

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

Product name : APEX ULTRA
Product code : 116637E
Use of the Substance/Mixture : Machine Warewashing Detergent
Substance type: : Mixture

For professional users only.

Product dilution information : 0.1 % - 0.25 %

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

Identified uses : Dishwash and rinse aid product; Automatic 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 : Food & Beverage, Institutional, Agriculture, Textile Hygiene:
Northwich: +44 (0)1606 74488
Healthcare Leeds: +44 (0)113 232 2480
Healthcare Swansea: +44 (0)1235 239670
Poison Information Centre telephone number : Not Available

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version : 1.0

Section: 2. HAZARDS IDENTIFICATION**2.1 Classification of the substance or mixture**

Classification (REGULATION (EC) No 1272/2008)

Product AS SOLD

Eye irritation, Category 2 H319
Chronic aquatic toxicity, Category 2 H411

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Product AT USE DILUTION

Not a hazardous substance or mixture.

Classification (67/548/EEC, 1999/45/EC)

Product AS SOLD

Xi; IRRITANT

R36

N; DANGEROUS FOR THE ENVIRONMENT

R51/53

Product AT USE DILUTION

The product does not need to be labelled in accordance with EC directives or respective national laws.

For the full text of the R-phrases mentioned in this Section, see Section 16.

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

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Product AS SOLD

Hazard pictograms

:



Signal Word

: Warning

Hazard Statements

: H319
H411

Causes serious eye irritation.

Toxic to aquatic life with long lasting effects.

Precautionary Statements

: **Prevention:**
P273

Avoid release to the environment.

Hazardous components which must be listed on the label:

Sodium Carbonate(soda)

Product AT USE DILUTION

Not a hazardous substance or mixture.

2.3 Other hazards

Product AS SOLD

Mixing this product with acid or ammonia releases chlorine gas.

Section: 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures

Product AS SOLD

Hazardous components

Chemical Name	CAS-No.	Classification	Classification	Concentration:
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	EC-No. REACH No.	(67/548/EEC)	(REGULATION (EC) No 1272/2008)	[%]
Sodium Carbonate(soda)	497-19-8 207-838-8 01-2119485498-19	Xi; R36	Eye irritation Category 2; H319	$\geq 30 - < 50$
Phosphonates	3794-83-0 223-267-7 01-2119510382-52	Xn-Xi; R22- R36	Acute toxicity Category 4; H302 Eye irritation Category 2; H319	$\geq 5 - < 10$
Sodium dichloro-s- triazinetrione dihydrate	51580-86-0 220-767-7 01-2119489371-33	Xn-N; R22- R31-R36/37- R50/53	Acute toxicity Category 4; H302 Eye irritation Category 2; H319 Specific target organ toxicity - single exposure Category 3; H335 Acute aquatic toxicity Category 1; H400 Chronic aquatic toxicity Category 1; H410	$\geq 3 - < 5$
Alcohol ethoxylate	68439-51-0	Xi; R41-R38	Skin irritation Category 2; H315 Serious eye damage Category 1; H318	$\geq 2.5 - < 3$
oxirane, methyl-, polymer with oxirane	9003-11-6	Xn; R20	Acute toxicity Category 4; H332	$\geq 1 - < 2.5$

Product AT USE DILUTION

Remarks : No hazardous ingredients

For the full text of the R-phrases mentioned in this Section, see Section 16.

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.

In case of skin contact : Rinse with plenty of water.

If swallowed : Rinse mouth. Get medical attention if symptoms occur.

If inhaled : Get medical attention if symptoms occur.

Product AT USE DILUTION

In case of eye contact : Rinse with plenty of water.

In case of skin contact : Rinse with plenty of water.

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If swallowed : Rinse mouth. Get medical attention if symptoms occur.

If inhaled : 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 : Decomposition products may include the following materials:
Carbon oxides
nitrogen oxides (NOx)
Sulphur oxides
Oxides of phosphorus

5.3 Advice for firefighters

Special protective equipment for firefighters : Use personal protective equipment.

Further information : Collect contaminated fire extinguishing water separately. This must not be discharged into drains. 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 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

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Advice for non-emergency personnel : 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

Product AS SOLD

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

Product AT USE DILUTION

Environmental precautions : No special environmental precautions required.

6.3 Methods and materials for containment and cleaning up

Product AS SOLD

Methods for cleaning up : Sweep up and shovel into suitable containers for disposal.

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 : Avoid contact with skin and eyes. Use only with adequate ventilation. Wash hands thoroughly after handling. Mixing this product with acid or ammonia releases chlorine gas.

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.

Product AT USE DILUTION

Advice on safe handling : Wash hands after handling. For personal protection see section 8.

Hygiene measures : Wash hands before breaks and immediately after handling the product.

7.2 Conditions for safe storage, including any incompatibilities

Product AS SOLD

Requirements for storage areas and containers : Keep out of reach of children. Keep container tightly closed. Store in suitable labeled containers.

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Storage temperature : 0 °C to 50 °C

Product AT USE DILUTION

Requirements for storage areas and containers : Keep out of reach of children. Keep container tightly closed. Store in suitable labeled containers.

7.3 Specific end uses

Product AS SOLD

Specific use(s) : Dishwash and rinse aid product; Automatic 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
chlorine	7782-50-5	STEL	0.5 ppm 1.5 mg/m3	UKCOSSTD

Contains no substances with occupational exposure limit values.

DNEL

Sodium Carbonate(soda)	:	End Use: Workers Exposure routes: Inhalation Potential health effects: Long-term local effects Value: 10 mg/m3
	:	End Use: Consumers Exposure routes: Inhalation Potential health effects: Acute local effects Value: 10 mg/m3

8.2 Exposure controls

Product AS SOLD

Appropriate engineering controls

Engineering measures : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

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.

Eye/face protection (EN 166) : No special protective equipment required.

Hand protection (EN 374) : No special protective equipment required.

Skin and body protection (EN 14605) : No special protective equipment required.

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Respiratory protection (EN 143, 14387) : No personal respiratory protective equipment normally required.

Product AT USE DILUTION

Appropriate engineering controls

Engineering measures : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Individual protection measures

Hygiene measures : Wash hands before breaks and immediately after handling the product.

Eye/face protection (EN 166) : No special protective equipment required.

Hand protection (EN 374) : No special protective equipment required.

Skin and body protection (EN 14605) : No special protective equipment required.

Respiratory protection (EN 143, 14387) : No personal respiratory protective equipment normally required.

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	: solid	liquid
Colour	: white	colourless
Odour	: Chlorine	Chlorine
pH	: 10.85, 1 %	10.9 - 11.0
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	: Not applicable and/or not determined for the mixture	
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	: 3.2 - 3.6	
Water solubility	: soluble	

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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	:	Yes

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

Mixing this product with acid or ammonia releases chlorine gas.

10.4 Conditions to avoid

None known.

10.5 Incompatible materials

Acids
Bases

10.6 Hazardous decomposition products

Decomposition products may include the following materials:

Carbon oxides
nitrogen oxides (NO_x)
Sulphur oxides
Oxides of phosphorus

Section: 11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Product AS SOLD

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

Product

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- Acute oral toxicity : Acute toxicity estimate : > 2,000 mg/kg
- Acute inhalation toxicity : 4 h Acute toxicity estimate : > 5 mg/l
- 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 : Sodium Carbonate(soda)
LD50 rat: 2,800 mg/kg
- Phosphonates
LD50 rat: 940 mg/kg
- Sodium dichloro-s-triazinetrione dihydrate
LD50 rat: 1,823 mg/kg
- Alcohol ethoxylate
LD50 rat: > 2,000 mg/kg

Components

- Acute inhalation toxicity : oxirane, methyl-, polymer with oxirane
4 h LD50 rat: 1 mg/l

Components

- Acute dermal toxicity : Phosphonates
LD50 rabbit: > 1,650 mg/kg
- Sodium dichloro-s-triazinetrione dihydrate
LD50 rat: > 5,000 mg/kg
- Alcohol ethoxylate
LD50 rabbit: 2,290 mg/kg

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Potential Health Effects

Product AS SOLD

- Eyes : Causes serious eye irritation.
- Skin : Health injuries are not known or expected under normal use.
- Ingestion : Health injuries are not known or expected under normal use.
- Inhalation : Health injuries are not known or expected under normal use.
- Chronic Exposure : Health injuries are not known or expected under normal use.

Product AT USE DILUTION

- Eyes : Health injuries are not known or expected under normal use.
- Skin : Health injuries are not known or expected under normal use.
- Ingestion : Health injuries are not known or expected under normal use.
- Inhalation : Health injuries are not known or expected under normal use.
- Chronic Exposure : Health injuries are not known or expected under normal use.

Experience with human exposure

Product AS SOLD

- Eye contact : Redness, Pain, Irritation
- Skin contact : No symptoms known or expected.
- Ingestion : No symptoms known or expected.
- Inhalation : No symptoms known or expected.

Product AT USE DILUTION

- Eye contact : No symptoms known or expected.
- Skin contact : No symptoms known or expected.
- Ingestion : No symptoms known or expected.
- Inhalation : No symptoms known or expected.

Section: 12. ECOLOGICAL INFORMATION

Product AS SOLD

12.1 Ecotoxicity

- Environmental Effects : Toxic to aquatic life with long lasting effects.

Product

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

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Components

Toxicity to fish : Sodium Carbonate(soda)
96 h LC50 *Lepomis macrochirus* (Bluegill sunfish): 300 mg/l

Alcohol ethoxylate
96 h LC50: > 1 mg/l

oxirane, methyl-, polymer with oxirane
96 h LC50 Fish: > 100 mg/l

Components

Toxicity to daphnia and other aquatic invertebrates : Sodium Carbonate(soda)
48 h EC50 *Ceriodaphnia* (water flea): 213.5 mg/l

Phosphonates
48 h EC50 *Daphnia*: 167 mg/l

Sodium dichloro-s-triazinetrione dihydrate
48 h EC50 *Daphnia*: 0.196 mg/l

12.2 Persistence and degradability

Product

no data available

Components

Biodegradability : Sodium Carbonate(soda)
Result: Not applicable - inorganic

Phosphonates
Result: Poorly biodegradable

Sodium dichloro-s-triazinetrione dihydrate
Result: Readily biodegradable.

Alcohol ethoxylate
Result: Readily biodegradable.

oxirane, methyl-, polymer with oxirane
Result: Readily 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.

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12.6 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 : 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.

European Waste Catalogue : 200115* - alkalines

Product AT USE DILUTION

Product : Diluted product can be flushed to sanitary sewer.

Contaminated packaging : 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 : 3077
- 14.2 UN proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (trolosene sodium, dihydrate, Alcohol ethoxylate)
- 14.3 Transport hazard class(es) : 9
- 14.4 Packing group : III
- 14.5 Environmental hazards : Yes
- 14.6 Special precautions for user : None

Air transport (IATA)

- 14.1 UN number : 3077
- 14.2 UN proper shipping name : Environmentally hazardous substance, solid, n.o.s. (trolosene sodium, dihydrate, Alcohol ethoxylate)
- 14.3 Transport hazard : 9

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class(es)
14.4 Packing group : III
14.5 Environmental hazards : Yes

14.6 Special precautions for user : None

Sea transport (IMDG/IMO)

14.1 UN number : 3077
14.2 UN proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
(troclosene sodium, dihydrate, Alcohol ethoxylate)
14.3 Transport hazard class(es) : 9
14.4 Packing group : III
14.5 Environmental hazards : Yes

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 : 15 % or over but less than 30 %: Phosphates
5 % or over but less than 15 %: Phosphonates
less than 5 %: Non-ionic surfactants, Chlorine-based bleaching agents

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

This product contains substances for which Chemical Safety Assessments are still required.

Section: 16. OTHER INFORMATION

Full text of R-Phrases

R20 Harmful by inhalation.
R22 Harmful if swallowed.
R31 Contact with acids liberates toxic gas.
R36 Irritating to eyes.
R36/37 Irritating to eyes and respiratory system.
R38 Irritating to skin.

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R41 Risk of serious damage to eyes.
R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Full text of H-Statements

H302 Harmful if swallowed.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.
H400 Very toxic to aquatic life.
H410 Very 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; AICS - Australian Inventory of Chemical Substances; 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; KECl - 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; TCSI - Taiwan Chemical Substance 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

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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

DPD+ Substances:

The following substances are the lead substances that contribute to the mixture Exposure Scenario according to the DPD+ Rule:

Route	Substance	CAS-No.	EINECS-No.
Ingestion	Phosphonates	3794-83-0	223-267-7
Inhalation	Sodium dichloro-s-triazinetrione dihydrate	51580-86-0	220-767-7
Dermal	Alcohol ethoxylate	68439-51-0	
Eyes	Sodium Carbonate(soda) Alcohol ethoxylate	497-19-8 68439-51-0	207-838-8
aquatic environment	Sodium dichloro-s-triazinetrione dihydrate	51580-86-0	220-767-7

Physical properties DPD+ Substances:

Substance	Vapour pressure	Water solubility	Pow	Molar Mass
Sodium Carbonate(soda)		212.5 g/l		106 g/mol

To calculate if your downstream Operating Conditions and Risk management Measures are safe, please calculate your risk factor at the website below:

www.ecetoc.org/tra

Short title of Exposure Scenario : **Dishwash and rinse aid product; Automatic process**

Use descriptors

Main User Groups : Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

Sectors of end-use : **SU22:** Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

Process categories : **PROC2:** Use in closed, continuous process with occasional controlled exposure
PROC8b: Transfer of substance or preparation (charging/ discharging) from/ to vessels/ large containers at dedicated facilities

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

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products)

Environmental Release
Categories

: **ERC8a:** Wide dispersive indoor use of processing aids in open
systems