

Zymit®

Low-Foam Enzyme Cleaner

Date of issue: January 1, 2021

Replaces version of April 1, 2020

SECTION 1: Identification

1.1 Product identifier

Trade name **Zymit®**

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

Relevant identified uses
All-purpose cleaner
Industrial use
Do not use for private purposes (household)

1.3 Details of the supplier of the safety data sheet

International Products Corporation
201 Connecticut Drive
Burlington, NJ
08016
United States
<https://www.ipcol.com/>
+1 6093868770
e-Mail (competent person) tmcguckin@ipcol.com

1.3.1 Additional information

Manufacturer						
Name	Street	Postal code/city	Country	Telephone	e-Mail	Website
International Products Corporation	201 Connecticut Drive	08016 Burlington	United States	1-609-386-8770	mkt@Ipcol.com	www.ipcol.com

1.4 Emergency telephone number

1.4.1 Emergency information service
1-609-386-8770
This number is only available during the following office hours: Mon-Fri 08:00 AM - 04:30 PM, Eastern Time

SECTION 2: Hazard(s) identification

2.1 Classification of the substance or mixture

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

Section	Hazard class	Category	Hazard class and category	Hazard statement
A.2	skin corrosion/irritation	2	Skin Irrit. 2	H315
A.4R	respiratory sensitization	1	Resp. Sens. 1	H334

For full text of abbreviations: see SECTION 16.

2.2 Label elements

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

- Signal word **danger**

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- Pictograms

GHS08



Hazard statements.

H315 Causes skin irritation.
 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

- Precautionary statements

P261 Avoid breathing dust/fume/gas/mist/vapors/spray.
 P280 Wear protective gloves.
 P285 In case of inadequate ventilation wear respiratory protection.
 P302+P352 If on skin: Wash with plenty of water.
 P304+P341 If inhaled: If breathing is difficult, remove person to fresh air and keep comfortable for breathing.
 P321 Specific treatment (see on this label).
 P332+P313 If skin irritation occurs: Get medical advice/attention.
 P342+P311 If experiencing respiratory symptoms: Call a poison center/doctor.
 P362 Take off contaminated clothing and wash it before reuse.

- Hazardous ingredients for labelling Protease (Subtilisin), Alpha-amylase

2.3 Other hazards

Hazards not otherwise classified

Repeated exposure may cause skin dryness or cracking.
 Contains Protease (Subtilisin), Alpha-amylase. May produce an allergic reaction.
 Toxic to aquatic life with long lasting effects (GHS category 2: aquatic toxicity - acute and/or chronic).

Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.


SECTION 3: Composition/information on ingredients

3.1 Substances

Not relevant (mixture)

3.2 Mixtures

Description of the mixture






Name of substance	Identifier	Wt%	Classification acc. to GHS	Pictograms
Propylene Glycol	CAS No 57-55-6	10 – < 25	Acute Tox. 5 / H313	
Methyl-oxirane polymer with oxirane	CAS No 9003-11-6	10 – < 25	Acute Tox. 5 / H303	
Triethanolamine	CAS No 102-71-6	1 – < 5	Acute Tox. 5 / H313	
Glycerin	CAS No 56-81-5	1 – < 5	Acute Tox. 2 / H300	

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Name of substance	Identifier	Wt%	Classification acc. to GHS	Pictograms
Protease (Subtilisin)	CAS No 9014-01-1	0.1 – < 1	Acute Tox. 4 / H302 Skin Irrit. 2 / H315 Eye Dam. 1 / H318 Resp. Sens. 1 / H334 STOT SE 3 / H335 Aquatic Acute 2 / H401 Aquatic Chronic 2 / H411	  
Alpha-amylase	CAS No 9000-90-2	0.1 – < 1	Acute Tox. 4 / H332 Resp. Sens. 1 / H334 Aquatic Acute 3 / H402	 

SECTION 4: First-aid measures

4.1 Description of first-aid measures

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

If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions. In case of respiratory tract irritation, consult a physician. Provide fresh air.

Following skin contact

Wash with plenty of soap and water.

Following ingestion

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

4.2 Most important symptoms and effects, both acute and delayed

Symptoms and effects are not known to date.

4.3 Indication of any immediate medical attention and special treatment needed

none

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 (NOx), Carbon monoxide (CO), Carbon dioxide (CO2)

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5.3 Advice for firefighters

Coordinate 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

Advice 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.

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

- Specific designs for storage rooms or vessels

- Storage temperature

Recommended storage temperature: 2 – 25 °C

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SECTION 8: Exposure controls/personal protection
8.1 Control parameters

Occupational exposure limit values (Workplace Exposure Limits)

Country	Name of agent	CAS No	Identifier	TWA [ppm]	TWA [mg/m³]	STEL [ppm]	STEL [mg/m³]	Ceiling-C [ppm]	Ceiling-C [mg/m³]	Notation	Source
US	triethanolamine	102-71-6	PEL (CA)		5						Cal/ OSHA PEL
US	triethanolamine	102-71-6	TLV®		5						ACGIH® 2019
US	glycerine	56-81-5	REL							mist, appx-D	NIOSH REL
US	glycerol	56-81-5	PEL		15					mist, i	29 CFR 1910.1000
US	glycerol	56-81-5	PEL		5					mist, r	29 CFR 1910.1000
US	enzymes, subtilisin	9014-01-1	TLV®						0.00006	enzym	ACGIH® 2019
US	subtilisin	9014-01-1	PEL (CA)				0.00006			enzym	Cal/ OSHA PEL
US	Subtilisins (Carlsburg)	9014-01-1	REL				0.00006 (60 min)				NIOSH REL

Notation

appx-D	see Appendix D - Substances with No Established RELs
Ceiling-C	ceiling value is a limit value above which exposure should not occur
enzym	calculated as 100 % pure crystalline enzyme
i	inhalable fraction
mist	as mists
r	respirable fraction
STEL	short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute period (unless otherwise specified)
TWA	time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours time-weighted average (unless otherwise specified)

Relevant DNELs of components of the mixture

Name of substance	CAS No	Endpoint	Threshold level	Protection goal, route of exposure	Used in	Exposure time
Glycerin	56-81-5	DNEL	56 mg/m³	human, inhalatory	worker (industry)	chronic - local effects

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Relevant PNECs of components of the mixture						
Name of substance	CAS No	Endpoint	Threshold level	Organism	Environmental compartment	Exposure time
Glycerin	56-81-5	PNEC	0.885 mg/l	aquatic organisms	freshwater	short-term (single instance)
Glycerin	56-81-5	PNEC	0.088 mg/l	aquatic organisms	marine water	short-term (single instance)
Glycerin	56-81-5	PNEC	1,000 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
Glycerin	56-81-5	PNEC	3.3 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
Glycerin	56-81-5	PNEC	0.33 mg/kg	aquatic organisms	marine sediment	short-term (single instance)
Glycerin	56-81-5	PNEC	0.141 mg/kg	terrestrial organisms	soil	short-term (single instance)
Protease (Subtilisin)	9014-01-1	PNEC	1.7 µg/l	aquatic organisms	freshwater	short-term (single instance)
Protease (Subtilisin)	9014-01-1	PNEC	0.17 µg/l	aquatic organisms	marine water	short-term (single instance)
Protease (Subtilisin)	9014-01-1	PNEC	65,000 µg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
Protease (Subtilisin)	9014-01-1	PNEC	568 µg/kg	terrestrial organisms	soil	short-term (single instance)
Alpha-amylase	9000-90-2	PNEC	5.2 µg/l	aquatic organisms	freshwater	short-term (single instance)
Alpha-amylase	9000-90-2	PNEC	0.52 µg/l	aquatic organisms	marine water	short-term (single instance)
Alpha-amylase	9000-90-2	PNEC	65,000 µg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
Alpha-amylase	9000-90-2	PNEC	0.001 mg/kg	terrestrial organisms	soil	short-term (single instance)

8.2 Exposure controls

Appropriate engineering controls

General ventilation.

Individual protection measures (personal protective equipment)

Eye/face protection

Wear eye/face protection.

Skin protection

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- 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	clear-yellow
Odor	characteristic

Other safety parameters

pH (value)	6.9 – 8.4 (25 °C)
Melting point/freezing point	-8 °C
Initial boiling point and boiling range	100 °C
Flash point	not determined
Evaporation rate	not determined
Flammability (solid, gas)	not relevant, (fluid)

Explosive limits

- Lower explosion limit (LEL)	2.7 vol%
- Upper explosion limit (UEL)	19 vol%

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Vapor pressure	20 Pa at 25 °C
Density	1.025 – 1.065 g/cm ³ at 25 °C
Vapor density	this information is not available
Solubility(ies)	not determined

Partition coefficient

- n-octanol/water (log KOW)	this information is not available
Auto-ignition temperature	370 °C (auto-ignition temperature (liquids and gases))

Viscosity

- Kinematic viscosity	9.39 mm ² /s at 25 °C
- Dynamic viscosity	10 mPa s
Explosive properties	none
Oxidizing properties	none

SECTION 10: Stability and reactivity

10.1 Reactivity

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

10.2 Chemical stability

Shelf-life: Two years from the date of manufacture.

10.3 Possibility of hazardous reactions

No known hazardous reactions.

10.4 Conditions to avoid

Do not mix with other chemicals.

10.5 Incompatible materials

Avoid extended contact with uncured paint, zinc, aluminum, cold rolled steel, or copper and its alloys. Avoid contact with polycarbonate, polymethyl methacrylate, and polyphenylene oxide as these plastics may craze over time. Refer to product's compatibility sheets for further details.

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.

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SECTION 11: Toxicological information**11.1 Information on toxicological effects**

Basis of test data.

Classification procedure

The classification is based on tested mixture.

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

Acute toxicity

Shall not be classified as acutely toxic.

Acute toxicity estimate (ATE) of components of the mixture

Name of substance	CAS No	Exposure route	ATE
Glycerin	56-81-5	oral	27 mg/kg
Protease (Subtilisin)	9014-01-1	oral	1,800 mg/kg
Alpha-amylase	9000-90-2	inhalation: vapor	11 mg/l/4h
Alpha-amylase	9000-90-2	inhalation: dust/mist	4.96 mg/l/4h

Skin corrosion/irritation

Causes skin irritation.

Serious eye damage/eye irritation

Shall not be classified as seriously damaging to the eye or eye irritant.

Respiratory or skin sensitization

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

Carcinogenicity

Shall not be classified as carcinogenic.

Reproductive toxicity

Shall not be classified as a reproductive toxicant.

Specific target organ toxicity - single exposure

Shall not be classified as a specific target organ toxicant (single exposure).

Specific target organ toxicity - repeated exposure

Shall not be classified as a specific target organ toxicant (repeated exposure).

Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

Other information

Repeated exposure may cause skin dryness or cracking.

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SECTION 12: Ecological information

12.1 Toxicity

Toxic to aquatic life with long lasting effects.

Aquatic toxicity (acute) of components of the mixture					
Name of substance	CAS No	Endpoint	Value	Species	Exposure time
Glycerin	56-81-5	LC50	54,000 mg/l	fish	96 h
Protease (Subtilisin)	9014-01-1	LC50	14.6 mg/l	fish	96 h
Protease (Subtilisin)	9014-01-1	EC50	1.29 mg/l	aquatic invertebrates	24 h
Protease (Subtilisin)	9014-01-1	ErC50	1.48 mg/l	algae	72 h
Alpha-amylase	9000-90-2	EC50	4,900 mg/l	aquatic invertebrates	24 h
Alpha-amylase	9000-90-2	ErC50	49 mg/l	algae	72 h

Aquatic toxicity (chronic) of components of the mixture					
Name of substance	CAS No	Endpoint	Value	Species	Exposure time
Protease (Subtilisin)	9014-01-1	EC50	0.21 mg/l	fish	32 d

12.2 Persistence and degradability

Data are not available.

12.3 Bioaccumulative potential

Data are not available.

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

Endocrine disrupting potential

None of the ingredients are listed.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Sewage disposal-relevant information

May be disposed according to local, state and federal regulations.

Waste treatment of containers/packages

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

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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 assigned
14.3 Transport hazard class(es)	not assigned
14.4 Packing group	not assigned
14.5 Environmental hazards	non-environmentally hazardous acc. to the dangerous goods regulations
14.6 Special precautions for user	There is no additional information.

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

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

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)

- List of Hazardous Substances and Reportable Quantities (CERCLA section 102a) (40 CFR 302.4)

None of the ingredients are listed.

Clean Air Act

None of the ingredients are listed.

Right to Know Hazardous Substance List

- Hazardous Substance List (NJ-RTK)

Name of substance	CAS No	Remarks	Classifications
Glycerin	56-81-5		

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National inventories

Country	National inventories	Status
EU	REACH Reg.	not all ingredients are listed
US	TSCA	all ingredients are listed

Legend

REACH Reg. REACH registered substances
TSCA Toxic Substance Control Act

15.2 Chemical Safety Assessment

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

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

Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
29 CFR 1910.1000	29 CFR 1910.1000, Tables Z-1, Z-2, Z-3 - Occupational Safety and Health Standards: Toxic and Hazardous Substances (permissible exposure limits)
49 CFR US DOT	49 CFR U.S. Department of Transportation
ACGIH® 2019	From ACGIH®, 2019 TLVs® and BEIs® Book. Copyright 2019. Reprinted with permission. Information on the proper use of the TLVs® and BEIs®: http://www.acgih.org/tlv-bei-guidelines/policies-procedures-presentations/tlv-bei-position-statement
Acute Tox.	Acute toxicity
Aquatic Acute	Hazardous to the aquatic environment - acute hazard
Aquatic Chronic	Hazardous to the aquatic environment - chronic hazard
ATE	Acute Toxicity Estimate
Cal/OSHA PEL	California Division of Occupational Safety and Health (Cal/OSHA): Permissible Exposure Limits (PELs)
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
Ceiling-C	Ceiling value
DGR	Dangerous Goods Regulations (see IATA/DGR)
DNEL	Derived No-Effect Level
EC50	Effective Concentration 50 %. The EC50 corresponds to the concentration of a tested substance causing 50 % changes in response (e.g. on growth) during a specified time interval
ErC50	≡ EC50: in this method, that concentration of test substance which results in a 50 % reduction in either growth (EbC50) or growth rate (ErC50) relative to the control
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
IATA	International Air Transport Association

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Abbr.	Descriptions of used abbreviations
IATA/DGR	Dangerous Goods Regulations (DGR) for the air transport (IATA)
IMDG	International Maritime Dangerous Goods Code
LC50	Lethal Concentration 50%: the LC50 corresponds to the concentration of a tested substance causing 50 % lethality during a specified time interval
NIOSH REL	National Institute for Occupational Safety and Health (NIOSH): Recommended Exposure Limits (RELs)
OSHA	Occupational Safety and Health Administration (United States)
PBT	Persistent, Bioaccumulative and Toxic
PEL	Permissible exposure limit
PNEC	Predicted No-Effect Concentration
ppm	Parts per million
Resp. Sens.	Respiratory sensitization
RTECS	Registry of Toxic Effects of Chemical Substances (database of NIOSH with toxicological information)
Skin Corr.	Corrosive to skin
Skin Irrit.	Irritant to skin
STEL	Short-term exposure limit
STOT SE	Specific target organ toxicity - single exposure
TLV®	Threshold Limit Values
TWA	Time-weighted average
vPvB	Very Persistent and very Bioaccumulative

Key literature references and sources for data

OSHA Hazard Communication Standard (HCS), 29 CFR 1910.1200.

Transport of dangerous goods by road or rail (49 CFR US DOT). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

Classification procedure

The classification is based on tested mixture.

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

Code	Text
H300	Fatal if swallowed.
H302	Harmful if swallowed.
H303	May be harmful if swallowed.
H313	May be harmful in contact with skin.
H315	Causes skin irritation.
H318	Causes serious eye damage.

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Code	Text
H332	Harmful if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
H401	Toxic to aquatic life.
H402	Harmful to aquatic life.
H411	Toxic to aquatic life with long lasting effects.

Disclaimer

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