

Safety Data Sheet According to Regulation (EC) No 1907/2006

Brillo Concentrated Cleaner Degreaser

Revision: 2015-07-12

Version: 05.0

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

1.1 Product identifier

Trade name: Brillo Concentrated Cleaner Degreaser Brillo ® Used under authority from S.C. Johnson & Son Inc., Racine, Wisconsin, U.S.A.

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

Identified uses: For professional use only. AISE-P303 - Kitchen cleaner. Manual process AISE-P304 - Kitchen cleaner. Spray and wipe manual 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 Ltd Weston Favell Centre, Northampton NN3 8PD, United Kingdom Tel: 01604 405311, Fax: 01604 406809 Regulatory Email: MSDSinfoUK@sealedair.com

1.4 Emergency telephone number

For medical or environmental emergency only: call 0800 052 0185

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

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

Skin Irrit. 2 (H315) Eye Dam. 1 (H318)

Classification in accordance with Directive 1999/45/EC and corresponding national legislation Indication of danger

Xi - Irritant

Risk phrases: R36 - Irritating to eyes.

2.2 Label elements



Signal word: Danger.

Contains disodium metasilicate (Sodium Metasilicate), sodium alkylbenzenesulphonate (Sodium Dodecylbenzenesulfonate), alkyl alcohol ethoxylate (C9-11 Pareth-6).

Hazard statements:

H315 - Causes skin irritation. 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. 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	Classification (1999/45/EC)	Notes	Weight percent
disodium metasilicate	215-687-4	1344-09-8	01-2119448725-31	Skin Corr. 1B (H314) STOT SE 3 (H335) Met. Corr. 1 (H290)	C;R34 Xi;R37		3-10
sodium alkylbenzenesulphonate	290-656-6	90194-45-9	[1]	Acute Tox. 4 (H302) Skin Irrit. 2 (H315) Eye Dam. 1 (H318)	Xn;R22 Xi;R38-41		1-3
sodium cumenesulphonate	239-854-6	15763-76-5	01-2119489411-37	Eye Irrit. 2 (H319)	Xi;R36		1-3
alkyl alcohol ethoxylate	Polymer*	68439-46-3	[4]	Acute Tox. 4 (H302) Eye Dam. 1 (H318) Aquatic Chronic 3 (H412)	Xn;R22 Xi;R41		1-3
cocoamidopropyl betaine hydrogenated	604-575-4 931-513-6 931-296-8	-	01-2119489410-39 01-2119513359-38 01-2119488533-30	Eye Dam. 1 (H318) Aquatic Chronic 3 (H412)	Xi;R41		1-3

* Polymer.

For the full text of the R, 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 measur Inhalation	es Get medical attention or advice if you feel unwell.
Skin contact:	Wash skin with plenty of lukewarm, gently flowing water. Take off immediately all contaminated clothing and wash it before re-use. If skin irritation occurs: Get medical advice or attention.
Eye contact:	Immediately rinse eyes cautiously with lukewarm water for several 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. 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	l effects, both acute and delayed
Inhalation:	No known effects or symptoms in normal use

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

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

Absorb with liquid-binding material (sand, diatomite, universal binders, sawdust).

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 Sealed Air. 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 eyes. 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 container. 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:

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
disodium metasilicate	-	-	-	0.74
sodium alkylbenzenesulphonate	No data available	No data available	No data available	No data available
sodium cumenesulphonate	No data available	No data available	No data available	No data available
alkyl alcohol ethoxylate	No data available	No data available	No data available	No data available
cocoamidopropyl betaine hydrogenated	-	-	-	7.5

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)
disodium metasilicate	No data available	-	No data available	1.49
sodium alkylbenzenesulphonate	No data available	No data available	No data available	No data available
sodium cumenesulphonate	No data available	No data available	No data available	No data available
alkyl alcohol ethoxylate	No data available	No data available	No data available	No data available
cocoamidopropyl betaine hydrogenated	No data available	-	No data available	12.5

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)
disodium metasilicate	No data available	-	No data available	0.74
sodium alkylbenzenesulphonate	No data available	No data available	No data available	No data available
sodium cumenesulphonate	No data available	No data available	No data available	No data available
alkyl alcohol ethoxylate	No data available	No data available	No data available	No data available
cocoamidopropyl betaine hydrogenated	No data available	-	No data available	7.5

DNEL inhalatory exposure - Worker (mg/m ³)				
Ingredient(s)	Short term - Local effects	Short term - Systemic effects	Long term - Local effects	Long term - Systemic effects
disodium metasilicate	-	-	-	6.22
sodium alkylbenzenesulphonate	No data available	No data available	No data available	No data available
sodium cumenesulphonate	No data available	No data available	No data available	No data available
alkyl alcohol ethoxylate	No data available	No data available	No data available	No data available
cocoamidopropyl betaine hydrogenated	-	-	-	44

DNEL inhalatory exposure - Consumer (mg/m³)

Ingredient(s)	Short term - Local effects	Short term - Systemic effects	Long term - Local effects	Long term - Systemic effects
disodium metasilicate	-	-	-	1.55
sodium alkylbenzenesulphonate	No data available	No data available	No data available	No data available
sodium cumenesulphonate	No data available	No data available	No data available	No data available
alkyl alcohol ethoxylate	No data available	No data available	No data available	No data available
cocoamidopropyl betaine hydrogenated	-	-	-	-

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)
disodium metasilicate	7.5	1	7.5	1000
sodium alkylbenzenesulphonate	No data available	No data available	No data available	No data available
sodium cumenesulphonate	No data available	No data available	No data available	No data available
alkyl alcohol ethoxylate	No data available	No data available	No data available	No data available
cocoamidopropyl betaine hydrogenated	0.0135	0.00135	-	3000

Environmental exposure - PNEC, continued				
Ingredient(s)	Sediment, freshwater	Sediment, marine	Soil (mg/kg)	Air (mg/m ³)
	(mg/kg)	(mg/kg)		
disodium metasilicate	-	-	-	-
sodium alkylbenzenesulphonate	No data available	No data available	No data available	No data available
sodium cumenesulphonate	No data available	No data available	No data available	No data available
alkyl alcohol ethoxylate	No data available	No data available	No data available	No data available
cocoamidopropyl betaine hydrogenated	1	0.1	0.8	-

8.2 Exposure controls

The following information applies for the uses indicated in subsection 1.2. 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 <u>undiluted</u> product: Covering activities such as filling and transfer of product to application equipment, flasks or buckets

Appropriate engineering controls: Appropriate organisational 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. Avoid direct contact and/or splashes where possible. Train personnel.
Personal protective equipment Eye / face protection: Hand protection:	Safety glasses or goggles (EN 166). 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
Body protection: Respiratory protection:	In consultation with the supplier of protective gloves a different type providing similar protection may be chosen. No special requirements under normal use conditions. No special requirements under normal use conditions.
Environmental exposure controls:	No special requirements under normal use conditions.

Recommended safety measures for handling the <u>diluted</u> product:

Recommended maximum concentration (%): 5

Appropriate engineering controls: Appropriate organisational controls:	Use only in well ventilated areas. No special requirements under normal use conditions.
Personal protective equipment	
Eye / face protection:	Safety glasses are not normally required. However, their use is recommended in those cases where splashes may occur when handling the product.
Hand protection:	Rinse and dry hands after use. For prolonged contact protection for the skin may be necessary.
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

 Physical State:
 Liquid

 Colour:
 Clear, Pale, Yellow

 Odour:
 Product specific

 Odour threshold:
 Not applicable

 pH: > 12 (neat)
 Melting point/freezing point (°C):

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

Substance data, boiling point

Ingredient(s)	Value (°C)	Method	Atmospheric pressure (hPa)
disodium metasilicate	No data available		
sodium alkylbenzenesulphonate	No data available		
sodium cumenesulphonate	No data available		
alkyl alcohol ethoxylate	> 232.2	Method not given	
cocoamidopropyl betaine hydrogenated	100	Method not given	

Method / remark

Method / remark

Flash point (°C): Not applicable. Sustained combustion: Not applicable. 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)
disodium metasilicate	No data available		
sodium alkylbenzenesulphonate	No data available		
sodium cumenesulphonate	No data available		
alkyl alcohol ethoxylate	< 10	Method not given	37.8
cocoamidopropyl betaine hydrogenated	.?	Method not given	20

Method / remark

Vapour density: Not determined Relative density: 1.10 g/cm³ (20 °C) Solubility in / Miscibility with Water: Fully miscible

Ingredient(s)	Value (g/l)	Method	Temperature (°C)
disodium metasilicate	350	Method not given	20
sodium alkylbenzenesulphonate	No data available		
sodium cumenesulphonate	493 Soluble	Method not given	20
alkyl alcohol ethoxylate	100 Soluble	Method not given	
cocoamidopropyl betaine hydrogenated	> .? Soluble	Method not given	20

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: Not corrosive

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

Mixture data:

Relevant calculated ATE(s):

ATE - Oral (mg/kg): >2000

Skin irritation and corrosivity Result: Not corrosive

Method: OECD 431 (EU B.40 bis), Episkin

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

Acute toxicity

Ingredient(s)	Endpoint	Value (mg/kg)	Species	Method	Exposure time (h)
disodium metasilicate	LD 50	770 - 820	Mouse	Method not given	
sodium alkylbenzenesulphonate		No data available			
sodium cumenesulphonate	LD 50	> 7000	Rat	Method not given	
alkyl alcohol ethoxylate	LD 50	300 - 2000		Method not given	-
cocoamidopropyl betaine hydrogenated	LD 50	2430	Rat	Method not given	-

Acute dermal toxicity

Ingredient(s)	Endpoint	Value (mg/kg)	Species	Method	Exposure time (h)
disodium metasilicate		No data available			
sodium alkylbenzenesulphonate		No data available			
sodium cumenesulphonate	LD 50	> 2000	Rabbit	Method not given	
alkyl alcohol ethoxylate	LD 50	2000 - 5000	Rat	Method not given	-
cocoamidopropyl betaine hydrogenated	LD 50	> 5000	Rat	OECD 402 (EU B.3)	-

Acute inhalative toxicity

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
disodium metasilicate		No data			
		available			
sodium alkylbenzenesulphonate		No data			

		available			
sodium cumenesulphonate		No data			
		available			
alkyl alcohol ethoxylate		No data			-
		available			
cocoamidopropyl betaine hydrogenated	LC 50	> 5 (mist)	Rat	Method not given	4

Irritation and corrosivity Skin irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
disodium metasilicate	Corrosive		Method not given	
sodium alkylbenzenesulphonate	No data available			
sodium cumenesulphonate	Not irritant	Rabbit	OECD 404 (EU B.4)	
alkyl alcohol ethoxylate	Not irritant		Method not given	
cocoamidopropyl betaine hydrogenated	Not irritant	Rabbit	OECD 404 (EU B.4)	

Eye irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
disodium metasilicate	Corrosive		Method not given	
sodium alkylbenzenesulphonate	No data available			
sodium cumenesulphonate	Irritant	Rabbit	OECD 405 (EU B.5)	
alkyl alcohol ethoxylate	Severe damage	Rabbit	Method not given	
cocoamidopropyl betaine hydrogenated	Severe damage	Rabbit	OECD 405 (EU B.5)	

Respiratory tract irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
disodium metasilicate	No data available			
sodium alkylbenzenesulphonate	No data available			
sodium cumenesulphonate	No data available			
alkyl alcohol ethoxylate	No data available			
cocoamidopropyl betaine hydrogenated	No data available			

Sensitisation Sensitisation by skin contact

Ingredient(s)	Result	Species	Method	Exposure time (h)
disodium metasilicate	No data available			
sodium alkylbenzenesulphonate	No data available			
sodium cumenesulphonate	Not sensitising	Guinea pig	OECD 406 (EU B.6) / GPMT	
alkyl alcohol ethoxylate	Not sensitising	Guinea pig	Method not given	-
cocoamidopropyl betaine hydrogenated	Not sensitising	Guinea pig	OECD 406 (EU B.6) / GPMT	-

Sensitisation by inhalation

Ingredient(s)	Result	Species	Method	Exposure time
disodium metasilicate	No data available			
sodium alkylbenzenesulphonate	No data available			
sodium cumenesulphonate	No data available			
alkyl alcohol ethoxylate	No data available			-
cocoamidopropyl betaine hydrogenated	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)
disodium metasilicate	No data available		No data available	
sodium alkylbenzenesulphonate	No data available		No data available	
sodium cumenesulphonate	No evidence for mutagenicity, negative test results		No evidence for mutagenicity, negative test results	OECD 474 (EU B.12)
alkyl alcohol ethoxylate	No evidence for mutagenicity, negative test results	OECD 473	No data available	
cocoamidopropyl betaine hydrogenated		OECD 471 (EU B.12/13) OECD 476		OECD 474 (EU B.12)

Carcinogenicity

Ingredient(s)	Effect
disodium metasilicate	No data available
sodium alkylbenzenesulphonate	No data available
sodium cumenesulphonate	No evidence for carcinogenicity, negative test results
alkyl alcohol ethoxylate	No evidence for carcinogenicity, negative test results
cocoamidopropyl betaine hydrogenated	No evidence for carcinogenicity, weight-of-evidence

Toxicity for reproduction

Ingredient(s)	Endpoint	Specific effect	Value (mg/kg bw/d)	Species	Method	Exposure time	Remarks and other effects reported
disodium metasilicate			No data available				
sodium alkylbenzenesulphonat e			No data available				
sodium cumenesulphonate	NOAEL	Teratogenic effects	> 936	Rat	Non guideline test		
alkyl alcohol ethoxylate	NOAEL		> 250	Rat	Not known		No effects on fertility No developmental toxicity
cocoamidopropyl betaine hydrogenated	NOEL	Developmental toxicity	300	Rat	OECD 414 (EU B.31), oral		

Repeated dose toxicity

Ingredient(s)	Endpoint	Value (mg/kg bw/d)	Species	Method	Exposure time (days)	
disodium metasilicate	NOAEL	> 227 - 237	Rat	Method not given		
sodium alkylbenzenesulphonate		No data available				
sodium cumenesulphonate	NOAEL	763	Rat	OECD 408 (EU B.26)		
alkyl alcohol ethoxylate	NOAEL	80 - 400		Method not given	-	
cocoamidopropyl betaine hydrogenated	NOAEL	300	Rat	OECD 408 (EU B.26)	90	

Sub-chronic dermal toxicity

Ingredient(s)	Endpoint	Value (mg/kg bw/d)	Species	Method	Exposure time (days)	Specific effects and organs affected
disodium metasilicate		No data available				
sodium alkylbenzenesulphonate		No data available				
sodium cumenesulphonate		No data available				
alkyl alcohol ethoxylate	NOAEL	80		OECD 411 (EU B.28)	90	
cocoamidopropyl betaine hydrogenated		No data available			-	

Sub-chronic inhalation toxicity

Ingredient(s)	Endpoint	Value (mg/kg bw/d)	Species	Method	Exposure time (days)	
disodium metasilicate		No data available				
sodium alkylbenzenesulphonate		No data available				
sodium cumenesulphonate		No data available				
alkyl alcohol ethoxylate		No data available			-	
cocoamidopropyl betaine hydrogenated		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
disodium metasilicate			No data available					
sodium alkylbenzenesulphonat e			No data available					
sodium cumenesulphonate			No data available					
alkyl alcohol ethoxylate			No data available					
cocoamidopropyl betaine hydrogenated			No data available					

STOT-single exposure

Ingredient(s)	Affected organ(s)
disodium metasilicate	No data available
sodium alkylbenzenesulphonate	No data available
sodium cumenesulphonate	No data available
alkyl alcohol ethoxylate	No data available
cocoamidopropyl betaine hydrogenated	No data available

Ingredient(s)	Affected organ(s)
disodium metasilicate	No data available
sodium alkylbenzenesulphonate	No data available
sodium cumenesulphonate	No data available
alkyl alcohol ethoxylate	No data available
cocoamidopropyl betaine hydrogenated	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: Ecologica	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)
disodium metasilicate	LC 50	210	Brachydanio rerio	Method not given	96
sodium alkylbenzenesulphonate		No data available			
sodium cumenesulphonate	LC 50	> 1000	Fish	EPA-OPPTS	96
alkyl alcohol ethoxylate	LC 50	5 - 7	Fish	92/69/EEC, C1, semi-static	96
cocoamidopropyl betaine hydrogenated	LC 50	1.11	Fish	OECD 203, semi-static	96

Aquatic short-term toxicity - crustacea					
Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
disodium metasilicate	EC 50	1700	Daphnia	Method not given	48
sodium alkylbenzenesulphonate		No data available			
sodium cumenesulphonate	EC 50	> 100	Daphnia magna Straus	OECD 202	48
alkyl alcohol ethoxylate	EC 50	5.3	Daphnia	92/69/EEC	48
cocoamidopropyl betaine hydrogenated	EC 50	1.9	Daphnia	OECD 202, static	48

Aquatic short-term toxicity - algae

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
disodium metasilicate	EC 50	207	Chlorella pyrenoidosa	Method not given	72
sodium alkylbenzenesulphonate		No data available			
sodium cumenesulphonate	EC 50	> 230	Not specified	US-EPA 1994	96
alkyl alcohol ethoxylate	EC 50	1.4 - 47	Not specified	92/69/EEC	72
cocoamidopropyl betaine hydrogenated	Er C 50	2.4	Not specified	Method not given	72

Aquatic short-term toxicity - marine species

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (days)
disodium metasilicate		No data available			-
sodium alkylbenzenesulphonate		No data available			
sodium cumenesulphonate		No data available			-
alkyl alcohol ethoxylate		No data available			-
cocoamidopropyl betaine hydrogenated	ErC 50	0.74	Skeletonema costatum Phaeodactylum tricornutum	ISO 10253	72

Impact on sewage plants - toxicity to bacteria								
Ingredient(s)	Endpoint	Value	Inoculum	Method	Exposure			
		(mg/l)			time			
disodium metasilicate	EC 50	> 100	Activated sludge	Method not given	3 hour(s)			
sodium alkylbenzenesulphonate		No data						
Page 0/13								

		available			
sodium cumenesulphonate	Er C 50	> 1000	Bacteria	OECD 209	3 hour(s)
alkyl alcohol ethoxylate	EC 50	> 140	Bacteria	Method not given	3 hour(s)
cocoamidopropyl betaine hydrogenated	EC 50	3000	Bacteria	ISO 13641 (2003), anaerobic	16 hour(s)

Aquatic long-term toxicity

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
disodium metasilicate		No data available				
sodium alkylbenzenesulphonate		No data available				
sodium cumenesulphonate		No data available				
alkyl alcohol ethoxylate	EC 10	8.983	Not specified	Method not given	21 day(s)	
cocoamidopropyl betaine hydrogenated	NOEC	0.135	Oncorhynchus mykiss	OECD 210	100 day(s)	

Aquatic long-term toxicity - crustacea

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
disodium metasilicate		No data available				
sodium alkylbenzenesulphonate		No data available				
sodium cumenesulphonate		No data available				
alkyl alcohol ethoxylate	EC 10	2.579	Daphnia sp.	Method not given	21 day(s)	
cocoamidopropyl betaine hydrogenated	NOEC	0.3	Daphnia magna	OECD 211	21 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
disodium metasilicate		No data available			-	
sodium alkylbenzenesulphonate		No data available				
sodium cumenesulphonate		No data available			-	
alkyl alcohol ethoxylate		No data available			-	
cocoamidopropyl betaine hydrogenated		No data available			-	

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

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
disodium metasilicate		No data available			-	
sodium cumenesulphonate		No data available			-	
alkyl alcohol ethoxylate		No data available			-	
cocoamidopropyl betaine hydrogenated		No data available			-	

Terrestrial toxicity - plants, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
disodium metasilicate		No data available			-	
sodium cumenesulphonate		No data available			-	
alkyl alcohol ethoxylate		No data available			-	
cocoamidopropyl betaine hydrogenated		No data available			-	

Terrestrial toxicity - birds, if available:

disodium metasilicate No data available - sodium cumenesulphonate No data -	Ingredient(s)	Endpoint	Value	Species	Method	Exposure time (days)	Effects observed
sodium cumenesulphonate No data	disodium metasilicate					-	
	sodium cumenesulphonate		No data Page 10 /	13		-	

	available			
alkyl alcohol ethoxylate	No data available		-	
cocoamidopropyl betaine hydrogenated	No data available		-	

Terrestrial toxicity - beneficial insects, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
disodium metasilicate		No data available			-	
sodium cumenesulphonate		No data available			-	
alkyl alcohol ethoxylate		No data available			-	
cocoamidopropyl betaine hydrogenated		No data available			-	

Terrestrial toxicity - soil bacteria, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
disodium metasilicate		No data available			-	
sodium cumenesulphonate		No data available			-	
alkyl alcohol ethoxylate		No data available			-	
cocoamidopropyl betaine hydrogenated		No data 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 **DT** 50 Method Evaluation method disodium metasilicate Not applicable (inorganic substance) No data available sodium alkylbenzenesulphonate 103 - 109% in 28 OECD 301B Readily biodegradable sodium cumenesulphonate CO₂ production day(s) alkyl alcohol ethoxylate 60 % in 28 day(s) Method not given Readily biodegradable cocoamidopropyl betaine hydrogenated 95 % in 28 day(s) Method not given Readily biodegradable

Ready biodegradability - anaerobic and marine conditions, if available:

Ingredient(s)	Medium & Type	Analytical method	DT 50	Method	Evaluation
cocoamidopropyl betaine hydrogenated			76% in 28 day(s)	OECD 306	Readily biodegradable

Degradation in relevant environmental compartments, if available:

The surfactant(s) contained in this preparation complies(comply) with the biodegradability criteria as laid down in Regulation (EC) No. 648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them, at their direct request or at the request of a detergent manufacturer.

12.3 Bioaccumulative potential

Partition coefficient n-octanol/water (log Kow) Method Value Evaluation Remark Ingredient(s) disodium metasilicate No data available sodium alkylbenzenesulphonate No data available sodium cumenesulphonate -1.1 Method not given No bioaccumulation expected alkyl alcohol ethoxylate 3.11 - 4.19 Method not given High potential for bioaccumulation cocoamidopropyl betaine hydrogenated 4.2 Method not given Low potential for bioaccumulation

Bioconcentration factor (BCF)

Ingredient(s)	Value	Species	Method	Evaluation	Remark
disodium metasilicate	No data available				
sodium alkylbenzenesulphonat e	No data available				
sodium	No data available				

cumenesulphonate				
alkyl alcohol ethoxylate	< 500	Method not given	High potential for bioaccumulation	
cocoamidopropyl betaine hydrogenated	3 - 71	Method not given	Low potential for bioaccumulation	

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
disodium metasilicate	No data available				
sodium alkylbenzenesulphonate	No data available				
sodium cumenesulphonate	No data available				
alkyl alcohol ethoxylate	No data available				Potential for mobility in soil, soluble in water
cocoamidopropyl betaine hydrogenated	No data available				Potential for mobility in soil, soluble in water

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	The concentrated contents or contaminated packaging should be disposed of by a certified handler
Waste from residues / unused	or according to the site permit. Release of waste to sewers is discouraged. The cleaned packaging
products:	material is suitable for energy recovery or recycling in line with local legislation.
European Waste Catalogue:	20 01 29* - detergents containing dangerous substances.
Empty packaging Recommendation: Suitable cleaning agents:	Dispose of observing national or local regulations. Water, if necessary with cleaning agent.

SECTION 14: Transport information

ADR, RID, ADN, IMO/IMDG, ICAO/IATA

14.1 UN number: Non-dangerous goods

- 14.2 UN proper shipping name: Non-dangerous goods
- 14.3 Transport hazard class(es): Non-dangerous goods

Class: -

14.4 Packing group: Non-dangerous goods

14.5 Environmental hazards: Non-dangerous goods

14.6 Special precautions for user: Non-dangerous goods

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: The product is not transported in bulk tankers.

SECTION 15: Regulatory information

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

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

Ingredients according to EC Detergents Regulation 648/2004	
phosphates	5 - 15%
amphoteric surfactants, anionic surfactants, non-ionic surfactants	< 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

SDS code: MSDS4170

Version: 05.0

Revision: 2015-07-12

Reason for revision:

Overall design adjusted in accordance with Amendment 453/2010, Annex II of Regulation (EC) No 1907/2006, This data sheet contains changes from the previous version in section(s):, 3

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 R, 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. • H318 - Causes serious eye damage.
- H319 Causes serious eye irritation.
- · H335 May cause respiratory irritation.
- H412 Harmful to aquatic life with long lasting effects.
- R22 Harmful if swallowed.

- R34 Causes burns.
 R36 Irritating to eyes.
 R37 Irritating to respiratory system.
 R38 Irritating to skin.
- R41 Risk of serious damage to eyes.

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