



## Suma Eden D4.5

Revision: 2018-09-03

Version: 01.0

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

#### 1.1 Product identifier

Trade name: Suma Eden D4.5

#### 1.2 Recommended use and restrictions on use

For professional use only.

#### 1.3 Details of the supplier of the safety data sheet

Diversey (Malaysia) Sdn. Bhd.

#### Contact details

No. 6, Jalan Pengarah U1/29, Seksyen U1  
Hicom Glenmarie Industrial Park  
40150 Shah Alam  
Selangor, Malaysia  
Tel : +603-5569-6363  
Fax: +603-5569-6262

#### 1.4 Emergency telephone number

Tel : +603-5569-6363

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

Skin Corr. 1B (H314)  
Met. Corr. 1 (H290)

#### 2.2 Label elements



Signal word: Danger.

#### Hazard statements:

H314 - Causes severe skin burns and eye damage.  
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

#### 2.4 Classification diluted product:

Recommended maximum concentration (%): 0.5

Not classified as hazardous

### SECTION 3: Composition/information on ingredients

## Suma Eden D4.5

## 3.1 Substances / Mixtures

Ingredient(s)	CAS number	Classification	Weight percent
l-(+)-lactic acid	79-33-4	Skin Irrit. 2 (H315) Eye Dam. 1 (H318)	30-50
phosphoric acid	7664-38-2	Skin Corr. 1B (H314) Met. Corr. 1 (H290)	20-30

Workplace exposure limit(s), if available, are listed in subsection 8.1.  
For the full text of the H phrases mentioned in this Section, see Section 16.

**SECTION 4: First aid measures****4.1 Description of first aid measures****General Information:**

If breathing is irregular or stopped, administer artificial respiration. If unconscious place in recovery position and seek medical advice. Provide fresh air. No mouth-to-mouth or mouth-to-nose resuscitation. Use Ambu bag or ventilator.

**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:**

Hold eyelids apart and flush eyes with plenty of lukewarm water for at least 15 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. Never give anything by mouth to an unconscious person. 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:**

No known effects or symptoms in normal use.

**Skin contact:**

Causes severe burns.

**Eye contact:**

Causes severe or permanent damage.

**Ingestion:**

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

**6.4 Reference to other sections**

For personal protective equipment see subsection 8.2. For disposal considerations see section 13.

**SECTION 7: Handling and storage****7.1 Precautions for safe handling****Measures to prevent fire and explosions:**

No special precautions required.

**Measures required to protect the environment:**

## Suma Eden D4.5

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. 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 packaging. Store in a closed container.

**7.3 Specific end use(s)**

No specific advice for end use available.

**SECTION 8: Exposure controls/personal protection****8.1 Control parameters**

Ingredient(s)	Long term value(s)	Ceiling value(s)
phosphoric acid	1 mg/m <sup>3</sup>	

**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.

**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). The use of a full-face shield or other full-face protection is strongly recommended when handling open containers or if splashes may occur.

**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 (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 (%):** 0.5

**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**

Method / remark

## Suma Eden D4.5

**Physical State:** Liquid**Colour:** Clear, Light, from Colourless to Yellow**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**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**Vapour pressure:** Not determined**Vapour density:** Not determined**Relative density:** ≈ 1.32 (20 °C)**Solubility in / Miscibility with Water:** Fully miscible**Partition coefficient: n-octanol/water** No information available.**Autoignition temperature:** Not determined**Decomposition temperature:** Not applicable.**Viscosity:** Not determined**Explosive properties:****Oxidising properties:**

ISO 4316

Not relevant to classification of this product

Not relevant to classification of this product

Not relevant to classification of this product  
OECD 109 (EU A.3)

Not relevant to classification of this product

**9.2 Other information****Surface tension (N/m):** Not determined**Corrosion to metals:** Corrosive

Weight of evidence

**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**

Mixture data:

**Relevant calculated ATE(s):**

ATE - Oral (mg/kg): 3000

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

Ingredient(s)	Endpoint	Value (mg/kg)	Species	Method	Exposure time (h)
l-(+)-lactic acid	LD <sub>50</sub>	3543	Rat	Method not given	
phosphoric acid	LD <sub>50</sub>	2600	Rat	OECD 423 (EU B.1 tris)	

Ingredient(s)	Endpoint	Value (mg/kg)	Species	Method	Exposure time (h)
l-(+)-lactic acid	LD <sub>50</sub>	> 2000	Rabbit	EPA OPP 81-2	
phosphoric acid	LD <sub>50</sub>	2740	Rabbit	Method not given	

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
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## Suma Eden D4.5

l-(+)-lactic acid	LC <sub>50</sub>	(mist) > 7.94	Rat	OECD 403 (EU B.2)	4
phosphoric acid	LC <sub>50</sub>	850	Rat	Method not given	2

Ingredient(s)	Result	Species	Method	Exposure time
l-(+)-lactic acid	Irritant		OECD 404 (EU B.4)	
phosphoric acid	Corrosive	Rabbit	OECD 404 (EU B.4)	

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

Ingredient(s)	Result	Species	Method	Exposure time
l-(+)-lactic acid	No data available			
phosphoric acid	No data available			

Ingredient(s)	Result	Species	Method	Exposure time (h)
l-(+)-lactic acid	Not sensitising		Method not given	
phosphoric acid	Not sensitising	Human	Human experience	

Ingredient(s)	Result	Species	Method	Exposure time
l-(+)-lactic acid	No data available			
phosphoric acid	No data available			

Ingredient(s)	Result (in-vitro)	Method (in-vitro)	Result (in-vivo)	Method (in-vivo)
l-(+)-lactic acid	No data available		No evidence for genotoxicity	
phosphoric acid	No evidence for mutagenicity, negative test results	OECD 471 (EU B.12/13) OECD 473 OECD 476 (Mouse lymphoma)	No data available	

Ingredient(s)	Effect
l-(+)-lactic acid	No data available
phosphoric acid	No data available

Ingredient(s)	Endpoint	Specific effect	Value (mg/kg bw/d)	Species	Method	Exposure time	Remarks and other effects reported
l-(+)-lactic acid			No data available				No known significant effects or critical hazards
phosphoric acid	NOAEL	Developmental toxicity	410	Rat	OECD 422, oral	10 day(s)	No evidence for reproductive toxicity No evidence for developmental toxicity

Ingredient(s)	Endpoint	Value (mg/kg bw/d)	Species	Method	Exposure time (days)	Specific effects and organs affected
l-(+)-lactic acid		No data available				
phosphoric acid	NOAEL	250	Rat	OECD 422, oral		

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

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

Ingredient(s)	Exposure route	Endpoint	Value (mg/kg bw/d)	Species	Method	Exposure time	Specific effects and organs affected	Remark
l-(+)-lactic acid			No data available					
phosphoric acid			No data available					

Ingredient(s)	Affected organ(s)
l-(+)-lactic acid	Not applicable

## Suma Eden D4.5

phosphoric acid	No data available
Ingredient(s)	Affected organ(s)
l-(+)-lactic acid	Not applicable
phosphoric acid	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:

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
l-(+)-lactic acid	LC <sub>50</sub>	130	<i>Oncorhynchus mykiss</i>	Method not given	96
phosphoric acid	LC <sub>50</sub>	138	<i>Gambusia affinis</i>	Method not given	96

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
l-(+)-lactic acid	EC <sub>50</sub>	130	<i>Daphnia magna Straus</i>	Method not given	48
phosphoric acid	EC <sub>50</sub>	> 100	<i>Daphnia magna Straus</i>	OECD 202 (EU C.2)	48

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
l-(+)-lactic acid	EC <sub>50</sub>	2800	<i>Pseudokirchneriella subcapitata</i>	Method not given	72
phosphoric acid	EC <sub>50</sub>	> 100	<i>Desmodesmus subspicatus</i>	OECD 201 (EU C.3)	72

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

Ingredient(s)	Endpoint	Value (mg/l)	Inoculum	Method	Exposure time
l-(+)-lactic acid	EC <sub>50</sub>	> 100	Activated sludge	Method not given	3 hour(s)
phosphoric acid	EC <sub>50</sub>	270	Activated sludge	Method not given	

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

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

Ingredient(s)	Endpoint	Value (mg/kg dw sediment)	Species	Method	Exposure time (days)	Effects observed
l-(+)-lactic acid		No data available			-	
phosphoric acid		No data available			-	

## Suma Eden D4.5

		available				
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Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
l-(+)-lactic acid		No data available			-	
phosphoric acid		No data available			-	

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
l-(+)-lactic acid		No data available			-	
phosphoric acid		No data available			-	

Ingredient(s)	Endpoint	Value	Species	Method	Exposure time (days)	Effects observed
l-(+)-lactic acid		No data available			-	
phosphoric acid		No data available			-	

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
l-(+)-lactic acid		No data available			-	
phosphoric acid		No data available			-	

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
l-(+)-lactic acid		No data available			-	
phosphoric acid		No data available			-	

## 12.2 Persistence and degradability

Ingredient(s)	Inoculum	Analytical method	DT <sub>50</sub>	Method	Evaluation
l-(+)-lactic acid	Activated sludge, aerobic		> 60%	Method not given	Readily biodegradable, without 10 day window
phosphoric acid					Not applicable (inorganic substance)

## 12.3 Bioaccumulative potential

Ingredient(s)	Value	Method	Evaluation	Remark
l-(+)-lactic acid	-0.62	Method not given	Not relevant, does not bioaccumulate	
phosphoric acid	No data available		No bioaccumulation expected	

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

## 12.4 Mobility in soil

Ingredient(s)	Adsorption coefficient Log K <sub>oc</sub>	Desorption coefficient Log K <sub>oc</sub> (des)	Method	Soil/sediment type	Evaluation
l-(+)-lactic acid	No data available				Low potential for adsorption to soil
phosphoric acid	No data available				Potential for mobility in soil, soluble in water

## 12.5 Other adverse effects

No other adverse effects known.

## SECTION 13: Disposal considerations

## Suma Eden D4.5

**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.

**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, Sea transport (IMDG), Air transport (ICAO-TI / IATA-DGR)**

**14.1 UN number:** 1805

**14.2 UN proper shipping name:**

Phosphoric acid, solution

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

Transport hazard class (and subsidiary risks): 8

**14.4 Packing group:** III

**14.5 Environmental hazards:**

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:**

EmS: F-A, S-B

The product has been classified, labelled and packaged in accordance with the requirements of national road transport regulations 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****National regulations**

- Occupational Safety and Health (Classification, Labelling and Safety Data Sheet of Hazardous Chemicals) Regulations 2013

**SECTION 16: Other information**

**SDS code:** MS4000843

**Version:** 01.0

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**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.
- H315 - Causes skin irritation.
- H318 - Causes serious eye damage.

**Abbreviations and acronyms:**

- DNEL - Derived No Effect Limit
- PNEC - Predicted No Effect Concentration
- ATE - Acute Toxicity Estimate
- LC50 - Lethal Concentration, 50% / Median Lethal Concentration
- LD50 - Lethal Dose, 50% / Median Lethal dose
- STOT-RE - Specific target organ toxicity (repeated exposure)
- STOT-SE - Specific target organ toxicity (single exposure)

**End of Safety Data Sheet**