

Safety Data Sheet

According to Regulation (EC) No 1907/2006

Suma Alu L10

Revision: 2014-02-06 *Version:* 04

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

1.1 Product identifier

Trade name: Suma Alu L10

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 Ltd

Contact details

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 Directive 1999/45/EC and corresponding national legislation.

Indication of danger

C - Corrosive

Risk phrases:

R34 - Causes burns.

R40 - Limited evidence of a carcinogenic effect.

2.2 Label elements



C - Corrosive

Contains trisodium nitrilotriacetate, disodium/dipotassium metasilicate

Risk phrases:

R34 - Causes burns.

R40 - Limited evidence of a carcinogenic effect.

Safety phrases:

S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S28a - After contact with skin, wash immediately with plenty of water.

S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection.

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 (EC) 1272/2008	Notes	Weight percent
disodium/dipotassium metasilicate	229-912-9 215-199-1	-	[1]	C;R34 Xi;R37	Skin Corr. 1B (H314) STOT SE 3 (H335)		10-20
trisodium nitrilotriacetate	225-768-6	5064-31-3	01-2119519239-36	Xn;R22 Xi;R36 Carc.Cat.3;R40	Carc. 2 (H351) Acute Tox. 4 (H302) Eye Irrit. 2 (H319)		3-10

* 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 measures

General Information: If unconscious place in recovery position and seek medical advice. **Inhalation** Remove from source of exposure. Get medical attention immediately.

Skin contact: Rinse with plenty of water. Take off all contaminated clothing immediately. Get medical attention.

Eye contact: Wash off immediately with plenty of water. Get medical attention immediately.

Ingestion: Remove material from mouth. Immediately drink 1-2 glasses of water or milk. Get medical attention

immediately.

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: Severe irritant, may cause respiratory tract irritation.

Skin contact: Causes burns.

Eve contact: Causes severe or permanent damage.

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

perforation of oesophagus and stomach.

Sensitisation: No known effects.

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 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

Advice on safe handling:

Handle in accordance with good industrial hygiene and safety practice. Do not mix with other products unless advised by Diversey. For advice on general occupational hygiene see subsection 8.2. For environmental exposure controls see subsection 8.2. For incompatible materials see subsection 10.5.

Prevention of fire and explosion:

No special precautions required.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage rooms / facilities:

In accordance with local and national regulations.

Combined storage in storage rooms / facilities:

In accordance with local and national regulations. For incompatible materials see subsection 10.5.

Basic storage conditions

Store in original container. Keep container tightly closed. For conditions to avoid see subsection 10.4.

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/dipotassium metasilicate	No data available	No data available	No data available	No data available
trisodium nitrilotriacetate	No data available	0.9	No data available	0.3

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/dipotassium metasilicate	No data available	No data available	No data available	No data available
trisodium nitrilotriacetate	No data available	No data available	No data available	No data available

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/dipotassium metasilicate	No data available	No data available	No data available	No data available
trisodium nitrilotriacetate	No data available	No data available	No data available	No data available

DNEL inhalatory exposure - Worker (mg/m³)

Ingredient(s)	Short term - Local effects	Short term - Systemic effects	Long term - Local effects	Long term - Systemic effects
disodium/dipotassium metasilicate	No data available	No data available	No data available	No data available
trisodium nitrilotriacetate	No data available	9.6	No data available	3.2

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/dipotassium metasilicate	No data available	No data available	No data available	No data available
trisodium nitrilotriacetate	No data available	2.4	No data available	0.8

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/dipotassium metasilicate	No data available	No data available	No data available	No data available
trisodium nitrilotriacetate	0.93	0.093	0.8	270

Environmental exposure - PNEC, continued

Ingredient(s)	Sediment, freshwater (mg/kg)	Sediment, marine (mg/kg)	Soil (mg/kg)	Air (mg/m³)
disodium/dipotassium metasilicate	No data available	No data available	No data available	No data available

trisodium nitrilotriacetate	No data available	No data available	No data available	0.8

8.2 Exposure controls

General health and safety measures

Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs. Take off immediately all contaminated clothing. Wash hands before breaks and at the end of workday. Avoid contact with skin and eyes.

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 undiluted product:

Appropriate engineering controls: If the product is diluted by using specific dosing systems with no risk of splashes or direct skin

contact, the personal protection equipment as described in this section is not required.

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

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.

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 (%): 0.4

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, Pale, Yellow
Odour: Product specific
Odour threshold: Not applicable

pH: >= 12 (neat)

Melting point/freezing point (°C): Not determined

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

Substance data, boiling point

Ingredient(s)	Value (°C)	Method	Atmospheric pressure (hPa)
disodium/dipotassium metasilicate	No data available		

trisodium nitrilotriacetate	100	Method not given	1013

Method / remark

Flash point (°C): Not applicable. Sustained combustion: Not determined 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/dipotassium metasilicate	No data available		
trisodium nitrilotriacetate	2400	Method not given	20

Method / remark

Vapour density: Not determined Relative density: 1.25 g/cm³ (20°C)

Solubility in / Miscibility with Water: Fully miscible

Substance data, solubility in water

Ingredient(s)	Value (g/l)	Method	Temperature (°C)
disodium/dipotassium metasilicate	No data available		
trisodium nitrilotriacetate	Soluble	Method not given	

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

Method / remark

Autoignition temperature: Not determined Decomposition temperature: Not determined

Viscosity: Not determined

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

9.2 Other information

Surface tension (N/m): Not determined

Corrosion to metals

(according to IMDG/ADR regulation): Not determined

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

Mixtures

No test data is available on the mixture

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

Acute toxicity

Acute	oral	l tovici

Ingredient(s)	Endpoint	Value (mg/kg)	Species	Method	Exposure time (h)
disodium/dipotassium metasilicate		No data available			
trisodium nitrilotriacetate	LD 50	1740	Rat	OECD 401 (EU B.1)	

Acute dermal toxicity

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

Acute inhalative toxicity

ĺ	Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
	disodium/dipotassium metasilicate		No data available			
Γ	trisodium nitrilotriacetate	LC 50	> 5	Rat	Method not given	4

Irritation and corrosivity Skin irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
disodium/dipotassium metasilicate	No data available			
trisodium nitrilotriacetate	Not irritant	Rabbit	Method not given	

Eye irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
disodium/dipotassium metasilicate	No data available			
trisodium nitrilotriacetate	Irritant	Rabbit	Method not given	

Respiratory tract irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
disodium/dipotassium metasilicate	No data available			
trisodium nitrilotriacetate	No data available			

Sensitisation

Sensitisation by skin contact

Ingredient(s)	Result	Species	Method	Exposure time (h)
disodium/dipotassium metasilicate	No data available			
trisodium nitrilotriacetate	Not sensitising	Guinea pig	OECD 406 (EU B.6) / Buehler test	

Sensitisation by inhalation

Ingredient(s)	Result	Species	Method	Exposure time
disodium/dipotassium metasilicate	No data available			
trisodium nitrilotriacetate	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
ſ	disodium/dipotassium metasilicate		No data				
L			available				
ſ	trisodium nitrilotriacetate		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
disodium/dipotassium metasilicate		No data available				
trisodium nitrilotriacetate		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
disodium/dipotassium metasilicate		No data available				
trisodium nitrilotriacetate		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/dipotassium metasilicate			No data available					
trisodium nitrilotriacetate		NOAEL	0.231	Rat	Non guideline test			

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Limited evidence of a carcinogenic effect.

Substance data, where relevant and available:

Carcinogenicity

Ingredient(s)	Effect
disodium/dipotassium metasilicate	No data available
trisodium nitrilotriacetate	Limited evidence of a carcinogenic effect.

Mutagenicity

Ingredient(s)	Result (in-vitro)	Method (in-vitro)	Result (in-vivo)	Method (in-vivo)
disodium/dipotassium metasilicate	No data available		No data available	
	No evidence for mutagenicity, negative test results		No evidence for mutagenicity, negative test results	

Toxicity for reproduction

Ingredient(s)	Endpoint	Specific effect	Value (mg/kg bw/d)	Species	Method	Exposure time	Remarks and other effects reported
disodium/dipotassium metasilicate			No data available				
trisodium nitrilotriacetate	NOEL	Developmental toxicity	90	Rat	OECD 416, (EU B.35), oral		No evidence for reproductive toxicity

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

Mixtures

No test 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/dipotassium metasilicate		No data available			
trisodium nitrilotriacetate	LC 50	> 100	Pimephales promelas	APHA 1995	

Aquatic short-term toxicity - crustacea

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
disodium/dipotassium metasilicate		No data available			
trisodium nitrilotriacetate	EC 50	98	Not specified	Method not given	96

Aquatic short-term toxicity - algae

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
disodium/dipotassium metasilicate		No data available			
trisodium nitrilotriacetate	Er C 50	91.5	Pseudokirchner iella subcapitata	OECD 201	72

Aquatic short-term toxicity - marine species					
Ingredient(s)	Endpoint	Value	Species	Method	Exposure
		(mg/l)	·		time (days)
disodium/dipotassium metasilicate		No data			
·		available			
trisodium nitrilotriacetate		No data			
		available			

Impact on sewage plants - toxicity to bacteria

Ingredient(s)	Endpoint	Value (mg/l)	Inoculum	Method	Exposure time
disodium/dipotassium metasilicate		No data available			
trisodium nitrilotriacetate	EC 50	3200 - 5600	Pseudomonas putida	Method not given	8 hour(s)

Aquatic long-term toxicity

Aquatic long-term toxicity - fish

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
disodium/dipotassium metasilicate		No data available				
trisodium nitrilotriacetate		No data available				

Aquatic long-term toxicity - crustacea

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
disodium/dipotassium metasilicate		No data available				
trisodium nitrilotriacetate		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
disodium/dipotassium metasilicate		No data available				
trisodium nitrilotriacetate		No data available				

Terrestrial toxicity

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

Terrestrial toxicity - plants, if available:

Terrestrial toxicity - birds, if available:

Terrestrial toxicity - beneficial insects, if available:

Terrestrial toxicity - soil bacteria, if available:

12.2 Persistence and degradability

Abiotic degradation

Abiotic degradation - photodegradation in air, if available:

Abiotic degradation - hydrolysis, if available:

Abiotic degradation - other processes, if available:

Biodegradation

Ready biodegradability - aerobic conditions

Ingredient(s)	Inoculum	Analytical method	DT 50	Method	Evaluation
disodium/dipotassium metasilicate					No data available
trisodium nitrilotriacetate		BOD removal	90 - 100 % in 28 day(s)	OECD 301B	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
disodium/dipotassium metasilicate	No data available			
trisodium nitrilotriacetate	-13.2	Method not given	No bioaccumulation expected	

Bioconcentration factor (BCF)

Ingredient(s)	Value	Species	Method	Evaluation	Remark
disodium/dipotassium metasilicate	No data available				
trisodium nitrilotriacetate	< 3		Method not given	No bioaccumulation expected	

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/dipotassium metasilicate	No data available				
trisodium nitrilotriacetate	No data available				Adsorption to solid soil phase is not expected

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

< 5%

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



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

14.1 UN number: 1719

14.2 UN proper shipping name:

Caustic alkali liquid, n.o.s. (disodium-/dipotassium trioxosilicate)

14.3 Transport hazard class(es):

Class: 8 Label(s): 8

14.4 Packing group: III

14.5 Environmental hazards:

Environmentally hazardous: No

Marine pollutant: No

14.6 Special precautions for user: None known.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 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

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

Ingredients according to EC Detergents Regulation 648/2004

5 - 15% NTA (nitrilotriacetic acid) and salts thereof polycarboxylates

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

MSDS code: MSDS1974 Version: 04 Revision: 2014-02-06

Reason for revision:

Overall design adjusted in accordance with Regulation (EC) No 1907/2006, Annex II

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

- R34 Causes burns.R37 Irritating to respiratory system.
- R40 Limited evidence of a carcinogenic effect.
 R36 Irritating to eyes.
 R22 Harmful if swallowed.
 H302 Harmful if swallowed.

- H314 Causes severe skin burns and eye damage.
- H319 Causes serious eye irritation.
- · H335 May cause respiratory irritation.
- H351 Suspected of causing cancer if inhaled.

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

End of Safety Data Sheet