

SECTION 1: Identification

1.1. Identification

Product form	: Mixture
Product name	: ENZYBREW 10
Product code	: POU0938
Other means of identification	: Ecodetergent

1.2. Recommended use and restrictions on use

1.3. Supplier

REALZYME
S Pioneer BLVD, 223
Springboro, - OH 45066 - United States of America
T +1 937 350 56 60 - F +1 937 350 56 60
info@realzyme.com - www.realzyme.com

1.4. Emergency telephone number

Emergency number : +1- 800 - 222 - 1222 (United States only) 011-32-70-245-245 (Canada and all other areas)

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS-US classification

Pure product

Acute toxicity (oral), Category 4	H302 Harmful if swallowed.
Skin corrosion/irritation, Category 2	H315 Causes skin irritation.
Serious eye damage/eye irritation, Category 1	H318 Causes serious eye damage.

Product used at recommended concentration (1,0%)

Not classified as hazardous.

Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS US labelling

Hazard pictograms (GHS US)



Signal word (GHS US)

: Danger

Hazard statements (GHS US)

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

Precautionary statements (GHS US)

: P264 - Wash hands, forearms and face thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P301+P312 - If swallowed: Call a poison center or doctor if you feel unwell.
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.
P310 - Immediately call a poison center or doctor.
P321 - Specific treatment (see supplemental first aid instruction on this label).
P330 - Rinse mouth.
P332+P313 - If skin irritation occurs: Get medical advice/attention.
P362+P364 - Take off contaminated clothing and wash it before reuse.
P501 - Dispose of contents/container to hazardous or special waste collection point

Product used at recommended concentration (1,0%)

Labeling not applicable. Product not classified as hazardous.

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2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS-US classification
sodium carbonate	(CAS-No.) 497-19-8	> 30	Eye Irrit. 2A, H319
Sodium carbonate peroxide	(CAS-No.) 15630-89-4	> 30	Ox. Sol. 3, H272 Acute Tox. 4 (Oral), H302 Eye Dam. 1, H318
disodium metasilicate	(CAS-No.) 6834-92-0	1 - 5	Acute Tox. 4 (Oral), H302 Skin Corr. 1B, H314 STOT SE 3, H335

Full text of hazard classes and H-statements : 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 (acute and delayed)

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

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

- Suitable extinguishing media : All extinguishing media allowed.
- Unsuitable extinguishing media : None.

5.2. Specific hazards arising from the chemical

- 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. Special protective equipment and precautions for fire-fighters

- Precautionary measures fire : Wear proper protective equipment.
- 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. Collect spillage.

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6.1.1. For non-emergency personnel

- Protective equipment : Personal protection. See Heading 8.
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. Equip cleanup crew with proper protection.
Emergency procedures : Mark the danger area. Evacuate unnecessary personnel. Stop leak if safe to do so.

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. Minimise generation of dust. Rinse with plenty of water.
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

- 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 : 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.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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No additional information available
sodium carbonate (497-19-8)
No additional information available
Sodium carbonate peroxide (15630-89-4)
No additional information available
disodium metasilicate (6834-92-0)
No additional information available

8.2. Appropriate engineering controls

- Appropriate engineering controls : Ensure adequate ventilation.
Environmental exposure controls : Avoid release to the environment. Prevent entry to sewers and public waters.

8.3. Individual protection measures/Personal protective equipment

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.

Personal protective equipment symbol(s):



Thermal hazard protection:

No specific measures are necessary.

Other information:

Emergency eye wash fountains and safety showers 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	: The product has not been tested
pH	: Not applicable
Melting point	: The product has not been tested
Freezing point	: Not applicable
Boiling point	: Not applicable
Critical temperature	: Not applicable
Flash point	: Not applicable
Relative evaporation rate (butylacetate=1)	: Not applicable
Flammability (solid, gas)	: Non flammable.
Vapour pressure	: The product has not been tested
Relative vapour density at 20 °C	: Not applicable
Relative density	: The product has not been tested
Solubility	: In water, material is partially soluble.
Partition coefficient n-octanol/water (Log Pow)	: The product has not been tested The product has not been tested
Auto-ignition temperature	: Not applicable
Decomposition temperature	: Not applicable
Viscosity, kinematic	: No data available
Viscosity, dynamic	: Not applicable
Explosive limits	: Not applicable
Explosive properties	: Product is not explosive.

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Oxidising properties : Oxidizer.

9.2. Other information

Other properties : Hygroscopic product.

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable in use and storage conditions as recommended in item 7.

10.2. Chemical stability

Stable in use and storage conditions as recommended in item 7.

10.3. Possibility of hazardous reactions

Stable in use and storage conditions as recommended in item 7.

10.4. Conditions to avoid

None.

10.5. Incompatible materials

None under normal conditions.

10.6. Hazardous decomposition products

In the event of fire, may decompose : Carbon oxides (CO, CO₂).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Harmful if swallowed.

Acute toxicity (dermal) : Not classified

Acute toxicity (inhalation) : Not classified

ATE US (oral)	500 mg/kg bodyweight
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sodium carbonate (497-19-8)	
LD50 oral rat	> 2000 mg/kg
Additional information	LC50, mouse, Inhalation: 2.3 mg/l (2 Hours) LC50, mouse, Inhalation: > 5000 mg/l (4 Hours)

Sodium carbonate peroxide (15630-89-4)	
LD50 oral rat	1034 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
ATE US (oral)	1034 mg/kg bodyweight
Additional information	LDLo, rabbit, Dermal: > 2000 mg/kg

disodium metasilicate (6834-92-0)	
LD50 oral rat	1152 – 1349 mg/kg
LD50 dermal rat	> 5000 mg/kg
ATE US (oral)	1152 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

STOT-single exposure : Not classified

disodium metasilicate (6834-92-0)	
STOT-single exposure	May cause respiratory irritation.

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STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified
Viscosity, kinematic	: No data available
Symptoms/effects after inhalation	: Cough. Irritation of the respiratory tract and the other mucous membranes.
Symptoms/effects after skin contact	: Redness, pain.
Symptoms/effects after eye contact	: Redness, pain. Blurred vision.
Symptoms/effects after ingestion	: Abdominal pain, nausea.

SECTION 12: Ecological information

12.1. Toxicity

sodium carbonate (497-19-8)	
Additional ecotoxicological information	LC50, Fish: > 200 mg/l (96 Hours) EC50, daphnia, Daphnia magna: > 200 mg/l (48 Hours)
Sodium carbonate peroxide (15630-89-4)	
LC50 fish 1	70.7 mg/l Pimephales promelas
EC50 Daphnia 1	4.9 g/l Daphnia magna
NOEC chronic fish	7.4 mg/l Pimephales promelas
NOEC chronic crustacea	2 mg/l Daphnia pulex
Additional ecotoxicological information	LC50, fish, Pimephales promelas: 70.7 mg/l (96 Hours) EC50, aquatic invertebrates, daphnia: 4.9 mg/l (48 Hours)
disodium metasilicate (6834-92-0)	
Additional ecotoxicological information	EC50, algae, Scenedesmus subspicatus: 207 mg/l (72 Hours) LC50, Fish, Branchydanio rerio: 210 mg/l (96 Hours) EC0, daphnia, Daphnia magna: > 500 mg/l (24 Hours)

12.2. Persistence and degradability

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Persistence and degradability	Biodegradable.
sodium carbonate (497-19-8)	
Persistence and degradability	Mineral.
Sodium carbonate peroxide (15630-89-4)	
Persistence and degradability	Not applicable. Mineral.
disodium metasilicate (6834-92-0)	
Persistence and degradability	Mineral.

12.3. Bioaccumulative potential

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Partition coefficient n-octanol/water (Log Pow)	The product has not been tested
Partition coefficient n-octanol/water (Log Kow)	The product has not been tested
sodium carbonate (497-19-8)	
Bioaccumulative potential	not bioaccumulable.
disodium metasilicate (6834-92-0)	
Bioaccumulative potential	Slightly or not bioaccumulative.

12.4. Mobility in soil

sodium carbonate (497-19-8)	
Ecology - soil	Soluble in water.
disodium metasilicate (6834-92-0)	
Ecology - soil	Soluble in water.

12.5. Other adverse effects

Product at recommended concentration (1,0%) : Non-hazardous for the environment (non-hazardous mixture)

Other information : No supplementary information available.

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SECTION 13: Disposal considerations

13.1. Disposal methods

Regional legislation (waste)	:	Disposal must be done according to official regulations.
Waste treatment methods	:	Remove to an authorized waste treatment plant. Dispose of contents/container in accordance with licensed collector's sorting instructions.
Sewage disposal recommendations	:	May be discharged to wastewater treatment installation.
Product at recommended concentration (1,0%)	:	Non-hazardous for the environment. No special requirements needed for sewage disposal.
Product/Packaging disposal recommendations	:	When totally empty, containers are recyclable like any other packing. Dispose of contents/container to hazardous or special waste collection point.
Ecology - waste materials	:	Avoid release to the environment. Collect all waste in suitable and labeled containers and dispose according to local legislation.
Product at recommended concentration (1,0%)	:	Non-hazardous for the environment. No special requirements needed for waste disposal.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Not applicable

Transportation of Dangerous Goods

Not applicable

Transport by sea

Not applicable

Air transport

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

sodium carbonate (497-19-8)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Sodium carbonate peroxide (15630-89-4)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

disodium metasilicate (6834-92-0)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. International regulations

CANADA

No additional information available

EU-Regulations

No additional information available

National regulations

No additional information available

15.3. US State regulations

No additional information available

SECTION 16: Other information

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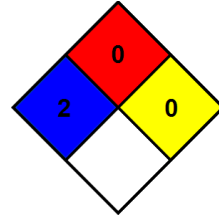
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Full text of H-statements:

H272	May intensify fire; oxidiser.
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.
H335	May cause respiratory irritation.

- NFPA health hazard : 2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.
- NFPA fire hazard : 0 - Materials that will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand.
- NFPA reactivity : 0 - Material that in themselves are normally stable, even under fire conditions.



SDS US (GHS HazCom 2012)

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.