

Section: 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

ECSLAB

Product name	:	DESGUARD 20
Product code	:	104265E
Use of the Substance/Mixture	:	Cleaner and disinfectant
Substance type:	:	Mixture
		For professional users only.
Product dilution information	:	1.0 % - 2.0 %

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

Identified uses	:	Surface disinfectant. Manual process Surface disinfectant. Spray and rinse manual process Kitchen cleaner. Manual 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
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1.4 Emergency telephone number

Emergency telephone	:	+441618841235
number		+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, Sub-category 1B	H314
Serious eye damage, Category 1	H318
Acute aquatic toxicity, Category 1	H400
Chronic aquatic toxicity, Category 2	H411

Product AT USE DILUTION

Not a hazardous substance or mixture.

2.2 Label elements

Labelling (REGULATION (E Product AS SOLD Hazard pictograms	EC) No 1272/2008)	¥_2
Signal Word	: Danger	
Hazard Statements	: H290 H314 H400 H411	May be corrosive to metals. Causes severe skin burns and eye damage. Very toxic to aquatic life. Toxic to aquatic life with long lasting effects.
Supplemental Hazard Statements	: EUH071	Corrosive to the respiratory tract.
Precautionary Statements	: Prevention: P260 P273 P280 Response:	Do not breathe spray. Avoid release to the environment. Wear protective gloves/ eye protection/ face protection.
	-	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.
	P310	Immediately call a POISON CENTER/doctor.

Hazardous components which must be listed on the label: benzalkonium chloride N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine

Product AT USE DILUTION

Not a hazardous substance or mixture.

2.3 Other hazards

Product AS SOLD

None known.

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: [%]
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benzalkonium chloride	68424-85-1 270-325-2 01-2119983287-23	Acute toxicity Category 4; H302 Skin corrosion Category 1B; H314 Serious eye damage Category 1; H318 Acute aquatic toxicity Category 1; H400 Chronic aquatic toxicity Category 1; H410	>= 5 - < 10
N-(3-aminopropyl)-N- dodecylpropane-1,3- diamine	2372-82-9 219-145-8 01-2119980592-29	Acute toxicity Category 3; H301 Skin corrosion Category 1A; H314 Serious eye damage Category 1; H318 Specific target organ toxicity - repeated exposure Category 2; H373 Acute aquatic toxicity Category 1; H400 Chronic aquatic toxicity Category 1; H410	>= 3 - < 5
C10-16 Polyglycoside	110615-47-9 01-2119489418-23	Skin irritation Category 2; H315 Serious eye damage Category 1; H318	>= 1 - < 2.5

Product AT USE DILUTION Hazardous components

Chemical Name CAS-No.	Classification	Concentration:	
EC-No.	REGULATION (EC) No 1272/2008	[%]	
REACH No.			
benzalkonium chloride 68424-85-1	Acute toxicityCategory 4; H302	>= 0.1 - < 0.25	
270-325-2	Skin corrosionCategory 1B; H314		
01-2119983287-23	Serious eye damageCategory 1; H318		
	Acute aquatic toxicityCategory 1; H400		
	Chronic aquatic toxicityCategory 1; H410		
N-(3-aminopropyl)-N- 2372-82-9	Acute toxicityCategory 3; H301	< 0.1	
dodecylpropane-1,3- 219-145-8	Skin corrosionCategory 1A; H314		
diamine 01-2119980592-29	Serious eye damageCategory 1; H318		
	Specific target organ toxicity - repeated		
	exposureCategory 2; H373		
	Acute aquatic toxicityCategory 1; H400		
	Chronic aquatic toxicityCategory 1; H410		
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. Use a mild soap if available. 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.

Product AT USE DILUTION In case of eye contact	: Rinse with plenty of water.
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.

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	 Depending on combustion properties, decomposition products may include following materials: Carbon oxides nitrogen oxides (NOx) Hydrogen chloride
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	:	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

SAFETY DATA SHEET according to Regulation (EC) No. 1907/2006			
DESGUARD 20			
	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	: Refer to protective measures listed in sections 7 and 8.		
personnel 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	: 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		

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.

waterway.

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. In case of mechanical malfunction, or if in contact with unknown dilution of product, wear full Personal Protective Equipment (PPE).
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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	: Wash hands after handling. In case of mechanical malfunction, or if in contact with unknown dilution of product, wear full Personal Protective Equipment (PPE). 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.	
	Keep only in original packaging. Absorb spillage to prevent material damage.	
Storage temperature	: 0 °C to 35 °C	
Packaging material	: Suitable material: Plastic material Unsuitable material: Mild steel, Aluminium	
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)	: Surface disinfectant. Manual process Surface disinfectant. Spray and rinse manual process Kitchen cleaner. Manual process	

Section: 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Product AS SOLD Contains no substances with occupational exposure limit values.

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

Hygiene measures	:	Handle in accordance with good industrial hygiene and safety
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SGUARD 20	
	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 indicatio 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)	: When respiratory risks cannot be avoided or sufficiently limited b technical means of collective protection or by measures, method or procedures of work organization, consider the use of certified respiratory protection equipment meeting EU requirements (89/656/EEC, (EU) 2016/425), or equivalent, with filter type:A-P
Product AT USE DILUTION Appropriate engineering co	ntrols
Engineering measures	: Good general ventilation should be sufficient to control worker exposure to airborne contaminants.
Individual protection measu	ires
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)	: None required if airborne concentrations are maintained below th 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, method or procedures of work organization.

Environmental exposure controls

: Consider the provision of containment around storage vessels.

or procedures of work organization.

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	:	dark violet			
Odour	:	Perfumes, fragrances	pleasant		
рН	:	9.9 - 10.9, 100 %	9.2 - 9.3		
Flash point	:	Not applicable.			
Odour Threshold	:	Not applicable and/or not determ	ined for the mixture		
Melting point/freezing point	:	Not applicable and/or not determ	ined for the mixture		
Initial boiling point and boiling range	:	Not applicable and/or not determ	ined for the mixture		
Evaporation rate	:	Not applicable and/or not determ	Not applicable and/or not determined for the mixture		
Flammability (solid, gas)	:	Not applicable and/or not determ	Not applicable and/or not determined for the mixture		
Upper explosion limit	:	Not applicable and/or not determ	Not applicable and/or not determined for the mixture		
Lower explosion limit	:	Not applicable and/or not determ	ined 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	:	0.992 - 1.002			
Water solubility	:	soluble			
Solubility in other solvents	:	Not applicable and/or not determ	ined 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 determ	ined for the mixture		
Oxidizing properties	:	The substance or mixture is not o	lassified 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

No dangerous reaction known under conditions of normal use.

10.4 Conditions to avoid

None known.

10.5 Incompatible materials

Aluminium Mild steel

10.6 Hazardous decomposition products

Depending on combustion properties, decomposition products may include following materials: Carbon oxides nitrogen oxides (NOx) Hydrogen chloride

Section: 11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Product AS SOLD

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

Product

Acute oral toxicity	: Acute toxicity estimate : > 2,000 mg/kg
Acute inhalation toxicity	: There is no data available for this product.
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.

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

Aspiration toxicity	: There is no data available for this product.
Components	
Acute oral toxicity	: benzalkonium chloride LD50 rat: 344 mg/kg
	N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine LD50 rat: 261 mg/kg
Components	
Acute dermal toxicity	: benzalkonium chloride LD50 rabbit: 3,340 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 DILUTIO Eyes	N : 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 e	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 DILUTIC Eye contact	N : No symptoms known or expected.
Skin contact	: No symptoms known or expected.
Ingestion	: No symptoms known or expected.

Section: 12. ECOLOGICAL INFORMATION

Product AS SOLD

12.1 Ecotoxicity

Environmental Effects	:	Very toxic to aquatic life. 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
Components		
Toxicity to fish	:	C10-16 Polyglycoside 96 h LC50 Fish: 5 mg/l
Components		
Toxicity to daphnia and other aquatic invertebrates	:	benzalkonium chloride 48 h EC50 Daphnia magna (Water flea): 0.016 mg/l
Components		
Toxicity to algae	:	N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine 72 h EC50: 0.014 mg/l
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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 :	benzalkonium chloride Result: Biodegradable
	N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine Result: Readily biodegradable.
	C10-16 Polyglycoside 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 asse	essment
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

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 course 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.	S
Contaminated packaging	Dispose of as unused product. Empty containers should be take to an approved waste handling site for recycling or disposal. Do not re-use empty containers. Dispose of in accordance with loca state, and federal regulations.	
Guidance for Waste Code selection	Organic wastes containing dangerous substances. If this product is used in any further processes, the final user must redefine an assign the most appropriate European Waste Catalogue Code. 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 compliance with applicable European (EU Directive 2008/98/EC and local regulations.	d lt in
Product AT USE DILUTION Product	Diluted product can be flushed to sanitary sewer if regulations permit.	
Contaminated packaging	Dispose of in accordance with local, state, and federal regulation	ns.

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 14.2 UN proper shipping name	-	1903 DISINFECTANT, LIQUID, CORROSIVE, N.O.S.
14.3 Transport hazard class(es)	:	(quaternary ammonium compound, Alkylamine(s)) 8

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

DESGUARD 20

	14.4 Packing group		III
	14.5 Environmental hazards	:	Yes
	14.6 Special precautions for user	:	None
Air	transport (IATA)		
	14.1 UN number	:	1903
	14.2 UN proper shipping	:	Disinfectant, liquid, corrosive, n.o.s.
	name		
			(quaternary ammonium compound, Alkylamine(s))
	14.3 Transport hazard	:	8
	class(es) 14.4 Packing group		Ш
	14.5 Environmental hazards	-	Yes
		•	
	14.6 Special precautions for	:	None
	user		
6.			
5 e	a transport (IMDG/IMO) 14.1 UN number		1903
	14.2 UN proper shipping		DISINFECTANT, LIQUID, CORROSIVE, N.O.S.
	name	•	
	lano		(quaternary ammonium compound, Alkylamine(s))
	14.3 Transport hazard	:	8
	class(es)		
	14.4 Packing group	-	
	14.5 Environmental hazards	- :	Yes
			None
	14.6 Special precautions for	:	None
	14.6 Special precautions for user	:	
	14.6 Special precautions for user 14.7 Transport in bulk	:	None Not applicable.
	14.6 Special precautions for user	:	

Section: 15. REGULATORY INFORMATION

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

according to Detergents	: 5 % or over but less than 15 %: Cationic surfactants
Regulation EC 648/2004	less than 5 %: Non-ionic surfactants
	Other constituents: Perfumes

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

Classification	Justification
Corrosive to metals 1, H290	Based on product data or assessment
Skin corrosion 1B, H314	Calculation method
Serious eye damage 1, H318	Calculation method
Acute aquatic toxicity 1, H400	Calculation method
Chronic aquatic toxicity 2, H411	Calculation method

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

Full text of H-Statements

H301	Toxic if swallowed.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H373	May cause damage to organs through prolonged or repeated exposure.
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; 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; 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

Further information

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		

Exposure Scenario: Kitchen cleaner. Manual process

Life Cycle Stage	:	Widespread	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	ewage 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 I	ate per hour	1	
Skin Protection	:	No			
Respiratory Protection	:	No			

Contributing scenario controlling worker exposure for:

Process category	: PROC8a	Transfer of substance or preparation (charging/
		$\mathbf{P} = \mathbf{P} + $

discharging) from/ to vessels/ large containers at non-

			dedicated facilities		
Exposure duration	:	60 min			
Operational conditions and risk management measures	:	Indoor			
		Local Exhau	Local Exhaust Ventilation is not required		
General ventilation		Ventilation r	rate per hour 1		
Skin Protection	:	Yes: See Se	ection 8		
Respiratory Protection	:	No			
Exposure Scenario: Surface disinfectant. Manual process					
Life Cycle Stage	:	Widespread	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 so	ewage 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 Exhau	ust Ventilation is not required		
General ventilation		Ventilation r	rate per hour 1		
Skin Protection	:	No			
Respiratory Protection	:	No			

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	:	Yes: See Section 8	
Respiratory Protection	:	No	