

Safety Data Sheet

According to Regulation (EC) No 1907/2006

Bryta Dishwashing Detergent

Revision: 2019-02-07 **Version:** 02.1

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

1.1 Product identifier

Trade name: Bryta Dishwashing Detergent

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

Identified uses:

For professional use only.

AISE-P202 - Dishwash product. Automatic process

Uses advised against: Uses other than those identified are not recommended

1.3 Details of the supplier of the safety data sheet

Diversey Europe Operations BV, Maarssenbroeksedijk 2, 3542DN Utrecht, The Netherlands

Contact details

Diversey Hygiene Sales Limited Jamestown Road, Finglas, Dublin 11, Ireland Tel: 01 8081808 (9am - 5pm Mon-Fri) Email: dublin.orders@diversey.com

1.4 Emergency telephone number

Seek medical advice (show the label or safety data sheet where possible)
National Poisons Information Centre
Tel: 01 809 2166. (8.00 a.m. to 10.00 p.m. 7 days a week)
Tel: 01 809 2566 (health care professionals)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Skin Corr. 1A (H314) Met. Corr. 1 (H290)

2.2 Label elements



Signal word: Danger.

Contains sodium hydroxide (Sodium Hydroxide).

Hazard statements:

H314 - Causes severe skin burns and eye damage.

H290 - May be corrosive to metals.

Precautionary statements:

P260 - Do not breathe vapours.

P280 - Wear protective gloves, protective clothing and eye or face protection.

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

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

P310 - Immediately call a POISON CENTRE, doctor or physician.

2.3 Other hazards

No other hazards known. The product does not meet the criteria for PBT or vPvB in accordance with Regulation (EC) No 1907/2006, Annex xIII

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Ingredient(s)	EC number	CAS number	REACH number	Classification	Notes	Weight percent
sodium hydroxide	215-185-5	1310-73-2	01-2119457892-27	Skin Corr. 1A (H314) Met. Corr. 1 (H290)		10-20
tetrasodium (1-hydroxy ethylidene)bisphosphonate	223-267-7	3794-83-0	[1]	Skin Irrit. 2 (H315) Acute Tox. 4 (H302) Eye Irrit. 2 (H319)		3-10

For the full text of the H and EUH phrases mentioned in this Section, see Section 16.

- Workplace exposure limit(s), if available, are listed in subsection 8.1. [1] Exempted: ionic mixture. See Regulation (EC) No 1907/2006, Annex V, paragraph 3 and 4. This salt is potentially present, based on calculation, and included
- for classification and labelling purposes only. Each starting material of the ionic mixture is registered, as required.
- [2] Exempted: included in Annex IV of Regulation (EC) No 1907/2006.
- [3] Exempted: Annex V of Regulation (EC) No 1907/2006
- [4] Exempted: polymer. See Article 2(9) of Regulation (EC) No 1907/2006.

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 for at least 30 minutes. Take off

immediately all contaminated clothing and wash it before re-use. Immediately call a POISON

CENTRE, doctor or physician.

Immediately rinse eyes cautiously with lukewarm water for several minutes. Remove contact lenses, Eye contact:

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. Do NOT induce vomiting. Keep at rest.

Immediately call a POISON CENTRE, doctor or physician.

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: Causes severe burns.

Eye contact: Causes severe or permanent damage.

Ingestion will lead to a strong caustic effect on mouth and throat and to the danger of perforation of Ingestion:

oesophagus and stomach.

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

Ensure adequate ventilation. Do not breathe dust or vapour. Wear suitable protective clothing, gloves and eye/face protection.

6.2 Environmental precautions

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

6.3 Methods and material for containment and cleaning up

Use neutralising agent. Absorb onto dry sand or similar inert material. Ensure adequate ventilation.

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. Wash face, hands and any exposed skin thoroughly after handling. Take off immediately all contaminated clothing. Wash contaminated clothing before reuse. Use personal protective equipment as required. Avoid contact with skin and eyes. Do not breathe vapours. Use only with adequate ventilation.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local and national regulations. Keep only in original packaging. Store in a closed container. 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:

All little values, il available.		
Ingredient(s)	Long term value(s)	Short term value(s)
sodium hydroxide		2 mg/m ³

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 oral exposure - Consumer (mg/kg bw)

Ingredient(s)	Short term - Local effects	Short term - Systemic effects	Long term - Local effects	Long term - Systemic effects
sodium hydroxide	-	-	-	-
tetrasodium (1-hydroxy ethylidene)bisphosphonate	No data available	No data available	No data available	2.1

DNEL 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)
sodium hydroxide	2 %	-	-	-
tetrasodium (1-hydroxy ethylidene)bisphosphonate	No data available	No data available	No data available	48

DNEL 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)
	sodium hydroxide	2 %	-	-	-
ı	tetrasodium (1-hydroxy ethylidene)bisphosphonate	No data available	No data available	No data available	24

DNEL inhalatory exposure - Worker (mg/m³)

Ingredient(s)	Short term - Local effects	Short term - Systemic effects	Long term - Local effects	Long term - Systemic effects
sodium hydroxide	-	-	1	-
tetrasodium (1-hydroxy ethylidene)bisphosphonate	No data available	No data available	No data available	16.9

DNEL inhalatory exposure - Consumer (mg/m³)

Ingredient(s)	Short term - Local effects	Short term - Systemic effects	Long term - Local effects	Long term - Systemic effects
sodium hydroxide	-	-	1	-
tetrasodium (1-hydroxy ethylidene)bisphosphonate	10	No data available	10	4.2

Environmental exposure

Environmental exposure - PNEC

Environmental exposure - PNEC	nviionmental exposure - FNEC						
Ingredient(s)	Surface water, fresh (mg/l)	Surface water, marine (mg/l)	Intermittent (mg/l)	Sewage treatment plant (mg/l)			
sodium hydroxide	-	-	-	-			
tetrasodium (1-hydroxy ethylidene)bisphosphonate	No data available	No data available	No data available	No data available			

Environmental exposure - PNEC, continued

Ingredient(s)	Sediment, freshwater (mg/kg)	Sediment, marine (mg/kg)	Soil (mg/kg)	Air (mg/m³)
sodium hydroxide	-	-	-	-
tetrasodium (1-hydroxy ethylidene)bisphosphonate	No data available	No data available	No data available	No data available

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:

Covering activities such as filling and transfer of product to application equipment, flasks or buckets

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. Where possible: use in automated/closed system and cover open containers. Transport over pipes. Filling

with automatic systems. Use tools for manual handling of product.

Appropriate organisational controls: Avoid direct contact and/or splashes where possible. Train personnel.

Personal protective equipment

Eye / face protection: Safety glasses or goggles (EN 166).

Hand protection: Chemical-resistant protective gloves (EN 374). Verify instructions regarding permeability and

breakthrough time, as provided by the gloves supplier. Consider specific local use conditions, such

as risk of splashes, cuts, contact time and temperature.

Suggested gloves for prolonged contact: Material: butyl rubber Penetration time: ≥ 480 min Material

thickness: ≥ 0.7 mm

Suggested gloves for protection against splashes: Material: nitrile rubber Penetration time: ≥ 30 min

Material thickness: ≥ 0.4 mm

In consultation with the supplier of protective gloves a different type providing similar protection may

be chosen.

Body protection:Wear chemical-resistant clothing and boots in case direct dermal exposure and/or splashes may

occur (EN 14605).

Respiratory protection: Respiratory protection is not normally required. However, inhalation of vapour, spray, gas or

aerosols should be avoided.

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 (%): 0.8

Appropriate engineering controls: No special requirements under normal use conditions. Appropriate organisational controls: No special requirements under normal use conditions.

Personal protective equipment

Eye / face protection:
Hand protection:
Body 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, Pale, Yellow
Odour: Product specific
Odour threshold: Not applicable

pH: > 12 (neat)

Melting point/freezing point (°C): Not determined Not relevant to classification of this product

Initial boiling point and boiling range (°C): Not determined

Substance data, boiling point

Ingredient(s)	Value (°C)	Method	Atmospheric pressure (hPa)
sodium hydroxide	> 990	Method not given	
tetrasodium (1-hydroxy ethylidene)bisphosphonate	No data available		

Method / remark

Flammability (liquid): Not determined. Flash point (°C): Not applicable. Sustained combustion: Not applicable.

(UN Manual of Tests and Criteria, section 32, L.2)

Evaporation rate: Not determined

Flammability (solid, gas): Not determined

Upper/lower flammability limit (%): Not determined

Substance data, flammability or explosive limits, if available:

Method / remark

Vapour pressure: Not determined

Substance data, vapour pressure

Ingredient(s)	Value (Pa)	Method	Temperature (°C)
sodium hydroxide	< 1330	Method not given	20
tetrasodium (1-hydroxy ethylidene)bisphosphonate	No data available		

Method / remark

Vapour density: Not determined Relative density: ≈ 1.30 (20 °C)

Solubility in / Miscibility with Water: Fully miscible

Substance data, solubility in water

Ingredient(s)	Value (g/l)	Method	Temperature (°C)
sodium hydroxide	1000	Method not given	20
tetrasodium (1-hydroxy ethylidene)bisphosphonate	No data available		

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

Method / remark

Autoignition temperature: Not determined **Decomposition temperature:** Not applicable.

Viscosity: Not determined

Explosive properties: Not explosive. **Oxidising properties:** Not oxidising.

9.2 Other information

Surface tension (N/m): Not determined

Corrosion to metals: Corrosive

Not relevant to classification of this product

Weight of evidence

Substance data, dissociation constant, if available:

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

Reacts with acids.

10.6 Hazardous decomposition products

None known under normal storage and use conditions.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

No data is available on the mixture.

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

Acute toxicity

Acute oral toxicity

Ingredient(s)	Endpoint	Value	Species	Method	Exposure
		(mg/kg)			time (h)
sodium hydroxide		No data			
		available			
tetrasodium (1-hydroxy ethylidene)bisphosphonate		No data			
		available			

Acute dermal toxicity

Ingredient(s)		Endpoint	Value (mg/kg)	Species	Method	Exposure time (h)
	sodium hydroxide	LD 50	1350	Rabbit	Method not given	
	tetrasodium (1-hydroxy ethylidene)bisphosphonate		No data available			

Acute inhalative toxicity

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
sodium hydroxide		No data			
		available			
tetrasodium (1-hydroxy ethylidene)bisphosphonate		No data			
		available			

Irritation and corrosivity

Skin irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
sodium hydroxide	Corrosive	Rabbit	Method not given	
tetrasodium (1-hydroxy ethylidene)bisphosphonate	No data available			

Eye irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
sodium hydroxide	Corrosive	Rabbit	Method not given	
tetrasodium (1-hydroxy ethylidene)bisphosphonate	No data available			

Respiratory tract irritation and corrosivity

	Ingredient(s)	Result	Species	Method	Exposure time
	sodium hydroxide	No data available			
ĺ	tetrasodium (1-hydroxy ethylidene)bisphosphonate	No data available			

Sensitisation Sensitisation by skin contact

	Ingredient(s)	Result	Species	Method	Exposure time (h)
sodium hydroxide		Not sensitising			
				test	
te	etrasodium (1-hydroxy ethylidene)bisphosphonate	No data available			

Sensitisation by inhalation

	Ingredient(s)	Result	Species	Method	Exposure time
sodium hydroxide		No data available			
	tetrasodium (1-hydroxy ethylidene)bisphosphonate	No data available			

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Mutagenicity

Ingredient(s)	Result (in-vitro)	Method	Result (in-vivo)	Method
		(in-vitro)		(in-vivo)
sodium hydroxide	No evidence for mutagenicity, negative	DNA repair test	No evidence for mutagenicity, negative	OECD 474 (EU
	test results	on rat	test results	B.12) OECD
		hepatocytes		475 (EU B.11)
		OECD 473		
tetrasodium (1-hydroxy	No data available		No data available	
ethylidene)bisphosphonate				

Carcinogenicity

Ingredient(s)	Effect		
sodium hydroxide	No evidence for carcinogenicity, weight-of-evidence		
tetrasodium (1-hydroxy ethylidene)bisphosphonate	No data available		

Toxicity for reproduction

Ingredient(s)	Endpoint	Specific effect	Value (mg/kg bw/d)	Species	Method	Exposure time	Remarks and other effects reported
sodium hydroxide			No data available				No evidence for developmental toxicity No evidence for reproductive toxicity
tetrasodium (1-hydroxy ethylidene)bisphosphon ate			No data available				

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
sodium hydroxide		No data				
		available				
tetrasodium (1-hydroxy ethylidene)bisphosphonate		No data				
		available				

Sub-chronic dermal toxicity

Ingredient(s)	Endpoint	Value (mg/kg bw/d)	Species	Method	Exposure time (days)	Specific effects and organs affected
sodium hydroxide		No data				
		available				
tetrasodium (1-hydroxy ethylidene)bisphosphonate		No data				
		available				

Sub-chronic inhalation toxicity

Sub-chronic innaiation toxicity						
Ingredient(s)	Endpoint	Value	Species	Method	Exposure	Specific effects and organs
		(mg/kg bw/d)			time (days)	affected
sodium hydroxide		No data				
		available				
tetrasodium (1-hydroxy ethylidene)bisphosphonate		No data				
		available				1

Chronic toxicity

Chronic toxicity								
Ingredient(s)	Exposure	Endpoint	Value	Species	Method	Exposure	Specific effects and	Remark
• ()	route		(mg/kg bw/d)	•		time	organs affected	
sodium hydroxide			No data					
			available					
tetrasodium (1-hydroxy			No data					
ethylidene)bisphosphon			available					
ate								

STOT-single exposure

	Ingredient(s)	Affected organ(s)
	sodium hydroxide	No data available
Ī	tetrasodium (1-hydroxy ethylidene)bisphosphonate	No data available

STOT-repeated exposure

OTOT repeated exposure	
Ingredient(s)	Affected organ(s)
sodium hydroxide	No data available
tetrasodium (1-hydroxy ethylidene)bisphosphonate	No data available

Aspiration hazard

Substances with an aspiration hazard (H304), if any, are listed in section 3. If relevant, see section 9 for dynamic viscosity and relative density of the product.

Potential adverse health effects and symptoms

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

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)
sodium hydroxide	LC 50	35	Various species	Method not given	96
tetrasodium (1-hydroxy ethylidene)bisphosphonate		No data available			

Aquatic short-term toxicity - crustacea

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
sodium hydroxide	EC 50	40.4	Ceriodaphnia	Method not given	48
			sp.		
tetrasodium (1-hydroxy ethylidene)bisphosphonate		No data			
		available			

			Endpoint	Valu (mg/		Spec	ies		Method	Exposure time (h)
sodium hydroxide			EC 50	22		Photoba m phosph		Meth	nod not given	0.25
tetrasodium (1-hydroxy ethylidene)bisphos	sphonate			No da		priospri	Jieum			
equatic short-term toxicity - marine species						L	I			L
Ingredient(s)			Endpoint	Valu		Spec	ies		Method	Exposur
sodium hydroxide				(mg/						time (day
<u>, </u>				availa	ble					
tetrasodium (1-hydroxy ethylidene)bisphos	spnonate			No da availa						
npact on sewage plants - toxicity to bacteria			F - 1 1 - 4	1 1/-1		•			M (1 - 1	I =
Ingredient(s)			Endpoint	Valu (mg/		Inocu	lum		Method	Exposui time
sodium hydroxide				No da availa						
tetrasodium (1-hydroxy ethylidene)bisphos	sphonate			No da availa	ata					
austic long torm toxicity										I
Aquatic long-term toxicity equatic long-term toxicity - fish Ingredient(s)	Endnoint	Value	. l e.	nocios	Mc	ethod	Evno	suro l	Effects ob	sorved
<u> </u>	Endpoint	(mg/l)		pecies	IVIE	, iii Ou	Expos		Effects of	Jaei veu
sodium hydroxide		No dat availab								
tetrasodium (1-hydroxy ethylidene)bisphosphonate		No dat availab	-							
	1	availab								
quatic long-term toxicity - crustacea Ingredient(s)	Endpoint	Value (mg/l)		pecies	Me	ethod	Expos		Effects ob	served
sodium hydroxide		No dat availab	а				uiii			
tetrasodium (1-hydroxy ethylidene)bisphosphonate		No dat availab	a							
		availab								
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						thad	Evno	ouro I	Effects of	convod
equatic toxicity to other aquatic benthic organisms, including the individual ingredient (s)	Endpoint	t-dwelling o Value (mg/kg sedimer	Sp dw Wt	f available pecies		ethod	Expos time (d		Effects ob	served
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Ingredient(s) sodium hydroxide tetrasodium (1-hydroxy ethylidene)bisphosphonate		Value (mg/kg o sedimer No dat availab	dw ht) a le			ethod	time (d		Effects ob	oserved
Ingredient(s) sodium hydroxide	Endpoint	Value (mg/kg sedimer No dat availab No dat availab	dw ht) a le			ethod	time (d		Effects ob	oserved
Ingredient(s) sodium hydroxide tetrasodium (1-hydroxy ethylidene)bisphosphonate Ferrestrial toxicity	Endpoint	Value (mg/kg sedimer No dat availab No dat availab	Sport		Me	ethod	time (d	sure	Effects ob	
sodium hydroxide tetrasodium (1-hydroxy ethylidene)bisphosphonate errestrial toxicity errestrial toxicity - soil invertebrates, including earthworn	Endpoint ms, if available	Value (mg/kg sedimer No dat availab No dat availab	dw si	pecies	Me		time (d	sure		
sodium hydroxide tetrasodium (1-hydroxy ethylidene)bisphosphonate Ferrestrial toxicity Ferrestrial toxicity - soil invertebrates, including earthwork ingredient(s)	Endpoint ms, if available	Value (mg/kg sedimer No dat availab No dat availab	Sidw Sidw Sidw Sidw	pecies	Me		Expos	sure		
sodium hydroxide tetrasodium (1-hydroxy ethylidene)bisphosphonate errestrial toxicity errestrial toxicity - soil invertebrates, including earthwork Ingredient(s) sodium hydroxide errestrial toxicity - plants, if available:	Endpoint ms, if available	value (mg/kg sedimer No dat availab No dat availab e: Value (mg/kg soil) No dat	Sidw Sidw Sidw Sidw	pecies	Me		Expos	sure		
sodium hydroxide tetrasodium (1-hydroxy ethylidene)bisphosphonate Ferrestrial toxicity Ferrestrial toxicity - soil invertebrates, including earthwork ingredient(s)	Endpoint ms, if available	e: Value (mg/kg sedimer No dat availab No dat availab e: Value (mg/kg soil) No dat availab	spanning Spa	pecies	Me		Expos	sure lays)		oserved
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	(mg/kg dw soil)	time (da	ys)
sodium hydroxide	No data	-	
	available		

12.2 Persistence and degradability

Abiotic degradation

Abiotic degradation - photodegradation in air, if available:

Ingredient(s)	Half-life time	Method	Evaluation	Remark
sodium hydroxide	13 second(s)	Method not given	Rapidly photodegradable	

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
sodium hydroxide					Not applicable (inorganic substance)
tetrasodium (1-hydroxy ethylidene)bisphosphonate	Activated sludge, aerobe			Read across	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
sodium hydroxide	No data available		Not relevant, does not bioaccumulate	
tetrasodium (1-hydroxy ethylidene)bisphosphonate	No data available			

Bioconcentration factor (BCF)

Ingredient(s)	Value	Species	Method	Evaluation	Remark
sodium hydroxide	No data available				
tetrasodium (1-hydroxy ethylidene)bisphosphon ate					

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
sodium hydroxide	No data available				Mobile in soil
tetrasodium (1-hydroxy ethylidene)bisphosphonate	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 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 15* - alkalines.

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: 1824

14.2 UN proper shipping name:Sodium hydroxide solution

14.3 Transport hazard class(es):

Transport hazard class (and subsidiary risks): 8

14.4 Packing group: II
14.5 Environmental hazards:
Environmentally hazardous: No
Marine pollutant: No

14.6 Special precautions for user: None known.

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code: The product is not transported in bulk tankers.

Other relevant information:

ADR

Classification code: C5
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

EU regulations:

- Regulation (EC) No 1272/2008 CLP
- Regulation (EC) No. 1907/2006 REACH
- Regulation (EC) No. 648/2004 Detergents regulation

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

UFI: GE17-D0GX-S00V-HUWW

Ingredients according to EC Detergents Regulation 648/2004

phosphonates 5 - 15% polycarboxylates 5 - 5%

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

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Reason for revision:

This data sheet contains changes from the previous version in section(s):, 2, 3, 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.

Full text of the H and EUH phrases mentioned in section 3:

- H290 May be corrosive to metals.
- H302 Harmful if swallowed.
- H314 Causes severe skin burns and eye damage.
- · H315 Causes skin irritation.
- H319 Causes serious eye irritation.

Abbreviations and acronyms:

• AISE - The international Association for Soaps, Detergents and Maintenance Products

- DNEL Derived No Effect Limit
 EUH CLP Specific hazard statement
 PBT Persistent, Bioaccumulative and Toxic
 PNEC Predicted No Effect Concentration
 REACH number REACH registration number, without supplier specific part
 vPvB very Persistent and very Bioaccumulative
 ATE Acute Toxicity Estimate

End of Safety Data Sheet