

### 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 with venting process Foam cleaner. Semi-Automatic without 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
Poison Information Centre telephone number	:	For medical professionals only: 0344 892 0111

Date of Compilation/Revision	:	23.06.2023
Version	:	4.0

### 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

Acute toxicity, Category 4	H302
Skin corrosion, Category 1	H314
Serious eye damage, Category 1	H318
Chronic aquatic toxicity, Category 3	H412

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

Product AT USE DILUTION Skin corrosion, Category 1	H314
Serious eye damage, Category 1 The classification of this product is based only o European legislation).	H318 n its extreme pH value (in accordance with current
2.2 Label elements	
Labelling (REGULATION (EC) No 1272/2008)	

Product AS SOLD Hazard pictograms		!>
Signal Word	: Danger	
Hazard Statements	: H290 H302 H314 H412	May be corrosive to metals. Harmful if swallowed. Causes severe skin burns and eye damage. Harmful to aquatic life with long lasting effects.
Precautionary Statements	: Prevention: P273 P280 Response:	Avoid release to the environment. Wear protective gloves/ eye protection/ face protection.
	P303 + P361 + P	353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
	P305 + P351 + P	338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
		procent and eacy to der contained internet.

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 + P3	53 IF ON SKIN (or hair): Take off			
	immediately all contaminated clothing. Rinse			
	skin with water or shower.			
P305 + P351 + P33	38 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.			

### 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	Nota B Skin corrosion Sub-category 1B; H314 Serious eye damage Category 1; H318 Corrosive to metals Category 1; H290 Acute toxicity Category 4; H302 Serious eye damage/eye irritation Category 1 > 25 - 100 % Serious eye damage/eye irritation Category 2 > 10 - 25 % Skin corrosion/irritation Category 1B > 25 - 100 % Skin corrosion/irritation Category 2 > 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

231-633-2 01-2119485924-24Serious eye damage Category 1; H318 Corrosive to metals Category 1; H290 Acute toxicity Category 4; H302Serious eye damage/eye irritation Category 1 > 25 - 100 %Serious eye damage/eye irritation Category 2 > 10 - 25 %Dodecyldimethylamine oxide1643-20-5 216-700-6 01-2120068065-58Acute toxicity Category 4; H302 Skin corrosion/irritation Category 2 > 10 - 25 %Dodecyldimethylamine oxide1643-20-5 216-700-6 01-2120068065-58Acute toxicity Category 4; H302 Skin irritation Category 2; H315 Serious eye damage Category 1; H318 Acute aquatic toxicity Category 1; H318 Acute aquatic toxicity Category 2; H411>= 0.1 - <Substances with a workplace exposure limit : 2-(2-butoxyethoxy)ethanol112-34-5 203-961-6 01-2119475104-44Eye irritation Category 2; H319>= 0.25 - 0.50.5112-34-5 203-961-6 0.5Serious eye irritation Category 2; H319>= 0.25 -	Chemical Name	CAS-No.	Classification	Concentration
231-633-2 01-2119485924-24Serious eye damage Category 1; H318 Corrosive to metals Category 1; H302 Acute toxicity Category 4; H302Serious eye damage/eye irritation Category 1 > 25 - 100 % Serious eye damage/eye irritation Category 2 > 10 - 25 %Dodecyldimethylamine oxide1643-20-5 216-700-6 01-2120068065-58Dodecyldimethylamine oxide1643-20-5 216-700-6 01-2120068065-58Substances with a workplace exposure limit : 2-(2-butoxyethoxy)ethanol112-34-5 203-961-6 01-2119475104-44Substances with a workplace exposure limit : 2-(2-butoxyethoxy)ethanol112-34-5 203-961-6 01-2119475104-44Serious eye irritation Category 2; H319 0.5>= 0.25 - 0.5			REGULATION (EC) No 1272/2008	: [%]
oxide216-700-6 01-2120068065-58Skin irritation Category 2; H315 Serious eye damage Category 1; H318 Acute aquatic toxicity Category 1; H400 Chronic aquatic toxicity Category 2; H4110.25Substances with a workplace exposure limit : 2-(2-butoxyethoxy)ethanol112-34-5 203-961-6 01-2119475104-44Eye irritation Category 2; H319 > = 0.25 - 0.5>= 0.25 - 0.5	Phosphoric acid	231-633-2	Serious eye damage Category 1; H318 Corrosive to metals Category 1; H290 Acute toxicity Category 4; H302 Serious eye damage/eye irritation Category 1 > 25 - 100 % Serious eye damage/eye irritation Category 2 > 10 - 25 % Skin corrosion/irritation Category 1B > 25 - 100 % Skin corrosion/irritation Category 2	>= 1 - < 2.5
2-(2-butoxyethoxy)ethanol 112-34-5 203-961-6 01-2119475104-44 Eye irritation Category 2; H319 >= 0.25 - < 0.5		216-700-6	Skin irritation Category 2; H315 Serious eye damage Category 1; H318 Acute aquatic toxicity Category 1; H400	>= 0.1 - < 0.25
2-(2-butoxyethoxy)ethanol 112-34-5 203-961-6 01-2119475104-44 Eye irritation Category 2; H319 >= 0.25 - < 0.5	Substances with a workp	lace exposure limit :		I
	•	112-34-5 203-961-6	Eye irritation Category 2; H319	>= 0.25 - < 0.5
For the full text of the H-Statements mentioned in this Section, see Section 16.	For the full text of the H-S	Statements mentioned	in this Section, see Section 16.	

### 4.1 Description of first aid measures

Product AS SOLD In case of eye contact	Rinse immediately with plenty of water, also under the eyelide at least 15 minutes. Remove contact lenses, if present and ea to do. Continue rinsing. Get medical attention immediately.	
In case of skin contact	Wash off immediately with plenty of water for at least 15 minu Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.	utes.
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.	ntion
Product AT USE DILUTION		
In case of eye contact	Rinse immediately with plenty of water, also under the eyelide at least 15 minutes. Remove contact lenses, if present and east to do. Continue rinsing. Get medical attention immediately.	
In case of skin contact	Wash off immediately with plenty of water for at least 15 minu	utes.

	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.

### 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	<ul> <li>Depending on combustion properties, decomposition products may include following materials: Carbon oxides nitrogen oxides (NOx) Oxides of phosphorus</li> </ul>

### 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	: Ensure adequate ventilation. Keep people away from and upwind
personnel	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.

TOPAZ AC3	
	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.
<b>Product AT USE DILUTION</b> 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.
6.2 Environmental precautions	
<b>Product AS SOLD</b> 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 co	ontainment and cleaning up
<b>Product AS SOLD</b> 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

TOPAZ AC3		
	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 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.	

### 7.2 Conditions for safe storage, including any incompatibilities

<b>Product AS SOLD</b> 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	:	Keep away from strong bases. Keep out of reach of children.
areas and containers		Keep container tightly closed. Store in suitable labeled containers.

#### 7.3 Specific end uses

Product AS SOLD	
Specific use(s)	: General purpose cleaner. Manual process
	Foam cleaner. Semi-Automatic with venting process
	Foam cleaner. Semi-Automatic without venting process

### 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
------------	---------	----------------------------------	--------------------	-------

### SAFETY DATA SHEET according to Regulation (EC) No. 1907/2006

### TOPAZ AC3

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

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

### PNEC

PNEC		
2-(2-butoxyethoxy)ethanol		Fresh water
		Value: 1 mg/l
		Marine water
		Value: 0.1 mg/l
		Intermittent use/release
		Value: 3.9 mg/l
		Sewage treatment plant
		Value: 200 mg/l
		value. 200 mg/i
		Sediment
		Value: 4 mg/kg
		3.3
		Soil
		Value: 0.4 mg/kg
		Oral
		Value: 56 mg/kg

### 8.2 Exposure controls

### Product AS SOLD Appropriate engineering controls

Engineering measures : Effective exhaust ventilation system. Maintain air concentrations

### TOPAZ AC3 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). Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough. Skin and body protection : Personal protective equipment comprising: suitable protective gloves, safety goggles and protective clothing including (EN 14605) appropriate safety shoes Respiratory protection (EN : None required if airborne concentrations are maintained below the 143, 14387) 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 : Handle in accordance with good industrial hygiene and safety Hygiene measures 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 : Safety goggles Face-shield 166) Hand protection (EN 374) : Recommended preventive skin protection Gloves

Nitrile rubber

	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.

### 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
рН	:	0.7 - 1.3, 100 %	1.7
Flash point	:	Not applicable.	
Odour Threshold	:	Not applicable and/or not determi	ned for the mixture
Melting point/freezing point	:	Not applicable and/or not determi	ned for the mixture
Initial boiling point and boiling range	:	100 °C	
Evaporation rate	:	Not applicable and/or not determi	ned 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 determi	ned 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 determi	ned for the mixture
Partition coefficient: n- octanol/water	:	Not applicable and/or not determi	ned for the mixture
Auto-ignition temperature	:	: Not applicable and/or not determined for the mixture	
Thermal decomposition	:	Not applicable and/or not determi	ned for the mixture
Viscosity, kinematic	: Not applicable and/or not determined for the mixture		ned 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.

#### 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 (NOx) Oxides of phosphorus

### Section: 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

<b>Product AS SOLD</b> 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 : 1,610 mg/kg	

Acute inhalation toxicity	:	There is no data	available f	for this	product.
					p. 0 0.0.0

## SAFETY DATA SHEET according to Regulation (EC) No. 1907/2006

## TOPAZ AC3

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: > 300 mg/kg	
	2-(2-butoxyethoxy)ethanol LD50 rat: 3,306 mg/kg	
	Dodecyldimethylamine oxide LD50 rat: 1,064 mg/kg	
Components		
Acute dermal toxicity	2-(2-butoxyethoxy)ethanol LD50 rabbit: 2,764 mg/kg	
Acute dermal toxicity Potential Health Effects	2-(2-butoxyethoxy)ethanol LD50 rabbit: 2,764 mg/kg	
-	2-(2-butoxyethoxy)ethanol LD50 rabbit: 2,764 mg/kg Causes serious eye damage.	
Potential Health Effects Product AS SOLD		
Potential Health Effects Product AS SOLD Eyes	Causes serious eye damage.	
Potential Health Effects Product AS SOLD Eyes Skin	Causes serious eye damage. Causes severe skin burns.	
Potential Health Effects Product AS SOLD Eyes Skin Ingestion	Causes serious eye damage. Causes severe skin burns. Harmful if swallowed. Causes digestive tract burns.	se.
Potential Health Effects Product AS SOLD Eyes Skin Ingestion Inhalation	Causes serious eye damage. Causes severe skin burns. Harmful if swallowed. Causes digestive tract burns. May cause nose, throat, and lung irritation.	se.
Potential Health Effects Product AS SOLD Eyes Skin Ingestion Inhalation Chronic Exposure Product AT USE DILUTION	Causes serious eye damage. Causes severe skin burns. Harmful if swallowed. Causes digestive tract burns. May cause nose, throat, and lung irritation. Health injuries are not known or expected under normal u	se.
Potential Health Effects Product AS SOLD Eyes Skin Ingestion Inhalation Chronic Exposure Product AT USE DILUTION Eyes	Causes serious eye damage. Causes severe skin burns. Harmful if swallowed. Causes digestive tract burns. May cause nose, throat, and lung irritation. Health injuries are not known or expected under normal u Causes serious eye damage.	se.
Potential Health Effects Product AS SOLD Eyes Skin Ingestion Inhalation Chronic Exposure Product AT USE DILUTION Eyes Skin	Causes serious eye damage. Causes severe skin burns. Harmful if swallowed. Causes digestive tract burns. May cause nose, throat, and lung irritation. Health injuries are not known or expected under normal u Causes serious eye damage. Causes severe skin burns.	se.
Potential Health Effects Product AS SOLD Eyes Skin Ingestion Inhalation Chronic Exposure Product AT USE DILUTION Eyes Skin Ingestion	Causes serious eye damage. Causes severe skin burns. Harmful if swallowed. Causes digestive tract burns. May cause nose, throat, and lung irritation. Health injuries are not known or expected under normal u Causes serious eye damage. Causes severe skin burns. Causes digestive tract burns.	

### 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.
Product AT USE DILUTION Environmental Effects	:	This product has no known ecotoxicological effects.
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.
Components		
Toxicity to daphnia and other aquatic invertebrates	:	Phosphoric acid48 h EC50 Daphnia magna (Water flea): > 100 mg/l
		Dodecyldimethylamine oxide48 h EC50 Daphnia magna (Water flea): 3.9 mg/l

### SAFETY DATA SHEET according to Regulation (EC) No. 1907/2006

OPAZ AC3	
	Phosphoric acid, C11-14-isoalkyl esters, C13-rich48 h EC50 Daphnia magna (Water flea): 6.31 mg/l Test substance: Information given is based on data obtained fro similar substances.
Components	
Toxicity to algae	<ul> <li>Phosphoric acid72 h EC50 Desmodesmus subspicatus (green algae): &gt; 100 mg/l</li> </ul>
	Phosphoric acid, C11-14-isoalkyl esters, C13-rich72 h EC50 Pseudokirchneriella subcapitata (algae): 150 mg/l Test substance: Information given is based on data obtained fro similar substances. 72 h NOEC Pseudokirchneriella subcapitata (algae): 10 mg/l
2.2 Persistence and degrada	ability
Product	
Biodegradability	: The surfactants contained in the product are biodegradable according to the requirements of the detergent regulation 648/2004/EC
Components	
Biodegradability	: Phosphoric acidResult: Not applicable - inorganic
	2-(2-butoxyethoxy)ethanolResult: Readily biodegradable.
	Dodecyldimethylamine oxideResult: Readily biodegradable.
	Phosphoric acid, C11-14-isoalkyl esters, C13-richResult: Poorly biodegradable
2.3 Bioaccumulative potenti	al
no data available	
2.4 Mobility in soil	
no data available	
2.5 Results of PBT and vPvE	3 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.
2.6 Other adverse effects	
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 :	Do not contaminate storm water drains, natural waterways or soil with chemical or used container. Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of contents/container in accordance 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 contents/container in accordance 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	1
14.3 Transport hazard class(es)	: 8	
14.4 Packing group	: 111	
14.5 Environmental hazards	: No	
14.6 Special precautions for user	: None	
Air transport (IATA) 14.1 UN number 14.2 UN proper shipping name	: 1805 : Phosphoric acid, solution	

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

### 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.
Candidate List of Substances of Very High Concern for Authorisation	:	Not applicable.

### **National Regulations**

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

Other regulations	<ul> <li>The Chemicals (Hazard Information and Packaging for Supply) Regulations.</li> <li>The Control of Substances Hazardous to Health Regulations.</li> <li>Health and Safety at Work Act.</li> </ul>
	riodian and Galoty at Wont Not.

#### **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
Acute toxicity 4, H302	Calculation method
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; AIIC - 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; TECI - 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, 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	s				
Exposure Scenario: Foam (	lear	ner Semi-Aı	utomatic with venting process		
Life Cycle Stage		Use at indu			
Product category	:	PC35	Washing and cleaning products (including solvent bas products)		
Contributing scenario cont	rolliı	ng environm	nental 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 cont	rolliı	ng worker ex	xposure for:		
Process category	:	PROC7	Industrial spraying		
Exposure duration	:	240 min			
Operational conditions and risk management measures	:	Indoor			
		Local Exha	ust Ventilation is not required		
General ventilation		Ventilation	rate per hour 1		
Skin Protection	:	see section	see section 8		
Respiratory Protection	:	see section	see section 8		
Contributing scenario cont	rolliı	ng worker ex	xposure 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 Exha	ust Ventilation is not required		
General ventilation		Ventilation rate per hour 1			

**Skin Protection** 

: see section 8

Respiratory Protection :	see sectio	see section 8				
Exposure Scenario: Foam cleaner. Semi-Automatic without venting process						
Life Cycle Stage	Use at ind	Use at industrial sites				
Product category :	PC35	Washing and cleaning products (including solvent based products)				
Contributing scenario control	ing environı	mental 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	Municipal sewage treatment plant				
Contributing scenario control	ing worker e	exposure for:				
Process category :	PROC7	Industrial spraying				
Exposure duration :	240 min					
Operational conditions and : risk management measures	Indoor					
	Local Exh	aust Ventilation is not required				
General ventilation	Ventilation	Ventilation rate per hour 1				
Skin Protection :	see sectio	see section 8				
Respiratory Protection :	see sectio	see section 8				
Contributing scenario controlling worker exposure for:						

Process category	:	PROC8b	Transfer of substance or preparation (chargi discharging) from/ to vessels/ large containe dedicated facilities	•
Exposure duration	:	60 min		
Operational conditions and risk management measures	:	Indoor		
		Local Exha	ust Ventilation is not required	
General ventilation		Ventilation	rate per hour	1
Skin Protection	:	see section	8	
Respiratory Protection	:	see section	8	

### Exposure Scenario: General purpose cleaner. Manual process

SAFETY DATA SHEET according to Regulation (EC) No. 1907/2006						
TOPAZ AC3						
Life Cycle Stage	:	Widesprea	d 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 s	Municipal sewage treatment plant			
Contributing scenario contr	olli	ng worker e	xposure for:			
Process category	:	PROC10	Roller application or brushing			
Exposure duration	:	480 min				
Operational conditions and risk management measures	:	Indoor				
		Local Exha	aust Ventilation is not required			
General ventilation		Ventilation	Ventilation rate per hour 1			
Skin Protection	:	see sectior	see section 8			
Respiratory Protection	:	see sectior	see section 8			
Contributing scenario contr	olli	ng worker e	xposure for:			
Process category	:	PROC8a	Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at non-			

Frocess calegory	•	FRUCOa	discharging) from/ to vessels/ large contained 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	