

SAFETY DATA SHEET

VERTEX

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Compilation date: 29/09/2016

Revision date: 11/03/2017

Revision No: 1.1

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

1.1. Product identifier

Product name: VERTEX

Product code: 94

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

Use of substance / mixture: * Air Conditioning cleaner for Condensers and Evaporators PC35: Washing and cleaning products (including solvent based products).

1.3. Details of the supplier of the safety data sheet

Company name: Advanced Engineering Ltd

Guardian House

Stroudley Road

Basingstoke

Hampshire

RG24 8NL

United Kingdom

Tel: +44(0)1256460300

Fax: +44(0)1256462266

Email: sales@advancedengineering.co.uk

1.4. Emergency telephone number

Emergency tel: Advanced Engineering Ltd (24hr) +44 (0)203 394 9889

Section 2: Hazards identification

2.1. Classification of the substance or mixture

Classification under CLP: Eye Dam. 1: H318

Most important adverse effects: Causes serious eye damage.

2.2. Label elements

Label elements:

Hazard statements: H318: Causes serious eye damage.

Hazard pictograms: GHS05: Corrosion



Signal words: Danger

Precautionary statements: P262: Do not get in eyes, on skin, or on clothing.

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P264: Wash hands thoroughly after handling.

P280: Wear eye protection.

P303+361+353: IF ON SKIN (or hair): Take off immediately all contaminated clothing.

Rinse skin with water.

P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337+313: If eye irritation persists: Get medical advice.

2.3. Other hazards

PBT: This product is not identified as a PBT/vPvB substance.

Section 3: Composition/information on ingredients

3.2. Mixtures

Hazardous ingredients:

D P M

EINECS	CAS	PBT / WEL	CLP Classification	Percent
252-104-2	34590-94-8	Substance with a Community workplace exposure limit.	-	1-10%

TRISODIUM CITRATE DIHYDRATE

200-675-3	6132-04-3	Substance with a Community workplace exposure limit.	-	1-10%
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NON IONIC SURFACTANT

-	68439-51-0	-	Aquatic Chronic 3: H412	1-10%
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SODIUM XYLENESULPHONATE - REACH registered number(s): 01-2119513350-56-0001

215-090-9	1300-72-7	-	Eye Irrit. 2: H319	1-10%
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SODIUM ALKYL BENZENE SULPHONATE

285-600-2	85117-50-6	-	Acute Tox. 4: H302; Skin Irrit. 2: H315; Eye Dam. 1: H318	1-10%
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ALCOHOLS, C9-11 ETHOXYLATED, 2,5 EO

-	68439-46-3	-	Eye Dam. 1: H318	1-10%
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Section 4: First aid measures

4.1. Description of first aid measures

Skin contact: * Remove all contaminated clothes and footwear immediately unless stuck to skin.
Wash immediately with plenty of soap and water.

Eye contact: * Bathe the eye with running water for 5 minutes. Transfer to hospital for specialist examination.

Ingestion: Wash out mouth with water. Do not induce vomiting. If conscious, give half a litre of water to drink immediately. Consult a doctor.

[cont...]

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Inhalation: Remove casualty from exposure ensuring one's own safety whilst doing so. Move to fresh air in case of accidental inhalation of vapours.

4.2. Most important symptoms and effects, both acute and delayed

Skin contact: There may be irritation and redness at the site of contact.

Eye contact: * There may be pain and redness. The eyes may water profusely. There may be severe pain. The vision may become blurred.

Ingestion: There may be soreness and redness of the mouth and throat. Nausea and stomach pain may occur.

Inhalation: There may be irritation of the throat with a feeling of tightness in the chest.

Delayed / immediate effects: Immediate effects can be expected after long-term exposure.

4.3. Indication of any immediate medical attention and special treatment needed

Immediate / special treatment: Eye bathing equipment should be available on the premises.

Section 5: Fire-fighting measures

5.1. Extinguishing media

Extinguishing media: Suitable extinguishing media for the surrounding fire should be used. Use water spray to cool containers.

5.2. Special hazards arising from the substance or mixture

Exposure hazards: In combustion emits toxic fumes.

5.3. Advice for fire-fighters

Advice for fire-fighters: Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes.

Section 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions: Do not attempt to take action without suitable protective clothing - see section 8 of SDS. Remove all incompatible materials as outlined in section 10 of SDS. Turn leaking containers leak-side up to prevent the escape of liquid.

6.2. Environmental precautions

Environmental precautions: In bulk packaged form, do not discard into Drains, Sewers or surface water courses. Contain the spillage using bunding.

6.3. Methods and material for containment and cleaning up

Clean-up procedures: Absorb into dry earth or sand. Transfer to a closable, labelled salvage container for disposal by an appropriate method. Wash the spillage site with large amounts of water.

6.4. Reference to other sections

Reference to other sections: Refer to section 8 of SDS. Refer to section 13 of SDS.

[cont...]

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Section 7: Handling and storage

7.1. Precautions for safe handling

Handling requirements: Avoid direct contact with the substance.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions: Store in a cool, well ventilated area. Keep container tightly closed.

Suitable packaging: Must only be kept in original packaging.

7.3. Specific end use(s)

Specific end use(s): * Air Conditioning cleaner for Condensers and Evaporators PC35: Washing and cleaning products (including solvent based products).

Section 8: Exposure controls/personal protection

8.1. Control parameters

Hazardous ingredients:

TRISODIUM CITRATE DIHYDRATE

Workplace exposure limits:

Respirable dust

State	8 hour TWA	15 min. STEL	8 hour TWA	15 min. STEL
EU	4 mg/m ³	-	-	-

DNEL/PNEC Values

Hazardous ingredients:

SODIUM XYLENESULPHONATE

Type	Exposure	Value	Population	Effect
DNEL	Inhalation	26.9 mg/m ³	Workers	Systemic
DNEL	Dermal	136.25 mg/m ³	Workers	Systemic
DNEL	Dermal	0.096 mg/cm ²	Workers	Local
DNEL	Inhalation	6.6 mg/m ³	General Population	Systemic
DNEL	Dermal	68.1 mg/kg	General Population	Systemic
DNEL	Dermal	0.048 mg/cm ³	General Population	Local
DNEL	Oral	3.8 mg/kg/day	General Population	Systemic
PNEC	Fresh water	0.23 mg/l	-	-
PNEC	Marine water	0.023 mg/l	-	-
PNEC	Fresh water sediments	0.862 mg/kg	-	-
PNEC	Marine sediments	0.0862 mg/kg	-	-
PNEC	Soil (agricultural)	0.037 mg/kg	-	-

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PNEC	Microorganisms in sewage treatment	100 mg/l	-	-
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8.2. Exposure controls

Engineering measures: Ensure there is sufficient ventilation of the area.

Respiratory protection: Respiratory protection not required.

Hand protection: Protective gloves.

Eye protection: Tightly fitting safety goggles. Ensure eye bath is to hand.

Skin protection: Protective clothing.

Environmental: In bulk packaged form, do not discard into Drains, Sewers or surface water courses.

Section 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

State: Liquid

Colour: Purple

Odour: Sweet-smelling

Solubility in water: Highly soluble

Boiling point/range°C: 99

upper: 95

Relative density: 1.03

pH: 7.7

9.2. Other information

Other information: Not applicable.

Section 10: Stability and reactivity

10.1. Reactivity

Reactivity: Stable under recommended transport or storage conditions.

10.2. Chemical stability

Chemical stability: Stable under normal conditions.

10.3. Possibility of hazardous reactions

Hazardous reactions: Hazardous reactions will not occur under normal transport or storage conditions.
Decomposition may occur on exposure to conditions or materials listed below.

10.4. Conditions to avoid

Conditions to avoid: Heat.

10.5. Incompatible materials

Materials to avoid: Strong oxidising agents. Strong acids.

10.6. Hazardous decomposition products

Haz. decomp. products: In combustion emits toxic fumes.

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Section 11: Toxicological information

11.1. Information on toxicological effects

Hazardous ingredients:

TRISODIUM CITRATE DIHYDRATE

-	MUS	LD50	170	mg/kg
-	RAT	LD50	1548	mg/kg

NON IONIC SURFACTANT

ORAL	-	LD50	>2000 - < 5000	mg/kg
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SODIUM XYLENESULPHONATE

DERMAL	RBT	LD50	2,000	mg/kg
ORAL	RAT	LD50	7,000	mg/kg

* Relevant hazards for product:

Hazard	Route	Basis
Serious eye damage/irritation	OPT	Hazardous: calculated

Symptoms / routes of exposure

Skin contact: There may be irritation and redness at the site of contact.

Eye contact: * There may be pain and redness. The eyes may water profusely. There may be severe pain. The vision may become blurred.

Ingestion: There may be soreness and redness of the mouth and throat. Nausea and stomach pain may occur.

Inhalation: There may be irritation of the throat with a feeling of tightness in the chest.

Delayed / immediate effects: Immediate effects can be expected after long-term exposure.

Other information: Not applicable.

Section 12: Ecological information

12.1. Toxicity

Hazardous ingredients:

NON IONIC SURFACTANT

DUCKWEED (Lemna sp.)	EC50	> 1 - < 10	mg/l
Daphnia magna	EC50	> 1 - < 10	mg/l
FISH	LC50	> 1 - < 10	mg/l

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SODIUM XYLENESULPHONATE

ALGAE	IC50	230	mg/l
Daphnia magna	EC50	1,000	mg/l
FISH	LC50	1,000	mg/l

12.2. Persistence and degradability

Persistence and degradability: * The biodegradability of the surfactants contained in this product are in accordance with the requirements of the EU Detergent Regulation (EC/648/2004). Biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative potential: No bioaccumulation potential.

12.4. Mobility in soil

Mobility: Readily absorbed into soil. Soluble in water.

12.5. Results of PBT and vPvB assessment

PBT identification: This product is not identified as a PBT/vPvB substance.

12.6. Other adverse effects

Other adverse effects: Negligible ecotoxicity.

Section 13: Disposal considerations

13.1. Waste treatment methods

Disposal operations: Transfer to a suitable container and arrange for collection by specialised disposal company.

Recovery operations: * Recovery of components used for pollution abatement.

Waste code number: 16 03 05

Disposal of packaging: Clean with water. May be reused following decontamination.

NB: The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

Section 14: Transport information

Transport class: This product does not require a classification for transport.

Section 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Specific regulations: Regulation (EC) No 1272/2008 of the European Parliament and of the Council of the 16th December 2008 on Classification, labeling and packaging of Substances and Mixtures. The biodegradability of the surfactants contained in this product are in accordance with the requirements of the EU Detergent Regulation (EC/648/2004).

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15.2. Chemical Safety Assessment

Chemical safety assessment: A chemical safety assessment has not been carried out for the substance or the mixture by the supplier.

Section 16: Other information

Other information

Other information: This safety data sheet is prepared in accordance with Commission Regulation (EU) No 2015/830.

* indicates text in the SDS which has changed since the last revision.

Phrases used in s.2 and s.3: H302: Harmful if swallowed.

H315: Causes skin irritation.

H318: Causes serious eye damage.

H319: Causes serious eye irritation.

H412: Harmful to aquatic life with long lasting effects.

Legal disclaimer: The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product.