowing water. If skin irritation occurs: Get medical advice or attention.

Eye contact: Hold eyelids apart and flush eyes with plenty of lukewarm water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTRE, doctor or physician.

Ingestion: Rinse mouth. Immediately drink 1 glass of water. Never give anything by mouth to an unconscious person. Get medical attention or advice if you feel unwell.

Self-protection of first aider: Consider personal protective equipment as indicated in subsection 8.2.

4.2 Most important symptoms and effects, both acute and delayed

Inhalation: No known effects or symptoms in normal use.

Skin contact: No known effects or symptoms in normal use.

Eye contact: Causes severe or permanent damage.

Ingestion: No known effects or symptoms in normal use.

4.3 Indication of any immediate medical attention and special treatment needed

No information available on clinical testing and medical monitoring. Specific toxicological information on substances, if available, can be found in section 11.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Carbon dioxide. Dry powder. Water spray jet. Fight larger fires with water spray jet or alcohol-resistant foam.

5.2 Special hazards arising from the substance or mixture

No special hazards known.

5.3 Advice for firefighters

As in any fire, wear self contained breathing apparatus and suitable protective clothing including gloves and eye/face protection.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Wear eye/face protection.

6.2 Environmental precautions

Dilute with plenty of water. Do not allow to enter drainage system, surface or ground water.

6.3 Methods and material for containment and cleaning up

Dyke to collect large liquid spills. Absorb with liquid-binding material (sand, diatomite, universal binders). Do not place spilled materials back into the original container. Collect in closed and suitable containers for disposal.

6.4 Reference to other sections

For personal protective equipment see subsection 8.2. For disposal considerations see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Measures to prevent fire and explosions:
No special precautions required.
Measures required to protect the environment:
For environmental exposure controls see subsection 8.2.
Advices on general occupational hygiene:
Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs. Do not mix with other products unless adviced by Diversey. Wash hands before breaks and at the end of workday. Avoid contact with eyes. Use only with adequate ventilation. See chapter 8.2, Exposure controls / Personal protection.

7.2 Conditions for safe storage, including any incompatibilities
Store in accordance with local and national regulations. Store in a closed container. Keep only in original packaging.
For conditions to avoid see subsection 10.4. For incompatible materials see subsection 10.5.

7.3 Specific end use(s)
No specific advice for end use available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters
Workplace exposure limits

Air limit values, if available:

Biological limit values, if available:

Recommended monitoring procedures, if available:

Additional exposure limits under the conditions of use, if available:

DNEL/DMEL and PNEC values
Human exposure
DNEL/DMEL oral exposure - Consumer (mg/kg bw)

Ingredient(s)	Short term - Local effects	Short term - Systemic effects	Long term - Local effects	Long term - Systemic effects
1-hydroxyethane-1,1-diphosphonic acid	-	6.5	-	1.7
nitrilotrimethylenetris(phosphonic acid)	-	1.38	-	1.38

DNEL/DMEL dermal exposure - Worker

Ingredient(s)	Short term - Local effects	Short term - Systemic effects (mg/kg bw)	Long term - Local effects	Long term - Systemic effects (mg/kg bw)
1-hydroxyethane-1,1-diphosphonic acid	No data available	-	No data available	-
nitrilotrimethylenetris(phosphonic acid)	-	2.75	-	2.75

DNEL/DMEL dermal exposure - Consumer

Ingredient(s)	Short term - Local effects	Short term - Systemic effects (mg/kg bw)	Long term - Local effects	Long term - Systemic effects (mg/kg bw)
1-hydroxyethane-1,1-diphosphonic acid	No data available	-	No data available	-
nitrilotrimethylenetris(phosphonic acid)	-	1.38	-	1.38

DNEL/DMEL inhalatory exposure - Worker (mg/m³)

Ingredient(s)	Short term - Local effects	Short term - Systemic effects	Long term - Local effects	Long term - Systemic effects
1-hydroxyethane-1,1-diphosphonic acid	-	-	-	-
nitrilotrimethylenetris(phosphonic acid)	-	9.7	-	9.7

DNEL/DMEL inhalatory exposure - Consumer (mg/m³)

Ingredient(s)	Short term - Local effects	Short term - Systemic effects	Long term - Local effects	Long term - Systemic effects
1-hydroxyethane-1,1-diphosphonic acid	-	-	-	-
nitrilotrimethylenetris(phosphonic acid)	-	2.39	-	2.39

Environmental exposure
Environmental exposure - PNEC

Ingredient(s)	Surface water, fresh (mg/l)	Surface water, marine (mg/l)	Intermittent (mg/l)	Sewage treatment plant (mg/l)
1-hydroxyethane-1,1-diphosphonic acid	0.136	0.0136	-	20
nitrilotrimethylenetris(phosphonic acid)	0.46	0.046	-	20

Environmental exposure - PNEC, continued

Ingredient(s)	Sediment, freshwater (mg/kg)	Sediment, marine (mg/kg)	Soil (mg/kg)	Air (mg/m³)
1-hydroxyethane-1,1-diphosphonic acid	59	5.9	96	-
nitrilotrimethylenetris(phosphonic acid)	150	15	244	-

8.2 Exposure controls

The following information applies for the uses indicated in subsection 1.2 of the Safety Data Sheet.
If available, please refer to the product information sheet for application and handling instructions.
Normal use conditions are assumed for this section.

Recommended safety measures for handling the undiluted product:

Appropriate engineering controls: If the product is diluted by using specific dosing systems with no risk of splashes or direct skin contact, the personal protection equipment as described in this section is not required.
Appropriate organisational controls: Avoid direct contact and/or splashes where possible. Train personnel.

REACH use scenarios considered for the undiluted product:

	SWED - Sector-specific worker exposure description	LCS	PROC	Duration (min)	ERC
Automatic transfer and dilution	AISE_SWED_IS_8b_2	IS	PROC 8b	60	ERC4
Automatic transfer and dilution	AISE_SWED_PW_8b_2	PW	PROC 8b	60	ERC8b

Personal protective equipment
Eye / face protection: Safety glasses or goggles (EN 16321 / EN 166).
Hand protection: No special requirements under normal use conditions.
Body protection: No special requirements under normal use conditions.
Respiratory protection: No special requirements under normal use conditions.

Environmental exposure controls: Should not reach sewage water or drainage ditch undiluted or unneutralised.

Recommended safety measures for handling the diluted product:

Recommended maximum concentration (% w/w): 0.02

Appropriate engineering controls: Provide a good standard of general ventilation.
Appropriate organisational controls: No special requirements under normal use conditions.

REACH use scenarios considered for the diluted product:

	SWED	LCS	PROC	Duration (min)	ERC
Automatic application in a dedicated closed system	AISE_SWED_IS_1_1	IS	PROC 1	480	ERC4
Automatic application in a dedicated system	AISE_SWED_IS_4_1	IS	PROC 4	480	ERC8a
Automatic application in a dedicated closed system	AISE_SWED_PW_1_1	PW	PROC 1	480	ERC8a
Automatic application in a dedicated system	AISE_SWED_PW_4_1	PW	PROC 4	480	ERC8a

Personal protective equipment
Eye / face protection: No special requirements under normal use conditions.
Hand protection: No special requirements under normal use conditions.
Body protection: No special requirements under normal use conditions.
Respiratory protection: No special requirements under normal use conditions.

Environmental exposure controls: No special requirements under normal use conditions.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties
Information in this section refers to the product, unless it is specifically stated that substance data is listed

	Method / remark
Physical state: Liquid	
Colour: Clear , Colourless	
Odour: Product specific	
Odour threshold: Not applicable	
Melting point/freezing point (°C): Not determined	Not relevant to classification of this product
Initial boiling point and boiling range (°C): Not determined	See substance data

Substance data, boiling point

Ingredient(s)	Value	Method	Atmospheric pressure

	(°C)		(hPa)
1-hydroxyethane-1,1-diphosphonic acid	105	Method not given	
nitrilotrimethylenetris(phosphonic acid)	> 104	Method not given	

Method / remark

Flammability (solid, gas): Not applicable to liquids
Flammability (liquid): Not flammable.
Flash point (°C): > 100 °C — closed cup
Sustained combustion: Not applicable.
(UN Manual of Tests and Criteria, section 32, L.2)
Lower and upper explosion limit/flammability limit (%): Not determined — See substance data

Substance data, flammability or explosive limits, if available:

Ingredient(s)	Lower limit (% vol)	Upper limit (% vol)
nitrilotrimethylenetris(phosphonic acid)	-	-

Method / remark

Autoignition temperature: Not determined
Decomposition temperature: Not applicable.
pH: =< 2 (neat) — ISO 4316
Dilution pH: ≈ 5 (0.02 %) — ISO 4316
Kinematic viscosity: Not determined
Solubility in / Miscibility with water: Fully miscible

Substance data, solubility in water

Ingredient(s)	Value (g/l)	Method	Temperature (°C)
1-hydroxyethane-1,1-diphosphonic acid	No data available		
nitrilotrimethylenetris(phosphonic acid)	610	Method not given	25

Substance data, partition coefficient n-octanol/water (log Kow): see subsection 12.3

Method / remark

Vapour pressure: Not determined — See substance data

Substance data, vapour pressure

Ingredient(s)	Value (Pa)	Method	Temperature (°C)
1-hydroxyethane-1,1-diphosphonic acid	< 0.00001	Method not given	25
nitrilotrimethylenetris(phosphonic acid)	10000	Method not given	20

Method / remark

Relative density: ≈ 1.15 (20 °C) — OECD 109 (EU A.3)
Relative vapour density: No data available. — Not relevant to classification of this product
Particle characteristics: No data available. — Not applicable to liquids.

9.2 Other information
9.2.1 Information with regard to physical hazard classes
Explosive properties: Not explosive.
Oxidising properties: Not oxidising.
Corrosion to metals: Corrosive

9.2.2 Other safety characteristics
Acid reserve: ≈ -6.4 (g NaOH / 100g; pH=4)

SECTION 10: Stability and reactivity

10.1 Reactivity
No reactivity hazards known under normal storage and use conditions.

10.2 Chemical stability
Stable under normal storage and use conditions.

10.3 Possibility of hazardous reactions
No hazardous reactions known under normal storage and use conditions.

10.4 Conditions to avoid
None known under normal storage and use conditions.

10.5 Incompatible materials
May be corrosive to metals. Keep away from products containing chlorine-based bleaching agents or sulphites.

10.6 Hazardous decomposition products
None known under normal storage and use conditions.

SECTION 11: Toxicological information

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

Mixture data: .

Relevant calculated ATE(s):
ATE - Oral (mg/kg): >2000

Substance data, where relevant and available, are listed below:.

Acute toxicity
Acute oral toxicity

Ingredient(s)	Endpoint	Value (mg/kg)	Species	Method	Exposure time (h)	ATE Oral (mg/kg)
1-hydroxyethane-1,1-diphosphonic acid	LD_{50}	1878	Rat	Method not given		1878
nitrilotrimethylenetris(phosphonic acid)	LD_{50}	2100	Rat	EPA OPP 81-1		2100

Acute dermal toxicity

Ingredient(s)	Endpoint	Value (mg/kg)	Species	Method	Exposure time (h)	ATE Dermal (mg/kg)
1-hydroxyethane-1,1-diphosphonic acid	LD_{50}	> 5000	Rabbit	Method not given		Not established
nitrilotrimethylenetris(phosphonic acid)	LD_{50}	> 6310	Rabbit	Method not given		Not established

Acute inhalative toxicity

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
1-hydroxyethane-1,1-diphosphonic acid		No data available			
nitrilotrimethylenetris(phosphonic acid)		No data available			

Acute inhalative toxicity, continued

Ingredient(s)	ATE - inhalation, dust (mg/l)	ATE - inhalation, mist (mg/l)	ATE - inhalation, vapour (mg/l)	ATE - inhalation, gas (mg/l)
1-hydroxyethane-1,1-diphosphonic acid	Not established	Not established	Not established	Not established
nitrilotrimethylenetris(phosphonic acid)	Not established	Not established	Not established	Not established

Irritation and corrosivity
Skin irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
1-hydroxyethane-1,1-diphosphonic acid	Not irritant	Rabbit	Method not given	
nitrilotrimethylenetris(phosphonic acid)	Not irritant	Rabbit	OECD 404 (EU B.4)	

Eye irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
1-hydroxyethane-1,1-diphosphonic acid	Severe damage	Rabbit	Non guideline test	
nitrilotrimethylenetris(phosphonic acid)	Irritant	Rabbit	OECD 405 (EU B.5)	

Respiratory tract irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
1-hydroxyethane-1,1-diphosphonic acid	No data available			
nitrilotrimethylenetris(phosphonic acid)	No data available			

Sensitisation
Sensitisation by skin contact

Ingredient(s)	Result	Species	Method	Exposure time (h)
1-hydroxyethane-1,1-diphosphonic acid	Not sensitising		Read across	
nitrilotrimethylenetris(phosphonic acid)	Not sensitising	Guinea pig	Method not given	

Sensitisation by inhalation

Ingredient(s)	Result	Species	Method	Exposure time
1-hydroxyethane-1,1-diphosphonic acid	No data available			
nitrilotrimethylenetris(phosphonic acid)	No data available			

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Mutagenicity

Ingredient(s)	Result (in-vitro)	Method (in-vitro)	Result (in-vivo)	Method (in-vivo)
1-hydroxyethane-1,1-diphosphonic acid	No evidence for mutagenicity, negative test results	OECD 471 (EU B.12/13)	No evidence for mutagenicity, negative test results	OECD 474 (EU B.12)
nitrilotrimethylenetris(phosphonic acid)	No evidence for mutagenicity, negative test results	OECD 471 (EU B.12/13) OECD 476 (Mouse lymphoma) OECD 473	No data available	

Carcinogenicity

Ingredient(s)	Effect
1-hydroxyethane-1,1-diphosphonic acid	No evidence for carcinogenicity, negative test results
nitrilotrimethylenetris(phosphonic acid)	No evidence for carcinogenicity, negative test results

Toxicity for reproduction

Ingredient(s)	Endpoint	Specific effect	Value (mg/kg bw/d)	Species	Method	Exposure time	Remarks and other effects reported
1-hydroxyethane-1,1-diphosphonic acid			No data available				No evidence for developmental toxicity
nitrilotrimethylenetris(phosphonic acid)			No data available				No evidence for reproductive toxicity

Repeated dose toxicity

Sub-acute or sub-chronic oral toxicity

Ingredient(s)	Endpoint	Value (mg/kg bw/d)	Species	Method	Exposure time (days)	Specific effects and organs affected
1-hydroxyethane-1,1-diphosphonic acid	NOAEL	1724	Rat	Method not given	90	
nitrilotrimethylenetris(phosphonic acid)	NOAEL	> 1000	Rat			

Sub-chronic dermal toxicity

Ingredient(s)	Endpoint	Value (mg/kg bw/d)	Species	Method	Exposure time (days)	Specific effects and organs affected
1-hydroxyethane-1,1-diphosphonic acid		No data available				
nitrilotrimethylenetris(phosphonic acid)		No data available				

Sub-chronic inhalation toxicity

Ingredient(s)	Endpoint	Value (mg/kg bw/d)	Species	Method	Exposure time (days)	Specific effects and organs affected
1-hydroxyethane-1,1-diphosphonic acid		No data available				
nitrilotrimethylenetris(phosphonic acid)		No data available				

Chronic toxicity

Ingredient(s)	Exposure route	Endpoint	Value (mg/kg bw/d)	Species	Method	Exposure time	Specific effects and organs affected	Remark
1-hydroxyethane-1,1-diphosphonic acid	Oral	NOAEL	1583	Rat	Non guideline test			
nitrilotrimethylenetris(phosphonic acid)		NOAEL	> 500	Rat		24 month(s)		

STOT-single exposure

Ingredient(s)	Affected organ(s)
1-hydroxyethane-1,1-diphosphonic acid	No data available
nitrilotrimethylenetris(phosphonic acid)	No data available

STOT-repeated exposure

Ingredient(s)	Affected organ(s)
1-hydroxyethane-1,1-diphosphonic acid	No data available
nitrilotrimethylenetris(phosphonic acid)	No data available

Aspiration hazard
Substances with an aspiration hazard (H304), if any, are listed in section 3.

Potential adverse health effects and symptoms
Effects and symptoms related to the product, if any, are listed in subsection 4.2.

11.2 Information on other hazards
11.2.1 Endocrine disrupting properties
Endocrine disrupting properties - Human data, if available:

11.2.2 Other information
No other relevant information available.

SECTION 12: Ecological information

12.1 Toxicity

No data is available on the mixture .

Substance data, where relevant and available, are listed below:

Aquatic short-term toxicity
Aquatic short-term toxicity - fish

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
1-hydroxyethane-1,1-diphosphonic acid	LC_{50}	195	*Oncorhynchus mykiss*	Method not given	96
nitrilotrimethylenetris(phosphonic acid)	LC_{50}	160	*Oncorhynchus mykiss*	APHA 1995	96

Aquatic short-term toxicity - crustacea

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
1-hydroxyethane-1,1-diphosphonic acid	EC_{50}	527	*Daphnia magna Straus*	OECD 202 (EU C.2)	48
nitrilotrimethylenetris(phosphonic acid)	EC_{50}	297	*Daphnia magna Straus*	OECD 202 (EU C.2)	48

Aquatic short-term toxicity - algae

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
1-hydroxyethane-1,1-diphosphonic acid	EC_{50}	3	*Pseudokirchneriella subcapitata*	Method not given	96
nitrilotrimethylenetris(phosphonic acid)	EC_{50}	19.6	*Pseudokirchneriella subcapitata*	OECD 201 (EU C.3)	96

Aquatic short-term toxicity - marine species

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (days)
1-hydroxyethane-1,1-diphosphonic acid		No data available			
nitrilotrimethylenetris(phosphonic acid)		No data available			

Impact on sewage plants - toxicity to bacteria

Ingredient(s)	Endpoint	Value (mg/l)	Inoculum	Method	Exposure time
1-hydroxyethane-1,1-diphosphonic acid	EC_{0}	1000	*Pseudomonas putida*	DIN 38412, Part 27	30 minute(s)
nitrilotrimethylenetris(phosphonic acid)		No data available			

Aquatic long-term toxicity
Aquatic long-term toxicity - fish

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
1-hydroxyethane-1,1-diphosphonic acid	NOEC	180	*Oncorhynchus mykiss*	OECD 204	14 day(s)	
nitrilotrimethylenetris(phosphonic acid)	NOEC	23	*Not specified*	Method not given	60 day(s)	

Aquatic long-term toxicity - crustacea

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
1-hydroxyethane-1,1-diphosphonic acid	NOEC	6.75	*Daphnia magna*	OECD 211	28 day(s)	
nitrilotrimethylenetris(phosphonic acid)	NOEC	> 25	*Daphnia magna*	Method not given	28 day(s)	

Aquatic toxicity to other aquatic benthic organisms, including sediment-dwelling organisms, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw sediment)	Species	Method	Exposure time (days)	Effects observed
1-hydroxyethane-1,1-diphosphonic acid		No data available				
nitrilotrimethylenetris(phosphonic acid)		No data available				

Terrestrial toxicity

Terrestrial toxicity - soil invertebrates, including earthworms, if available:

Terrestrial toxicity - plants, if available:

Terrestrial toxicity - birds, if available:

Terrestrial toxicity - beneficial insects, if available:

Terrestrial toxicity - soil bacteria, if available:

12.2 Persistence and degradability

Abiotic degradation

Abiotic degradation - photodegradation in air, if available:

Abiotic degradation - hydrolysis, if available:

Abiotic degradation - other processes, if available:

Biodegradation

Ready biodegradability - aerobic conditions

Ingredient(s)	Inoculum	Analytical method	DT_{50}	Method	Evaluation
1-hydroxyethane-1,1-diphosphonic acid			22.88 % in 5 day(s)	OECD 301D	Inherently biodegradable.
nitrilotrimethylenetris(phosphonic acid)	Activated sludge, aerobe	DOC reduction	0% in 28 day(s)	OECD 301E	Not readily biodegradable.

Ready biodegradability - anaerobic and marine conditions, if available:

Degradation in relevant environmental compartments, if available:

12.3 Bioaccumulative potential

Partition coefficient n-octanol/water (log Kow)

Ingredient(s)	Value	Method	Evaluation	Remark
1-hydroxyethane-1,1-diphosphonic acid	-3.49	Method not given	No bioaccumulation expected	
nitrilotrimethylenetris(phosphonic acid)	-3.53	Method not given	No bioaccumulation expected	

Bioconcentration factor (BCF)

Ingredient(s)	Value	Species	Method	Evaluation	Remark
1-hydroxyethane-1,1-diphosphonic acid	> 7		Method not given	No bioaccumulation expected	
nitrilotrimethylenetris(phosphonic acid)	No data available				

12.4 Mobility in soil

Adsorption/Desorption to soil or sediment

Ingredient(s)	Adsorption coefficient Log Koc	Desorption coefficient Log Koc(des)	Method	Soil/sediment type	Evaluation
1-hydroxyethane-1,1-diphosphonic acid	2.8 - 4.7		Method not given		Low mobillity in soil
nitrilotrimethylenetris(phosphonic acid)	No data available				

12.5 Results of PBT and vPvB assessment

Substances that fulfill the criteria for PBT/vPvB, if any, are listed in section 3.

12.6 Endocrine disrupting properties
Endocrine disrupting properties - Environmental effects, if available:

12.7 Other adverse effects
No other adverse effects known.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Waste from residues / unused products:	The concentrated contents or contaminated packaging should be disposed of by a certified handler or according to the site permit. Release of waste to sewers is discouraged. The cleaned packaging material is suitable for energy recovery or recycling in line with local legislation.
European Waste Catalogue:	20 01 14* - acids.

Empty packaging	
Recommendation:	Dispose of observing national or local regulations.
Suitable cleaning agents:	Water, if necessary with cleaning agent.

SECTION 14: Transport information

Land transport (ADR/RID), Sea transport (IMDG), Air transport (ICAO-TI / IATA-DGR)
14.1 UN number or ID number: 3265
14.2 UN proper shipping name:
Corrosive liquid, acidic, organic, n.o.s. (1-hydroxyethane-1,1-diphosphonic acid , nitrilotrimethylenetrisphosphonic acid)
14.3 Transport hazard class(es):
Transport hazard class (and subsidiary risks): 8
14.4 Packing group: III
14.5 Environmental hazards:
Environmentally hazardous: No
Marine pollutant: No
14.6 Special precautions for user: None known.
14.7 Maritime transport in bulk according to IMO instruments: The product is not transported in bulk tankers.

Other relevant information:
ADR
Classification code: C3
Tunnel restriction code: (E)
Hazard identification number: 80
IMO/IMDG
EmS: F-A, S-B

The product has been classified, labelled and packaged in accordance with the requirements of ADR and the provisions of the IMDG Code
Transport regulations include special provisions for certain classes of dangerous goods packed in limited quantities.

SECTION 15: Regulatory information

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

National regulations :
• Regulation (EC) 1907/2006 - REACH (UK amended)
• Regulation (EC) 1272/2008 - CLP (UK amended)
• Regulation (EC) 648/2004 - Detergents regulation (UK amended)
• Delegated Regulation (EU) 2017/2100 and Regulation (EU) 2018/605 (UK amended)
• Agreement concerning the International Carriage of Dangerous Goods by Road (ADR)
• International Maritime Dangerous Goods (IMDG) Code

Authorisations or restrictions (Regulation (EC) No 1907/2006, Title VII respectively Title VIII): Not applicable.

Ingredients according to Detergents Regulation

phosphonates	15 - 30 %

Comah - classification: Not classified

15.2 Chemical safety assessment
A chemical safety assessment has not been carried out on the mixture

SECTION 16: Other information

The information in this document is based on our best present knowledge. However, it does not constitute a guarantee for any specific product features and does not establish a legally binding contract

SDS code: MSDS1603 **Version:** 09.1 **Revision:** 2024-08-07

Reason for revision:
This data sheet contains changes from the previous version in section(s):, 1, 8, 9, 16

Classification procedure
The classification of the mixture is in general based on calculation methods using substance data, as required by Regulation (EC) No 1272/2008. If for certain classifications data on the mixture is available or for example bridging principles or weight of evidence can be used for classification, this will be indicated in the relevant sections of the Safety Data Sheet. See section 9 for physical chemical properties, section 11 for toxicological information and section 12 for ecological information.

Abbreviations and acronyms:
- AISE - The international Association for Soaps, Detergents and Maintenance Products
- ATE - Acute Toxicity Estimate
- DNEL - Derived No Effect Limit
- EC50 - effective concentration, 50%
- ERC - Environmental release categories
- EUH - CLP Specific hazard statement
- LC50 - Lethal Concentration, 50% / Median Lethal Concentration
- LCS - Life cycle stage
- LD50 - Lethal Dose, 50% / Median Lethal dose
- NOAEL - No observed adverse effect level
- NOEL - No observed effect level
- OECD - Organisation for Economic Cooperation and Development
- PBT - Persistent, Bioaccumulative and Toxic
- PNEC - Predicted No Effect Concentration
- PROC - Process categories
- REACH number - REACH registration number, without supplier specific part
- vPvB - very Persistent and very Bioaccumulative
- H290 - May be corrosive to metals.
- H302 - Harmful if swallowed.
- H318 - Causes serious eye damage.
- H319 - Causes serious eye irritation.

End of Safety Data Sheet