

# Safety Data Sheet as per regulation (EC) 1907/2006



Commercial Product Name: Pure Whirl DES Q15 and Whirl  
Wannen DES Q15

Revision Date:  
26.07.2021

Replaces version from: 09.03.2020

Article-No.: C06-4001

Version:  
1.8/en

Print date: 06.12.2023

## **\*SECTION 1: Identification of the substance/mixture and of the company/undertaking**

### **1.1 Product identifier**

Commercial Product Name      Pure Whirl DES Q15 and Whirl Wannen DES Q15  
registration number              N-67461

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

Relevant identified uses              Disinfectant

### **1.3 Details of the supplier of the safety data sheet**

Company designation              Kemitron GmbH  
   An den Kiesgruben 14  
   D-73240 Wendlingen am Neckar, Germany  
   Telephone: +49 (0)7024/9506-0  
   FAX: +49 (0)7024/9506-30  
   Email: info@kemitron.de  
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Manufacturer                        Kemitron GmbH  
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Responsible Department              Telephone: +49-(0)7024 / 9506-0  
   Telefax: +49-(0)7024 / 9506-30

E-mail (competent person)          info@kemitron.de

### **1.4 Emergency telephone number**

Emergency telephone number      National poisons information centre Goettingen, Germany  
   Telephone: +49 (0)551 / 19240

## **\*SECTION 2: Hazards identification**

## 2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 Skin Corr. 1B; H314 Aquatic Acute 1; H400 Aquatic Chronic 1; H410

## 2.2 Label elements

Hazard pictogram



GHS05



GHS09

Signal word

Danger

Hazardous component(s) to be indicated on label

didecyldimethylammonium chloride , Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides

H-statement(s)

H314: Causes severe skin burns and eye damage.  
H410: Very toxic to aquatic life with long lasting effects.

P-statement(s)

P101: If medical advice is needed, have product container or label at hand.  
P102: Keep out of reach of children.  
P260: Do not breathe dust/fume/gas/mist/vapours/spray.  
P273: Avoid release to the environment.  
P280: Wear protective gloves/protective clothing/eye protection/face protection.  
P301+P330+P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting.  
P303+P361+P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.  
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P310: Immediately call a POISON CENTER or doctor/physician.  
P391: Collect spillage.  
P405: Store locked up.  
P501: Dispose of contents/container to ...

## 2.3 Other hazards

Particular information pertaining specific risk for human / environment

According to regulation 1272/2008/EG Annex II the containers are to fitted with a tactile warning of danger if offered or sold to the general public. For packaging containing not more than 125 ml, specifying the following H-Statements H225, H319 and the corresponding P-statements are not necessary on the label (according to regulation 1272/2008 Annex 1, 1.5.2.1).

## \*SECTION 3: Composition/information on ingredients

Chemical characterization

Mixtures

Other data

Description: Mixture of substances listed below with non-hazardous admixtures.

**\*Hazardous ingredients**

<i>Ingredient</i>	<i>Nummern</i>	<i>Classification (EC) 1272/2008</i>	<i>Concentration</i>
didecyldimethylammonium chloride	CAS No.: 7173-51-5 EC-No.: 230-525-2 Index-No.: 612-131-00-6 REACH No.: 01-2119945987-15-XXXX	Acute Tox. 4; H302 Skin Corr. 1B; H314 Aquatic Acute 1; H400 (M=1) Aquatic Chronic 1; H410 (M=1)	10.0 - 25.0 % by weight
ethane-1,2-diol	CAS No.: 107-21-1 EC-No.: 203-473-3 Index-No.: 603-027-00-1 REACH No.: 01-2119456816-28-XXXX	Acute Tox. 4; H302 STOT RE 2; H373	2.5 - 10.0 % by weight
Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides	CAS No.: 68424-85-1 EC-No.: 270-325-2 REACH No.: 01-2119983287-23-XXXX	Flam. Liq. 3; H226 Acute Tox. 4; H302 Skin Corr. 1B; H314 Aquatic Acute 1; H400 (M=10) Aquatic Chronic 1; H410 (M=10)	2.5 - 10.0 % by weight

**\*SECTION 4: First aid measures****4.1 Description of first aid measures**

General advice	In all cases of doubt, or when symptoms persist, seek medical advice. Remove contaminated clothing immediately and dispose off safely. In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).
If inhaled	If during the processing fumes / aerosols develop, and there is an inhalation exposure: If victim is at risk of losing consciousness, position and transport on their side.
In case of skin contact	After contact with skin, wash immediately with: Wasser Cover wound with sterile. Consult physician immediately.
In case of eye contact	Protect uninjured eye. In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.
If swallowed	Rinse mouth immediately and drink plenty of water. Split out the liquid. Do not induce vomiting. If swallowed, seek medical advice immediately and show this container or label. Immediate supply of fresh air. Call a physician immediately.

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

Symptoms	Corrosion. Intestinal cauterization. Serious eye damage/eye irritation:
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### 4.3 Indication of any immediate medical attention and special treatment needed

Immediate medical attention	Symptomatic treatment Event of pulmonary irritation treat initially with dexamethasone metered-dose aerosol
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## **\*SECTION 5: Firefighting measures**

### 5.1 Extinguishing media

Suitable extinguishing media	Carbon dioxide (CO <sub>2</sub> ), Extinguishing powder., Water fog. Fight larger fires with water spray or alcohol resistant foam.
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Extinguishing media which must not be used for safety reasons	none
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### 5.2 Special hazards arising from the substance or mixture

Special exposure hazards arising from the substance or preparation itself, its combustion products, or released gases	carbon monoxide Carbon dioxide. nitrogen oxides Hydrogen chloride (HCl) Halogenated compounds.
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### 5.3 Advice for firefighters

Special protective equipment for firefighting	In case of fire: Wear self-contained breathing apparatus. Full protection suit.
Additional information on firefighting	Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated firefighting water must be disposed of in accordance with official regulations.

## **\*SECTION 6: Accidental release measures**

### 6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions	Wear personal protection equipment. Special danger of slipping by leaking/spilling product.
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### 6.2 Environmental precautions

Environmental precautions	Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.
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### 6.3 Methods and material for containment and cleaning up

Methods for cleaning up      Send in suitable containers for recovery or disposal.  
 Provide adequate ventilation.  
 Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).

## 6.4 Reference to other sections

Reference to other sections      SECTION 7: Handling and storage  
 Personal protection equipment: see section 8  
 SECTION 13: Disposal considerations

## **\*SECTION 7: Handling and storage**

### 7.1 Precautions for safe handling

Advice on safe handling      Ensure good ventilation / exhaust at the workplace.  
 Keep container tightly closed in a cool, well-ventilated place.  
 Protect from heat and direct sunlight.  
 Avoid skin and eye contact.  
 Do not breathe vapour/aerosol.  
 Avoid the formation of aerosol.

Advice on protection against fire and explosion      Attention of the general rules of the operational fire protection.

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

Storage space and container requirements      Store at room temperature.  
 Provide acid-resistant floor.  
 Prevent any seepage into the ground.  
 Store only in unopened original container.

Hints on storage assembly      Do not store together with: Keep away from food, drink and animal feedingstuffs.

Storage specifications      Protect from frost.  
 Keep container tightly closed.  
 Protect from heat and direct sunlight.

German storage class      8B: Non-combustible corrosive substances

## **\*SECTION 8: Exposure controls/personal protection**

### 8.1 Control parameters

#### **didecyldimethylammonium chloride**

Germany			
Value / ppm	Value / mg/m <sup>3</sup>	Issuing date	Source
2	3	2010-08-04	Annex1 - 29. ATP - SV
DNEL			
DNEL	Target group	Exposure route	Source

DNEL			
DNEL	Target group	Exposure route	Source
18,2 mg/m3	DNEL worker	Einatmen	Annex1 - 29. ATP - SV
8,6 mg/kg	DNEL worker	Skin	Annex1 - 29. ATP - SV

PNEC		
PNEC	Target group	Source
0,002 mg/l	PNEC aquatic, freshwater	Annex1 - 29. ATP - SV
0,0002 mg/l	PNEC aquatic, marine water	Annex1 - 29. ATP - SV

**ethane-1,2-diol**

Germany					
Value / ppm	Value / mg/m3	Ceiling Limit Value	Remarks	Issuing date	Source
10	26	2(l)	*1) European Union. Skin resorptive. *2) Sum of steam and aerosols.	07/13	TRGS 900

Europe						
Long-term exposure value / mg/m3	Long-term exposure value / ppm	Short-term exposure value / mg/m3	Short-term exposure value / ppm	Note	Issuing date	Source
52	20	104	40	Skin	2000/39	DIRECTIVE 2009/161/EU

DNEL			
DNEL	Target group	Exposure route	Source
106 mg/kg	DNEL worker	skin contact.	Company data
35 mg/m3	DNEL worker	Einatmen	Company data
53 mg/kg	DNEL Consumer	skin contact.	Company data
7 mg/m3	DNEL Consumer	Einatmen	Company data

PNEC		
PNEC	Target group	Source
10 mg/l	PNEC aquatic, freshwater	Company data
1 mg/l	PNEC aquatic, marine water	Company data

**Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides**

DNEL			
DNEL	Target group	Exposure route	Source
3,96 mg/m3	DNEL worker	Einatmen	Company data

DNEL			
DNEL	Target group	Exposure route	Source
5,7 mg/m <sup>3</sup>	DNEL worker	Skin	Company data
1,64 mg/m <sup>3</sup>	DNEL Consumer	Einatmen	Company data
3,4 mg/kg	DNEL Consumer	Skin	Company data
3,4 mg/kg	DNEL Consumer	oral.	Company data

PNEC		
PNEC	Target group	Source
0,0009 mg/l	PNEC aquatic, freshwater	Company data
0,00009 mg/l	PNEC aquatic, marine water	Company data

## 8.2 Exposure controls

Respiratory protection	By exceeding of the air value limit and unintended releasing of substances: Short term: filter apparatus Filter: A (Identification colour: brown)
Hand protection	Wear suitable gloves tested to EN374.
Suitable material	The glove material has to be impermeable and resistant to the product/the substance/the preparation.
Material thickness	For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.
Break through time	The exact break through time has to be requested from the protective glove manufacturer and must be observed.
Evaluation	Check the tightness of the gloves before each re-use.
Remarks	The selection of the glove material must be carried out on the basis of penetration times, permeation rates and degradation.
Note	Due to missing test results, no recommendation can be given to the glove material for the product / chemical mixture.
Note	Preventive skin protection, it is recommended to use skin care products. Normally it is not necessary for end users. If direct, longer contact with the concentrated or diluted product can not be avoided, it is recommended to wear gloves (EN 374).
Suitable material	Neoprene.
Note	The choice of a suitable glove is not just a question of the material: other quality factors that differ from manufacturer to manufacturer must also be considered. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
Suitable material	NBR (Nitrile rubber).
Eye protection	Wear closed protection glasses. Full face shield if splashing of the product is possible.
Skin and body protection	Wear protective gloves/protective clothing.

**General protective and hygiene measures**

The usual precautionary measures for contact with chemicals are to observe

Keep away from food, drink and animal feeding stuffs.

Remove contaminated, saturated clothing.

When using do not eat or drink.

Make rinsing after contact with substance on the eye.

Wash hands before breaks and after work.

Avoid contact with skin and eyes.

Provide eye shower

By handling with larger quantities, provide emergency showers.

**Other information (chapter 8.)**

The notes on protective equipment refer to the industrial use of larger quantities.

**\*SECTION 9: Physical and chemical properties****9.1 Information on basic physical and chemical properties**

Physical state	liquid
Colour	blue
Odour	characteristic
pH	2,5
Temperature	20°C
PH	2,5
Boiling point [°C]	100
Pressure	1013 hPa
Flash point [°C]	110
Density [g/cm³]	0,98
Temperature	20°C

**9.2 Other information**

Ignition temperature [°C]	not applicable
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**\*SECTION 10: Stability and reactivity****10.1 Reactivity**

Reactivity	No further relevant information available.
Thermal decomposition	
Remarks	Conditions to avoid: See section 7
Remarks	No decomposition if stored and applied as directed.

**10.3 Possibility of hazardous reactions**

Hazardous reactions	No hazardous decomposition products if stored and handled as prescribed.
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## 10.4 Conditions to avoid

Conditions to avoid No further relevant information available.

## 10.5 Incompatible materials

Materials to avoid oxidising substances  
Concentrated alkalis.

## 10.6 Hazardous decomposition products

Hazardous decomposition products No hazardous decomposition products if stored and handled as prescribed.

## \*SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

Oral toxicity [mg/kg] 2352  
Test criterion LC50:  
Test species Rat.

Dermal toxicity [mg/kg]

#### Hazardous ingredients

<b><i>ethane-1,2-diol</i></b>			
Value	Test criterion	Test species	Source
3500	LD50:	Mouse.	Company data

Irritant effect on skin

Remarks Caustic effect on skin and mucous membranes

Irritant effect on eyes

Remarks strong caustic effect

Irritant effect on the respiratory tract No irritant effect.

Sensitization

Remarks No sensitizing effect known

Carcinogenic effects

Remarks There are currently no indications of carcinogenic and teratogenic effects or of effects toxic for reproduction.

9919

9522 9431.71

9919

9522 9431.71

Specific target organ toxicity  
(single exposure) [mg/kg]

Remarks No classification.

Specific target organ toxicity  
(repeated exposure) [mg/kg]

Remarks No classification.

Aspiration hazard No classification.

## **\*SECTION 12: Ecological information**

### **12.1 Toxicity**

Toxicity to fish [mg/l]

#### **Hazardous ingredients**

<b><i>didecyldimethylammonium chloride</i></b>				
Value	Test criterion	Test species	Exposure duration	Source
2,8	LC50:	Brachydanio rerio (zebra-fish)	96 h	SimChem

<b><i>ethane-1,2-diol</i></b>				
Value	Test criterion	Test species	Exposure duration	Source
72860	LC50:	Brachydanio rerio (zebra-fish)	96 h	Company data

<b><i>Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides</i></b>				
Value	Test criterion	Test species	Exposure duration	Source
1	LC50:	Carassius auratus (Carassius auratus (goldfish)).	96	Company data

Toxicity to daphnia [mg/l]

#### **Hazardous ingredients**

<b><i>didecyldimethylammonium chloride</i></b>				
Value	Test criterion	Test species	Exposure duration	Source
0,97	LC50:	Daphnia magna	48 h	SimChem

<b><i>ethane-1,2-diol</i></b>				
Value	Test criterion	Test species	Exposure duration	Source
200	LC50:	Daphnia magna	48 h	Company data

<b><i>Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides</i></b>				
Value	Test criterion	Test species	Exposure duration	Source
0,1	EC50	Daphnia magna	48	Company data

Toxicity to algae [mg/l]

#### **Hazardous ingredients**

<b><i>didecyldimethylammonium chloride</i></b>				
Value	Test criterion	Test species	Exposure duration	Source
0,24	EC50	Desmodesmus subspicatus.	72 h	SimChem

<b>ethane-1,2-diol</b>				
Value	Test criterion	Test species	Exposure duration	Source
6500	EC50	Desmodesmus subspicatus.	72 h	Company data

<b>Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides</b>				
Value	Test criterion	Test species	Exposure duration	Source
0,1	IC50:	Pseudokirchneriella subcapitata	72	Company data

NOEC (algae) [mg/l]

#### **Hazardous ingredients**

<b>Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides</b>			
Value	Test criterion	Test species	Source
0,01	NOEC	Pseudokirchneriella subcapitata	Company data

## **12.2 Persistence and degradability**

Elimination and distribution mechanisms

Remarks No further relevant information available.

Elimination in purification plant There are no specify on the product itself

Biodegradability

Remarks No further relevant information available.

## **12.4 Mobility in soil**

Distribution in the environment No further relevant information available.

## **12.5 Results of PBT and vPvB assessment**

Results of PBT characteristics determination There are no specify on the product itself

## **12.6 Other adverse effects**

Ecotoxicology Possible harmful effects due to pH shift.

Further information on ecology hazardous to water (WGK 2)  
 Classification according to VwVwS, Annex 4.  
 Do not allow to enter into ground-water, surface water or drains.  
 The surfactant contained in this preparation complies with the biodegradability criteria as laid down in Regulation (EC) No.648/2004 on detergents.  
 Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them, at their direct request or at the request of a detergent manufacturer.  
 Do not release undiluted and unneutralized to the sewer.


## **\*SECTION 13: Disposal considerations**

**13.1 Waste treatment methods**

Disposal considerations	Do not dispose with household waste. Do not empty into drains. Disposal according to Technical Ordinance on Waste (TVA), the Ordinance on Movements of Waste (OMW) and the DETEC Ordinance on Lists on the circulation of waste (LVA).
Waste Code	European Waste Catalogue: 07 00 00 WASTES FROM ORGANIC CHEMICAL PROCESSES; 07 06 00 wastes from the HZVA of fats, grease, soaps, detergents, disinfectants and cosmetics; 07 06 01 aqueous washing liquids and mother liquors
Uncleaned empty packaging	Contaminated packages must be completely emptied and can be re-used following proper cleaning. Packagings that cannot be cleaned are to be disposed off in the same manner as the product Dispose of waste according to applicable legislation.
Suitable cleaning agents	Water (with cleaning agent).

**\*SECTION 14: Transport information**

	* Land transport ADR/RID	* Marine transport IMDG	* Air transport ICAO/IATA
Proper shipping name	DISINFECTANT, LIQUID, CORROSIVE, N.O.S.		
14.1 UN-No	UN 1903	UN 1903	UN 1903
14.3 Transport hazard class(es)	8	8	8
14.4 Packaging group	II	II	II
14.2 Description of the goods	DISINFECTANT, LIQUID, CORROSIVE, N.O.S. (Didecyldiemthylammoniumchlorid), ENVIRONMENTALLY HAZARDOUS	DISINFECTANT, LIQUID, CORROSIVE, N.O.S. (didecyldimethylammonium chloride, Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides), MARINE POLLUTANT	DISINFECTANT, LIQUID, CORROSIVE, N.O.S. (didecylmethylammonium chloride)
UN proper shipping name		DISINFECTANT, LIQUID, CORROSIVE, N.O.S.	DISINFECTANT, LIQUID, CORROSIVE, N.O.S.
Danger releasing substance	Didecyldiemthylammoniumchlorid	didecyldimethylammonium chloride, Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides	didecylmethylammonium chloride
Risk No.	80		
Category	E2		
Classification Code	C9		
Tunnel restriction code	E		

	* Land transport ADR/RID	* Marine transport IMDG	* Air transport ICAO/IATA
Labels		 E2	E2
EmS		F-A,S-B	
Stowage category		Category B	
Remarks			Packing instructions: For Limited Quantities: Y840 (Max. Net Qty/Pkg: 0,5 l) Passenger and Cargo Aircraft: 851 (max. Net Qty/Pkg: 1 l) Cargo Aircraft only: 855 (Max Net Qty/Pkg: 30 l)

#### 14.6 Special precautions for user

Precautions                      Warning: Corrosive substances

#### 14.8 Additional information

Other information (chapter 14.)              The product contains environmentally hazardous substances:  
Didecyldimethylammoniumchlorid, Quaternary ammonium compounds,  
Benzyl-C12-16-alkyldimethyl-, Chloride

### \*SECTION 15: Regulatory information

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

VOC                                      0,00 GW% Switzerland

Water Hazard Class (Ger.)              2

#### 15.2 Chemical safety assessment

Safety assessment                      A chemical safety assessment has not been carried out.

### \*SECTION 16: Other information

Modifications since last version              Modifications of the previous version are denoted with an asterisk (\*).

Relevant H-phrases                      H226: Flammable liquid and vapour.  
H302: Harmful if swallowed.  
H314: Causes severe skin burns and 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.

Wording of the hazard classes	Acute Tox.: Acute toxicity Aquatic Acute: Hazardous to the aquatic environment STOT RE: Specific target organ toxicity - repeated exposure Flam. Liq.: Flammable liquid Aquatic Chronic: Hazardous to the aquatic environment	
Classification for mixtures and used evaluation method according to regulation (EC) 1272/2008 [CLP]	Classification	Evaluation
	Skin Corr. 1B; H314	
	Aquatic Acute 1; H400	
	Aquatic Chronic 1; H410	
Department issuing safety data sheet	Kemitron GmbH An den Kiesgruben 14 73240 Wendlingen am Neckar, Germany Telephone: +49 (0)7024/9506-0 Telefax: +49 (0)7024/9506-30  This information is provided in accordance with the current status of our knowledge and experience. The Safety Data Sheet describes products with a view to relevant safety requirements. This information does not constitute a warranty of properties, features or qualities.	