Safety Data Sheet

29 CFR 1910.1200 App D

Dilution Solution

Version number: 3.0
Replaces version of: 2021-07-01 (2)

Revision: 2025-04-07

SECTION 1: Identification

1.1 Product identifier

Trade name	**Dilution Solution**
Alternative name(s)	Alertox Sticks Buffer, GlutenTox PRO, GlutenTox PRO Surface, GlutenTox Pro Surface FAST, GlutenTox Sticks Plus, GlutenTox Sticks Plus for Cube, GlutenTox Home, Alertox Sticks Peanut
Product code(s)	ASY3010/ASY3012/ASY3037/ASY3039/ASY3075/ASY3189/ASY3193/ASY3194/ASY3203/ASY3209/KIT3000/KIT3001/KIT3002/KIT3003/KIT3005/KIT3007/KIT3009/KIT3010/KIT3089/KIT3091/KIT3093/KIT3094

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

Relevant identified uses	Laboratory and analytical use

1.3 Details of the supplier of the safety data sheet

Hygiena USA
941 Avenida Acaso
Camarillo California 93012
United States

Telephone: +1 (805) 388-8007
Telefax: +1 (805) 388-5531
e-mail: info@hygiena.com

e-mail (competent person)	info@hygiena.com

1.4 Emergency telephone number

Emergency information service	1-888-494-4362 This number is only available during the following office hours: Mon-Fri 08:00 AM - 05:00 PM

SECTION 2: Hazard(s) identification

2.1 Classification of the substance or mixture

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

This mixture does not meet the criteria for classification.

2.2 Label elements

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

not required

2.3 Other hazards

Results of PBT and vPvB assessment

Does not contain a PBT-/vPvB-substance at a concentration of ≥ 0.1%.

Endocrine disrupting properties

Does not contain an endocrine disruptor (ED) in a concentration of ≥ 0.1%.

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
Pyrogen Free Water	CAS No 7732-18-5	≥ 90		
Sodium Chloride	CAS No 7647-14-5	1 – < 3		
Tris HCl	CAS No 1185-53-1	1 – < 3		
Tween 20	CAS No 9005-64-5	1 – < 3		
EDTA disodium dihydrate	CAS No 6381-92-6	0.1 – < 1		
Polyvinylpyrrolidone	CAS No 9003-39-8	0.1 – < 1		
sodium hydroxide	CAS No 1310-73-2	0.0001 – < 0.1	Skin Corr. 1A / H314 Eye Dam. 1 / H318	

Remarks

For full text of abbreviations: see SECTION 16

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. Provide fresh air.

Following skin contact

Wash with plenty of soap and water.

Following eye contact

Remove contact lenses, if present and easy to do. Continue rinsing. Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart.

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)

5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. 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 contain a spill

Covering of drains

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.

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

Control of the effects

Protect against external exposure, such as

frost

7.3 Specific end use(s)

See section 16 for a general overview.

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	sodium hydroxide	1310-73-2	REL						2		NIOSH REL
US	sodium hydroxide	1310-73-2	TLV®						2		ACGIH® 2024
US	sodium hydroxide	1310-73-2	PEL		2						29 CFR 1910.1000
US	sodium hydroxide (caustic soda)	1310-73-2	PEL (CA)						2		Cal/OSHA PEL

Notation

Ceiling-C	ceiling value is a limit value above which exposure should not occur
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

Name of substance	CAS No	Endpoint	Threshold level	Protection goal, route of exposure	Used in	Exposure time
Tris HCl	1185-53-1	DNEL	152.8 mg/m³	human, inhalatory	worker (industry)	chronic - systemic effects
Tris HCl	1185-53-1	DNEL	216.6 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
EDTA disodium dihydrate	6381-92-6	DNEL	1.5 mg/m³	human, inhalatory	worker (industry)	chronic - systemic effects
EDTA disodium dihydrate	6381-92-6	DNEL	3 mg/m³	human, inhalatory	worker (industry)	acute - systemic effects
EDTA disodium dihydrate	6381-92-6	DNEL	1.5 mg/m³	human, inhalatory	worker (industry)	chronic - local effects

Relevant DNELs of components						
Name of substance	**CAS No**	**Endpoint**	**Threshold level**	**Protection goal, route of exposure**	**Used in**	**Exposure time**
EDTA disodium dihydrate	6381-92-6	DNEL	3 mg/m³	human, inhalatory	worker (industry)	acute - local effects
sodium hydroxide	1310-73-2	DNEL	1 mg/m³	human, inhalatory	worker (industry)	chronic - local effects

Relevant PNECs of components						
Name of substance	**CAS No**	**Endpoint**	**Threshold level**	**Organism**	**Environmental compartment**	**Exposure time**
Tween 20	9005-64-5	PNEC	0.2 $^{mg}/_{l}$	aquatic organisms	freshwater	short-term (single instance)
Tween 20	9005-64-5	PNEC	0.02 $^{mg}/_{l}$	aquatic organisms	marine water	short-term (single instance)
Tween 20	9005-64-5	PNEC	1.141 $^{mg}/_{kg}$	aquatic organisms	freshwater sediment	short-term (single instance)
Tween 20	9005-64-5	PNEC	1,000 $^{mg}/_{kg}$	aquatic organisms	marine sediment	short-term (single instance)
EDTA disodium dihydrate	6381-92-6	PNEC	2.5 $^{mg}/_{l}$	aquatic organisms	freshwater	short-term (single instance)
EDTA disodium dihydrate	6381-92-6	PNEC	0.25 $^{mg}/_{l}$	aquatic organisms	marine water	short-term (single instance)
EDTA disodium dihydrate	6381-92-6	PNEC	50 $^{mg}/_{l}$	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
EDTA disodium dihydrate	6381-92-6	PNEC	1.1 $^{mg}/_{kg}$	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

- 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	not determined

Particle	not relevant (liquid)

Odor	characteristic

Other safety parameters

pH (value)	not determined
Melting point/freezing point	not determined
Initial boiling point and boiling range	≥225 °C at 1,013 hPa
Flash point	not determined
Evaporation rate	Not determined
Flammability (solid, gas)	not relevant, (fluid)
Vapor pressure	0 Pa at 20 °C
Density	not determined
Vapor density	this information is not available
Relative density	Information on this property is not available
Solubility(ies)	not determined

Partition coefficient

- n-octanol/water (log KOW)	this information is not available
Auto-ignition temperature	not determined
Viscosity	not determined
Explosive properties	none
Oxidizing properties	none

9.2 Other information

Liquid content	94.66 %
Solid content	5.343 %

SECTION 10: Stability and reactivity

10.1 Reactivity

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

10.2 Chemical stability

The material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

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.

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)

This mixture does not meet the criteria for classification.

Acute toxicity

Shall not be classified as acutely toxic.

Skin corrosion/irritation

Shall not be classified as corrosive/irritant to skin.

Serious eye damage/eye irritation

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

Respiratory or skin sensitization

Shall not be classified as a respiratory or skin sensitizer.

Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

Carcinogenicity

Shall not be classified as carcinogenic.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans			
Name of substance	**CAS No**	**Classification**	**Number**
Polyvinylpyrrolidone	9003-39-8	3	

Legend

3 Not classifiable as to carcinogenicity in humans

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.

SECTION 12: Ecological information

12.1 Toxicity

Shall not be classified as hazardous to the aquatic environment.

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

Does not contain a PBT-/vPvB-substance at a concentration of ≥ 0.1%.

12.6 Endocrine disrupting properties

Does not contain an endocrine disruptor (ED) in a concentration of ≥ 0.1%.

12.7 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) — none

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.

14.7 Transport in bulk according to IMO instruments

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) - Additional information

Not subject to transport regulations.

International Maritime Dangerous Goods Code (IMDG) - Additional information

Not subject to IMDG.

International Civil Aviation Organization (ICAO-IATA/DGR) - Additional information

Not subject to ICAO-IATA.

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) — not all ingredients are listed (ACTIVE)

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)

Name of substance	CAS No	Remarks	Statutory code	Final RQ pounds (Kg)
sodium hydroxide	1310-73-2		1	1000 (454)

Legend

1 "1" indicates that the statutory source is section 311(b)(2) of the Clean Water Act

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
sodium hydroxide	1310-73-2		CO R1

Legend

CO	Corrosive
R1	Reactive - First Degree

California Environmental Protection Agency (Cal/EPA): Proposition 65 - Safe Drinking Water and Toxic Enforcement Act of 1987

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	0	no significant risk to health
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		

National inventories

Country	Inventory	Status
AU	AIIC	not all ingredients are listed
CA	DSL	not all ingredients are listed
CN	IECSC	not all ingredients are listed
EU	ECSI	not all ingredients are listed

Country	Inventory	Status
EU	REACH Reg.	not all ingredients are listed
JP	CSCL-ENCS	not all ingredients are listed
KR	KECI	not all ingredients are listed
MX	INSQ	not all ingredients are listed
NZ	NZIoC	not all ingredients are listed
PH	PICCS	not all ingredients are listed
TR	CICR	not all ingredients are listed
TW	TCSI	not all ingredients are listed
US	TSCA	not all ingredients are listed

Legend

AIIC	Australian Inventory of Industrial Chemicals
CICR	Chemical Inventory and Control Regulation
CSCL-ENCS	List of Existing and New Chemical Substances (CSCL-ENCS)
DSL	Domestic Substances List (DSL)
ECSI	EC Substance Inventory (EINECS, ELINCS, NLP)
IECSC	Inventory of Existing Chemical Substances Produced or Imported in China
INSQ	National Inventory of Chemical Substances
KECI	Korea Existing Chemicals Inventory
NZIoC	New Zealand Inventory of Chemicals
PICCS	Philippine Inventory of Chemicals and Chemical Substances (PICCS)
REACH Reg.	REACH registered substances
TCSI	Taiwan Chemical Substance Inventory
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

Indication of changes (revised safety data sheet)

Section	Former entry (text/value)	Actual entry (text/value)	Safety-relevant
1.1	Alternative name(s): Dilution Solution GlutenTox Pro, Dilution Solution GlutenTox Pro Surface, Dilution Solution GlutenTox Pro Surface Fast, Dilution Solution GlutenTox Sticks Plus, Dilution Solution GlutenTox Sticks Plus for Reader, Dilution Solution GlutenTox Home	Alternative name(s): Alertox Sticks Buffer, GlutenTox PRO, GlutenTox PRO Surface, GlutenTox Pro Surface FAST, GlutenTox Sticks Plus, GlutenTox Sticks Plus for Cube, GlutenTox Home, Alertox Sticks Peanut	yes
1.1	Product code(s): ASY3037, ASY3010, ASY3012, ASY3039, ASY3189, ASY3193	Product code(s): ASY3010/ASY3012/ASY3037/ASY3039/ASY3075/ASY3189/ASY3193/ASY3194/ASY3203/ASY3209/KIT3000/KIT3001/KIT3002/KIT3003/KIT3005/KIT3007/KIT3009/KIT3010/KIT3089/KIT3091/KIT3093/KIT3094	yes
2.3	Other hazards: of no significance	Other hazards	yes
2.3		Results of PBT and vPvB assessment: Does not contain a PBT-/vPvB-substance at a con-	yes

Section	Former entry (text/value)	Actual entry (text/value)	Safety-relevant
		centration of ≥ 0.1%.	
2.3		Endocrine disrupting properties: Does not contain an endocrine disruptor (ED) in a concentration of ≥ 0.1%.	yes
3.2		Description of the mixture: change in the listing (table)	yes
3.2		Remarks: For full text of abbreviations: see SECTION 16	yes
8.1		Occupational exposure limit values (Workplace Exposure Limits): change in the listing (table)	yes
12.5	Results of PBT and vPvB assessment: Data are not available.	Results of PBT and vPvB assessment: Does not contain a PBT-/vPvB-substance at a concentration of ≥ 0.1%.	yes
12.6	Endocrine disrupting properties: None of the ingredients are listed.	Endocrine disrupting properties: Does not contain an endocrine disruptor (ED) in a concentration of ≥ 0.1%.	yes
14.3	Transport hazard class(es): not assigned	Transport hazard class(es): none	yes
15.1		Toxic Substance Control Act (TSCA): not all ingredients are listed (ACTIVE)	yes
15.1		National inventories: change in the listing (table)	yes

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® 2024	From ACGIH®, 2024 TLVs® and BEIs® Book. Copyright 2024. 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
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
ED	Endocrine disruptor
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
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

Abbr.	Descriptions of used abbreviations
IARC	International Agency for Research on Cancer
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
NIOSH REL	National Institute for Occupational Safety and Health (NIOSH): Recommended Exposure Limits (RELs)
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
PEL	Permissible exposure limit
PNEC	Predicted No-Effect Concentration
ppm	Parts per million
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
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

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).

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

Code	Text
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.

Disclaimer

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