

08/27/2019

Kit Components

Product code	Description
E1004, E1005	Zymolyase with Zymolyase Storage Buffer
Components:	
E1004-A, E1005-B	Zymolyase (1000U, 2000U)
E1004-B	Zymolyase Storage Buffer



Printing date 08/27/2019 Reviewed on 08/27/2019

1 Identification

- · Product identifier
- · Trade name: Zymolyase (1000U, 2000U)
- · Article number: E1004-A, E1005-B
- · Application of the substance / the mixture Laboratory Reagent
- · Details of the supplier of the safety data sheet
- · *Manufacturer/Supplier:* Zymo Research Corp.

17062 Murphy Ave.

Irvine, CA 92614

USA

Phone: 1-949-679-1190 or 1-888-882-9682

sds@zymoresearch.com

- · Information department: Product safety department
- · Emergency telephone number:

During normal business hours (8 am to 5 pm Pacific Standard Time): +1 (949) 679 1190

2 Hazard(s) identification

- · Classification of the substance or mixture
- The product is not classified, according to the Globally Harmonized System (GHS).
- · Label elements
- · GHS label elements Void
- · Hazard pictograms Void
- · Signal word Void
- · Hazard statements Void
- · Classification system:
- · NFPA ratings (scale 0 4)



Health = 0

Fire = 0 Reactivity = 0

· HMIS-ratings (scale 0 - 4)

HEALTH 0
FIRE 0
REACTIVITY 0

Health = 0

Fire = 0 Reactivity = 0

· Other hazards

- · Results of PBT and vPvB assessment
- · **PBT**: Not applicable.
- · vPvB: Not applicable.



Page 2/8

Safety Data Sheet acc. to OSHA HCS

Reviewed on 08/27/2019 Printing date 08/27/2019

Trade name: Zymolyase (1000U, 2000U)

(Contd. of page 1)

3 Composition/information on ingredients

· Chemical characterization: Mixtures

· Description: Mixture of the substances listed below with nonhazardous additions.

· Dangerous components: Void

4 First-aid measures

- · Description of first aid measures
- · General information: No special measures required.
- · After inhalation: Supply fresh air; consult doctor in case of complaints.
- · After skin contact: Generally the product does not irritate the skin.
- · After eye contact:

Rinse opened eye for several minutes under running water. Then consult a doctor.

Rinse opened eye for several minutes under running water.

· After swallowing:

Do not induce vomiting; immediately call for medical help.

Immediately call a doctor.

Drink copious amounts of water and provide fresh air. Immediately call a doctor.

- · Information for doctor:
- · Most important symptoms and effects, both acute and delayed No further relevant information available.
- · Indication of any immediate medical attention and special treatment needed

No further relevant information available.

5 Fire-fighting measures

- · Extinguishing media
- · Suitable extinguishing agents:

CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

Use fire fighting measures that suit the environment.

- · Advice for firefighters
- · Protective equipment: Wear protective clothing.

6 Accidental release measures

- · Personal precautions, protective equipment and emergency procedures Wear protective clothing.
- *Environmental precautions:* Dilute with plenty of water.
- · Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

· Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

(Contd. on page 3)

Page 3/8

Safety Data Sheet acc. to OSHA HCS

Printing date 08/27/2019 Reviewed on 08/27/2019

Trade name: Zymolyase (1000U, 2000U)

(Contd. of page 2)

· Protective Action Criteria for Chemicals

· PAC-1:

None of the ingredients is listed.

· PAC-2:

None of the ingredients is listed.

· PAC-3:

None of the ingredients is listed.

7 Handling and storage

- · Handling:
- · Precautions for safe handling No special measures required.
- · Information about protection against explosions and fires: No special measures required.
- · Conditions for safe storage, including any incompatibilities
- · Storage:
- · Requirements to be met by storerooms and receptacles: No special requirements.
- · Information about storage in one common storage facility: Not required.
- · Further information about storage conditions: None.
- · Specific end use(s) Laboratory reagent

8 Exposure controls/personal protection

- · Additional information about design of technical systems: No further data; see item 7.
- · Control parameters
- · Components with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

- · Additional information: The lists that were valid during the creation were used as basis.
- · Exposure controls
- · Personal protective equipment:
- · General protective and hygienic measures:

The usual precautionary measures for handling chemicals should be followed.

- · Breathing equipment: Not required.
- · Protection of hands:

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

(Contd. on page 4)





Printing date 08/27/2019 Reviewed on 08/27/2019

Trade name: Zymolyase (1000U, 2000U)

(Contd. of page 3)

· Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

 \cdot *Eye protection:* Goggles recommended during refilling.

T.O T T. T.	
Information on basic physical and	chemical properties
General Information	
Appearance:	Danislan
Form:	Powder
Color:	Light brown
Odor: Odor threshold:	Odorless Not determined.
Oaor threshola:	Not determined.
pH-value:	Not determined.
Change in condition	
Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	Undetermined.
Flash point:	Not applicable.
Flammability (solid, gaseous):	Not applicable.
Decomposition temperature:	Not determined.
Auto igniting:	Product is not selfigniting.
Danger of explosion:	Product does not present an explosion hazard.
Explosion limits:	
Lower:	Not Applicable
Upper:	Not Applicable
Vapor pressure:	Not determined.
Density:	Not determined.
Relative density	Not determined.
Vapor density	Not determined.
Evaporation rate	Not determined.
Solubility in / Miscibility with	
Water:	Fully miscible.
Partition coefficient (n-octanol/wat	(er): Not determined.
Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.

(Contd. on page 5)



Page 5/8

Safety Data Sheet acc. to OSHA HCS

Printing date 08/27/2019 Reviewed on 08/27/2019

Trade name: Zymolyase (1000U, 2000U)

(Contd. of page 4)

	(conta. or page
· Solvent content: VOC content:	0.00 % 0.0 g/l / 0.00 lb/gal
Solids content: · Other information	0.0% No further relevant information available.

10 Stability and reactivity

- · Reactivity No further relevant information available.
- · Chemical stability
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- · Possibility of hazardous reactions No dangerous reactions known.
- · Conditions to avoid No further relevant information available.
- · Incompatible materials: No further relevant information available.
- · Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological information

- · Information on toxicological effects
- · Acute toxicity:
- · Primary irritant effect:
- · on the skin: No irritant effect.
- · on the eye: No irritating effect.
- · Sensitization: No sensitizing effects known.
- · Additional toxicological information:

The product is not subject to classification according to internally approved calculation methods for preparations: When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

- · Carcinogenic categories
- · IARC (International Agency for Research on Cancer)

None of the ingredients is listed.

· NTP (National Toxicology Program)

None of the ingredients is listed.

· OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

12 Ecological information

- · Toxicity
- · Aquatic toxicity: No further relevant information available.
- · Persistence and degradability No further relevant information available.

(Contd. on page 6)

Page 6/8

Safety Data Sheet acc. to OSHA HCS

Printing date 08/27/2019 Reviewed on 08/27/2019

Trade name: Zymolyase (1000U, 2000U)

(Contd. of page 5)

- · Behavior in environmental systems:
- · Bioaccumulative potential No further relevant information available.
- · Mobility in soil No further relevant information available.
- · Additional ecological information:
- · General notes: Not hazardous for water.
- · Results of PBT and vPvB assessment
- · PBT: Not applicable.
- · vPvB: Not applicable.
- · Other adverse effects No further relevant information available.

13 Disposal considerations

- · Waste treatment methods
- · Recommendation: Smaller quantities can be disposed of with household waste.
- · Uncleaned packagings:
- · Recommendation:

Dispose of container in acoordance with local/regional/national and international recommendations.

· Recommended cleansing agent: Water, if necessary with cleansing agents.

4 Transport information		
· UN-Number · DOT, ADN, IMDG, IATA	not regulated	
· UN proper shipping name · DOT, ADN, IMDG, IATA	not regulated	
· Transport hazard class(es)		
· DOT, ADN, IMDG, IATA · Class	not regulated	
· Packing group · DOT, IMDG, IATA	not regulated	
· Environmental hazards:	Not applicable.	
· Special precautions for user	Not applicable.	
· Transport in bulk according to Annex MARPOL73/78 and the IBC Code	II of Not applicable.	
· UN ''Model Regulation'':	not regulated	

US -



Page 7/8

Safety Data Sheet acc. to OSHA HCS

Printing date 08/27/2019 Reviewed on 08/27/2019

Trade name: Zymolyase (1000U, 2000U)

(Contd. of page 6)

15 Regulatory information

- · Safety, health and environmental regulations/legislation specific for the substance or mixture
- · Sara
- · Section 355 (extremely hazardous substances):

None of the ingredients is listed.

· Section 313 (Specific toxic chemical listings):

None of the ingredients is listed.

· TSCA (Toxic Substances Control Act):

None of the ingredients is listed.

· Hazardous Air Pollutants

None of the ingredients is listed.

- · Proposition 65
- · Chemicals known to cause cancer:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

· Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

- · Carcinogenic categories
- · EPA (Environmental Protection Agency)

None of the ingredients is listed.

· TLV (Threshold Limit Value established by ACGIH)

None of the ingredients is listed.

· NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

- · GHS label elements Void
- · Hazard pictograms Void
- · Signal word Void
- · Hazard statements Void
- · Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Department issuing SDS:

Zymo Research Corp.

Safety Department

Page 8/8

Safety Data Sheet acc. to OSHA HCS

Printing date 08/27/2019 Reviewed on 08/27/2019

Trade name: Zymolyase (1000U, 2000U)

(Contd. of page 7)

17062 Murphy Ave. Irvine, CA 92614

USA

Phone: 1-949-679-1190 or 1-888-882-9682

- · Contact: sds@zymoresearch.com
- · Date of preparation / last revision 08/27/2019 / -
- · Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage

of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA) HMIS: Hazardous Materials Identification System (USA) VOC: Volatile Organic Compounds (USA, EU)

PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health TLV: Threshold Limit Value PEL: Permissible Exposure Limit REL: Recommended Exposure Limit



Printing date 08/27/2019 Reviewed on 02/04/2016

1 Identification

- · Product identifier
- · Trade name: Zymolyase Storage Buffer
- · Article number: E1004-B
- · Application of the substance / the mixture Laboratory Reagent
- · Details of the supplier of the safety data sheet
- · *Manufacturer/Supplier:* Zymo Research Corp.

17062 Murphy Ave. Irvine, CA 92614

USA

Phone: 1-949-679-1190 or 1-888-882-9682

sds@zymoresearch.com

- · Information department: Product safety department
- · Emergency telephone number:

During normal business hours (8 am to 5 pm Pacific Standard Time): +1 (949) 679 1190

2 Hazard(s) identification

- · Classification of the substance or mixture
- The product is not classified, according to the Globally Harmonized System (GHS).
- · Label elements
- · GHS label elements Void
- · Hazard pictograms Void
- · Signal word Void
- · Hazard statements Void
- · Classification system:
- · NFPA ratings (scale 0 4)



 $\begin{aligned} & \text{Health} = 0 \\ & \text{Fire} = 0 \end{aligned}$

Reactivity = 0

· HMIS-ratings (scale 0 - 4)

HEALTH 0
FIRE 0
REACTIVITY 0

Health = 0

Fire = 0 Reactivity = 0

- · Other hazards
- · Results of PBT and vPvB assessment
- · **PBT**: Not applicable.
- · vPvB: Not applicable.

Page 2/8

Safety Data Sheet acc. to OSHA HCS

Printing date 08/27/2019 Reviewed on 02/04/2016

Trade name: Zymolyase Storage Buffer

(Contd. of page 1)

3 Composition/information on ingredients

· Chemical characterization: Mixtures

· Description: Mixture of the substances listed below with nonhazardous additions.

· Dangerous components: Void

4 First-aid measures

- · Description of first aid measures
- · General information: No special measures required.
- · After inhalation: Supply fresh air; consult doctor in case of complaints.
- · After skin contact: Generally the product does not irritate the skin.
- · After eye contact:

Rinse opened eye for several minutes under running water. Then consult a doctor.

Rinse opened eye for several minutes under running water.

· After swallowing:

Do not induce vomiting; immediately call for medical help.

Immediately call a doctor.

Drink copious amounts of water and provide fresh air. Immediately call a doctor.

- · Information for doctor:
- · Most important symptoms and effects, both acute and delayed No further relevant information available.
- · Indication of any immediate medical attention and special treatment needed

No further relevant information available.

5 Fire-fighting measures

- · Extinguishing media
- · Suitable extinguishing agents:

CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

Use fire fighting measures that suit the environment.

- · Advice for firefighters
- · Protective equipment: Wear protective clothing.

6 Accidental release measures

- · Personal precautions, protective equipment and emergency procedures Wear protective clothing.
- · Environmental precautions:

Dilute with plenty of water.

Do not allow to enter sewers/ surface or ground water.

- · Methods and material for containment and cleaning up:
- Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- · Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

(Contd. on page 3)

Page 3/8

Safety Data Sheet acc. to OSHA HCS

Printing date 08/27/2019 Reviewed on 02/04/2016

Trade name: Zymolyase Storage Buffer

(Contd. of page 2)

· Protective Action Criteria for Chemicals

· *PAC-1*:

All components have the value 0.6 ppm.

· PAC-2:

All components have the value 3.5 ppm.

· PAC-3:

All components have the value 29 ppm.

7 Handling and storage

- · Handling:
- · Precautions for safe handling No special measures required.
- · Information about protection against explosions and fires: No special measures required.
- · Conditions for safe storage, including any incompatibilities
- · Storage:
- · Requirements to be met by storerooms and receptacles: No special requirements.
- · Information about storage in one common storage facility: Not required.
- · Further information about storage conditions: None.
- · Specific end use(s) Laboratory reagent

8 Exposure controls/personal protection

- · Additional information about design of technical systems: No further data; see item 7.
- · Control parameters
- · Components with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

- · Additional information: The lists that were valid during the creation were used as basis.
- · Exposure controls
- · Personal protective equipment:
- · General protective and hygienic measures:

The usual precautionary measures for handling chemicals should be followed.

- · Breathing equipment: Not required.
- · Protection of hands:

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

(Contd. on page 4)



Printing date 08/27/2019 Reviewed on 02/04/2016

Trade name: Zymolyase Storage Buffer

(Contd. of page 3)

· Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

 \cdot *Eye protection:* Goggles recommended during refilling.

Information on basis physical and	ahamiaal nyanaytias	_
Information on basic physical and General Information	cnemical properties	
Appearance:		
Form:	Liquid	
Color:	Clear	
Odor:	Like rotten eggs (mercaptans)	
Odor threshold:	Not determined.	
pH-value:	Not determined.	
Change in condition		
Melting point/Melting range:	Undetermined.	
Boiling point/Boiling range:	Undetermined.	
Flash point:	Not applicable.	
Flammability (solid, gaseous):	Not applicable.	
Decomposition temperature:	Not determined.	
Auto igniting:	Product is not selfigniting.	
Danger of explosion:	Product does not present an explosion hazard.	
Explosion limits:		
Lower:	Not Applicable	
Upper:	Not Applicable	
Vapor pressure:	Not determined.	
Density:	Not determined.	
Relative density	Not determined.	
Vapor density	Not determined.	
Evaporation rate	Not determined.	
Solubility in / Miscibility with		
Water:	Fully miscible.	
Partition coefficient (n-octanol/wat	ter): Not determined.	
Viscosity:		
Dynamic:	Not determined.	
Kinematic:	Not determined.	

(Contd. on page 5)



Page 5/8

Safety Data Sheet acc. to OSHA HCS

Printing date 08/27/2019 Reviewed on 02/04/2016

Trade name: Zymolyase Storage Buffer

(Contd. of page 4)

	(esima si page
· Solvent content: VOC content:	0.00 % 0.0 g/l / 0.00 lb/gal
Solids content: Other information	0.0% No further relevant information available.

10 Stability and reactivity

- · Reactivity No further relevant information available.
- · Chemical stability
- · Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- · Possibility of hazardous reactions No dangerous reactions known.
- · Conditions to avoid No further relevant information available.
- · Incompatible materials: No further relevant information available.
- · Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological information

- · Information on toxicological effects
- · Acute toxicity:
- · Primary irritant effect:
- · on the skin: No irritant effect.
- · on the eye: No irritating effect.
- · Sensitization: No sensitizing effects known.
- · Additional toxicological information:

The product is not subject to classification according to internally approved calculation methods for preparations: When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

- · Carcinogenic categories
- · IARC (International Agency for Research on Cancer)

None of the ingredients is listed.

· NTP (National Toxicology Program)

None of the ingredients is listed.

· OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

12 Ecological information

- · Toxicity
- · Aquatic toxicity: No further relevant information available.
- · Persistence and degradability No further relevant information available.

(Contd. on page 6)

Page 6/8

Safety Data Sheet acc. to OSHA HCS

Printing date 08/27/2019 Reviewed on 02/04/2016

Trade name: Zymolyase Storage Buffer

(Contd. of page 5)

- · Behavior in environmental systems:
- · Bioaccumulative potential No further relevant information available.
- · Mobility in soil No further relevant information available.
- · Additional ecological information:
- · General notes:

Water hazard class 2 (Self-assessment): hazardous for water

Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.

- · Results of PBT and vPvB assessment
- · PBT: Not applicable.
- · vPvB: Not applicable.
- · Other adverse effects No further relevant information available.

13 Disposal considerations

- · Waste treatment methods
- · Recommendation: Smaller quantities can be disposed of with household waste.
- · Uncleaned packagings:
- · Recommendation:

Dispose of container in acoordance with local/regional/national and international recommendations.

· Recommended cleansing agent: Water, if necessary with cleansing agents.

4 Transport information		
· UN-Number · DOT, ADN, IMDG, IATA	not regulated	
· UN proper shipping name · DOT, ADN, IMDG, IATA	not regulated	
· Transport hazard class(es)		
· DOT, ADN, IMDG, IATA · Class	not regulated	
· Packing group · DOT, IMDG, IATA	not regulated	
· Environmental hazards:	Not applicable.	
· Special precautions for user	Not applicable.	
· Transport in bulk according to Annex MARPOL73/78 and the IBC Code	II of Not applicable.	
· UN ''Model Regulation'':	not regulated	



Page 7/8

Safety Data Sheet acc. to OSHA HCS

Printing date 08/27/2019 Reviewed on 02/04/2016

Trade name: Zymolyase Storage Buffer

(Contd. of page 6)

15 Regulatory information

- · Safety, health and environmental regulations/legislation specific for the substance or mixture
- · Sara
- · Section 355 (extremely hazardous substances):

None of the ingredients is listed.

· Section 313 (Specific toxic chemical listings):

None of the ingredients is listed.

· TSCA (Toxic Substances Control Act):

All components have the value ACTIVE.

· Hazardous Air Pollutants

None of the ingredients is listed.

- · Proposition 65
- · Chemicals known to cause cancer:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

· Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

- · Carcinogenic categories
- · EPA (Environmental Protection Agency)

None of the ingredients is listed.

· TLV (Threshold Limit Value established by ACGIH)

None of the ingredients is listed.

· NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

- · GHS label elements Void
- · Hazard pictograms Void
- · Signal word Void
- · Hazard statements Void
- · Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Department issuing SDS:

Zymo Research Corp.

Safety Department

Page 8/8

Safety Data Sheet acc. to OSHA HCS

Printing date 08/27/2019 Reviewed on 02/04/2016

Trade name: Zymolyase Storage Buffer

(Contd. of page 7)

17062 Murphy Ave. Irvine, CA 92614

USA

Phone: 1-949-679-1190 or 1-888-882-9682

- · Contact: sds@zymoresearch.com
- · Date of preparation / last revision 08/27/2019 / -
- · Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage

of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA) HMIS: Hazardous Materials Identification System (USA)

VOC: Volatile Organic Compounds (USA, EU) PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health TLV: Threshold Limit Value PEL: Permissible Exposure Limit REL: Recommended Exposure Limit