

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

#### 1.1. Product identifier

Product form : Mixture  
 Name : DUONETT D7  
 UFI : NS30-X02X-N007-882W  
 Product code : 100321600

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

##### 1.2.1. Relevant identified uses

Main use category : Professional use  
 Use of the substance/mixture : Descaling product

##### 1.2.2. Uses advised against

No additional information available

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

##### Supplier

Dehon Service SAS  
 26 Avenue du Petit Parc  
 94683 VINCENNES Cedex  
 France  
 T 01 43 98 75 00, F 01 43 98 21 51  
[ContactFDS@climalife.dehon.com](mailto:ContactFDS@climalife.dehon.com)

##### Other

Climalife Kft Budepesta sucursală Bucuresti Romania  
 Bulevardul Hristo Botev, Nr. 28,  
 Biroul NR 4, Modulul I  
 Bucuresti Sectorul 3  
 Romania  
[ContactFDS@climalife.dehon.com](mailto:ContactFDS@climalife.dehon.com)

##### Other

Dehon Kälte-Fachvertriebs GmbH  
 Robert-Bosch-Strasse 14  
 40668 MEERBUSCH  
 Germany  
 T 00 49 2150 7073 0 , F 00 49 2150 7073 17  
[ContactFDS@climalife.dehon.com](mailto:ContactFDS@climalife.dehon.com)

##### Other

Dehon Service Belgium s.a/n.v.  
 Avenue Carton de Wiart, 79  
 1090 Bruxelles  
 Belgium  
 T 00 32 2 421 01 70, F 00 32 2 426 96 62  
[ContactFDS@climalife.dehon.com](mailto:ContactFDS@climalife.dehon.com)

##### Other

Friogas sa  
 Poligono Industrial SEPES  
 Parcela 10  
 46500 SAGUNTO (Valencia)  
 Spain  
 T 00 34 9 6 266 36 32, F 00 34 9 6 266 50 25  
[ContactFDS@climalife.dehon.com](mailto:ContactFDS@climalife.dehon.com)

##### Other

IDS Refrigeration Limited  
 22 Apex Court, Woodlands, Bradley Stoke  
 BS32 4JT Bristol

##### Other

Climalife Hongrie Kft  
 Villányi út 47  
 1118 Budaörs  
 Hungary  
 T (36) 23 431 660, F (36) 23 431 661  
[ContactFDS@climalife.dehon.com](mailto:ContactFDS@climalife.dehon.com)

##### Other

Climalife Supplied by Inventec Performance Chemicals Italia SRL  
 Via del Lavoro, 10/G  
 20874 Busnago MB  
 Italia  
 T +39 39-5973480, F +39 39-5973490  
[ContactFDS@climalife.dehon.com](mailto:ContactFDS@climalife.dehon.com)

##### Other

Dehon nordic service  
 Östra Hamngatan 50B 3tr  
 41109 GÖTEBORG  
 Sweden  
 T 00 46 735 01 90 50  
[ContactFDS@climalife.dehon.com](mailto:ContactFDS@climalife.dehon.com)

##### Other

Dehon Service Nerderland B.V.  
 Van Konijnenburgweg 84  
 NL-4612 PL Bergen Op Zoom  
 Netherlands  
 T 00 31 164 212 830, F 00 31 164 212 831  
[ContactFDS@climalife.dehon.com](mailto:ContactFDS@climalife.dehon.com)

##### Other

Galco s.a/n.v.  
 Avenue Carton de Wiart, 79  
 1090 BRUSSELS  
 Belgium  
 T 00 32 2 421 01 84 , F 00 32 2 421 01 84 / 00 32 2 425 38 12  
[ContactFDS@climalife.dehon.com](mailto:ContactFDS@climalife.dehon.com)

##### Other

Prochimac SA  
 ZI Petits Champs 15  
 CH-1400 Yverdon-les-Bains

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## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

United Kingdom  
T 00 44 1179 802520, F 00 44 1179 802521  
[ContactFDS@climalife.dehon.com](mailto:ContactFDS@climalife.dehon.com)

Switzerland  
T 00 41 32 727 36 00, F 00 41 32 727 36 19  
[ContactFDS@climalife.dehon.com](mailto:ContactFDS@climalife.dehon.com)

### 1.4. Emergency telephone number

Emergency number : +33 (0) 1 72 11 00 03

Country/Area	Organisation/Company	Address	Emergency number	Comment
United Kingdom	National Poisons Information Service (Birmingham Centre) City Hospital	Dudley Road B18 7QH	0344 892 0111	Only for healthcare professionals

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

#### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Skin Irrit. 2 H315

Eye Irrit. 2 H319

Full text of hazard classes, H- and EUH-statements: see section 16

#### Adverse physicochemical, human health and environmental effects

No additional information available

### 2.2. Label elements

#### Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



GHS07

Signal word (CLP) :

Warning

Contains :

Hydrochloric acid

Hazard statements (CLP) :

H315 - Causes skin irritation.

H319 - Causes serious eye irritation.

Precautionary statements (CLP) :

P264 - Wash hands, forearms and face thoroughly after handling.

P280 - Wear protective clothing, eye protection, face protection.

P302+P352 - IF ON SKIN: Wash with plenty of water.

P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P362+P364 - Take off contaminated clothing and wash it before reuse.

P337+P313 - If eye irritation persists: Get medical advice/attention.

### 2.3. Other hazards

Contains no PBT and/or vPvB substances  $\geq 0.1\%$  assessed in accordance with REACH Annex XIII

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or substance(s) are not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable

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### 3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Hydrochloric acid	CAS-No.: 7647-01-0 EC-No.: 231-595-7 EC Index-No.: 017-002-01-X REACH-no: 01-2119484862-27	<10	Met. Corr. 1, H290 Skin Corr. 1B, H314 Eye Irrit. 2, H319 STOT SE 3, H335

### Specific concentration limits:

Name	Product identifier	Specific concentration limits (%)
Hydrochloric acid	CAS-No.: 7647-01-0 EC-No.: 231-595-7 EC Index-No.: 017-002-01-X REACH-no: 01-2119484862-27	(10 ≤ C < 25) Eye Irrit. 2, H319 (10 ≤ C < 25) Skin Irrit. 2, H315 (10 ≤ C < 100) STOT SE 3, H335 (25 ≤ C < 100) Skin Corr. 1B, H314

Full text of H- and EUH-statements: see section 16

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

First-aid measures general	: Move the affected person away from the contaminated area and into the fresh air.
First-aid measures after inhalation	: If the person feels unwell : Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor.
First-aid measures after skin contact	: If skin irritation occurs: Get medical advice/attention. Remove clothing and rinse skin with water.
First-aid measures after eye contact	: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion	: Rinse mouth. Do not give anything to drink. Do not induce vomiting. Immediately call a POISON CENTER/doctor.

### 4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects after inhalation	: May cause irritation to the respiratory tract, sneezing, coughing, burning sensation of throat with constricting sensation of the larynx and difficulty in breathing.
Symptoms/effects after skin contact	: May cause moderate irritation. Prolonged or repeated contact with the skin may cause dermatitis.
Symptoms/effects after eye contact	: Causes serious eye damage. Redness. Lacrimation. Tingling sensation. Swelling.
Symptoms/effects after ingestion	: Ingestion may cause nausea and vomiting. Diarrhea.

### 4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media	: Dry chemical, CO <sub>2</sub> , dry sand, or alcohol-resistant foam.
Unsuitable extinguishing media	: Strong water jet.

### 5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire	: Hydrogen chloride. Toxic fumes. Carbon oxides (CO, CO <sub>2</sub> ).
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### 5.3. Advice for firefighters

Precautionary measures fire	: Cool down the containers exposed to heat with a water spray.
Protection during firefighting	: Complete protective clothing. Self-contained breathing apparatus.
Other information	: Contain the extinguishing fluids by bunding. In case of fire, corrosive and harmful gases come free.

## SECTION 6: Accidental release measures

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

General measures	: Avoid contact with skin and eyes. Do not attempt to take action without suitable protective equipment. Ventilate spillage area.
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#### 6.1.1. For non-emergency personnel

Emergency procedures	: Evacuate area.
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#### 6.1.2. For emergency responders

Protective equipment	: Do not attempt to take action without suitable protective equipment.
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### 6.2. Environmental precautions

Contain the spilled material by bunding. Do not allow into drains or water courses. Notify authorities if product enters sewers or public waters.

### 6.3. Methods and material for containment and cleaning up

For containment	: Liquid spill: take up in dry sand/earth/vermiculite.
Methods for cleaning up	: Notify authorities if product enters sewers or public waters. Absorb remaining liquid with sand or inert absorbent and remove to safe place.
Other information	: Dispose of contaminated materials in accordance with current regulations.

### 6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection". For disposal of solid materials or residues refer to section 13 : "Disposal considerations".

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling	: Observe the label precautions. Use personal protective equipment as required.
Hygiene measures	: Always wash hands after handling the product.

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

Storage conditions	: Keep container closed when not in use. Store in dry, well-ventilated area. Keep away from (strong) bases. Acid resistant materials.
Incompatible materials	: Bases. Alkaline hydroxide. Oxidizer. sulphides. Organic peroxides.
Maximum storage period	: 730 days
Storage temperature	: 20 °C
Packaging materials	: Polyethylene. Polypropylene.

### 7.3. Specific end use(s)

No additional information.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### 8.1.1 National occupational exposure and biological limit values

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### Hydrochloric acid (7647-01-0)

#### EU - Indicative Occupational Exposure Limit (IOEL)

IOEL TWA	15 mg/m <sup>3</sup>
	10 ppm
IOEL STEL	8 mg/m <sup>3</sup>
	5 ppm

#### 8.1.2. Recommended monitoring procedures

No additional information available

#### 8.1.3. Air contaminants formed

No additional information available

#### 8.1.4. DNEL and PNEC

### Hydrochloric acid (7647-01-0)

#### DNEL/DMEL (Workers)

Acute - local effects, inhalation	15 mg/m <sup>3</sup>
Long-term - local effects, inhalation	8 mg/m <sup>3</sup>

#### PNEC (Water)

PNEC aqua (freshwater)	36 mg/l
PNEC aqua (marine water)	36 mg/l

#### PNEC (Soil)

PNEC soil	0.036 mg/kg dwt
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#### PNEC (STP)

PNEC sewage treatment plant	36 mg/l
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#### 8.1.5. Control banding

No additional information available

## 8.2. Exposure controls

#### 8.2.1. Appropriate engineering controls

No additional information available

#### 8.2.2. Personal protection equipment

##### 8.2.2.1. Eye and face protection

###### Eye protection:

Safety glasses with side shields. Use eye protection according to EN 166, designed to protect against liquid splashes.

##### 8.2.2.2. Skin protection

###### Skin and body protection:

Use chemically protective clothing.

###### Hand protection:

Acid-resistant protective gloves. Chemical resistant gloves (according to European standard NF ISO 374-1 or equivalent)

##### 8.2.2.3. Respiratory protection

###### Respiratory protection:

Ensure adequate ventilation, especially in confined areas. In case of vapour formation use adequate respirator. EN 145. EN 143. EN 149. EN 136. EN 141

##### 8.2.2.4. Thermal hazards

No additional information available

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### 8.2.3. Environmental exposure controls

#### Environmental exposure controls:

Avoid release to the environment. Install a retention tank. Precautions storage. Do not exceed the occupational exposure limits (OEL).

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: brown.
Odour	: Not available
Odour threshold	: Not available
Melting point	: -26 °C
Freezing point	: Not available
Boiling point	: 101 °C
Flammability	: Not available
Lower explosion limit	: Not available
Upper explosion limit	: Not available
Flash point	: Not applicable
Auto-ignition temperature	: Not available
Decomposition temperature	: Not available
pH	: < 3
Viscosity, kinematic	: Not available
Solubility	: In water, material soluble.
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: Not available
Vapour pressure at 50°C	: Not available
Density	: Not available
Relative density	: Not available
Relative vapour density at 20°C	: Not available
Particle characteristics	: Not applicable

### 9.2. Other information

#### 9.2.1. Information with regard to physical hazard classes

No additional information available

#### 9.2.2. Other safety characteristics

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No dangerous reactions known under normal conditions of use.

### 10.2. Chemical stability

Stable at ambient temperature and under normal conditions of use.

### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

### 10.4. Conditions to avoid

Extremely high or low temperatures. Incompatible materials.

### 10.5. Incompatible materials

Perchlorate. Reducing agent. Oxidizing agent. Alkalis and caustic products. Hydrogen chloride. Strong oxidizers. Peroxides. sulphides.

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### 10.6. Hazardous decomposition products

No data.

## SECTION 11: Toxicological information

### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral) : May be harmful if swallowed  
Acute toxicity (dermal) : Not classified  
Acute toxicity (inhalation) : May be harmful if inhaled

#### Hydrochloric acid (7647-01-0)

LD50 oral rat	2222 mg/kg
LD50 dermal	> 5010 mg/kg
LC50 Inhalation - Rat	45.6 mg/l

Skin corrosion/irritation : mild skin irritation  
pH: < 3  
Serious eye damage/irritation : May cause moderate irritation to the eyes  
pH: < 3  
Respiratory or skin sensitisation : Not classified  
Germ cell mutagenicity : Not classified  
Carcinogenicity : Not classified  
Reproductive toxicity : Not classified  
STOT-single exposure : Not classified

#### Hydrochloric acid (7647-01-0)

STOT-single exposure	May cause respiratory irritation.
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STOT-repeated exposure : Not classified  
Aspiration hazard : Not classified

### 11.2. Information on other hazards

#### 11.2.1. Endocrine disrupting properties

Adverse health effects caused by endocrine disrupting properties : The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

#### 11.2.2. Other information

No additional information available

## SECTION 12: Ecological information

### 12.1. Toxicity

Hazardous to the aquatic environment, short-term (acute) : Not classified  
Hazardous to the aquatic environment, long-term (chronic) : Not classified

#### Hydrochloric acid (7647-01-0)

LC50 - Fish [1]	10 – 100 mg/l
LC50 - Fish [2]	20.5 mg/l <i>Lepomis macrochirus</i>
EC50 - Crustacea [1]	0.45 mg/l <i>Daphnia magna</i> (OCDE 202)
ErC50 algae	0.73 mg/l

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### 12.2. Persistence and degradability

DUONETT D7	
Persistence and degradability	Not established.
Hydrochloric acid (7647-01-0)	
Persistence and degradability	Rapidly degradable

### 12.3. Bioaccumulative potential

No additional information available

### 12.4. Mobility in soil

No additional information available

### 12.5. Results of PBT and vPvB assessment

No additional information available

### 12.6. Endocrine disrupting properties

Adverse effects on the environment caused by endocrine disrupting properties : The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %.

### 12.7. Other adverse effects

No additional information available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Waste treatment methods : Entrust the thoroughly decontaminated packaging to a licensed waste-contractor. Dispose in a safe manner in accordance with local/national regulations.

Additional information : The user's attention is drawn to the possible existence of specific european, national or local regulations regarding disposal.

## SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / RID

ADR	IMDG	IATA	RID
14.1. UN number or ID number			
Not applicable	Not applicable	Not applicable	Not applicable
14.2. UN proper shipping name			
Not applicable	Not applicable	Not applicable	Not applicable
14.3. Transport hazard class(es)			
Not applicable	Not applicable	Not applicable	Not applicable
14.4. Packing group			
Not applicable	Not applicable	Not applicable	Not applicable
14.5. Environmental hazards			
Not applicable	Not applicable	Not applicable	Not applicable



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ADR	IMDG	IATA	RID
No supplementary information available			

### 14.6. Special precautions for user

#### Overland transport

Not applicable

#### Transport by sea

Not applicable

#### Air transport

Not applicable

#### Rail transport

Not applicable

### 14.7. Maritime transport in bulk according to IMO instruments

Not applicable

## SECTION 15: Regulatory information

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

#### 15.1.1. EU-Regulations

##### REACH Annex XVII (Restriction List)

EU restriction list (REACH Annex XVII)	
Reference code	Applicable on
3(b)	Hydrochloric acid

##### REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

##### REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

##### PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

##### POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

##### Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

##### Dual-Use Regulation (428/2009)

Contains no substance subject to the COUNCIL REGULATION (EC) No 428/2009 of 5 May 2009 setting up a Community regime for the control of exports, transfer, brokering and transit of dual-use items.

##### Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

##### Drug Precursors Regulation (273/2004)

Contains substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

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Name	CN designation	CAS-No.	CN code	Category, Subcategory	Threshold	Annex
Hydrochloric acid	Hydrogen chloride	7647-01-0	2806 10 00	Category 3		Annex I

### 15.1.2. National regulations

No additional information available

### 15.2. Chemical safety assessment

No additional information available

## SECTION 16: Other information

Indication of changes			
Section	Changed item	Change	Comments
2	Classification and labelling	Modified	

Full text of H- and EUH-statements:	
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
H290	May be corrosive to metals.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
Met. Corr. 1	Corrosive to metals, Category 1
Skin Corr. 1B	Skin corrosion/irritation, Category 1, Sub-Category 1B
Skin Irrit. 2	Skin corrosion/irritation, Category 2
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation

Safety Data Sheet (SDS), EU

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.