

Safety Data Sheet

According to Regulation (EC) No 1907/2006

Suma Sol D4.8

Revision: 2014-11-20 Version: 06.0

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

1.1 Product identifier

Trade name: Suma Sol D4.8

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

Identified uses:

For professional use only.

AISE-P314 - Surface disinfectant. Manual process

AISE-P315 - Surface disinfectant. Spray and rinse 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, Maarssenbroeksediik 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.

EUH031

Aquatic Chronic 2 (H411)

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

N - Dangerous for the environment

Risk phrases:

R31 - Contact with acids liberates toxic gas.

R51/53 - Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

2.2 Label elements



Hazard statements:

EUH031 - Contact with acids liberates toxic gas. H411 - Toxic to aquatic life with long lasting effects.

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
sodium dichloroisocyanurate, dihydrate	220-767-7	51580-86-0	01-2119489371-33	Acute Tox. 4 (H302) STOT SE 3 (H335) Aquatic Acute 1 (H400) EUH031 Eye Irrit. 2 (H319) Aquatic Chronic 1 (H410)	Xn;R22 R31 Xi;R36/37 N;R50/53		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

Inhalation Get medical attention or advice if you feel unwell.

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

or attention.

Eye contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

Ingestion: Rinse mouth. Immediately drink 1 glass of water. 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: May cause bronchospasm in chlorine sensitive individuals.

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

No special measures required.

6.2 Environmental precautions

Do not allow to enter drainage system, surface or ground water. Do not allow to enter the ground/soil. Inform responsible authorities in case undiluted product reaches drainage system, surface or ground water or the ground/soil.

6.3 Methods and material for containment and cleaning up

Collect mechanically.

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. Use personal protective equipment as required. 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
sodium dichloroisocyanurate, dihydrate	No data available	No data available	No data available	1.15

DNEL dermal exposure - Worker

Ingredient(s)	Short term - Local effects	Short term - Systemic effects (mg/kg bw)	Long term - Local effects	Long term - Systemic effects (mg/kg bw)
sodium dichloroisocyanurate, dihydrate	No data available	No data available	No data available	2.3

DNEL dermal exposure - Consumer

Ingredient(s)	Short term - Local effects	Short term - Systemic effects (mg/kg bw)	Long term - Local effects	Long term - Systemic effects (mg/kg bw)
sodium dichloroisocyanurate, dihydrate	No data available	No data available	No data available	1.15

DNEL inhalatory exposure - Worker (mg/m³)

Ingredient(s)	Short term - Local effects	Short term - Systemic effects	Long term - Local effects	Long term - Systemic effects
sodium dichloroisocyanurate, dihydrate	No data available	No data available	No data available	8.11

DNEL inhalatory exposure - Consumer (mg/m³)

Ingredient(s)	Short term - Local effects	Short term - Systemic effects	Long term - Local effects	Long term - Systemic effects
sodium dichloroisocyanurate, dihydrate	No data available	No data available	No data available	1.99

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)
sodium dichloroisocyanurate, dihydrate	0.00017	1.52	0.0017	0.59

Environmental exposure - PNEC, continued

Ingredient(s)	Sediment, freshwater (mg/kg)	Sediment, marine (mg/kg)	Soil (mg/kg)	Air (mg/m³)
sodium dichloroisocyanurate, dihydrate	7.56	No data available	0.756	No data available

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: No special requirements under normal use conditions.

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

Personal protective equipment

Eye / face protection: No special requirements under normal use conditions.

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: Should not reach sewage water or drainage ditch undiluted.

Recommended safety measures for handling the diluted product:

Recommended maximum concentration (%): 1

Appropriate engineering controls: Use only in well ventilated areas.

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: 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

Method / remark

Physical State: Solid Colour: White Odour: Chlorine

Odour threshold: Not applicable

pH:

Dilution pH: ≈ 8 (1%)

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)
sodium dichloroisocyanurate, dihydrate	Product decomposes before boiling	Read across	

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)
sodium dichloroisocyanurate, dihydrate	0.006	Read across	20

Method / remark

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

Substance data, solubility in water

Ingredient(s)	Value (g/l)	Method	Temperature (°C)
sodium dichloroisocyanurate, dihydrate	248.2	Read across	25

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: Not corrosive

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 releasing toxic chlorine gas. Keep away from acids.

10.6 Hazardous decomposition products

Chlorine.

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

<u>Acute</u>	oral	toxicity

Ingredient(s)	Endpoint	Value (mg/kg)	Species	Method	Exposure time (h)
sodium dichloroisocyanurate, dihydrate	LD 50	1671	Rat	EPA OPP 81-1	

Acute dermal toxicity

Ingredient(s)	Endpoint	Value (mg/kg)	Species	Method	Exposure time (h)
sodium dichloroisocyanurate, dihydrate	LD 50	> 5000	Rat	EPA OPP 81-2	

Acute inhalative toxicity

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
sodium dichloroisocyanurate, dihydrate	LC 50	> 0.27	Rat	OECD 403 (EU B.2)	4

Irritation and corrosivity

Skin irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
sodium dichloroisocyanurate, dihydrate	Corrosive	Rabbit	EPA OPP 81-5	

Eye irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
sodium dichloroisocyanurate, dihydrate	Corrosive	Rabbit	EPA OPP 81-4	

Respiratory tract irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
sodium dichloroisocyanurate, dihydrate	Irritating to			
	respiratory tract			

Sensitisation

Sensitisation by skin contact

Ingredient(s)	Result	Species	Method	Exposure time (h)
sodium dichloroisocyanurate, dihydrate	Not sensitising	Guinea pig	OECD 406 (EU B.6) / GPMT	

Sensitisation by inhalation

Ingredient(s)	Result	Species	Method	Exposure time
sodium dichloroisocyanurate, dihydrate	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)
, , ,	No evidence for mutagenicity, negative test results		No evidence of genotoxicity, negative test results	OECD 475 (EU B.11)

 Calcinogenicity								
Ingredient(s)	Effect							
sodium dichloroisocyanurate, dihydrate	No evidence for carcinogenicity, negative test results							

Toxicity for reproduction

Ingredient(s)	Endpoint	Specific effect	Value (mg/kg bw/d)	Species	Method	Exposure time	Remarks and other effects reported
sodium dichloroisocyanurate, dihvdrate	NOAEL	Developmental toxicity	190	Rat	OECD 416, (EU B.35), oral		

Repeated dose toxicity

Ingredient(s)	Endpoint	Value (mg/kg bw/d)	Species	Method	Exposure time (days)	Specific effects and organs affected
sodium dichloroisocyanurate, dihydrate	NOAEL	115	Rat	Method not given	28	

Sub-chronic dermal toxicity

oub official definal textory						
Ingredient(s)	Endpoint	Value (mg/kg bw/d)	Species	Method	Exposure time (days)	Specific effects and organs affected
		(ilig/kg bw/u)			unie (uays)	anecieu
sodium dichloroisocyanurate, dihydrate		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
sodium dichloroisocyanurate, dihydrate	NOAEL	> 31	Rat	Method not given	28	

Chronic toxicity

Chronic toxicity								
Ingredient(s)	Exposure	Endpoint	Value	Species	Method	Exposure	Specific effects and	Remark
	route		(mg/kg bw/d)			time	organs affected	
sodium	Oral	NOAEL	1523	Mouse	OECD 453	24 month(s)		
dichloroisocyanurate,					(EU B.33)			
dihydrate	1				ĺ			

STOT-single exposure

5 TO 1-single exposure	
Ingredient(s)	Affected organ(s)
P. P. L.	N. I. C. William
sodium dichloroisocyanurate, dihydrate	No data available

STOT-repeated exposure

Ingredient(s)	Affected organ(s)
sodium dichloroisocyanurate, dihydrate	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	Species	Method	Exposure

		(mg/l)			time (h)
sodium dichloroisocyanurate, dihydrate	LC 50	0.23	Lepomis	Method not given	96
			macrochirus		

Aquatic short-term toxicity - crustacea

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
sodium dichloroisocyanurate, dihydrate	EC 50	0.17	Daphnia magna Straus	ASTM draft method	48

Aquatic short-term toxicity - algae

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
sodium dichloroisocyanurate, dihydrate	EC 50	< 0.5	Scenedesmus	Non guideline test	3
			obliquus		1

Aquatic short-term toxicity - marine species

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (days)
sodium dichloroisocyanurate, dihydrate		No data			
		available			

Impact on sewage plants - toxicity to bacteria

Ingredient(s)	Endpoint	Value (mg/l)	Inoculum	Method	Exposure time
sodium dichloroisocyanurate, dihydrate		No data			
·		available			1

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

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
sodium dichloroisocyanurate, dihydrate	NOEC	1000	Oncorhynchus mykiss	OECD 215	28 day(s)	

Aquatic long-term toxicity - crustacea

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
sodium dichloroisocyanurate, dihydrate	NOEC	160	Daphnia	OECD 211	21 day(s)	
			magna			

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
sodium dichloroisocyanurate, dihydrate		No data available				

Terrestrial toxicity

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

Terrestrial toxicity Soil invertebrates, including earthworms, in available.										
Ingredient(s)	Endpoint	Value	Species	Method	Exposure	Effects observed				
		(mg/kg dw			time (days)					
		soil)								
sodium dichloroisocyanurate, dihydrate	NOEC	1000	Eisenia fetida	OECD 207	14					

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
sodium dichloroisocyanurate, dihydrate		Oxygen depletion	2 % in 28d day(s)	OECD 301D	Not readily biodegradable.

Ready biodegradability - anaerobic and marine conditions, if available:

Degradation in relevant environmental compartments, if available:

12.3 Bioaccumulative potential

Partition coefficient n-octanol/water (log Kow)

Ingredient(s)	Value	Method	Evaluation	Remark
sodium dichloroisocyanurate, dihydrate	-0.0056	Method not given	No bioaccumulation expected	

Bioconcentration factor (BCF)

Ingredient(s)	Value	Species	Method	Evaluation	Remark
sodium dichloroisocvanurate.	No data available				
dihydrate					

12.4 Mobility in soil

Adsorption/Desorption to soil or sediment

Ingredient(s)	Adsorption coefficient Log Koc	Desorption coefficient Log Koc(des)	Method	Soil/sediment type	Evaluation
sodium dichloroisocyanurate, dihydrate	No data available				

12.5 Results of PBT and vPvB assessment

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

12.6 Other adverse effects

No other adverse effects known.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Waste from residues / unused

products:

The concentrated contents or contaminated packaging should be disposed of by a certified handler or according to the site permit. Release of waste to sewers is discouraged. The cleaned packaging

material is suitable for energy recovery or recycling in line with local legislation.

European Waste Catalogue: 16 03 05* - organic wastes containing dangerous substances.

Empty packaging

Recommendation: Dispose of observing national or local regulations.

SECTION 14: Transport information



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

14.1 UN number: 3077

14.2 UN proper shipping name:

Environmentally hazardous substance, solid, n.o.s. (sodium dichloroisocyanurate dihydrate)

14.3 Transport hazard class(es):

Class: 9 Label(s): 9

14.4 Packing group: III

14.5 Environmental hazards:

Environmentally hazardous: Yes

Marine pollutant: Yes

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: M7
Tunnel restriction code: E
Hazard identification number: 90

IMO/IMDG

EmS: F-A, S-F

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

phosphates 15 - 30%

disinfectants

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: MSDS1379 Version: 06.0 Revision: 2014-11-20

Reason for revision:

Overall design adjusted in accordance with Amendment 453/2010, Annex II of Regulation (EC) No 1907/2006

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:

- H302 Harmful if swallowed.
- H319 Causes serious eye irritation.
- H335 May cause respiratory irritation.
 H400 Very toxic to aquatic life.
- +H410 Very toxic to aquatic life with long lasting effects.
 EUH031 Contact with acids liberates toxic gas.
- R22 Harmful if swallowed.
- R31 Contact with acids liberates toxic gas.
- R36 Irritating to eyes.
- R37 Irritating to respiratory system.
- R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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