

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

#### 1.1. Product identifier

Product form : Mixture  
 Product name : ENZYWINE R10  
 Product code : POU0925  
 Type of product : Detergent

#### 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

##### 1.2.2. Uses advised against

No additional information available

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

REALCO S.A.  
 Avenue Albert Einstein, 15  
 B-1348 Louvain-la-Neuve - Belgium  
 T +32 (0)10 45 30 00 - F +32 (0)10 45 63 63  
[info@realco.be](mailto:info@realco.be) - [www.realco.be](http://www.realco.be)

#### 1.4. Emergency telephone number

Emergency number : Int+32-70-245.245

Country	Organisation/Company	Address	Emergency number
BELGIUM	Centre Anti-Poisons/Antigifcentrum c/o Hôpital Central de la Base - Reine Astrid	Rue Bruyn B -1120 Brussels	+32 70 245 245

### SECTION 2: Hazards identification

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

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

Acute Tox. 4 (Oral) H302

Skin Irrit. 2 H315

Eye Dam. 1 H318

Full text of H-phrases: 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) :



GHS05

GHS07

Signal word (CLP) :

Danger

Hazardous ingredients :

Sodium carbonate peroxide, Tetrasodium (1-hydroxyethylidene)bisphosphonate

Hazard statements (CLP) :

H302 - Harmful if swallowed  
 H315 - Causes skin irritation  
 H318 - Causes serious eye damage

Precautionary statements (CLP) :

P264 - Wash hands, forearms and face thoroughly after handling  
 P270 - Do not eat, drink or smoke when using this product  
 P280 - Wear protective gloves, eye protection, face shield  
 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, a doctor  
 P501 - Dispose of contents/container to hazardous or special waste collection point

EUH phrases :

EUH208 - Contains Protease (Subtilisin). May produce an allergic reaction

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according to Regulation (EC) No. 453/2010

### 2.3. Other hazards

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

## SECTION 3: Composition/information on ingredients

### 3.1. Substance

Not applicable

### 3.2. Mixture

Name	Product identifier	%	Classification according to Directive 67/548/EEC
Sodium carbonate peroxide	(CAS No) 15630-89-4 (EC no) 239-707-6 (REACH-no) 01-2119457268-30	> 30	O; R8 Xn; R22 Xi; R36/38
sodium carbonate	(CAS No) 497-19-8 (EC no) 207-838-8 (EC index no) 011-005-00-2 (REACH-no) 01-2119485498-19	15 - 30	Xi; R36
Potassium carbonate	(CAS No) 584-08-7 (REACH-no) 01-2119532646-36	15 - 30	Xi; R36/37/38
Tetrasodium (1-hydroxyethylidene)bisphosphonate	(CAS No) 3794-83-0 (EC no) 223-267-7 (REACH-no) 01-2119510382-52	5 - 10	Xi; R36 Xn; R22
Protease (Subtilisin)	(CAS No) 9014-01-1 (EC no) 232-752-2 (REACH-no) 01-2119480434-38	0.1 - 1	Xn; R22 R42 Xi; R41 Xi; R37/38 N; R50

Name	Product identifier	Specific concentration limits
Sodium carbonate peroxide	(CAS No) 15630-89-4 (EC no) 239-707-6 (REACH-no) 01-2119457268-30	(C < 25) Acute Tox. 4 (Oral), H302 (10 =< C < 25) Eye Irrit. 2, H319 (C >= 25) Eye Dam. 1, H318

Full text of R- and H-phrases: see section 16

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

First-aid measures general	: If you feel unwell, seek medical advice (show the label where possible). Take off immediately all contaminated clothing. Wash clothing before re-using.
First-aid measures after inhalation	: Remove victim to fresh air. Allow the victim to rest.
First-aid measures after skin contact	: Wash skin with mild soap and 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, take medical advice.
First-aid measures after ingestion	: Rinse mouth. Get medical advice/attention.

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

Symptoms/injuries after inhalation	: Cough. Irritation of the respiratory tract and the other mucous membranes.
Symptoms/injuries after skin contact	: Redness, pain.
Symptoms/injuries after eye contact	: Redness, pain. Blurred vision.
Symptoms/injuries after ingestion	: Abdominal pain, nausea.

### 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	: All extinguishing agents can be used.
Unsuitable extinguishing media	: None.

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

Fire hazard	: May intensify fire; oxidiser.
Explosion hazard	: Product is not explosive.
Hazardous decomposition products in case of fire	: Thermal decomposition generates : Carbon monoxide. Carbon dioxide.

### 5.3. Advice for firefighters

Precautionary measures fire	: Wear proper protective equipment.
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- Firefighting instructions : Exercise caution when fighting any chemical fire. Use water spray or fog for cooling exposed containers.
- Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

### SECTION 6: Accidental release measures

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

- General measures : Ensure adequate ventilation. Sweep or shovel spills.

##### 6.1.1. For non-emergency personnel

- Protective equipment : Personal protection. See Heading 8.2.
- Emergency procedures : Avoid all contact with skin, eyes, or clothing. Do not breathe dust. Evacuate area.

##### 6.1.2. For emergency responders

- Protective equipment : Personal protection. See Heading 8.2.
- Emergency procedures : Stop leak if safe to do so. Mark out the contaminated area with signs and prevent access to unauthorized personnel. Evacuate unnecessary personnel.

#### 6.2. Environmental precautions

- Avoid release to the environment.

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

- For containment : Dike for recovery or absorb with appropriate material.
- Methods for cleaning up : Collect spillage. Rinse with plenty of water. Minimize generation of dust.
- Other information : Never return spills in original containers for possible later re-use.

#### 6.4. Reference to other sections

- See Heading 8.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

- Additional hazards when processed : Do not breathe dust.
- Precautions for safe handling : Do not eat, drink or smoke when using this product. Do not handle until all safety precautions have been read and understood. Do not breathe Dust. Do not get in eyes, on skin, or on clothing. Avoid all unnecessary exposure.
- Hygiene measures : Do not eat, drink or smoke when using this product. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Wash contaminated clothing before reuse.

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

- Storage conditions : Store in original container. Keep only in the original container in a cool, well-ventilated place away from moisture. Keep container closed when not in use.
- Incompatible products : None, to our knowledge.
- Incompatible materials : None, to our knowledge.
- Storage temperature : 4 - 25 °C
- Heat and ignition sources : Store away from direct sunlight or other heat sources.
- Storage area : Store in a dry place. Prevent moisture contact.
- Special rules on packaging : Keep only in original container.
- Packaging materials : PP.

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

- Cleaning product.

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

Protease (Subtilisin) (9014-01-1)		
Belgium	Limit value (mg/m <sup>3</sup> )	0,00006 mg/m <sup>3</sup>

#### 8.2. Exposure controls

- Appropriate engineering controls : Ensure adequate air ventilation.
- Personal protective equipment : Gloves. Safety glasses.

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Hand protection	: Gloves. (EN 374)
Eye protection	: Safety glasses. Eye protection (standard EN 166)
Skin and body protection	: Use chemically protective clothing
Respiratory protection	: No special respiratory protection equipment is recommended under normal conditions of use with adequate ventilation. Approved dust or mist respirator (acc. to EN 140 or EN 136) should be used if airborne particles are generated when handling this material. Recommended Filter: type P (acc. to EN 143). The entrepreneur has to ensure that maintenance cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer.



Thermal hazard protection	: None necessary.
Environmental exposure controls	: Avoid release to the environment. Prevent entry to sewers and public waters.
Other information	: Emergency eye wash fountains should be available in the immediate vicinity of any potential exposure. The equipment must be cleaned thoroughly after each use.

### SECTION 9: Physical and chemical properties

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

Physical state	: Solid
Appearance	: Powder.
Colour	: white.
Odour	: characteristic.
Odour threshold	: Not tested
pH	: Not applicable
Relative evaporation rate (butylacetate=1)	: Not applicable
Melting point	: Not tested
Freezing point	: Not applicable
Boiling point	: Not applicable
Flash point	: Not applicable
Critical temperature	: Not applicable
Auto-ignition temperature	: Not applicable
Decomposition temperature	: Not applicable
Flammability (solid, gas)	: Non flammable
Vapour pressure	: Not tested
Relative vapour density at 20 °C	: Not applicable
Relative density	: Not tested
Density	: 970 - 1270 kg/m <sup>3</sup>
Solubility	: In water, material is partially soluble.
Log Pow	: Not tested
Log Kow	: Not tested
Viscosity, kinematic	: Not applicable
Viscosity, dynamic	: Not applicable
Explosive properties	: Product is not explosive.
Oxidising properties	: May intensify fire; oxidiser.
Explosive limits	: Not applicable

#### 9.2. Other information

Other properties	: Hygroscopic product.
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### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

Stable under normal conditions of storage, handling and use.

#### 10.2. Chemical stability

Stable under normal conditions of storage, handling and use.

#### 10.3. Possibility of hazardous reactions

Stable under normal conditions of storage, handling and use.

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### 10.4. Conditions to avoid

None.

### 10.5. Incompatible materials

None under normal conditions.

### 10.6. Hazardous decomposition products

None under normal conditions.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity : Oral: Harmful if swallowed.

ATE CLP (oral)	1245,956 mg/kg bodyweight
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#### Sodium carbonate peroxide (15630-89-4)

LD50 oral rat 1034 mg/kg

LDLo, rabbit, Dermal > 2000 mg/kg

#### sodium carbonate (497-19-8)

LD50 oral rat > 2000 mg/kg

LC50, mouse, Inhalation 2.3 mg/l (2 Hours)

LC50, mouse, Inhalation > 5000 mg/l (4 Hours)

#### Potassium carbonate (584-08-7)

LD50 oral rat > 2000 ml/kg OECD 401

LD50 dermal rabbit > 2000

LC50 inhalation rat (mg/l) > 4,96 mg/l

#### Tetrasodium (1-hydroxyethylidene)bisphosphonate (3794-83-0)

LD50 oral rat 940 mg/kg

LD50 dermal rabbit > 2000 mg/kg

#### Protease (Subtilisin) (9014-01-1)

LD50 oral 1800 mg/kg bodyweight

Skin corrosion/irritation : Causes skin irritation.

pH: Not applicable

Serious eye damage/irritation : Causes serious eye damage.

pH: Not applicable

Respiratory or skin sensitisation : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

Specific target organ toxicity (single exposure) : Not classified

Specific target organ toxicity (repeated exposure) : Not classified

#### Tetrasodium (1-hydroxyethylidene)bisphosphonate (3794-83-0)

NOAEL (oral, rat, 90 days) 19 - 24 mg/kg bodyweight/day

Aspiration hazard : Not classified

## SECTION 12: Ecological information

### 12.1. Toxicity

#### Sodium carbonate peroxide (15630-89-4)

LC50, fish, Pimephales promelas 70.7 mg/l (96 Hours)

EC50, aquatic invertebrates, daphnia 4.9 mg/l (48 Hours)

#### sodium carbonate (497-19-8)

LC50, Fish > 200 mg/l (96 Hours)

EC50, daphnia, Daphnia magna > 200 mg/l (48 Hours)

#### Potassium carbonate (584-08-7)

EC50, daphnia, Daphnia magna 430 mg/l (48 Hours)

LC50, fish, Oncorhynchus mykiss (Rainbow trout) 68 mg/l (96 Hours)

NOEC, fish, Oncorhynchus mykiss (Rainbow trout) 33 mg/l (96 Hours)

NOEC, daphnia 120 mg/l (48 Hours)

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<b>Tetrasodium (1-hydroxyethylidene)bisphosphonate (3794-83-0)</b>	
LC50, Fish, Poecilia reticulata	> 200 mg/l (96 Hours)
EC50, daphnia, Daphnia magna	370-380 mg/l (48 Hours)
<b>Protease (Subtilisin) (9014-01-1)</b>	
EC50, daphnia	586 µg /l (48 Hours)
ErC50, algae	830 µg /l (72 Hours)
LC50, fish	8,2 mg/l (96 Hours)

### 12.2. Persistence and degradability

<b>ENZYWINE R10</b>	
Persistence and degradability	Readily biodegradable.
<b>Sodium carbonate peroxide (15630-89-4)</b>	
Persistence and degradability	Not applicable. Inorganic product.
<b>sodium carbonate (497-19-8)</b>	
Persistence and degradability	Inorganic product.
<b>Potassium carbonate (584-08-7)</b>	
Persistence and degradability	Not applicable.
<b>Protease (Subtilisin) (9014-01-1)</b>	
Persistence and degradability	Readily biodegradable.

### 12.3. Bioaccumulative potential

<b>ENZYWINE R10</b>	
Log Pow	Not tested
Log Kow	Not tested
<b>sodium carbonate (497-19-8)</b>	
Bioaccumulative potential	Not bioaccumulable.
<b>Potassium carbonate (584-08-7)</b>	
Bioaccumulative potential	Not bioaccumulable.
<b>Tetrasodium (1-hydroxyethylidene)bisphosphonate (3794-83-0)</b>	
Bioconcentration factor (BCF REACH)	17,9
Log Pow	< -3,5
<b>Protease (Subtilisin) (9014-01-1)</b>	
Log Pow	< 0
Bioaccumulative potential	Not bioaccumulable.

### 12.4. Mobility in soil

<b>sodium carbonate (497-19-8)</b>	
Ecology - soil	Soluble in water.
<b>Potassium carbonate (584-08-7)</b>	
Ecology - soil	No information available.

### 12.5. Results of PBT and vPvB assessment

<b>ENZYWINE R10</b>	
This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII	
This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII	
Component	
Protease (Subtilisin) (9014-01-1)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
Sodium carbonate peroxide (15630-89-4)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII
Tetrasodium (1-hydroxyethylidene)bisphosphonate (3794-83-0)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

### 12.6. Other adverse effects

No additional information available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Regional legislation (waste)	: Dispose in a safe manner in accordance with local/national regulations.
Waste treatment methods	: Remove to an authorized waste treatment plant.
Sewage disposal recommendations	: May be discharged to wastewater treatment installation.
Waste disposal recommendations	: Dispose of this material and its container at hazardous or special waste collection point. WHEN TOTALLY EMPTY, containers are recyclable like any other packing.

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Ecology - waste materials	: Collect all waste in suitable and labelled containers and dispose according to local legislation. Avoid release to the environment.
European List of Waste (LoW) code	: 20 01 29* - detergents containing dangerous substances
H code	: H4 - 'Irritant': non-corrosive substances and preparations which, through immediate, prolonged or repeated contact with the skin or mucous membrane, can cause inflammation. H5 - 'Harmful': substances and preparations which, if they are inhaled or ingested or if they penetrate the skin, may involve limited health risks.
R code/ D code	: D9 - Physico-chemical treatment not specified elsewhere in this Annex which results in final compounds or mixtures which are discarded by means of any of the operations numbered D 1 to D 12 (e.g. evaporation, drying, calcination, etc.)

### SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

#### 14.1. UN number

Not regulated for transport

#### 14.2. UN proper shipping name

Proper Shipping Name (ADR)	: Not applicable
Proper Shipping Name (IMDG)	: Not applicable
Proper Shipping Name (IATA)	: Not applicable
Proper Shipping Name (ADN)	: Not applicable
Proper Shipping Name (RID)	: Not applicable

#### 14.3. Transport hazard class(es)

##### ADR

Transport hazard class(es) (ADR) : Not applicable

##### IMDG

Transport hazard class(es) (IMDG) : Not applicable

##### IATA

Transport hazard class(es) (IATA) : Not applicable

##### ADN

Transport hazard class(es) (ADN) : Not applicable

##### RID

Transport hazard class(es) (RID) : Not applicable

#### 14.4. Packing group

Packing group (ADR)	: Not applicable
Packing group (IMDG)	: Not applicable
Packing group (IATA)	: Not applicable
Packing group (ADN)	: Not applicable
Packing group (RID)	: Not applicable

#### 14.5. Environmental hazards

Dangerous for the environment	: No
Marine pollutant	: No
Other information	: No supplementary information available

#### 14.6. Special precautions for user

##### 14.6.1. Overland transport

##### 14.6.2. Transport by sea

##### 14.6.3. Air transport

##### 14.6.4. Inland waterway transport

Not subject to ADN : No

##### 14.6.5. Rail transport

Carriage prohibited (RID) : No

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### 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

## SECTION 15: Regulatory information

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

#### 15.1.1. EU-Regulations

Contains no substances with Annex XVII restrictions  
ENZYWINE R10 is not on the REACH Candidate List  
Contains no substance on the REACH candidate list  
Contains no REACH Annex XIV substances

Detergent Regulation : Labelling of contents:

Component	%
oxygen-based bleaching agents	>=30%
phosphonates	5-15%
polycarboxylates	<5%
enzymes	

#### 15.1.2. National regulations

No additional information available

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out for the substance or the mixture by the supplier

## SECTION 16: Other information

Full text of R-, H- and EUH-phrases:

Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Ox. Sol. 3	Oxidising Solids, Category 3
Resp. Sens. 1	Sensitisation — Respiratory, category 1
Skin Irrit. 2	Skin corrosion/irritation, Category 2
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
H272	May intensify fire; oxidiser
H302	Harmful if swallowed
H315	Causes skin irritation
H318	Causes serious eye damage
H319	Causes serious eye irritation
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled
H335	May cause respiratory irritation
H400	Very toxic to aquatic life
H411	Toxic to aquatic life with long lasting effects
R22	Harmful if swallowed
R36	Irritating to eyes
R36/37/38	Irritating to eyes, respiratory system and skin
R36/38	Irritating to eyes and skin
R37/38	Irritating to respiratory system and skin
R41	Risk of serious damage to eyes
R42	May cause sensitization by inhalation
R50	Very toxic to aquatic organisms
R8	Contact with combustible material may cause fire
N	Dangerous for the environment
O	Oxidising
Xi	Irritant
Xn	Harmful



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NFPA health hazard

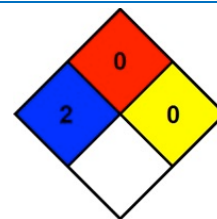
: 2 - Intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt medical attention is given.

NFPA fire hazard

: 0 - Materials that will not burn.

NFPA reactivity

: 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.



SDS EU (REACH Annex II)

*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*