



Suma Forte Plus L54

Revision: 2018-01-25

Version: 06.1

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

1.1 Product identifier

Trade name: Suma Forte Plus L54

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 Ltd

Weston Favell Centre, Northampton NN3 8PD, United Kingdom

Tel: 01604 405311, Fax: 01604 406809

Regulatory Email: customerservice.uk@diversey.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

Skin Corr. 1A (H314)

Carc. 2 (H351)

Acute Tox. 4 (H302)

Met. Corr. 1 (H290)

2.2 Label elements



Signal word: Danger.

Contains potassium hydroxide (Potassium Hydroxide), trisodium nitrilotriacetate (Trisodium NTA), sodium hydroxide (Sodium Hydroxide).

Hazard statements:

H314 - Causes severe skin burns and eye damage.

H351 - Suspected of causing cancer.

H302 - Harmful if swallowed.

H290 - May be corrosive to metals.

Precautionary statements:

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. 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

Suma Forte Plus L54

SECTION 3: Composition/information on ingredients**3.2 Mixtures**

Ingredient(s)	EC number	CAS number	REACH number	Classification	Notes	Weight percent
potassium hydroxide	215-181-3	1310-58-3	01-2119487136-33	Met. Corr. 1 (H290) Acute Tox. 4 (H302) Skin Corr. 1A (H314)		20-30
trisodium nitrilotriacetate	225-768-6	5064-31-3	01-2119519239-36	Acute Tox. 4 (H302) Eye Irrit. 2 (H319) Carc. 2 (H351)		3-10
sodium hydroxide	215-185-5	1310-73-2	01-2119457892-27	Met. Corr. 1 (H290) Skin Corr. 1A (H314)		3-10

* Polymer.

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****General Information:**

IF exposed or concerned: Get medical advice or attention. Symptoms of intoxication may even occur after several hours. It is recommended to continue medical observation for at least 48 hours after the incident.

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.

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. 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:**

Suspected of causing cancer.

Skin contact:

Causes severe burns. Suspected of causing cancer.

Eye contact:

Causes severe or permanent damage.

Ingestion:

Suspected of causing cancer. Ingestion will lead to a strong caustic effect on mouth and throat and to the danger of perforation of 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**

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.

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 advised 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. Store used personal protective equipment separately. Use personal protective equipment as required. Avoid contact with skin and 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:

Ingredient(s)	UK - Long term value(s)	UK - Short term value(s)
potassium hydroxide		2 mg/m ³
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
potassium hydroxide	-	-	-	-
trisodium nitrilotriacetate	-	0.5	-	0.5
sodium hydroxide	-	-	-	-

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)
potassium hydroxide	No data available	-	No data available	-
trisodium nitrilotriacetate	-	1.75	-	-
sodium hydroxide	2 %	-	-	-

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)
potassium hydroxide	No data available	-	No data available	-
trisodium nitrilotriacetate	-	-	-	-
sodium hydroxide	2 %	-	-	-

DNEL inhalatory exposure - Worker (mg/m³)

Ingredient(s)	Short term - Local effects	Short term - Systemic effects	Long term - Local effects	Long term - Systemic effects
potassium hydroxide	-	-	1	-
trisodium nitrilotriacetate	No data available	5.25	No data available	3.5
sodium hydroxide	-	-	1	-

DNEL inhalatory exposure - Consumer (mg/m³)

Ingredient(s)	Short term - Local	Short term - Systemic	Long term - Local	Long term - Systemic
---------------	--------------------	-----------------------	-------------------	----------------------

Suma Forte Plus L54

	effects	effects	effects	effects
potassium hydroxide	-	-	1	-
trisodium nitrilotriacetate	No data available	1.75	1.75	0.8
sodium hydroxide	-	-	1	-

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)
potassium hydroxide	-	-	-	-
trisodium nitrilotriacetate	0.93	0.093	0.8	270
sodium hydroxide	-	-	-	-

Environmental exposure - PNEC, continued

Ingredient(s)	Sediment, freshwater (mg/kg)	Sediment, marine (mg/kg)	Soil (mg/kg)	Air (mg/m ³)
potassium hydroxide	-	-	-	-
trisodium nitrilotriacetate	3.64	0.364	0.182	0.8
sodium hydroxide	-	-	-	-

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: \geq 480 min
Material thickness: \geq 0.7 mmSuggested gloves for protection against splashes: Material: nitrile rubber Penetration time: \geq 30 min
Material thickness: \geq 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:

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 (%): 0.3

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:**

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, Light, 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)
potassium hydroxide	140	Method not given	
trisodium nitrilotriacetate	100	Method not given	1013
sodium hydroxide	> 990	Method not given	

Method / remark**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 applicable to liquids**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)
potassium hydroxide	2300	Method not given	20
trisodium nitrilotriacetate	2400	Method not given	20
sodium hydroxide	< 1330	Method not given	20

Method / remark**Vapour density:** Not determined**Relative density:** ≈ 1.42 (20 °C)**Solubility in / Miscibility with Water:** Fully miscible

Substance data, solubility in water

Ingredient(s)	Value (g/l)	Method	Temperature (°C)
potassium hydroxide	No data available		
trisodium nitrilotriacetate	Soluble	Method not given	
sodium hydroxide	1000	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:** CorrosiveNot 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

Mixture data:.

Relevant calculated ATE(s):

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)
potassium hydroxide	LD ₅₀	333	Rat	OECD 425	
trisodium nitrilotriacetate	LD ₅₀	1740	Rat	OECD 401 (EU B.1)	
sodium hydroxide		No data available			

Acute dermal toxicity

Ingredient(s)	Endpoint	Value (mg/kg)	Species	Method	Exposure time (h)
potassium hydroxide		No data available			
trisodium nitrilotriacetate	LD ₅₀	> 10000	Rat	Non guideline test	
sodium hydroxide		No data available			

Acute inhalative toxicity

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
potassium hydroxide		No data available			
trisodium nitrilotriacetate	LC ₅₀	> 5	Rat	Method not given	4
sodium hydroxide		No data available			

Irritation and corrosivity

Skin irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
potassium hydroxide	Corrosive	Rabbit	Draize test	
trisodium nitrilotriacetate	Not irritant	Rabbit	Method not given	
sodium hydroxide	Corrosive	Rabbit	Method not given	

Eye irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
potassium hydroxide	Corrosive		Method not given	
trisodium nitrilotriacetate	Irritant	Rabbit	Method not given	
sodium hydroxide	Corrosive	Rabbit	Method not given	

Respiratory tract irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
potassium hydroxide	No data available			
trisodium nitrilotriacetate	No data available			
sodium hydroxide	No data available			

Sensitisation

Sensitisation by skin contact

Ingredient(s)	Result	Species	Method	Exposure time (h)
potassium hydroxide	Not sensitising	Guinea pig	Method not given	
trisodium nitrilotriacetate	Not sensitising	Guinea pig	OECD 406 (EU B.6) / Buehler test	
sodium hydroxide	Not sensitising		Human repeated patch	

			test	
--	--	--	------	--

Sensitisation by inhalation

Ingredient(s)	Result	Species	Method	Exposure time
potassium hydroxide	No data available			
trisodium nitrilotriacetate	No data available			
sodium hydroxide	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)
potassium hydroxide	No evidence for mutagenicity, negative test results	Method not given	No data available	
trisodium nitrilotriacetate	No evidence for mutagenicity, negative test results		No evidence for mutagenicity, negative test results	
sodium hydroxide	No evidence for mutagenicity, negative test results	DNA repair test on rat hepatocytes OECD 473	No evidence for mutagenicity, negative test results	OECD 474 (EU B.12) OECD 475 (EU B.11)

Carcinogenicity

Ingredient(s)	Effect
potassium hydroxide	No evidence for carcinogenicity, negative test results
trisodium nitrilotriacetate	Limited evidence of a carcinogenic effect.
sodium hydroxide	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
potassium hydroxide			No data available				No evidence for reproductive toxicity
trisodium nitrilotriacetate	NOEL	Developmental toxicity	90	Rat	OECD 416, (EU B.35), oral		No evidence for reproductive toxicity
sodium hydroxide			No data available				No evidence for developmental toxicity 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
potassium hydroxide		No data available				
trisodium nitrilotriacetate		No data available				
sodium hydroxide		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
potassium hydroxide		No data available				
trisodium nitrilotriacetate		No data available				
sodium hydroxide		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
potassium hydroxide		No data available				
trisodium nitrilotriacetate		No data available				
sodium hydroxide		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
potassium hydroxide			No data available					
trisodium nitrilotriacetate		NOAEL	0.231	Rat	Non guideline test			
sodium hydroxide			No data					

Suma Forte Plus L54

			available				
--	--	--	-----------	--	--	--	--

STOT-single exposure

Ingredient(s)	Affected organ(s)
potassium hydroxide	No data available
trisodium nitrilotriacetate	No data available
sodium hydroxide	No data available

STOT-repeated exposure

Ingredient(s)	Affected organ(s)
potassium hydroxide	No data available
trisodium nitrilotriacetate	No data available
sodium hydroxide	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)
potassium hydroxide	LC ₅₀	80	<i>Various species</i>	Method not given	24
trisodium nitrilotriacetate	LC ₅₀	> 100	<i>Pimephales promelas</i>	APHA 1995	-
sodium hydroxide	LC ₅₀	35	<i>Various species</i>	Method not given	96

Aquatic short-term toxicity - crustacea

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
potassium hydroxide	EC ₅₀	30 - 1000	<i>Daphnia magna Straus</i>	Method not given	-
trisodium nitrilotriacetate	EC ₅₀	98	<i>Not specified</i>	Method not given	96
sodium hydroxide	EC ₅₀	40.4	<i>Ceriodaphnia sp.</i>	Method not given	48

Aquatic short-term toxicity - algae

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
potassium hydroxide		No data available			-
trisodium nitrilotriacetate	E _r C ₅₀	91.5	<i>Pseudokirchneriella subcapitata</i>	OECD 201 (EU C.3)	72
sodium hydroxide	EC ₅₀	22	<i>Photobacterium phosphoreum</i>	Method not given	0.25

Aquatic short-term toxicity - marine species

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (days)
potassium hydroxide		No data available			-
trisodium nitrilotriacetate		No data available			-
sodium hydroxide		No data available			-

Impact on sewage plants - toxicity to bacteria

Ingredient(s)	Endpoint	Value (mg/l)	Inoculum	Method	Exposure time
potassium hydroxide		No data available			
trisodium nitrilotriacetate	EC ₅₀	3200 - 5600	<i>Pseudomonas</i>	Method not given	8 hour(s)

Suma Forte Plus L54

			<i>putida</i>		
sodium hydroxide		No data available			

Aquatic long-term toxicity

Aquatic long-term toxicity - fish

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
potassium hydroxide		No data available				
trisodium nitrilotriacetate		No data available				
sodium hydroxide		No data available				

Aquatic long-term toxicity - crustacea

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
potassium hydroxide		No data available				
trisodium nitrilotriacetate		No data available				
sodium hydroxide		No data available				

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
potassium hydroxide		No data available			-	
trisodium nitrilotriacetate		No data available			-	
sodium hydroxide		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
potassium hydroxide		No data available			-	
trisodium nitrilotriacetate		No data available			-	
sodium hydroxide		No data available			-	

Terrestrial toxicity - plants, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
potassium hydroxide		No data available			-	
trisodium nitrilotriacetate		No data available			-	
sodium hydroxide		No data available			-	

Terrestrial toxicity - birds, if available:

Ingredient(s)	Endpoint	Value	Species	Method	Exposure time (days)	Effects observed
potassium hydroxide		No data available			-	
trisodium nitrilotriacetate		No data available			-	
sodium hydroxide		No data available			-	

Terrestrial toxicity - beneficial insects, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
potassium hydroxide		No data available			-	
trisodium nitrilotriacetate		No data available			-	
sodium hydroxide		No data available			-	

Terrestrial toxicity - soil bacteria, if available:

Suma Forte Plus L54

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
potassium hydroxide		No data available			-	
trisodium nitrilotriacetate		No data available			-	
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
potassium hydroxide					Not applicable (inorganic substance)
trisodium nitrilotriacetate		BOD removal	90 - 100 % in 28 day(s)	OECD 301B	Readily biodegradable
sodium hydroxide					Not applicable (inorganic substance)

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
potassium hydroxide	No data available		Not relevant, does not bioaccumulate	
trisodium nitrilotriacetate	-13.2	Method not given	No bioaccumulation expected	
sodium hydroxide	No data available		Not relevant, does not bioaccumulate	

Bioconcentration factor (BCF)

Ingredient(s)	Value	Species	Method	Evaluation	Remark
potassium hydroxide	No data available				
trisodium nitrilotriacetate	< 3		Method not given	No bioaccumulation expected	
sodium hydroxide	No data available				

12.4 Mobility in soil

Adsorption/Desorption to soil or sediment

Ingredient(s)	Adsorption coefficient Log K _{oc}	Desorption coefficient Log K _{oc} (des)	Method	Soil/sediment type	Evaluation
potassium hydroxide	No data available				Low potential for adsorption to soil
trisodium nitrilotriacetate	No data available				Adsorption to solid soil phase is not expected
sodium hydroxide	No data available				Mobile in soil

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:****European Waste Catalogue:**

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.
20 01 15* - alkalines.

Suma Forte Plus L54

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:** 1814**14.2 UN proper shipping name:**

Potassium hydroxide solution

14.3 Transport hazard class(es):**Class:** 8**Label(s):** 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/MDG****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.**Ingredients according to EC Detergents Regulation 648/2004**

NTA (nitrilotriacetic acid) and salts thereof
phosphonates

5 - 15%
< 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: MSDS1976**Version:** 06.1**Revision:** 2018-01-25**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.

Suma Forte Plus L54

- H314 - Causes severe skin burns and eye damage.
- H319 - Causes serious eye irritation.
- H351 - Suspected of causing cancer.

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