SAFETY DATA SHEET

Agilent Technologies

ISH Pepsin Kit, Part Number G9411A

SECTION 1: Identification of the substance/mixture and of the company/ undertaking

1.1 Product identifier

Product name : ISH Pepsin Kit, Part Number G9411A

Part no. (chemical kit) : G9411A

Part no. :

Pepsin	5190-7748
Pepsin Diluent (10X)	5190-7749

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

Identified uses : Analytical reagent.

Pepsin	48 ml (2 mg/ml)
Pepsin Diluent (10X)	48 ml

Uses advised against : None known.

1.3 Details of the supplier of the safety data sheet

Agilent Technologies Deutschland GmbH
Hewlett-Packard-Str. 8
76337 Waldbronn
Germany
0800 603 1000

e-mail address of person responsible for this SDS : pdl-msds_author@agilent.com

1.4 Emergency telephone number

Emergency telephone number (with hours of operation) : CHEMTREC®: +(44)-870-8200418

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition :

Pepsin	Mixture
Pepsin Diluent (10X)	Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Pepsin

H226	FLAMMABLE LIQUIDS	Category 3
H317	SKIN SENSITISATION	Category 1
H411	LONG-TERM (CHRONIC) AQUATIC HAZARD	Category 2

Pepsin Diluent (10X)

H225	FLAMMABLE LIQUIDS	Category 2
H315	SKIN CORROSION/IRRITATION	Category 2
H319	SERIOUS EYE DAMAGE/EYE IRRITATION	Category 2
H317	SKIN SENSITISATION	Category 1
H336	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Narcotic effects)	Category 3
H400	SHORT-TERM (ACUTE) AQUATIC HAZARD	Category 1
H410	LONG-TERM (CHRONIC) AQUATIC HAZARD	Category 1

Pepsin	The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.
Pepsin Diluent (10X)	The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

SECTION 2: Hazards identification

Ingredients of unknown toxicity : Pepsin Diluent (10X) — Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 1 - 10%

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2 Label elements

Hazard pictograms : Pepsin

Pepsin Diluent (10X)

Signal word
- Pepsin: Warning
- Pepsin Diluent (10X): Danger

Hazard statements
- Pepsin:
  H226 - Flammable liquid and vapour.
  H317 - May cause an allergic skin reaction.
  H411 - Toxic to aquatic life with long lasting effects.
- Pepsin Diluent (10X):
  H225 - Highly flammable liquid and vapour.
  H315 - Causes skin irritation.
  H317 - May cause an allergic skin reaction.
  H319 - Causes serious eye irritation.
  H336 - May cause drowsiness or dizziness.
  H410 - Very toxic to aquatic life with long lasting effects.

Precautionary statements

Prevention
- Pepsin:
  P280 - Wear protective gloves.
  P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
  P273 - Avoid release to the environment.
  P261 - Avoid breathing vapour.
- Pepsin Diluent (10X):
  P280 - Wear protective gloves. Wear eye or face protection.
  P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
  P273 - Avoid release to the environment.

Response
- Pepsin: P391 - Collect spillage.
- Pepsin Diluent (10X): P391 - Collect spillage.

Storage
- Pepsin: Not applicable.
- Pepsin Diluent (10X): P403 + P233 - Store in a well-ventilated place. Keep container tightly closed.

Disposal
- Pepsin: P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
- Pepsin Diluent (10X): P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

Hazardous ingredients
- Pepsin: - reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1)
- Pepsin Diluent (10X): - propan-2-ol
  - reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1)

Supplemental label elements
- Pepsin: Not applicable.
- Pepsin Diluent (10X): Not applicable.

SECTION 2: Hazards identification

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : Pepsin — Not applicable.
Pepsin Diluent (10X) — Not applicable.

Special packaging requirements

Tactile warning of danger : Pepsin — Not applicable.
Pepsin Diluent (10X) — Not applicable.

2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII : Pepsin — This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
Pepsin Diluent (10X) — This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

Other hazards which do not result in classification : Pepsin — None known.
Pepsin Diluent (10X) — None known.

SECTION 3: Composition/information on ingredients

3.1 Substances : Pepsin — Mixture
Pepsin Diluent (10X) — Mixture

Product/ingredient name	Identifiers	%	Classification	Specific Conc. Limits, M-factors and ATEs	Type
Pepsin					
propan-2-ol	EC: 200-661-7 CAS: 67-63-0 Index: 603-117-00-0	≤10	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336	-	[1] [2]
pepsin A	EC: 232-629-3 CAS: 9001-75-6 Index: 647-008-00-6	≤0.3	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Resp. Sens. 1, H334 STOT SE 3, H335	-	[1]
reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)	CAS: 55965-84-9 Index: 613-167-00-5	<0.1	Acute Tox. 3, H301 Acute Tox. 2, H310 Acute Tox. 2, H330 Skin Corr. 1C, H314 Skin Sens. 1A, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 EUH071	ATE [Oral] = 53 mg/kg ATE [Dermal] = 87.12 mg/kg ATE [Inhalation (vapours)] = 0.5 mg/l Skin Corr. 1C, H314: C ≥ 0.6% Skin Irrit. 2, H315: 0.06% ≤ C < 0.6% Skin Sens. 1, H317: C ≥ 0.0015% M [Acute] = 100 M [Chronic] = 100	[1]
Pepsin Diluent (10X)					
propan-2-ol	EC: 200-661-7 CAS: 67-63-0 Index: 603-117-00-0	≥50 - ≤75	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336	-	[1] [2]

SECTION 3: Composition/information on ingredients

reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)	CAS: 55965-84-9 Index: 613-167-00-5	≤1	Acute Tox. 3, H301 Acute Tox. 2, H310 Acute Tox. 2, H330 Skin Corr. 1C, H314 Skin Sens. 1A, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 EUH071	ATE [Oral] = 53 mg/kg ATE [Dermal] = 87.12 mg/kg ATE [Inhalation (vapours)] = 0.5 mg/l Skin Corr. 1C, H314: C ≥ 0.6% Skin Irrit. 2, H315: 0.06% ≤ C < 0.6% Skin Sens. 1, H317: C ≥ 0.0015% M [Acute] = 100 M [Chronic] = 100	[1]
Dodecan-1-ol, ethoxylated	EC: 500-002-6 CAS: 9002-92-0	<1	Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Aquatic Acute 1, H400 Aquatic Chronic 2, H411 **See Section 16 for the full text of the H statements declared above.**	ATE [Oral] = 1000 mg/kg M [Acute] = 1	[1]

There are no additional ingredients present which, within the current knowledge of the supplier, are classified and contribute to the classification of the substance and hence require reporting in this section.

Type

Pepsin
[1] Substance classified with a health or environmental hazard
[2] Substance with a workplace exposure limit

Pepsin Diluent (10X)
[1] Substance classified with a health or environmental hazard
[2] Substance with a workplace exposure limit

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4: First aid measures

4.1 Description of first aid measures

Eye contact : Pepsin

Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.

Pepsin Diluent (10X)

Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.

Inhalation : Pepsin

Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Pepsin Diluent (10X)

Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide

SECTION 4: First aid measures

			artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Skin contact	:	Pepsin	Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
		Pepsin Diluent (10X)	Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Ingestion	:	Pepsin	Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
		Pepsin Diluent (10X)	Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. If necessary, call a poison center or physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
Protection of first-aiders	:	Pepsin	No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.
		Pepsin Diluent (10X)	No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

SECTION 4: First aid measures

4.2 Most important symptoms and effects, both acute and delayed

Potential acute health effects

Eye contact	:	Pepsin	No known significant effects or critical hazards.
		Pepsin Diluent (10X)	Causes serious eye irritation.
Inhalation	:	Pepsin	No known significant effects or critical hazards.
		Pepsin Diluent (10X)	Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.
Skin contact	:	Pepsin	May cause an allergic skin reaction.
		Pepsin Diluent (10X)	Causes skin irritation. May cause an allergic skin reaction.
Ingestion	:	Pepsin	No known significant effects or critical hazards.
		Pepsin Diluent (10X)	Can cause central nervous system (CNS) depression.

Over-exposure signs/symptoms

Eye contact	:	Pepsin	No specific data.
		Pepsin Diluent (10X)	Adverse symptoms may include the following: pain or irritation watering redness
Inhalation	:	Pepsin	No specific data.
		Pepsin Diluent (10X)	Adverse symptoms may include the following: nausea or vomiting headache drowsiness/fatigue dizziness/vertigo unconsciousness
Skin contact	:	Pepsin	Adverse symptoms may include the following: irritation redness
		Pepsin Diluent (10X)	Adverse symptoms may include the following: irritation redness
Ingestion	:	Pepsin	No specific data.
		Pepsin Diluent (10X)	No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician	:	Pepsin	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
		Pepsin Diluent (10X)	In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Specific treatments	:	Pepsin	No specific treatment.
		Pepsin Diluent (10X)	No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media	:	Pepsin	Use dry chemical, CO_2, water spray (fog) or foam.
		Pepsin Diluent (10X)	Use dry chemical, CO_2, water spray (fog) or foam.
Unsuitable extinguishing media	:	Pepsin	Do not use water jet.
		Pepsin Diluent (10X)	Do not use water jet.

5.2 Special hazards arising from the substance or mixture

SECTION 5: Firefighting measures

Hazards from the substance or mixture	: Pepsin	Flammable liquid and vapour. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. This material is toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
	Pepsin Diluent (10X)	Highly flammable liquid and vapour. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. This material is very toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
Hazardous combustion products	: Pepsin	Decomposition products may include the following materials: carbon dioxide carbon monoxide
	Pepsin Diluent (10X)	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides halogenated compounds

5.3 Advice for firefighters

Special precautions for fire-fighters	: Pepsin	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
	Pepsin Diluent (10X)	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
Special protective equipment for fire-fighters	: Pepsin	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.
	Pepsin Diluent (10X)	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	: Pepsin	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

SECTION 6: Accidental release measures

	Pepsin Diluent (10X)	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
For emergency responders :	Pepsin	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
	Pepsin Diluent (10X)	If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
6.2 Environmental precautions :	Pepsin	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.
	Pepsin Diluent (10X)	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up :	Pepsin	Stop leak if without risk. The spilled material may be neutralized with sodium carbonate, sodium bicarbonate or sodium hydroxide. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor.
	Pepsin Diluent (10X)	Stop leak if without risk. The spilled material may be neutralized with sodium carbonate, sodium bicarbonate or sodium hydroxide. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor.

6.4 Reference to other sections : See Section 1 for emergency contact information.
See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Protective measures :	Pepsin	Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapour or mist. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use.

SECTION 7: Handling and storage

		Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Keep away from alkalis. Empty containers retain product residue and can be hazardous. Do not reuse container.
	Pepsin Diluent (10X)	Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapour or mist. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Keep away from alkalis. Empty containers retain product residue and can be hazardous. Do not reuse container.
Advice on general occupational hygiene :	Pepsin	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
	Pepsin Diluent (10X)	Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

Storage :	Pepsin	Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Eliminate all ignition sources. Separate from alkalis. Separate from oxidising materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.
	Pepsin Diluent (10X)	Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from alkalis. Separate from oxidising materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental

SECTION 7: Handling and storage

contamination. See Section 10 for incompatible materials before handling or use.

Seveso Directive - Reporting thresholds

Danger criteria

Category	Notification and MAPP threshold	Safety report threshold
Pepsin		
P5c	5000 tonne	50000 tonne
E2	200 tonne	500 tonne
Pepsin Diluent (10X)		
P5c	5000 tonne	50000 tonne
E1	100 tonne	200 tonne

7.3 Specific end use(s)

Recommendations	:	Pepsin	Industrial applications, Professional applications.
		Pepsin Diluent (10X)	Industrial applications, Professional applications.
Industrial sector specific solutions	:	Pepsin	Not available.
		Pepsin Diluent (10X)	Not available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

Product/ingredient name	Exposure limit values
Pepsin	
propan-2-ol	**NAOSH (Ireland, 5/2021). Absorbed through skin. Notes: Advisory Occupational Exposure Limit Values (OELVs)** OELV-8hr: 200 ppm 8 hours. OELV-15min: 400 ppm 15 minutes.
Pepsin Diluent (10X)	
propan-2-ol	**NAOSH (Ireland, 5/2021). Absorbed through skin. Notes: Advisory Occupational Exposure Limit Values (OELVs)** OELV-8hr: 200 ppm 8 hours. OELV-15min: 400 ppm 15 minutes.

Biological exposure indices

Product/ingredient name	Exposure indices
Pepsin	
propan-2-ol	**NAOSH (Ireland, 1/2011)** BMGV: 40 mg/l, acetone [in urine]. Sampling time: end of shift at end of workweek.
Pepsin Diluent (10X)	
propan-2-ol	**NAOSH (Ireland, 1/2011)** BMGV: 40 mg/l, acetone [in urine]. Sampling time: end of shift at end of workweek.

SECTION 8: Exposure controls/personal protection

Recommended monitoring procedures : Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

Product/ingredient name	Type	Exposure	Value	Population	Effects
Pepsin					
propan-2-ol	DNEL	Long term Oral	26 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	89 mg/m³	General population	Systemic
	DNEL	Long term Dermal	319 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	500 mg/m³	Workers	Systemic
	DNEL	Long term Dermal	888 mg/kg bw/day	Workers	Systemic
reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)	DNEL	Long term Inhalation	0.02 mg/m³	General population	Local
	DNEL	Long term Inhalation	0.02 mg/m³	Workers	Local
	DNEL	Short term Inhalation	0.04 mg/m³	General population	Local
	DNEL	Short term Inhalation	0.04 mg/m³	Workers	Local
	DNEL	Long term Oral	0.09 mg/kg bw/day	General population	Systemic
	DNEL	Short term Oral	0.11 mg/kg bw/day	General population	Systemic
Pepsin Diluent (10X)					
propan-2-ol	DNEL	Long term Oral	26 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	89 mg/m³	General population	Systemic
	DNEL	Long term Dermal	319 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	500 mg/m³	Workers	Systemic
	DNEL	Long term Dermal	888 mg/kg bw/day	Workers	Systemic
reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)	DNEL	Long term Inhalation	0.02 mg/m³	General population	Local
	DNEL	Long term Inhalation	0.02 mg/m³	Workers	Local
	DNEL	Short term Inhalation	0.04 mg/m³	General population	Local
	DNEL	Short term Inhalation	0.04 mg/m³	Workers	Local
	DNEL	Long term Oral	0.09 mg/kg bw/day	General population	Systemic
	DNEL	Short term Oral	0.11 mg/kg bw/day	General population	Systemic
Dodecan-1-ol, ethoxylated	DNEL	Long term Oral	0.5 mg/kg	General	Systemic

SECTION 8: Exposure controls/personal protection

			bw/day	population	
	DNEL	Long term Dermal	0.5 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	0.87 mg/m³	General population	Systemic
	DNEL	Long term Dermal	1.4 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	4.93 mg/m³	Workers	Systemic

PNECs

No PNECs available

8.2 Exposure controls

Appropriate engineering controls : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

9.1 Information on basic physical and chemical properties

Appearance

Physical state : Pepsin — Liquid.
Pepsin Diluent (10X) — Liquid.

Colour : Pepsin — Not available.
Pepsin Diluent (10X) — Not available.

Odour : Pepsin — Not available.
Pepsin Diluent (10X) — Not available.

Odour threshold : Pepsin — Not available.
Pepsin Diluent (10X) — Not available.

Melting point/freezing point : Pepsin — Not available.
Pepsin Diluent (10X) — Not available.

Initial boiling point and boiling range : Pepsin — Not available.
Pepsin Diluent (10X) — Not available.

Flammability : Pepsin — Not applicable.
Pepsin Diluent (10X) — Not applicable.

Upper/lower flammability or explosive limits : Pepsin — Not available.
Pepsin Diluent (10X) — Not available.

Flash point : Pepsin — Closed cup: 37.8 to 61°C
Pepsin Diluent (10X) — Closed cup: -18 to 23°C

Auto-ignition temperature :

Ingredient name	°C	Method
Pepsin		
Propan-2-ol	456	
Pepsin Diluent (10X)		
Propan-2-ol	456	

Decomposition temperature : Pepsin — Not available.
Pepsin Diluent (10X) — Not available.

pH : Pepsin — 2
Pepsin Diluent (10X) — 2

Viscosity : Pepsin — Not available.
Pepsin Diluent (10X) — Not available.

Solubility(ies) :

Media	Result
Pepsin	
water	Soluble
Pepsin Diluent (10X)	
water	Soluble

Partition coefficient: n-octanol/water : Pepsin — Not applicable.
Pepsin Diluent (10X) — Not applicable.

Vapour pressure :

Ingredient name	Vapour Pressure at 20°C			Vapour pressure at 50°C		
	mm Hg	kPa	Method	mm Hg	kPa	Method
Pepsin						
Propan-2-ol	33	4.4		177	23.6	
water	23.8	3.2		92.258	12.3	
Pepsin Diluent						

SECTION 9: Physical and chemical properties

(10X)						
Propan-2-ol	33	4.4		177	23.6	
water	23.8	3.2		92.258	12.3	

Evaporation rate : Pepsin — Not available.
Pepsin Diluent (10X) — Not available.

Relative density : Pepsin — Not available.
Pepsin Diluent (10X) — Not available.

Vapour density : Pepsin — Not available.
Pepsin Diluent (10X) — Not available.

Explosive properties : Pepsin — Not available.
Pepsin Diluent (10X) — Not available.

Oxidising properties : Pepsin — Not available.
Pepsin Diluent (10X) — Not available.

Particle characteristics

Median particle size : Pepsin — Not applicable.
Pepsin Diluent (10X) — Not applicable.

9.2 Other information

No additional information.

SECTION 10: Stability and reactivity

10.1 Reactivity : Pepsin — No specific test data related to reactivity available for this product or its ingredients.
Pepsin Diluent (10X) — No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability : Pepsin — The product is stable.
Pepsin Diluent (10X) — The product is stable.

10.3 Possibility of hazardous reactions : Pepsin — Under normal conditions of storage and use, hazardous reactions will not occur.
Pepsin Diluent (10X) — Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions to avoid : Pepsin — Avoid all possible sources of ignition (spark or flame). Do not pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.
Pepsin Diluent (10X) — Avoid all possible sources of ignition (spark or flame). Do not pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.

10.5 Incompatible materials : Pepsin — Attacks many metals producing extremely flammable hydrogen gas which can form explosive mixtures with air.
Reactive or incompatible with the following materials:
alkalis
oxidising materials
Pepsin Diluent (10X) — Attacks many metals producing extremely flammable hydrogen gas which can form explosive mixtures with air.
Reactive or incompatible with the following materials:
alkalis
oxidising materials

SECTION 10: Stability and reactivity

10.6 Hazardous decomposition products	:	Pepsin	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
		Pepsin Diluent (10X)	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Pepsin				
propan-2-ol	LD50 Dermal	Rabbit	12800 mg/kg	-
	LD50 Oral	Rat	5000 mg/kg	-
reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)	LC50 Inhalation Vapour	Rat	0.33 mg/l	4 hours
	LD50 Dermal	Rabbit	87.12 mg/kg	-
	LD50 Oral	Rat	53 mg/kg	-
Pepsin Diluent (10X)				
propan-2-ol	LD50 Dermal	Rabbit	12800 mg/kg	-
	LD50 Oral	Rat	5000 mg/kg	-
reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)	LC50 Inhalation Vapour	Rat	0.33 mg/l	4 hours
	LD50 Dermal	Rabbit	87.12 mg/kg	-
	LD50 Oral	Rat	53 mg/kg	-
Dodecan-1-ol, ethoxylated	LD50 Dermal	Rat - Male, Female	>2000 mg/kg	-
	LD50 Oral	Rat - Female	1000 mg/kg	-

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
Pepsin					
propan-2-ol	5000	12800	N/A	72.2	N/A
reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)	53	87.12	N/A	0.5	N/A
Pepsin Diluent (10X)					
Pepsin Diluent (10X)	10600.0	17424.0	N/A	100	N/A
propan-2-ol	5000	12800	N/A	72.2	N/A
reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)	53	87.12	N/A	0.5	N/A
Dodecan-1-ol, ethoxylated	1000	N/A	N/A	N/A	N/A

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Pepsin					
propan-2-ol	Eyes - Moderate irritant	Rabbit	-	10 mg	-
	Eyes - Moderate irritant	Rabbit	-	24 hours 100 mg	-
	Skin - Mild irritant	Rabbit	-	500 mg	-
Pepsin Diluent (10X)					
propan-2-ol	Eyes - Moderate irritant	Rabbit	-	10 mg	-
	Eyes - Moderate irritant	Rabbit	-	24 hours 100	-

SECTION 11: Toxicological information

Dodecan-1-ol, ethoxylated	Skin - Mild irritant Eyes - Severe irritant Skin - Mild irritant Skin - Moderate irritant	Rabbit Rabbit Rabbit Rabbit	- - - -	mg 500 mg 24 hours 750 ug 24 hours 500 mg 24 hours 500 mg	- - - -

Sensitiser

Conclusion/Summary : Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
Pepsin			
propan-2-ol	Category 3	-	Narcotic effects
pepsin A	Category 3	-	Respiratory tract irritation
Pepsin Diluent (10X)			
propan-2-ol	Category 3	-	Narcotic effects

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on likely routes of exposure : Pepsin — Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.
Pepsin Diluent (10X) — Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.

Potential acute health effects

Inhalation : Pepsin — No known significant effects or critical hazards.
Pepsin Diluent (10X) — Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.

Ingestion : Pepsin — No known significant effects or critical hazards.
Pepsin Diluent (10X) — Can cause central nervous system (CNS) depression.

Skin contact : Pepsin — May cause an allergic skin reaction.
Pepsin Diluent (10X) — Causes skin irritation. May cause an allergic skin reaction.

Eye contact : Pepsin — No known significant effects or critical hazards.
Pepsin Diluent (10X) — Causes serious eye irritation.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation : Pepsin — No specific data.
Pepsin Diluent (10X) — Adverse symptoms may include the following:
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness

SECTION 11: Toxicological information

Ingestion	:	Pepsin	No specific data.
		Pepsin Diluent (10X)	No specific data.
Skin contact	:	Pepsin	Adverse symptoms may include the following: irritation redness
		Pepsin Diluent (10X)	Adverse symptoms may include the following: irritation redness
Eye contact	:	Pepsin	No specific data.
		Pepsin Diluent (10X)	Adverse symptoms may include the following: pain or irritation watering redness

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

General	:	Pepsin	Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
		Pepsin Diluent (10X)	Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
Carcinogenicity	:	Pepsin	No known significant effects or critical hazards.
		Pepsin Diluent (10X)	No known significant effects or critical hazards.
Mutagenicity	:	Pepsin	No known significant effects or critical hazards.
		Pepsin Diluent (10X)	No known significant effects or critical hazards.
Reproductive toxicity	:	Pepsin	No known significant effects or critical hazards.
		Pepsin Diluent (10X)	No known significant effects or critical hazards.

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties

Not available.

11.2.2 Other information

Pepsin	Adverse symptoms may include the following: Repeated exposure may cause skin dryness or cracking.
Pepsin Diluent (10X)	Not available.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
Pepsin			
propan-2-ol	Acute EC50 7550 mg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 1400000 µg/l Marine water	Crustaceans - Crangon crangon	48 hours
	Acute LC50 4200 mg/l Fresh water	Fish - Rasbora heteromorpha	96 hours
reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-	Acute LC50 0.16 mg/l Fresh water	Daphnia	48 hours

SECTION 12: Ecological information

3-one (3:1)			
	Acute LC50 0.19 mg/l Fresh water	Fish	96 hours
	Chronic NOEC >0.0464 mg/l Fresh water	Fish	96 hours
Pepsin Diluent (10X)			
propan-2-ol	Acute EC50 7550 mg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 1400000 µg/l Marine water	Crustaceans - Crangon crangon	48 hours
	Acute LC50 4200 mg/l Fresh water	Fish - Rasbora heteromorpha	96 hours
reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)	Acute LC50 0.16 mg/l Fresh water	Daphnia	48 hours
	Acute LC50 0.19 mg/l Fresh water	Fish	96 hours
	Chronic NOEC >0.0464 mg/l Fresh water	Fish	96 hours
Dodecan-1-ol, ethoxylated	Acute LC50 6460 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 1500 µg/l Fresh water	Fish - Salmo salar - Parr	96 hours

12.2 Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
Pepsin				
reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)	OECD 301B Ready Biodegradability - CO2 Evolution Test	62 % - Readily - 28 days	-	-
Pepsin Diluent (10X)				
reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)	OECD 301B Ready Biodegradability - CO2 Evolution Test	62 % - Readily - 28 days	-	-

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Pepsin			
propan-2-ol	-	-	Readily
reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)	-	-	Readily
Pepsin Diluent (10X)			
propan-2-ol	-	-	Readily
reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)	-	-	Readily

12.3 Bioaccumulative potential

SECTION 12: Ecological information

Product/ingredient name	$LogP_{ow}$	BCF	Potential
Pepsin			
propan-2-ol	0.05	-	low
reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)	0.326	-	low
Pepsin Diluent (10X)			
propan-2-ol	0.05	-	low
reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)	0.326	-	low

12.4 Mobility in soil

Soil/water partition coefficient (K_{OC}) : Not available.

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

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

12.6 Endocrine disrupting properties

Not available.

12.7 Other adverse effects

No known significant effects or critical hazards.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

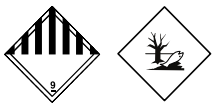
Hazardous waste : The classification of the product may meet the criteria for a hazardous waste.

Packaging

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Special precautions : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR/RID	IMDG	IATA
14.1 UN number or ID number	UN3316	UN3316	UN3316
14.2 UN proper shipping name	CHEMICAL KIT	CHEMICAL KIT	Chemical kit
14.3 Transport hazard class(es)	9 	9 	9 
14.4 Packing group	II	II	II
14.5 Environmental hazards	Yes.	Yes.	Yes. The environmentally hazardous substance mark is not required.

Additional information

ADR/RID : The environmentally hazardous substance mark is not required when transported in sizes of ≤5 L or ≤5 kg.
Hazard identification number 90
Limited quantity See SP 251
Special provisions 251, 340, 671
Tunnel code (E)

IMDG : The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg.
Emergency schedules F-A, _S-P_
Special provisions 251, 340

IATA : The environmentally hazardous substance mark may appear if required by other transportation regulations.
Quantity limitation Passenger and Cargo Aircraft: 10 kg. Packaging instructions: 960. Cargo Aircraft Only: 10 kg. Packaging instructions: 960. Limited Quantities - Passenger Aircraft: 1 kg. Packaging instructions: Y960.
Special provisions A44, A163

14.6 Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

14.7 Transport in bulk according to IMO instruments : Not available.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorisation

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

Not listed.

SECTION 15: Regulatory information

Label	:	Pepsin	Not applicable.
		Pepsin Diluent (10X)	Not applicable.

Other EU regulations

Ozone depleting substances (1005/2009/EU)

Not listed.

Prior Informed Consent (PIC) (649/2012/EU)

Not listed.

Persistent Organic Pollutants

Not listed.

Seveso Directive

This product is controlled under the Seveso Directive.

Danger criteria

Category
Pepsin P5c E2 **Pepsin Diluent (10X)** P5c E1

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

Australia	:	Not determined.
Canada	:	All components are listed or exempted.
China	:	All components are listed or exempted.
Eurasian Economic Union	:	**Russian Federation inventory**: All components are listed or exempted.
Japan	:	**Japan inventory (CSCL)**: Not determined. **Japan inventory (ISHL)**: Not determined.
New Zealand	:	All components are listed or exempted.
Philippines	:	All components are listed or exempted.
Republic of Korea	:	All components are listed or exempted.
Taiwan	:	All components are listed or exempted.
Thailand	:	Not determined.
Turkey	:	Not determined.
United States	:	Not determined.
Viet Nam	:	All components are listed or exempted.

SECTION 15: Regulatory information

15.2 Chemical safety assessment : This product contains substances for which Chemical Safety Assessments might still be required.

SECTION 16: Other information

Indicates information that has changed from previously issued version.

Abbreviations and acronyms : ATE = Acute Toxicity Estimate
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
DMEL = Derived Minimal Effect Level
DNEL = Derived No Effect Level
EUH statement = CLP-specific Hazard statement
N/A = Not available
PBT = Persistent, Bioaccumulative and Toxic
PNEC = Predicted No Effect Concentration
RRN = REACH Registration Number
vPvB = Very Persistent and Very Bioaccumulative

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Pepsin	
Flam. Liq. 3, H226	On basis of test data
Skin Sens. 1, H317	Calculation method
Aquatic Chronic 2, H411	Calculation method
Pepsin Diluent (10X)	
Flam. Liq. 2, H225	On basis of test data
Skin Irrit. 2, H315	Expert judgment
Eye Irrit. 2, H319	Expert judgment
Skin Sens. 1, H317	Calculation method
STOT SE 3, H336	Calculation method
Aquatic Acute 1, H400	Calculation method
Aquatic Chronic 1, H410	Calculation method

Full text of abbreviated H statements

Pepsin	
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H301	Toxic if swallowed.
H310	Fatal in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
EUH071	Corrosive to the respiratory tract.
Pepsin Diluent (10X)	
H225	Highly flammable liquid and vapour.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H310	Fatal in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.

SECTION 16: Other information

H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H336	May cause drowsiness or dizziness.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
EUH071	Corrosive to the respiratory tract.

Full text of classifications [CLP/GHS]

Pepsin	
Acute Tox. 2	ACUTE TOXICITY - Category 2
Acute Tox. 3	ACUTE TOXICITY - Category 3
Aquatic Acute 1	SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1
Aquatic Chronic 1	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1
Aquatic Chronic 2	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2
Eye Irrit. 2	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2
Flam. Liq. 2	FLAMMABLE LIQUIDS - Category 2
Flam. Liq. 3	FLAMMABLE LIQUIDS - Category 3
Resp. Sens. 1	RESPIRATORY SENSITISATION - Category 1
Skin Corr. 1C	SKIN CORROSION/IRRITATION - Category 1C
Skin Irrit. 2	SKIN CORROSION/IRRITATION - Category 2
Skin Sens. 1	SKIN SENSITISATION - Category 1
Skin Sens. 1A	SKIN SENSITISATION - Category 1A
STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 3
Pepsin Diluent (10X)	
Acute Tox. 2	ACUTE TOXICITY - Category 2
Acute Tox. 3	ACUTE TOXICITY - Category 3
Acute Tox. 4	ACUTE TOXICITY - Category 4
Aquatic Acute 1	SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1
Aquatic Chronic 1	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1
Aquatic Chronic 2	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2
Eye Irrit. 2	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2
Flam. Liq. 2	FLAMMABLE LIQUIDS - Category 2
Skin Corr. 1C	SKIN CORROSION/IRRITATION - Category 1C
Skin Irrit. 2	SKIN CORROSION/IRRITATION - Category 2
Skin Sens. 1	SKIN SENSITISATION - Category 1
Skin Sens. 1A	SKIN SENSITISATION - Category 1A
STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 3

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Notice to reader

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