

Safety Data Sheet

acc. to OSHA, Appendix D to § 1910.1200

Cleansmart Liqua Zyme

Version number: GHS 5.0
Replaces version of: 2016-05-12 (GHS 4)

revision: 2018-10-29

SECTION 1: Identification

1.1 Product identifier

Trade name **Cleansmart Liqua Zyme**

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

Relevant identified uses enzyme based cleaner

1.3 Details of the supplier of the safety data sheet

Cleansmart Technologies
P. O. Box 2126
Loveland, Co. 80539
877-701-5271

1.4 Emergency telephone number

Emergency information service **USA 1.800.535.5053, INTL 1.352.323.3500**
24 hour emergency telephone number.

SECTION 2: Hazard(s) identification

2.1 Classification of the substance or mixture

Classification acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

Annex	-	Hazard class and category	-	Hazard statement code(s)	
A.3		serious eye damage/eye irritation		Cat. 2 (Eye Irrit. 2)	H319

Remarks

For full text of H-phrases: see SECTION 16.

2.2 Label elements

Labelling acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

Signal word warning

Pictograms

GHS07



Hazard statements

H319 Causes serious eye irritation.

Precautionary statements

Precautionary statements - prevention

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

Precautionary statements - response

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.

2.3 Other hazards

There is no additional information.

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SECTION 3: Composition/information on ingredients

3.1 Substances

not relevant (mixture)

3.2 Mixtures

Description of the mixture

Name of substance	Identifier	Wt%	Hazard class and category		Hazard statement	Notes
enzymes		3 - < 12	A.1O	Acute Tox. 4	H302	
			A.2	Skin Irrit. 2	H315	
			A.3	Eye Irrit. 2	H319	
Alcohols, C9-11 ethoxylated	CAS No 68439-46-3	1 - < 3	A.1O	Acute Tox. 4	H302	
			A.1D	Acute Tox. 4	H312	
			A.3	Eye Dam. 1	H318	

For full text of abbreviations: see SECTION 16. Exact percentage of ingredients is withheld as a trade secret.

SECTION 4: First-aid measures

4.1

General notes

Do not leave affected person unattended. Remove victim out of the danger area. Keep affected person warm, still and covered. Take off immediately all contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness place person in the recovery position. Never give anything by mouth.

Following inhalation

Provide fresh air.

Following skin contact

After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water.

Following eye contact

Irrigate copiously with clean, fresh water, holding the eyelids apart. Remove contact lenses, if present and easy to do. Continue rinsing.

Following ingestion

Rinse mouth with water (only if the person is conscious). Do NOT induce vomiting.

SECTION 5: Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media

water spray, BC-powder, carbon dioxide (CO₂)

Unsuitable extinguishing media

water jet

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products

nitrogen oxides (NO_x), carbon monoxide (CO), carbon dioxide (CO₂)

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5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Co-ordinate firefighting measures to the fire surroundings. Do not allow firefighting water to enter drains or water courses. Collect contaminated firefighting water separately. Fight fire with normal precautions from a reasonable distance.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Remove persons to safety.

For emergency responders

Wear breathing apparatus if exposed to vapors/dust/aerosols/gases.

6.2 Environmental precautions

Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it.

6.3 Methods and material for containment and cleaning up

Advices on how to contain a spill

Covering of drains.

Advices on how to clean up a spill

Wipe up with absorbent material (e.g. cloth, fleece). Collect spillage (sawdust, kieselgur (diatomite), sand, universal binder).

Appropriate containment techniques

Use of adsorbent materials.

Other information relating to spills and releases

Place in appropriate containers for disposal. Ventilate affected area.

6.4 Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Recommendations

Measures to prevent fire as well as aerosol and dust generation

Use local and general ventilation. Use only in well-ventilated areas.

Advice on general occupational hygiene

Wash hands after use. Do not eat, drink and smoke in work areas. Remove contaminated clothing and protective equipment before entering eating areas. Never keep food or drink in the vicinity of chemicals. Never place chemicals in containers that are normally used for food or drink. Keep away from food, drink and animal feedingstuffs.

7.2 Conditions for safe storage, including any incompatibilities

Managing of associated risks

Incompatible substances or mixtures

Observe compatible storage of chemicals.

Control of the effects

Protect against external exposure, such as

frost

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7.3 Specific end use(s)

See section 16 for a general overview.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

National limit values

Occupational exposure limit values (Workplace Exposure Limits)

No information available.

Relevant DNELs/DMELs/PNECs and other threshold levels

No data available.

8.2 Exposure controls

Appropriate engineering controls

General ventilation.

Individual protection measures (personal protective equipment)

Eye/face protection

Wear eye/face protection.

Skin protection

• hand protection

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. Check leak-tightness/impermeability prior to use. In the case of wanting to use the gloves again, clean them before taking off and air them well. 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.

• other protection measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended. Wash hands thoroughly after handling.

Respiratory protection

In case of inadequate ventilation wear respiratory protection.

Environmental exposure controls

Use appropriate container to avoid environmental contamination. Keep away from drains, surface and ground water.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state liquid

Color white

Odor fresh

Other physical and chemical parameters

pH (value) 6 – 8 (25 °C)

Melting point/freezing point not determined

Initial boiling point and boiling range 100 °C

Flash point not determined
(closed cup)

Evaporation rate not determined

Flammability (solid, gas) not relevant (fluid)

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Explosive limits	not determined
Vapor pressure	31.69 hPa at 25 °C
Density	0.99 – 1.01 g/cm ³
Solubility(ies)	not determined
Partition coefficient	
n-octanol/water (log KOW)	This information is not available.
Auto-ignition temperature	311 °C
Viscosity	not determined
Explosive properties	none
Oxidizing properties	none
	There is no additional information.

SECTION 10: Stability and reactivity

10.1 Reactivity

Concerning incompatibility: see below "Conditions to avoid" and "Incompatible materials".

10.2 Chemical stability

See below "Conditions to avoid".

10.3 Possibility of hazardous reactions

No known hazardous reactions.

10.4 Conditions to avoid

There are no specific conditions known which have to be avoided.

Physical stresses which might result in a hazardous situation and have to be avoided

strong shocks

10.5 Incompatible materials

oxidizers

10.6 Hazardous decomposition products

Reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known. Hazardous combustion products: see section 5.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Test data are not available for the complete mixture.

Classification procedure

The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

Classification acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

Acute toxicity

Shall not be classified as acutely toxic.

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Acute toxicity of components of the mixture

Name of substance	CAS No	Exposure route	ATE
enzymes		oral	569.6 mg/kg
Alcohols, C9-11 ethoxylated	68439-46-3	oral	1,200 mg/kg
Alcohols, C9-11 ethoxylated	68439-46-3	dermal	2,000 mg/kg

Skin corrosion/irritation

Shall not be classified as corrosive/irritant to skin.

Serious eye damage/eye irritation

Causes serious eye irritation.

Respiratory or skin sensitization

Shall not be classified as a respiratory or skin sensitizer.

Summary of evaluation of the CMR properties

Shall not be classified as germ cell mutagenic, carcinogenic nor as a reproductive toxicant.

Carcinogenicity

- National Toxicology Program (United States): none of the ingredients are listed
- IARC Monographs none of the ingredients are listed
- OSHA Carcinogens (United States) none of the ingredients are listed

Specific target organ toxicity (STOT)

Shall not be classified as a specific target organ toxicant.

Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

SECTION 12: Ecological information

12.1 Toxicity

Shall not be classified as hazardous to the aquatic environment.

Aquatic toxicity (acute)

Shall not be classified as hazardous to the aquatic environment.

Aquatic toxicity (acute) of components of the mixture

Name of substance	CAS No	Endpoint	Value	Species	Exposure time
Alcohols, C9-11 ethoxylated	68439-46-3	LC50	7 mg/l	fish	96 h
Alcohols, C9-11 ethoxylated	68439-46-3	EC50	2.5 mg/l	aquatic invertebrates	48 h

12.2 Persistence and degradability

Data are not available.

12.3 Bioaccumulative potential

Data are not available.

Bioaccumulative potential of components of the mixture

Name of substance	CAS No	BCF	Log KOW	BOD5/COD
Alcohols, C9-11 ethoxylated	68439-46-3		3.75	

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12.4 Mobility in soil

Data are not available.

12.5 Results of PBT and vPvB assessment

Data are not available.

12.6 Other adverse effects

Data are not available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Sewage disposal-relevant information

Do not empty into drains. Avoid release to the environment. Refer to special instructions/safety data sheets.

Waste treatment of containers/packages

Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.

Remarks

Please consider the relevant national or regional provisions. Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities.

SECTION 14: Transport information

- | | | |
|------|--|--|
| 14.1 | UN number | (not subject to transport regulations) |
| 14.2 | UN proper shipping name | not relevant |
| 14.3 | Transport hazard class(es)
Class | - |
| 14.4 | Packing group | not relevant |
| 14.5 | Environmental hazards | none (non-environmentally hazardous acc. to the dangerous goods regulations) |
| 14.6 | Special precautions for user
There is no additional information. | |
| 14.7 | Transport in bulk according to Annex II of MARPOL and the IBC Code
The cargo is not intended to be carried in bulk. | |

Information for each of the UN Model Regulations

- **Transport of dangerous goods by road or rail (49 CFR US DOT)**

not subject to transport regulations

- **International Maritime Dangerous Goods Code (IMDG)**

Not subject to IMDG.

- **International Civil Aviation Organization (ICAO-IATA/DGR)**

Not subject to ICAO-IATA.

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SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations specific for the product in question

National regulations (United States)

Toxic Substance Control Act (TSCA)

all ingredients are listed or exempt from listing

Superfund Amendment and Reauthorization Act (SARA TITLE III)

The List of Extremely Hazardous Substances and Their Threshold
Planning Quantities (EPCRA Section 302, 304)

none of the ingredients are listed

Specific Toxic Chemical Listings (EPCRA Section 313)

none of the ingredients are listed

Clean Air Act

none of the ingredients are listed

Drug precursors, Controlled Substances Act (21 U.S.C. § 802)

none of the ingredients are listed

Industry or sector specific available guidance(s)

NPCA-HMIS® III

Hazardous Materials Identification System (American Coatings Association)

Category	Rating	Description
Chronic	/	None.
Health	2	Temporary or minor injury may occur.
Flammability	1	Material that must be preheated before ignition can occur.
Physical hazard	0	Material that is normally stable, even under fire conditions, and will not react with water, polymerize, decompose, condense, or self-react. Non-explosive.
Personal protection	-	

NFPA® 704

National Fire Protection Association: Standard System for the Identification of the Hazards of Materials for Emergency Response (United States)

Category	Degree of hazard	Description
Flammability	1	Material that must be preheated before ignition can occur.
Health	0	Material that, under emergency conditions, would offer no hazard beyond that of ordinary combustible material.
Instability	0	Material that is normally stable, even under fire conditions.
Special hazard		

Proposition 65 List of chemicals

none of the ingredients are listed

Relevant European Union (EU) safety, health and environmental provisions

Classification according to GHS (1272/2008/EC, CLP)

Hazard class

serious eye damage/eye irritation

Category Hazard class and category

1 (Eye Dam. 1)

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National inventories

Country	Inventory	Status
CA	DSL	not all ingredients are listed
EU	REACH Reg.	not all ingredients are listed
US	TSCA	not all ingredients are listed

Legend

DSL Domestic Substances List (DSL).
REACH Reg. REACH registered substances.
TSCA Toxic Substance Control Act.

SECTION 16: Other information, including date of preparation or last revision

16.1 Indication of changes (revised safety data sheet)

Section	Former entry (text/value)	Actual entry (text/value)	Safety-relevant
2.1	Classification acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200): This mixture does not meet the criteria for classification in accordance with Regulation No 1272/2008/EC.	Classification acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200): Annex - Hazard class and category - Hazard statement code(s)	yes
2.1		Classification acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200): change in the listing (table)	yes
2.1		Remarks: For full text of H-phrases: see SECTION 16.	yes
2.2	Labelling acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200): not required	Labelling acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)	yes
2.2		Signal word: warning	yes
2.2		Pictograms	yes
2.2		Pictograms: change in the listing (table)	yes
2.2		Hazard statements	yes
2.2		Hazard statements: change in the listing (table)	yes
2.2		Precautionary statements	yes
2.2		Precautionary statements - prevention	yes
2.2		Precautionary statements - prevention: change in the listing (table)	yes
2.2		Precautionary statements - response	yes
2.2		Precautionary statements - response: change in the listing (table)	yes
3.2		Description of the mixture: change in the listing (table)	yes
5.1	Suitable extinguishing media: water spray, alcohol resistant foam, BC-powder, carbon dioxide (CO ₂)	Suitable extinguishing media: water spray, BC-powder, carbon dioxide (CO ₂)	yes

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Section	Former entry (text/value)	Actual entry (text/value)	Safety-relevant
5.2	Hazardous combustion products: nitrogen oxides (NOx)	Hazardous combustion products: nitrogen oxides (NOx), carbon monoxide (CO), carbon dioxide (CO ₂)	yes
6.4	Reference to other sections: Hazardous combustion products: see section 5. Personal precautions: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.	Reference to other sections: Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.	yes
7.2	Consideration of other advice		yes
7.2	Packaging compatibilities: Only packagings which are approved (e.g. acc. to DOT) may be used.		yes
9.1	Solubility(ies)	Solubility(ies): not determined	yes
9.1	Water solubility: miscible in any proportion		yes
9.1	Auto-ignition temperature: not determined	Auto-ignition temperature: 311 °C	yes
9.1	Oxidizing properties: none	Oxidizing properties: none There is no additional information.	yes
10.5	Incompatible materials: There is no additional information.	Incompatible materials: oxidizers	yes
11.1	Classification acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200): not relevant	Classification acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)	yes
11.1		Acute toxicity of components of the mixture: change in the listing (table)	yes
11.1	Serious eye damage/eye irritation: Shall not be classified as seriously damaging to the eye or eye irritant.	Serious eye damage/eye irritation: Causes serious eye irritation.	yes
11.1		• OSHA Carcinogens (United States): none of the ingredients are listed	yes
12.1	Biodegradation: The relevant substances of the mixture are readily biodegradable.		yes
12.1		Aquatic toxicity (acute) of components of the mixture	yes
12.1		Aquatic toxicity (acute) of components of the mixture: change in the listing (table)	yes
12.3		Bioaccumulative potential of components of the mixture	yes
12.3		Bioaccumulative potential of components of the mixture: change in the listing (table)	yes
14.1	UN number	UN number: (not subject to transport regulations)	yes
14.7		Information for each of the UN Model Regulations	yes
14.7		• Transport of dangerous goods by road or rail (49 CFR US DOT): not subject to transport regulations	yes
14.7		• International Maritime Dangerous Goods Code (IMDG): Not subject to IMDG.	yes

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Section	Former entry (text/value)	Actual entry (text/value)	Safety-relevant
14.7		• International Civil Aviation Organization (ICAO-IATA/DGR): Not subject to ICAO-IATA.	yes
15.1		Clean Air Act: none of the ingredients are listed	yes
15.1		Drug precursors, Controlled Substances Act (21 U.S.C. § 802): none of the ingredients are listed	yes
15.1		NPCA-HMIS® III: change in the listing (table)	yes
15.1	Right to Know Hazardous Substance List: none of the ingredients are listed		yes
15.1		Relevant European Union (EU) safety, health and environmental provisions	yes
15.1		Classification according to GHS (1272/2008/EC, CLP)	yes
15.1		Classification according to GHS (1272/2008/EC, CLP): change in the listing (table)	yes
15.1		National inventories	yes
15.1		National inventories: change in the listing (table)	yes
16.2		Abbreviations and acronyms: change in the listing (table)	yes
16.5		List of relevant phrases (code and full text as stated in chapter 2 and 3): change in the listing (table)	yes

16.2 Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
49 CFR US DOT	49 CFR § 40 U.S. Department of Transportation
Acute Tox.	Acute toxicity
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
BOD	Biochemical Oxygen Demand
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
CLP	Regulation (EC) No 1272/2008 on classification, labeling and packaging of substances and mixtures
CMR	Carcinogenic, Mutagenic or toxic for Reproduction
COD	Chemical oxygen demand
DGR	Dangerous Goods Regulations (see IATA/DGR)
DMEL	Derived Minimal Effect Level
DNEL	Derived No-Effect Level
EC No	The EC Inventory (EINECS, ELINCS and the NLP-list) is the source for the seven-digit EC number, an identifier of substances commercially available within the EU (European Union)
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances

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Abbr.	Descriptions of used abbreviations
Eye Dam.	Seriously damaging to the eye
Eye Irrit.	Irritant to the eye
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
IARC Monographs	IARC Monographs on the Evaluation of Carcinogenic Risks to Humans
IATA	International Air Transport Association
IATA/DGR	Dangerous Goods Regulations (DGR) for the air transport (IATA)
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods Code
log KOW	n-Octanol/water
MARPOL	International Convention for the Prevention of Pollution from Ships (abbr. of "Marine Pollutant")
NFPA® 704	National Fire Protection Association: Standard System for the Identification of the Hazards of Materials for Emergency Response (United States)
NLP	No-Longer Polymer
NPCA-HMIS® III	National Paint and Coatings Association: Hazardous Materials Identification System - HMIS® III, Third Edition
OSHA	Occupational Safety and Health Administration (United States)
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted No-Effect Concentration
Skin Corr.	Corrosive to skin
Skin Irrit.	Irritant to skin
vPvB	Very Persistent and very Bioaccumulative

16.3 Key literature references and sources for data

- OSHA Hazard Communication Standard (HCS), 29 CFR 1910.1200
- 49 CFR § 172.101 Hazardous Materials Table (DOT)

16.4 Classification procedure

Physical and chemical properties: The classification is based on tested mixture.

Health hazards/Environmental hazards: The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

16.5

List of relevant phrases (code and full text as stated in chapter 2 and 3)

Code	Text
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.

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Disclaimer

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.