

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 (REACH)

Revision date: 1 Jun 2023

Print date: 3 Jul 2023

Version: 7.3



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## Doyen RF 90

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

#### 1.1. Product identifier

Trade name/designation:

Doyen RF 90

UFI:

4P8G-1904-7TRD-71EK

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

Use of the substance/mixture:

Washing and cleaning products

Relevant identified uses:

Life cycle stage [LCS]

PW: Widespread use by professional workers

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

Supplier (manufacturer/importer/only representative/downstream user/distributor):

etol Eberhard Tripp GmbH

Labor

Allerheiligenstr. 12

77728 Oppenau

Germany

Telephone: +49(0)7804/41-0

Telefax: +49(0)7804/41-168

E-mail: info@etol.de

Website: www.etol.de

#### 1.4. Emergency telephone number

Vergiftungs-Informations-Zentrale Freiburg, 24h: +49(0)76119240

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

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

Hazard classes and hazard categories	Hazard statements	Classification procedure
Corrosive to metals ( <i>Met. Corr. 1</i> )	H290: May be corrosive to metals.	
Skin corrosion/irritation ( <i>Skin Corr. 1</i> )	H314: Causes severe skin burns and eye damage.	
Serious eye damage/eye irritation ( <i>Eye Dam. 1</i> )	H318: Causes serious eye damage.	

#### 2.2. Label elements

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

Hazard pictograms:



GHS05

Corrosion

Signal word: Danger

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### Hazard components for labelling:

potassium hydroxide

#### Hazard statements for physical hazards

H290 May be corrosive to metals.

#### Hazard statements for health hazards

H314 Causes severe skin burns and eye damage.

### Supplemental hazard information: none

#### Precautionary statements Prevention

P280 Wear protective gloves/protective clothing/eye protection/face protection.

#### Precautionary statements Response

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or 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/doctor/....

### 2.3. Other hazards

No data available

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

#### Hazardous ingredients / Hazardous impurities / Stabilisers:

Product identifiers	Substance name Classification according to Regulation (EC) No 1272/2008 [CLP]	Concentration
CAS No.: 1310-58-3 EC No.: 215-181-3 Index No.: 019-002-00-8 REACH No.: 01-2119487136-33	<b>potassium hydroxide</b> Acute Tox. 4 (H302), Skin Corr. 1A (H314) Danger <b>Specific concentration limit (SCL)</b> Skin Corr. 1A; H314: $C \geq 5\%$ Skin Corr. 1B; H314: $2\% \leq C < 5\%$ Skin Irrit. 2; H315: $0.5\% \leq C < 2\%$ Eye Dam. 1; H318: $C \geq 2\%$ Eye Irrit. 2; H319: $0.5\% \leq C < 2\%$	5 - 25 weight-%

Full text of H- and EUH-phrases: see section 16.

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

#### General information:

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). Remove victim out of the danger area. Remove contaminated, saturated clothing. If unconscious but breathing normally, place in recovery position and seek medical advice. Do not leave affected person unattended. Warning First aider: Pay attention to self-protection!

#### Following inhalation:

Provide fresh air. In case of respiratory tract irritation, consult a physician.

#### In case of skin contact:

After contact with skin, wash immediately with plenty of water and soap. Take off immediately all contaminated clothing. Get immediate medical advice/attention. If skin irritation or rash occurs: Get medical advice/attention.

#### After eye contact:

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.

#### Following ingestion:

Rinse mouth. Let water be drunken in little sips (dilution effect). Get medical advice/attention if you feel unwell. Rinse mouth immediately and drink plenty of water-----. Do NOT induce vomiting. Get immediate medical advice/attention.

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### Self-protection of the first aider:

Use personal protection equipment.

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

Skin corrosion/irritation Serious eye damage/eye irritation

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

Treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

#### Suitable extinguishing media:

Water  
Extinguishing powder  
Carbon dioxide (CO<sub>2</sub>)  
Co-ordinate fire-fighting measures to the fire surroundings.

#### Unsuitable extinguishing media:

Strong water jet

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

The product itself does not burn.

### 5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing.

### 5.4. Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water-----.

## SECTION 6: Accidental release measures

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

#### 6.1.1. For non-emergency personnel

##### Personal precautions:

Remove persons to safety.

##### Protective equipment:

Wear protective gloves/protective clothing/eye protection/face protection.

#### 6.1.2. For emergency responders

##### Personal protection equipment:

Personal protection equipment: see section 8

### 6.2. Environmental precautions

Do not allow to enter into surface water or drains.

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

#### For containment:

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

#### For cleaning up:

Water

### 6.4. Reference to other sections

Safe handling: see section 7 Personal protection equipment: see section 8 Disposal: see section 13

### 6.5. Additional information

Use appropriate container to avoid environmental contamination.

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### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

##### Protective measures

##### Advices on safe handling:

Wear personal protection equipment (refer to section 8).

##### Fire prevent measures:

No special measures are necessary.

##### Advices on general occupational hygiene

When using do not eat, drink or smoke. Avoid contact with eyes and skin.

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

##### Technical measures and storage conditions:

Keep container tightly closed.

##### Requirements for storage rooms and vessels:

Keep/Store only in original container.

**Storage class (TRGS 510, Germany):** 8B - Non-combustible corrosive substances

##### Further information on storage conditions:

Please note the expiry date

#### 7.3. Specific end use(s)

No data available

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

##### 8.1.1. Occupational exposure limit values

No data available

##### 8.1.2. Biological limit values

No data available

##### 8.1.3. DNEL-/PNEC-values

Substance name	DNEL value	① DNEL type ② Exposure route
potassium hydroxide CAS No.: 1310-58-3 EC No.: 215-181-3	1 mg/m <sup>3</sup>	① DNEL worker ② Long-term - inhalation, local effects

#### 8.2. Exposure controls

##### 8.2.1. Appropriate engineering controls

No data available

##### 8.2.2. Personal protection equipment



##### Eye/face protection:

Eye glasses with side protection EN 166

##### Skin protection:

Tested protective gloves must be worn EN ISO 374 Suitable material: NBR (Nitrile rubber) >0,2mm  
Breakthrough time: 480min In the case of wanting to use the gloves again, clean them before taking off and air them well. Breakthrough times and swelling properties of the material must be taken into consideration.

##### 8.2.3. Environmental exposure controls

No data available

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## Doyen RF 90

### SECTION 9: Physical and chemical properties

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

##### Appearance

Physical state: Liquid

Colour: light brown

Odour: odourless

##### Safety relevant basis data

Parameter	Value	at °C	① Method ② Remark
pH	14	20 °C	
Melting point	<i>not determined</i>		
Freezing point	<i>not determined</i>		
Initial boiling point and boiling range	> 90 °C		
Decomposition temperature	<i>not determined</i>		
Flash point	<i>not applicable</i>		
Evaporation rate	<i>not determined</i>		
Auto-ignition temperature	<i>not determined</i>		
Upper/lower flammability or explosive limits	<i>not determined</i>		
Vapour pressure	<i>not determined</i>		
Vapour density	<i>not determined</i>		
Density	≈ 1.2 g/cm <sup>3</sup>	20 °C	
Relative density	<i>not determined</i>		
Bulk density	<i>not determined</i>		
Water solubility	completely miscible	20 °C	
Partition coefficient: n-octanol/water	<i>not determined</i>		
Dynamic viscosity	<i>not determined</i>		
Kinematic viscosity	<i>not determined</i>	40 °C	

##### particle characteristics:

not applicable

#### 9.2. Other information

No data available

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

May be corrosive to metals. The product itself does not burn.

#### 10.2. Chemical stability

The mixture is chemically stable under recommended conditions of storage, use and temperature.

#### 10.3. Possibility of hazardous reactions

No hazardous reaction when handled and stored according to provisions.

#### 10.4. Conditions to avoid

Slowly corrodes aluminium and zinc under hydrogen evolution.

#### 10.5. Incompatible materials

Acid  
Aluminium  
Light metals

#### 10.6. Hazardous decomposition products

Thermal decomposition can lead to the escape of irritating gases and vapours.

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### SECTION 11: Toxicological information

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

potassium hydroxide CAS No.: 1310-58-3 EC No.: 215-181-3

LD<sub>50</sub> oral: =333 mg/kg (Rat) OECD 425

##### Acute oral toxicity:

Based on available data, the classification criteria are not met.

##### Acute dermal toxicity:

Based on available data, the classification criteria are not met.

##### Acute inhalation toxicity:

Based on available data, the classification criteria are not met.

##### Skin corrosion/irritation:

Causes severe burns.

##### Serious eye damage/irritation:

Causes serious eye damage.

##### Respiratory or skin sensitisation:

Based on available data, the classification criteria are not met.

##### Germ cell mutagenicity:

Based on available data, the classification criteria are not met.

##### Carcinogenicity:

Based on available data, the classification criteria are not met.

##### Reproductive toxicity:

Based on available data, the classification criteria are not met.

##### STOT-single exposure:

Based on available data, the classification criteria are not met.

##### STOT-repeated exposure:

Based on available data, the classification criteria are not met.

##### Aspiration hazard:

Based on available data, the classification criteria are not met.

##### Additional information:

No data available

#### 11.2. Information on other hazards

No data available

### SECTION 12: Ecological information

#### 12.1. Toxicity

potassium hydroxide CAS No.: 1310-58-3 EC No.: 215-181-3

LC<sub>50</sub>: =80 mg/L 4 d (fish-----, Gambusia affinis (Mosquito fish-----))

#### 12.2. Persistence and degradability

potassium hydroxide CAS No.: 1310-58-3 EC No.: 215-181-3

Biodegradation: not applicable

#### 12.3. Bioaccumulative potential

potassium hydroxide CAS No.: 1310-58-3 EC No.: 215-181-3

Log K<sub>ow</sub>: -3.88

#### 12.4. Mobility in soil

No data available

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

potassium hydroxide CAS No.: 1310-58-3 EC No.: 215-181-3

Results of PBT and vPvB assessment: This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.

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The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

### 12.6. Endocrine disrupting properties

No data available

### 12.7. Other adverse effects

No data available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

#### 13.1.1. Product/Packaging disposal

#### Waste codes/waste designations according to EWC/AVV

##### Waste code product

20 01 29 \* Detergents containing hazardous substances

\*: Evidence for disposal must be provided.

##### Waste code packaging

15 01 10 \* packaging containing residues of or contaminated by dangerous substances

\*: Evidence for disposal must be provided.

### Waste treatment options

#### Appropriate disposal / Product:

Dispose of waste according to applicable legislation. Consult the appropriate local waste disposal expert about waste disposal.

#### Appropriate disposal / Package:

Completely emptied packages can be recycled.

## SECTION 14: Transport information

Land transport (ADR/RID)	Inland waterway craft-(ADN)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)
<b>14.1. UN number or ID number</b>			
UN 1814	UN 1814	UN 1814	UN 1814
<b>14.2. UN proper shipping name</b>			
POTASSIUM HYDROXIDE SOLUTION	POTASSIUM HYDROXIDE SOLUTION	POTASSIUM HYDROXIDE SOLUTION	POTASSIUM HYDROXIDE SOLUTION
<b>14.3. Transport hazard class(es)</b>			
 8	 8	 8	 8
<b>14.4. Packing group</b>			
II	II	II	II
<b>14.5. Environmental hazards</b>			
No	No	No	No
<b>14.6. Special precautions for user</b>			
Limited quantity (LQ): 1L Excepted Quantities (EQ): E2 Hazard identification number (Kemler No.): 80 Classification code-----: C5 Tunnel restriction code-----: (E)	Limited quantity (LQ): 1L Excepted Quantities (EQ): E2 Classification code-----: C5	Limited quantity (LQ): 1 L Excepted Quantities (EQ): E2 EmS-No.: F-A, S-B	No data available

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## Doyen RF 90

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

No data available

## SECTION 15: Regulatory information

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

#### 15.1.1. EU legislation

##### Other regulations (EU):

Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances [Seveso-III-Directive]: This product is not assigned to a hazard category.

Volatile organic compounds (VOC) content in percent by weight: 0%

Regulation (EC) No. 648/2004 [Detergents regulation] :

5-15% phosphonates

#### 15.1.2. National regulations

##### [DE] National regulations

##### Störfallverordnung (12. BImSchV)

###### for substances contained in the product:

This product is not assigned to a hazard category.

##### Water hazard class

###### WGK:

1 - slightly hazardous to water

### 15.2. Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

## SECTION 16: Other information

### 16.1. Indication of changes

9.1. Information on basic physical and chemical properties

### 16.2. Abbreviations and acronyms

No data available

### 16.3. Key literature references and sources for data

No data available

### 16.4. Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]

Hazard classes and hazard categories	Hazard statements	Classification procedure
Corrosive to metals ( <i>Met. Corr. 1</i> )	H290: May be corrosive to metals.	
Skin corrosion/irritation ( <i>Skin Corr. 1</i> )	H314: Causes severe skin burns and eye damage.	
Serious eye damage/eye irritation ( <i>Eye Dam. 1</i> )	H318: Causes serious eye damage.	

### 16.5. Relevant R-, H- and EUH-phrases (Number and full text)

Hazard statements	
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.

### 16.6. Training advice

No data available

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### 16.7. Additional information

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

\* Data changed compared with the previous version.