

**Suma Scale D5.2**

Revision: 2014-11-05

Version: 02.0

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

**1.1 Product identifier**

**Trade name:** Suma Scale D5.2

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

**Identified uses:**

For professional use only.

AISE-P308 - Descaling agent. Spray and rinse manual process

AISE-P309 - Descaling agent. Dipping process

AISE-P302 - General purpose 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 Irrit. 2 (H319)

Met. Corr. 1 (H290)

**Classification in accordance with Directive 1999/45/EC and corresponding national legislation**

**Indication of danger**

C - Corrosive

**Risk phrases:**

R35 - Causes severe burns.

**2.2 Label elements**



**Signal word:** Warning

**Hazard statements:**

H315 + H319 - Causes skin and serious eye irritation.

H290 - May be corrosive to metals.

**2.3 Other hazards**

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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
phosphoric acid	231-633-2	7664-38-2	01-2119485924-24	Skin Corr. 1B (H314) Met. Corr. 1 (H290)	C;R34		10-20

\* 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. 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. If eye irritation persists: Get medical advice or attention.

##### 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 effects, both acute and delayed

##### Inhalation:

No known effects or symptoms in normal use.

##### 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. Dilute with plenty of water.

#### 6.3 Methods and material for containment and cleaning up

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.

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**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 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:

Ingredient(s)	UK - Long term value(s)	UK - Short term value(s)
phosphoric acid	1 mg/m <sup>3</sup>	2 mg/m <sup>3</sup>

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
phosphoric acid	No data available	No data available	No data available	No data available

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)
phosphoric acid	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)
phosphoric acid	No data available	No data available	No data available	No data available

DNEL inhalatory exposure - Worker (mg/m<sup>3</sup>)

Ingredient(s)	Short term - Local effects	Short term - Systemic effects	Long term - Local effects	Long term - Systemic effects
phosphoric acid	No data available	No data available	2.92	No data available

DNEL inhalatory exposure - Consumer (mg/m<sup>3</sup>)

Ingredient(s)	Short term - Local effects	Short term - Systemic effects	Long term - Local effects	Long term - Systemic effects
phosphoric acid	No data available	No data available	0.73	No data available

**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)
phosphoric acid	No data available	No data available	No data available	No data available

Environmental exposure - PNEC, continued

Ingredient(s)	Sediment, freshwater (mg/kg)	Sediment, marine (mg/kg)	Soil (mg/kg)	Air (mg/m <sup>3</sup> )
phosphoric acid	No data available	No data available	No data available	No data available

**8.2 Exposure controls**

The following information applies for the uses indicated in subsection 1.2.

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

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<b>Appropriate engineering controls:</b>	No special requirements under normal use conditions.
<b>Appropriate organisational controls:</b>	Avoid direct contact and/or splashes where possible. Train personnel.
<b>Personal protective equipment</b>	
<b>Eye / face protection:</b>	Safety glasses are not normally required. However, their use is recommended in those cases where splashes may occur when handling the product.
<b>Hand protection:</b>	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.
<b>Body protection:</b>	No special requirements under normal use conditions.
<b>Respiratory protection:</b>	No special requirements under normal use conditions.
<b>Environmental exposure controls:</b>	Should not reach sewage water or drainage ditch undiluted or unneutralised.

*Recommended safety measures for handling the diluted product:*

**Recommended maximum concentration (%):** 40

<b>Appropriate engineering controls:</b>	Use only in well ventilated areas.
<b>Appropriate organisational controls:</b>	No special requirements under normal use conditions.
<b>Personal protective equipment</b>	
<b>Eye / face protection:</b>	No special requirements under normal use conditions.
<b>Hand protection:</b>	Rinse and dry hands after use. For prolonged contact protection for the skin may be necessary.
<b>Body protection:</b>	No special requirements under normal use conditions.
<b>Respiratory protection:</b>	No special requirements under normal use conditions.
<b>Environmental exposure controls:</b>	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, Colourless  
**Odour:** Product specific  
**Odour threshold:** Not applicable  
**pH:** < 2 (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)
phosphoric acid	158	Method not given	1013

#### Method / remark

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

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Ingredient(s)	Value (Pa)	Method	Temperature (°C)
phosphoric acid	4	Method not given	20

## Method / remark

**Vapour density:** Not determined

**Relative density:** 1.11 g/cm<sup>3</sup> (20 °C)

**Solubility in / Miscibility with Water:** Fully miscible

Substance data, solubility in water

Ingredient(s)	Value (g/l)	Method	Temperature (°C)
phosphoric acid	Soluble		

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:** 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 alkali and metals. Keep away from products containing chlorine-based bleaching agents or sulphites.

### 10.6 Hazardous decomposition products

None known under normal storage and use conditions.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

No data is available on the mixture

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

#### Acute toxicity

Acute oral toxicity

Ingredient(s)	Endpoint	Value (mg/kg)	Species	Method	Exposure time (h)
phosphoric acid	LD <sub>50</sub>	2600	Rat	OECD 423 (EU B.1 tris)	

Acute dermal toxicity

Ingredient(s)	Endpoint	Value (mg/kg)	Species	Method	Exposure time (h)
phosphoric acid	LD <sub>50</sub>	2740	Rabbit	Method not given	

Acute inhalative toxicity

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
phosphoric acid	LC <sub>50</sub>	850	Rat	Method not given	2

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**Irritation and corrosivity**

Skin irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
phosphoric acid	Corrosive	Rabbit	OECD 404 (EU B.4)	

Eye irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
phosphoric acid	Severe damage	Rabbit	Method not given	

Respiratory tract irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
phosphoric acid	No data available			

**Sensitisation**

Sensitisation by skin contact

Ingredient(s)	Result	Species	Method	Exposure time (h)
phosphoric acid	Not sensitising	Human	Human experience	

Sensitisation by inhalation

Ingredient(s)	Result	Species	Method	Exposure time
phosphoric acid	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)
phosphoric acid	No evidence for mutagenicity, negative test results	OECD 471 (EU B.12/13) OECD 473 OECD 476 (Mouse lymphoma)	No data available	

Carcinogenicity

Ingredient(s)	Effect
phosphoric acid	No data available

Toxicity for reproduction

Ingredient(s)	Endpoint	Specific effect	Value (mg/kg bw/d)	Species	Method	Exposure time	Remarks and other effects reported
phosphoric acid	NOAEL	Developmental toxicity	410	Rat	OECD 422, oral	10 day(s)	No evidence for reproductive toxicity No evidence for developmental 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
phosphoric acid	NOAEL	250	Rat	OECD 422, oral		

Sub-chronic dermal toxicity

Ingredient(s)	Endpoint	Value (mg/kg bw/d)	Species	Method	Exposure time (days)	Specific effects and organs affected
phosphoric acid		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
phosphoric acid		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
phosphoric acid			No data available					

STOT-single exposure

Ingredient(s)	Affected organ(s)
phosphoric acid	No data available

STOT-repeated exposure

Ingredient(s)	Affected organ(s)
phosphoric acid	No data available

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**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)
phosphoric acid	LC <sub>50</sub>	138	<i>Gambusia affinis</i>	Method not given	96

Aquatic short-term toxicity - crustacea

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
phosphoric acid	EC <sub>50</sub>	> 100	<i>Daphnia magna</i> Straus	OECD 202	48

Aquatic short-term toxicity - algae

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
phosphoric acid	EC <sub>50</sub>	> 100	<i>Desmodesmus subspicatus</i>	OECD 201	72

Aquatic short-term toxicity - marine species

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (days)
phosphoric acid		No data available			

Impact on sewage plants - toxicity to bacteria

Ingredient(s)	Endpoint	Value (mg/l)	Inoculum	Method	Exposure time
phosphoric acid	EC <sub>50</sub>	270	<i>Activated sludge</i>	Method not given	

**Aquatic long-term toxicity**

Aquatic long-term toxicity - fish

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
phosphoric acid		No data available				

Aquatic long-term toxicity - crustacea

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
phosphoric acid		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
phosphoric acid		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**

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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 <sub>50</sub>	Method	Evaluation
phosphoric acid					Not applicable (inorganic substance)

Ready biodegradability - anaerobic and marine conditions, if available:

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 K<sub>ow</sub>)

Ingredient(s)	Value	Method	Evaluation	Remark
phosphoric acid	No data available		No bioaccumulation expected	

Bioconcentration factor (BCF)

Ingredient(s)	Value	Species	Method	Evaluation	Remark
phosphoric acid	No data available			No bioaccumulation expected	

**12.4 Mobility in soil**

Adsorption/Desorption to soil or sediment

Ingredient(s)	Adsorption coefficient Log K <sub>oc</sub>	Desorption coefficient Log K <sub>oc</sub> (des)	Method	Soil/sediment type	Evaluation
phosphoric acid	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**

**Waste from residues / unused products:**

The concentrated contents or contaminated packaging should be disposed of by a certified handler or according to the site permit. Release of waste to sewers is discouraged. The cleaned packaging material is suitable for energy recovery or recycling in line with local legislation.

**European Waste Catalogue:**

20 01 14\* - acids.

**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:** 1805

**14.2 UN proper shipping name:**

Phosphoric acid, solution

**14.3 Transport hazard class(es):**

**Class:** 8

**Label(s):** 8

**14.4 Packing group:** III

**14.5 Environmental hazards:**

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**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:** C1

**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**

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*

**MSDS code:** MSDS6862

**Version:** 02.0

**Revision:** 2014-11-05

**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:**

- H290 - May be corrosive to metals.
- H314 - Causes severe skin burns and eye damage.
- R34 - Causes burns.

**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**