

TOPAZ AC3**Section: 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING****1.1 Product identifier**

Product name : TOPAZ AC3

Product code : 116648E

Use of the Substance/Mixture : Cleaning product

Substance type: : Mixture

For professional users only.

Product dilution information : 5.0 %

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

Identified uses : General purpose cleaner. Manual process
Foam cleaner. Semi-Automatic without venting process
Foam cleaner. Semi-Automatic with venting process

Recommended restrictions on use : Reserved for industrial and professional use.

1.3 Details of the supplier of the safety data sheet

Company : Ecolab Ltd.
PO Box 11; Winnington Avenue
Northwich, Cheshire, United Kingdom CW8 4DX
+ 44 (0)1606 74488
ccs@ecolab.com

1.4 Emergency telephone number

Emergency telephone number : +441618841235
+32-(0)3-575-5555 Trans-European

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Section: 2. HAZARDS IDENTIFICATION**2.1 Classification of the substance or mixture****Classification (REGULATION (EC) No 1272/2008)****Product AS SOLD**

Corrosive to metals, Category 1	H290
Skin corrosion, Category 1	H314
Serious eye damage, Category 1	H318
Chronic aquatic toxicity, Category 3	H412

TOPAZ AC3

Product AT USE DILUTION


Skin corrosion, Category 1 H314
 Serious eye damage, Category 1 H318

The classification of this product is based only on its extreme pH value (in accordance with current European legislation).

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Product AS SOLD

Hazard pictograms : 

Signal Word : Danger

Hazard Statements : H290 May be corrosive to metals.
 H314 Causes severe skin burns and eye damage.
 H412 Harmful to aquatic life with long lasting effects.

Precautionary Statements : **Prevention:**
 P273 Avoid release to the environment.
 P280 Wear protective gloves/ eye protection/ face protection.
Response:
 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 CENTER/doctor.

Hazardous components which must be listed on the label:
 Phosphoric acid

Product AT USE DILUTION

Hazard pictograms : 

Signal Word : Danger

Hazard Statements : H314 Causes severe skin burns and eye damage.

Precautionary Statements : **Prevention:**
 P280 Wear protective gloves/ eye protection/ face protection.
Response:
 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

TOPAZ AC3

P310

present and easy to do. Continue rinsing.
Immediately call a POISON CENTER/doctor.**2.3 Other hazards****Product AS SOLD**

Do not mix with bleach or other chlorinated products – will cause chlorine gas.

Product AT USE DILUTION

Do not mix with bleach or other chlorinated products – will cause chlorine gas.

Section: 3. COMPOSITION/INFORMATION ON INGREDIENTS**3.2 Mixtures****Product AS SOLD****Hazardous components**

Chemical Name	CAS-No. EC-No. REACH No.	Classification REGULATION (EC) No 1272/2008	Concentration : [%]
Phosphoric acid	7664-38-2 231-633-2 01-2119485924-24	Skin corrosion Category 1B; H314 Corrosive to metals Category 1; H290 Skin corrosion Category 1B H314 25 - 100 % Skin irritation Category 2 H315 10 - < 25 % Eye irritation Category 2 H319 10 - < 25 %	>= 30 - < 50
2-(2-butoxyethoxy)ethanol	112-34-5 203-961-6 01-2119475104-44	Eye irritation Category 2; H319	>= 5 - < 10
Dodecyldimethylamine oxide	1643-20-5 216-700-6 01-2120068065-58	Acute toxicity Category 4; H302 Skin irritation Category 2; H315 Serious eye damage Category 1; H318 Acute aquatic toxicity Category 1; H400 Chronic aquatic toxicity Category 2; H411	>= 1 - < 2.5
Phosphoric acid, C11-14- isoalkyl esters, C13-rich	154518-38-4 01-2119976356-25	Skin irritation Category 2; H315 Serious eye damage Category 1; H318 Chronic aquatic toxicity Category 2; H411	>= 1 - < 2.5

Product AT USE DILUTION**Hazardous components**

Chemical Name	CAS-No. EC-No. REACH No.	Classification REGULATION (EC) No 1272/2008	Concentration : [%]
Phosphoric acid	7664-38-2 231-633-2 01-2119485924-24	Skin corrosion Category 1B; H314 Corrosive to metals Category 1; H290 Skin corrosion Category 1B H314 25 - 100 % Skin irritation Category 2 H315 10 - < 25 % Eye irritation Category 2	>= 1 - < 2.5

TOPAZ AC3

		H319 10 - < 25 %	
Amines, C12-14 alkyldimethyl, N-oxides	308062-28-4 01-2119490061-47	Acute toxicityCategory 4; H302 Skin irritationCategory 2; H315 Serious eye damageCategory 1; H318 Acute aquatic toxicityCategory 1; H400 Chronic aquatic toxicityCategory 2; H411 M = 1	>= 0.1 - < 0.25
Substances with a workplace exposure limit :			
2-(2-butoxyethoxy)ethanol	112-34-5 203-961-6 01-2119475104-44	Eye irritationCategory 2; H319	>= 0.25 - < 0.5

For the full text of the H-Statements mentioned in this Section, see Section 16.

Section: 4. FIRST AID MEASURES

4.1 Description of first aid measures

Product AS SOLD

- In case of eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.
- In case of skin contact : Wash off immediately with plenty of water for at least 15 minutes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.
- If swallowed : Rinse mouth with water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention immediately.
- If inhaled : Remove to fresh air. Treat symptomatically. Get medical attention.

Product AT USE DILUTION

- In case of eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.
- In case of skin contact : Wash off immediately with plenty of water for at least 15 minutes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.
- If swallowed : Rinse mouth with water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention immediately.
- If inhaled : Remove to fresh air. Treat symptomatically. Get medical attention if symptoms occur.

4.2 Most important symptoms and effects, both acute and delayed

See Section 11 for more detailed information on health effects and symptoms.

4.3 Indication of immediate medical attention and special treatment needed

- Treatment : Treat symptomatically.

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Section: 5. FIREFIGHTING MEASURES

Product AS SOLD

5.1 Extinguishing media

Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media : None known.

5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting : Not flammable or combustible.

Hazardous combustion products : Depending on combustion properties, decomposition products may include following materials:
Carbon oxides
nitrogen oxides (NOx)
Oxides of phosphorus

5.3 Advice for firefighters

Special protective equipment for firefighters : Use personal protective equipment.

Further information : Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. In the event of fire and/or explosion do not breathe fumes.

Section: 6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Product AS SOLD

Advice for non-emergency personnel : Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Avoid inhalation, ingestion and contact with skin and eyes. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Ensure clean-up is conducted by trained personnel only. Refer to protective measures listed in sections 7 and 8.

Advice for emergency responders : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials.

Product AT USE DILUTION

Advice for non-emergency personnel : Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Avoid inhalation, ingestion and contact with skin and eyes. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Ensure clean-up is conducted by trained personnel only. Refer to protective measures listed in sections 7 and 8.

Advice for emergency responders : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials.

TOPAZ AC3

6.2 Environmental precautions

Product AS SOLD

Environmental precautions : Do not allow contact with soil, surface or ground water.

Product AT USE DILUTION

Environmental precautions : Do not allow contact with soil, surface or ground water.

6.3 Methods and materials for containment and cleaning up

Product AS SOLD

Methods for cleaning up : Stop leak if safe to do so. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Flush away traces with water. For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway.

Product AT USE DILUTION

Methods for cleaning up : Stop leak if safe to do so. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Flush away traces with water. For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway.

6.4 Reference to other sections

See Section 1 for emergency contact information.
For personal protection see section 8.
See Section 13 for additional waste treatment information.

Section: 7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Product AS SOLD

Advice on safe handling : Do not ingest. Do not get in eyes, on skin, or on clothing. Use only with adequate ventilation. Wash hands thoroughly after handling. Do not breathe spray, vapour. Do not mix with bleach or other chlorinated products – will cause chlorine gas. In case of mechanical malfunction, or if in contact with unknown dilution of product, wear full Personal Protective Equipment (PPE).

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use. Wash face, hands and any exposed skin thoroughly after handling. Provide suitable facilities for quick drenching or flushing of the eyes and body in case of contact or splash hazard.

Product AT USE DILUTION

Advice on safe handling : Do not ingest. Do not get in eyes, on skin, or on clothing. Use only with adequate ventilation. Wash hands thoroughly after handling. Do not breathe spray, vapour. Do not mix with bleach or other chlorinated products – will cause chlorine gas. In case of mechanical malfunction, or if in contact with unknown dilution of

TOPAZ AC3

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7.2 Conditions for safe storage, including any incompatibilities

Product AS SOLD
 Requirements for storage areas and containers : Keep away from strong bases. Absorb spillage to prevent material damage. Keep out of reach of children. Keep container tightly closed. Keep only in original packaging. Store in suitable labeled containers.

Storage temperature : 0 °C to 40 °C

Packaging material : Unsuitable material: Mild steel, Aluminium
 Suitable material: Plastic material

Product AT USE DILUTION
 Requirements for storage areas and containers : Keep away from strong bases. Keep out of reach of children. Keep container tightly closed. Store in suitable labeled containers.

7.3 Specific end uses

Product AS SOLD

Section: 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Product AS SOLD
Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
Phosphoric acid	7664-38-2	TWA	1 mg/m3	UKCOSSTD
		STEL	2 mg/m3	UKCOSSTD
2-(2-butoxyethoxy)ethanol	112-34-5	TWA	10 ppm 67.5 mg/m3	UKCOSSTD
		STEL	15 ppm 101.2 mg/m3	UKCOSSTD

DNEL

Phosphoric acid	:	End Use: Workers Exposure routes: Inhalation Potential health effects: Acute local effects Value: 2 mg/m3 End Use: Workers Exposure routes: Inhalation Potential health effects: Long-term local effects Value: 1 mg/m3 End Use: Consumers Exposure routes: Inhalation Potential health effects: Long-term local effects
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TOPAZ AC3

		Value: 0.73 mg/m3
2-(2-butoxyethoxy)ethanol	:	<p>End Use: Workers Exposure routes: Inhalation Potential health effects: Short-term - local Value: 101.2 mg/m3</p> <p>End Use: Workers Exposure routes: Dermal Potential health effects: Long-term systemic effects Value: 20 mg/kg</p> <p>End Use: Workers Exposure routes: Inhalation Potential health effects: Long-term systemic effects Value: 67.5 mg/m3</p> <p>End Use: Workers Exposure routes: Inhalation Potential health effects: Short-term - local Value: 67.5 mg/m3</p>

PNEC

2-(2-butoxyethoxy)ethanol	:	<p>Fresh water Value: 1 mg/l</p> <p>Marine water Value: 0.1 mg/l</p> <p>Intermittent use/release Value: 3.9 mg/l</p> <p>Sewage treatment plant Value: 200 mg/l</p> <p>Sediment Value: 4 mg/kg</p> <p>Soil Value: 0.4 mg/kg</p> <p>Oral Value: 56 mg/kg</p>
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8.2 Exposure controls

Product AS SOLD

Appropriate engineering controls

Engineering measures : Effective exhaust ventilation system. Maintain air concentrations below occupational exposure standards.

Individual protection measures

TOPAZ AC3

- Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use. Wash face, hands and any exposed skin thoroughly after handling. Provide suitable facilities for quick drenching or flushing of the eyes and body in case of contact or splash hazard.
- Eye/face protection (EN 166) : Safety goggles
Face-shield
- Hand protection (EN 374) : Recommended preventive skin protection
Gloves
Nitrile rubber
butyl-rubber
Breakthrough time: 1 – 4 hours
Minimum thickness for butyl-rubber 0.7 mm for nitrile rubber 0.4 mm or equivalent (please refer to the gloves manufacturer/distributor for advise).
Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.
- Skin and body protection (EN 14605) : Personal protective equipment comprising: suitable protective gloves, safety goggles and protective clothing including appropriate safety shoes
- Respiratory protection (EN 143, 14387) : None required if airborne concentrations are maintained below the exposure limit listed in Exposure Limit Information. Use certified respiratory protection equipment meeting EU requirements(89/656/EEC, (EU) 2016/425), or equivalent, when respiratory risks cannot be avoided or sufficiently limited by technical means of collective protection or by measures, methods or procedures of work organization.

Product AT USE DILUTION
Appropriate engineering controls

- Engineering measures : Effective exhaust ventilation system. Maintain air concentrations below occupational exposure standards.

Individual protection measures

- Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use. Wash face, hands and any exposed skin thoroughly after handling. Provide suitable facilities for quick drenching or flushing of the eyes and body in case of contact or splash hazard.
- Eye/face protection (EN 166) : Safety goggles
Face-shield
- Hand protection (EN 374) : Recommended preventive skin protection
Gloves
Nitrile rubber
butyl-rubber
Breakthrough time: 1 – 4 hours
Minimum thickness for butyl-rubber 0.7 mm for nitrile rubber 0.4 mm or equivalent (please refer to the gloves manufacturer/distributor for advise).
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TOPAZ AC3

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Respiratory protection (EN 143, 14387)	: None required if airborne concentrations are maintained below the exposure limit listed in Exposure Limit Information. Use certified respiratory protection equipment meeting EU requirements(89/656/EEC, (EU) 2016/425), or equivalent, when respiratory risks cannot be avoided or sufficiently limited by technical means of collective protection or by measures, methods or procedures of work organization.

Environmental exposure controls

General advice : Consider the provision of containment around storage vessels.

Section: 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

	Product AS SOLD	Product AT USE DILUTION
Appearance	: liquid	liquid
Colour	: light yellow	colourless
Odour	: slight	not significant
pH	: 0.7 - 1.3, 100 %	1.7
Flash point	: Not applicable.	
Odour Threshold	: Not applicable and/or not determined for the mixture	
Melting point/freezing point	: Not applicable and/or not determined for the mixture	
Initial boiling point and boiling range	: 100 °C	
Evaporation rate	: Not applicable and/or not determined for the mixture	
Flammability (solid, gas)	: Not applicable and/or not determined for the mixture	
Upper explosion limit	: Not applicable and/or not determined for the mixture	
Lower explosion limit	: Not applicable and/or not determined for the mixture	
Vapour pressure	: Not applicable and/or not determined for the mixture	
Relative vapour density	: Not applicable and/or not determined for the mixture	
Relative density	: 1.16 - 1.2	
Water solubility	: soluble	
Solubility in other solvents	: Not applicable and/or not determined for the mixture	
Partition coefficient: n-octanol/water	: Not applicable and/or not determined for the mixture	
Auto-ignition temperature	: Not applicable and/or not determined for the mixture	
Thermal decomposition	: Not applicable and/or not determined for the mixture	
Viscosity, kinematic	: Not applicable and/or not determined for the mixture	
Explosive properties	: Not applicable and/or not determined for the mixture	
Oxidizing properties	: The substance or mixture is not classified as oxidizing.	

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9.2 Other information

Not applicable and/or not determined for the mixture

Section: 10. STABILITY AND REACTIVITY

Product AS SOLD

10.1 Reactivity

No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

Do not mix with bleach or other chlorinated products – will cause chlorine gas.

10.4 Conditions to avoid

None known.

10.5 Incompatible materials

Bases

Mild steel

Aluminium

10.6 Hazardous decomposition products

Depending on combustion properties, decomposition products may include following materials:

Carbon oxides

nitrogen oxides (NO_x)

Oxides of phosphorus

Section: 11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Product AS SOLD

Information on likely routes of exposure : Inhalation, Eye contact, Skin contact

Product

Acute oral toxicity : Acute toxicity estimate : > 2,000 mg/kg

Acute toxicity estimate : > 2,000 mg/kg

Acute toxicity estimate : > 2,000 mg/kg

Acute inhalation toxicity : There is no data available for this product.

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- Acute dermal toxicity : There is no data available for this product.
- Skin corrosion/irritation : There is no data available for this product.
- Serious eye damage/eye irritation : There is no data available for this product.
- Respiratory or skin sensitization : There is no data available for this product.
- Carcinogenicity : There is no data available for this product.
- Reproductive effects : There is no data available for this product.
- Germ cell mutagenicity : There is no data available for this product.
- Teratogenicity : There is no data available for this product.
- STOT - single exposure : There is no data available for this product.
- STOT - repeated exposure : There is no data available for this product.
- Aspiration toxicity : There is no data available for this product.

Components

- Acute oral toxicity : Phosphoric acid LD50 rat: > 2,600 mg/kg
2-(2-butoxyethoxy)ethanol LD50 rat: 3,306 mg/kg
Dodecyldimethylamine oxide LD50 rat: 1,064 mg/kg

Components

- Acute inhalation toxicity : Phosphoric acid 4 h LC50 rat: 0.962 mg/l
Test atmosphere: dust/mist

Components

- Acute dermal toxicity : Phosphoric acid LD50 rabbit: > 2,000 mg/kg
2-(2-butoxyethoxy)ethanol LD50 rabbit: 2,764 mg/kg

Potential Health Effects

Product AS SOLD

- Eyes : Causes serious eye damage.
- Skin : Causes severe skin burns.
- Ingestion : Causes digestive tract burns.
- Inhalation : May cause nose, throat, and lung irritation.
- Chronic Exposure : Health injuries are not known or expected under normal use.

Product AT USE DILUTION

- Eyes : Causes serious eye damage.

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Skin	: Causes severe skin burns.
Ingestion	: Causes digestive tract burns.
Inhalation	: May cause nose, throat, and lung irritation.
Chronic Exposure	: Health injuries are not known or expected under normal use.

Experience with human exposure

Product AS SOLD

Eye contact	: Redness, Pain, Corrosion
Skin contact	: Redness, Pain, Corrosion
Ingestion	: Corrosion, Abdominal pain
Inhalation	: Respiratory irritation, Cough

Product AT USE DILUTION

Eye contact	: Redness, Pain, Corrosion
Skin contact	: Redness, Pain, Corrosion
Ingestion	: Corrosion, Abdominal pain
Inhalation	: Respiratory irritation, Cough

Section: 12. ECOLOGICAL INFORMATION

12.1 Toxicity

Product AS SOLD

Environmental Effects	: Harmful to aquatic life with long lasting effects.
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Product AT USE DILUTION

Environmental Effects	: This product has no known ecotoxicological effects.
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**Product AS SOLD
Product**

Toxicity to fish	: no data available
Toxicity to daphnia and other aquatic invertebrates	: no data available
Toxicity to algae	: no data available

Components

Toxicity to fish	: 2-(2-butoxyethoxy)ethanol96 h LC50 Fish: 1,300 mg/l Dodecyldimethylamine oxide96 h LC50 Lepomis macrochirus (Bluegill sunfish): 31.8 mg/l Phosphoric acid, C11-14-isoalkyl esters, C13-rich96 h LC50 Oncorhynchus mykiss (rainbow trout): 24 mg/l Test substance: Information given is based on data obtained from similar substances.
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Components

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Toxicity to daphnia and other aquatic invertebrates : Phosphoric acid 48 h EC50 Daphnia magna (Water flea): > 100 mg/l
Dodecyldimethylamine oxide 48 h EC50 Daphnia magna (Water flea): 3.9 mg/l
Phosphoric acid, C11-14-isoalkyl esters, C13-rich 48 h EC50 Daphnia magna (Water flea): 6.31 mg/l
Test substance: Information given is based on data obtained from similar substances.

Components

Toxicity to algae : Phosphoric acid 72 h EC50 Desmodesmus subspicatus (green algae): > 100 mg/l
Phosphoric acid, C11-14-isoalkyl esters, C13-rich 72 h EC50 Pseudokirchneriella subcapitata (algae): 150 mg/l
Test substance: Information given is based on data obtained from similar substances.
72 h NOEC Pseudokirchneriella subcapitata (algae): 10 mg/l

12.2 Persistence and degradability

Product

Biodegradability : The surfactants contained in the product are biodegradable according to the requirements of the detergent regulation 648/2004/EC

Components

Biodegradability : Phosphoric acid Result: Not applicable - inorganic
2-(2-butoxyethoxy)ethanol Result: Readily biodegradable.
Dodecyldimethylamine oxide Result: Readily biodegradable.
Phosphoric acid, C11-14-isoalkyl esters, C13-rich Result: Poorly biodegradable

12.3 Bioaccumulative potential

no data available

12.4 Mobility in soil

no data available

12.5 Results of PBT and vPvB assessment

Product

Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Other adverse effects

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no data available

Section: 13. DISPOSAL CONSIDERATIONS

Dispose of in accordance with the European Directives on waste and hazardous waste. Waste codes should be assigned by the user, preferably in discussion with the waste disposal authorities.

13.1 Waste treatment methods

Product AS SOLD

- Product : The product should not be allowed to enter drains, water courses or the soil. Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with local regulations. Dispose of wastes in an approved waste disposal facility.
- Contaminated packaging : Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers. Dispose of in accordance with local, state, and federal regulations.
- Guidance for Waste Code selection : Inorganic wastes containing dangerous substances. If this product is used in any further processes, the final user must redefine and assign the most appropriate European Waste Catalogue Code. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable European (EU Directive 2008/98/EC) and local regulations.

Product AT USE DILUTION

- Product : Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with local regulations. Dispose of wastes in an approved waste disposal facility.
- Contaminated packaging : Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers. Dispose of in accordance with local, state, and federal regulations.

Section: 14. TRANSPORT INFORMATION

Product AS SOLD

The shipper/consignor/sender is responsible to ensure that the packaging, labeling, and markings are in compliance with the selected mode of transport.

Land transport (ADR/ADN/RID)

- 14.1 UN number : 1805
- 14.2 UN proper shipping name : PHOSPHORIC ACID SOLUTION
- 14.3 Transport hazard class(es) : 8
- 14.4 Packing group : III
- 14.5 Environmental hazards : No
- 14.6 Special precautions for : None

TOPAZ AC3

user

Air transport (IATA)

14.1 UN number : 1805
 14.2 UN proper shipping name : Phosphoric acid, solution
 14.3 Transport hazard class(es) : 8
 14.4 Packing group : III
 14.5 Environmental hazards : No
 14.6 Special precautions for user : None

Sea transport (IMDG/IMO)

14.1 UN number : 1805
 14.2 UN proper shipping name : PHOSPHORIC ACID SOLUTION
 14.3 Transport hazard class(es) : 8
 14.4 Packing group : III
 14.5 Environmental hazards : No
 14.6 Special precautions for user : None
 14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code : Not applicable.

Section: 15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture according to Detergents Regulation EC 648/2004 : less than 5 %: Non-ionic surfactants

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances. : Not applicable.

National Regulations

Take note of Dir 94/33/EC on the protection of young people at work.

Other regulations : The Chemicals (Hazard Information and Packaging for Supply) Regulations.
 The Control of Substances Hazardous to Health Regulations.
 Health and Safety at Work Act.

15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out on the product.

Section: 16. OTHER INFORMATION

Procedure used to derive the classification according to REGULATION (EC) No 1272/2008

Classification	Justification
Corrosive to metals 1, H290	Based on product data or assessment

TOPAZ AC3

Skin corrosion 1, H314	Based on product data or assessment
Serious eye damage 1, H318	Based on product data or assessment
Chronic aquatic toxicity 3, H412	Calculation method

Full text of H-Statements

H290	May be corrosive to metals.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.

Full text of other abbreviations

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; AIIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TECl - Thailand Existing Chemicals Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Prepared by : Regulatory Affairs

Numbers quoted in the MSDS are given in the format: 1,000,000 = 1 million and 1,000 = 1 thousand. 0.1 = 1 tenth and 0.001 = 1 thousandth

REVISED INFORMATION: Significant changes to regulatory or health information for this revision is indicated by a bar in the left-hand margin of the SDS.

The information provided in this Safety Data Sheet is correct to the best of our knowledge,

TOPAZ AC3

information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

Annex: Exposure Scenarios

Exposure Scenario: Foam cleaner. Semi-Automatic with venting process

Life Cycle Stage : Use at industrial sites
Product category : **PC35** Washing and cleaning products (including solvent based products)

Contributing scenario controlling environmental exposure for:

Environmental release category : **ERC4** Industrial use of processing aids in processes and products, not becoming part of articles
Daily amount per site : 50 kg
Type of Sewage Treatment Plant : Municipal sewage treatment plant

Contributing scenario controlling worker exposure for:

Process category : **PROC7** Industrial spraying
Exposure duration : 240 min
Operational conditions and risk management measures : Indoor
Local Exhaust Ventilation is not required
General ventilation Ventilation rate per hour 1
Skin Protection : see section 8
Respiratory Protection : see section 8

Contributing scenario controlling worker exposure for:

Process category : **PROC8b** Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at dedicated facilities
Exposure duration : 60 min
Operational conditions and risk management measures : Indoor
Local Exhaust Ventilation is not required
General ventilation Ventilation rate per hour 1

TOPAZ AC3

Skin Protection : see section 8

Respiratory Protection : see section 8

Exposure Scenario: Foam cleaner. Semi-Automatic without venting process

Life Cycle Stage : Use at industrial sites

Product category : **PC35** Washing and cleaning products (including solvent based products)

Contributing scenario controlling environmental exposure for:

Environmental release category : **ERC4** Industrial use of processing aids in processes and products, not becoming part of articles

Daily amount per site : 50 kg

Type of Sewage Treatment Plant : Municipal sewage treatment plant

Contributing scenario controlling worker exposure for:

Process category : **PROC7** Industrial spraying

Exposure duration : 240 min

Operational conditions and risk management measures : Indoor

Local Exhaust Ventilation is not required

General ventilation Ventilation rate per hour 1

Skin Protection : see section 8

Respiratory Protection : see section 8

Contributing scenario controlling worker exposure for:

Process category : **PROC8b** Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at dedicated facilities

Exposure duration : 60 min

Operational conditions and risk management measures : Indoor

Local Exhaust Ventilation is not required

General ventilation Ventilation rate per hour 1

Skin Protection : see section 8

Respiratory Protection : see section 8

TOPAZ AC3

Exposure Scenario: General purpose cleaner. Manual process

Life Cycle Stage : Widespread use by professional workers
Product category : **PC35** Washing and cleaning products (including solvent based products)

Contributing scenario controlling environmental exposure for:

Environmental release category : **ERC8a** Wide dispersive indoor use of processing aids in open systems
Daily amount per site : 7.5 kg
Type of Sewage Treatment Plant : Municipal sewage treatment plant

Contributing scenario controlling worker exposure for:

Process category : **PROC10** Roller application or brushing
Exposure duration : 480 min
Operational conditions and risk management measures : Indoor
Local Exhaust Ventilation is not required
General ventilation Ventilation rate per hour 1
Skin Protection : see section 8
Respiratory Protection : see section 8

Contributing scenario controlling worker exposure for:

Process category : **PROC8a** Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at non-dedicated facilities
Exposure duration : 60 min
Operational conditions and risk management measures : Indoor
Local Exhaust Ventilation is not required
General ventilation Ventilation rate per hour 1
Skin Protection : see section 8
Respiratory Protection : see section 8