

Super Dilac VA4

Revision: 2012-04-18

Version 05

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

1.1 Product identifier

Trade name: Super Dilac VA4

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

Identified uses:

For industrial use only.

AISE-P801 - Food process cleaner. Cleaning In place (CIP) process

Uses advised against Uses other than those identified are not recommended

1.3 Details of the supplier of the safety data sheet

Diversey local operating company

Contact details

Diversey local operating company

1.4 Emergency telephone number

Diversey local operating company

This International SDS is for information only. It does not meet all applicable regulatory requirements and does not replace the relevant statutory data sheet for your country

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:

R35 - Causes severe burns.

2.2 Label elements



C - Corrosive

Contains nitric acid

Risk phrases:

R35 - Causes severe burns.

Safety phrases:

S23c - Do not breathe vapour.

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

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Ingredient(s)	EC number	CAS number	REACH number	Classification	Classification (EC) 1272/2008	Notes	Weight percent
nitric acid	231-714-2	7697-37-2	01-2119487297-23	C,O; R8-35	Skin Corr. 1A (H314) Met. Corr. 1 (H290) Ox. Liq. 3 (H272)		30-50
phosphoric acid	231-633-2	7664-38-2	01-2119485924-24	C; R34	Skin Corr. 1B (H314) Met. Corr. 1 (H290)		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

Immediately wash off 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 severe burns.

Eye contact

Causes severe or permanent damage.

Ingestion

Causes severe 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

Ensure adequate ventilation. Do not breathe dust or vapour. Wear suitable protective clothing, gloves and eye/face protection.

6.2 Environmental precautions

Do not allow to enter drainage system, surface or ground water. Dilute with plenty of water.

6.3 Methods and material for containment and cleaning up

Use neutralising agent. Absorb onto dry sand or similar inert material. Ensure adequate ventilation.

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

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Handle in accordance with good industrial hygiene and safety practice. Do not mix with other products unless advised by Diversey. Use only with adequate ventilation. 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. Store away from products containing chlorine-based bleaching agents or sulphites.

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:

Ingredient(s)	EU - Long term value(s)	EU - Short term value(s)	UK - Long term value(s)	UK - Short term value(s)
nitric acid		1 ppm 2.6 mg/m ³		1 ppm 2.6 mg/m ³
phosphoric acid	1 mg/m ³	2 mg/m ³	1 mg/m ³	2 mg/m ³

Biological limit values, if available:

Recommended monitoring procedures, if available:

Additional exposure limits under the conditions of use, if available:

DNEL/DMEL and PNEC values**Human exposure**

DNEL oral exposure - Consumer (mg/kg bw)

Ingredient(s)	Short term - Local effects	Short term - Systemic effects	Long term - Local effects	Long term - Systemic effects
nitric acid	No data available	No data available	No data available	No data available
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)
nitric acid	No data available	No data available	No data available	No data available
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)
nitric acid	No data available	No data available	No data available	No data available
phosphoric acid	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
nitric acid	2.6	No data available	1.3	No data available
phosphoric acid	No data available	No data available	No data available	No data available

DNEL inhalatory exposure - Consumer (mg/m³)

Ingredient(s)	Short term - Local effects	Short term - Systemic effects	Long term - Local effects	Long term - Systemic effects
nitric acid	1.3	No data available	0.65	No data available
phosphoric acid	No data available	No data available	No data available	No data available

Environmental exposure

Environmental exposure - PNEC

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Ingredient(s)	Surface water, fresh (mg/l)	Surface water, marine (mg/l)	Intermittent (mg/l)	Sewage treatment plant (mg/l)
nitric acid	No data available	No data available	No data available	No data available
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 ³)
nitric acid	No data available	No data available	No data available	No data available
phosphoric acid	No data available	No data available	No data available	No data available

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. Do not breathe gases, vapour, spray or aerosols. 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: \geq 480 min

Material thickness: \geq 0.7 mm

Suggested gloves for protection against splashes:

Material: nitrile rubber

Penetration time: \geq 30 min

Material thickness: \geq 0.4 mm

Body protection:

In consultation with the supplier of protective gloves a different type providing similar protection may be chosen

Wear chemical-resistant clothing and boots in case direct dermal exposure and/or splashes may occur.

Respiratory protection:

Respiratory protection is not normally required However, inhalation of vapour, spray, gas or aerosols should be avoided

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 (%): 13

Appropriate engineering controls: The product is intended to be used in closed systems.

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.

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Hand protection:	Chemical-resistant protective gloves (EN 374) Verify instructions regarding permeability and breakthrough time, as provided by the gloves supplier Consider specific local use conditions, such as risk of splashes, cuts, contact time and temperature
	Suggested gloves for prolonged contact: Material: butyl rubber Penetration time: \geq 480 min Material thickness: \geq 0.7 mm
	Suggested gloves for protection against splashes: Material: nitrile rubber Penetration time: \geq 30 min Material thickness: \geq 0.4 mm
	In consultation with the supplier of protective gloves a different type providing similar protection may be chosen
Body protection:	No special requirements under normal use conditions.
Respiratory protection:	If the product is applied in a closed system, as recommended, no respiratory protection equipment will be required
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

Physical State:	Liquid
Colour	Clear Colourless
Odour	Product specific
pH:	< 2 (neat)
Boiling point/range (°C):	Not determined
Flash point (°C):	Not applicable.
Flammability	Not flammable.
Specific gravity:	1.28 g/cm ³ (20°C)
Solubility in / Miscibility with	Water: Fully miscible
Explosive properties	Not explosive.
Oxidising properties:	Not oxidising.

9.2 Other information

No other relevant information 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

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

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 toxicity

Ingredient(s)	Endpoint	Value (mg/kg)	Species	Method	Exposure time (h)

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nitric acid		No data available			
phosphoric acid	LD ₅₀	2600	Rat	Method not given	

Acute dermal toxicity

Ingredient(s)	Endpoint	Value (mg/kg)	Species	Method	Exposure time (h)
nitric acid		No data available			
phosphoric acid	LD ₅₀	2740	Rabbit	Method not given	

Acute inhalative toxicity

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
nitric acid	LC ₅₀	1562.5	Rat	OECD 403 (EU B.2)	
phosphoric acid		No data available			

Irritation and corrosivity

Skin irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
nitric acid	Corrosive	Rabbit	Method not given	
phosphoric acid	Corrosive	Rabbit	OECD 404 (EU B.4)	

Eye irritation and corrosivity

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

Respiratory tract irritation and corrosivity

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

Sensitisation

Sensitisation by skin contact

Ingredient(s)	Result	Species	Method	Exposure time (h)
nitric acid	No data available			
phosphoric acid	Not sensitising	Human	Human experience	

Sensitisation by inhalation

Ingredient(s)	Result	Species	Method	Exposure time
nitric acid	No data available			
phosphoric acid	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
nitric acid	NOAEL	1500	Rat	OECD 422, oral	28	
phosphoric acid		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
nitric acid		No data available				
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
nitric acid		No data available				
phosphoric acid		No data available				

Chronic toxicity

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

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Mixture data:

Based on available data, the classification criteria are not met.

Substance data, where relevant and available

Carcinogenicity

Ingredient(s)	Effect
nitric acid	No evidence for carcinogenicity, negative test results
phosphoric acid	No data available

Mutagenicity

Ingredient(s)	Result (in-vitro)	Method (in-vitro)	Result (in-vivo)	Method (in-vivo)
nitric acid	No evidence for mutagenicity, negative test results		No data available	
phosphoric acid	No evidence for mutagenicity, negative test results		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
nitric acid	NAOEL	Developmental toxicity	1500	Rat	OECD 422, oral		Not toxic for reproduction
phosphoric acid	NAOEL	Developmental toxicity	410	Rat	OECD 422, 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)
nitric acid	LC ₅₀	72	Gambusia affinis	Method not given	96
phosphoric acid	LC ₅₀	138	Gambusia affinis	Method not given	96

Aquatic short-term toxicity - crustacea

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
nitric acid	EC ₅₀	8609	Daphnia magna Straus	Non guideline test	24
phosphoric acid	EC ₅₀	> 100	Daphnia magna Straus	OECD 202	48

Aquatic short-term toxicity - algae

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
nitric acid		No data available			
phosphoric acid	EC ₅₀	> 100	Desmodemus subspicatus	OECD 201	72

Aquatic short-term toxicity - marine species

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

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Impact on sewage plants - toxicity to bacteria

Ingredient(s)	Endpoint	Value (mg/l)	Inoculum	Method	Exposure time
nitric acid		No data available			
phosphoric acid	EC ₅₀	270	Activated sludge	Method not given	

Aquatic long-term toxicity

Aquatic long-term toxicity - fish

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
nitric acid	LD ₅₀	8226	Oncorhynchus mykiss	Method not given	96 hour(s)	
phosphoric acid		No data available				

Aquatic long-term toxicity - crustacea

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

Aquatic toxicity to other aquatic benthic organisms, including sediment-dwelling organisms, if 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
nitric acid					No data available
phosphoric acid					No data available

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
nitric acid	No data available			
phosphoric acid	No data available			

Bioconcentration factor (BCF)

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

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

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nitric acid	No data available				Mobile in aqueous environment
phosphoric acid	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 Dispose of in compliance with all Federal, state, provincial, and local laws and regulations.
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: 2031

14.2 UN proper shipping name:
Nitric acid , solution

14.3 Transport hazard class(es):

Class:8

Label(s):8

14.4 Packing group: II

14.5 Environmental hazards:

Environmentally hazardous:No

Marine pollutant No

14.6 Special precautions for user: None known.

14.7 Transport in bulk according to Annex II of MARPOL 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****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: MSDS1994

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Revision: 2012-04-18

Super Dilac VA4**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

- R35 - Causes severe burns.
- R 8 - Contact with combustible material may cause fire.
- R34 - Causes burns.
- H272 - May intensify fire; oxidiser.
- H314 - Causes severe skin burns and eye damage.

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