(2012 OSHA Hazard Communication Standard (29 CFR 1910.1200))

SAFETY DATA SHEET

SIEMENS

M248 Wash Pack

MSDS no. 473497

Section 1. Identification

GHS product identifier : M248 Wash Pack

Product code : 473497, 02436114, 10310997

Other means of identification :

Electrode Conditioning Unit Dose Container	00156067H
ISE Deproteinising UDC	00156087M
57mg Pepsin Vial	00156137E
M248 Wash Solution	00156690J

Product type : Liquid.

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

Not applicable.

Manufactured/supplied :

Siemens Healthcare Diagnostics Inc.
511 Benedict Avenue
Tarrytown, NY 10591-5097 USA
1-877-229-3711

(800) 424-9300 (CHEMTREC) (24/365)

Section 2. Hazards identification

OSHA/HCS status :

Electrode Conditioning Unit Dose Container	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
ISE Deproteinising UDC	This material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
57mg Pepsin Vial	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
M248 Wash Solution	This material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture :

Electrode Conditioning Unit Dose Container	SKIN CORROSION/IRRITATION - Category 2 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2
ISE Deproteinising UDC	Not classified.
57mg Pepsin Vial	SKIN CORROSION/IRRITATION - Category 2 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2 RESPIRATORY SENSITIZATION - Category 1
M248 Wash Solution	Not classified.

Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 3.2%

GHS label elements

Hazard pictograms :

Section 2. Hazards identification

Signal word	:	Electrode Conditioning Unit Dose Container	Warning
		ISE Deproteinising UDC	No signal word.
		57mg Pepsin Vial	Danger
		M248 Wash Solution	No signal word.
Hazard statements	:	Electrode Conditioning Unit Dose Container	H319 - Causes serious eye irritation. H315 - Causes skin irritation.
		ISE Deproteinising UDC	No known significant effects or critical hazards.
		57mg Pepsin Vial	H319 - Causes serious eye irritation. H315 - Causes skin irritation. H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled.
		M248 Wash Solution	No known significant effects or critical hazards.
Precautionary statements			
Prevention	:	Electrode Conditioning Unit Dose Container	P264 - Wash hands thoroughly after handling. P280 - Wear protective gloves/protective clothing/eye protection/face protection.
		ISE Deproteinising UDC	Not applicable.
		57mg Pepsin Vial	P264 - Wash hands thoroughly after handling. P261 - Avoid breathing dust. P280 - Wear protective gloves/protective clothing/eye protection/face protection.
		M248 Wash Solution	P272 - Contaminated work clothing should not be allowed out of the workplace. P280 - Wear protective gloves/protective clothing/eye protection/face protection.
Response	:	Electrode Conditioning Unit Dose Container	P302 + P352 + P362-2 + P363 - IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing. Wash contaminated clothing before reuse. P332 + P313 - If skin irritation occurs: Get medical attention. P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313 - If eye irritation persists: Get medical attention.
		ISE Deproteinising UDC	Not applicable.
		57mg Pepsin Vial	P304 + P341 - IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. P342 + P311 - If experiencing respiratory symptoms: Call a POISON CENTER or physician. P302 + P352 + P362-2 + P363 - IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing. Wash contaminated clothing before reuse. P332 + P313 - If skin irritation occurs: Get medical attention. P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313 - If eye irritation persists: Get medical attention.
		M248 Wash Solution	Not applicable.

Section 2. Hazards identification

Storage	:	Electrode Conditioning Unit Dose Container	Not applicable.
		ISE Deproteinising UDC	Not applicable.
		57mg Pepsin Vial	Not applicable.
		M248 Wash Solution	Not applicable.
Disposal	:	Electrode Conditioning Unit Dose Container	Not applicable.
		ISE Deproteinising UDC	Not applicable.
		57mg Pepsin Vial	P501 - Dispose of contents and container in accordance with all local, regional, and national regulations.
		M248 Wash Solution	Not applicable.
Supplemental label elements	:	Electrode Conditioning Unit Dose Container	None known.
		ISE Deproteinising UDC	None known.
		57mg Pepsin Vial	None known.
		M248 Wash Solution	None known.
Hazards not otherwise classified	:	Electrode Conditioning Unit Dose Container	None known.
		ISE Deproteinising UDC	None known.
		57mg Pepsin Vial	None known.
		M248 Wash Solution	None known.

Section 3. Composition/information on ingredients

Substance/mixture	:	Electrode Conditioning Unit Dose Container	Mixture
		ISE Deproteinising UDC	Mixture
		57mg Pepsin Vial	Mixture
		M248 Wash Solution	Mixture

Ingredient name	%	CAS number
Electrode Conditioning Unit Dose Container		
ammonium bifluoride	0.5704	1341-49-7
57mg Pepsin Vial		
pepsin A	13	9001-75-6

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

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

Section 4. First aid measures

Description of necessary first aid measures

Eye contact	:	Electrode Conditioning Unit Dose Container	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.
		ISE Deproteinising UDC	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
		57mg Pepsin Vial	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.
		M248 Wash Solution	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.

Section 4. First aid measures

Inhalation	:	Electrode Conditioning Unit Dose Container	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.
		ISE Deproteinising UDC	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
		57mg Pepsin Vial	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 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 the event of any complaints or symptoms, avoid further exposure.
		M248 Wash Solution	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
Skin contact	:	Electrode Conditioning Unit Dose Container	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.
		ISE Deproteinising UDC	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
		57mg Pepsin Vial	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.
		M248 Wash Solution	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

Section 4. First aid measures

Ingestion	:	Electrode Conditioning Unit Dose Container	Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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.
		ISE Deproteinising UDC	Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
		57mg Pepsin Vial	Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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.
		M248 Wash Solution	Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Section 4. First aid measures

Eye contact	:	Electrode Conditioning Unit Dose Container	Causes serious eye irritation.
		ISE Deproteinising UDC	No known significant effects or critical hazards.
		57mg Pepsin Vial	Causes serious eye irritation.
		M248 Wash Solution	No known significant effects or critical hazards.
Inhalation	:	Electrode Conditioning Unit Dose Container	No known significant effects or critical hazards.
		ISE Deproteinising UDC	No known significant effects or critical hazards.
		57mg Pepsin Vial	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
		M248 Wash Solution	No known significant effects or critical hazards.
Skin contact	:	Electrode Conditioning Unit Dose Container	Causes skin irritation.
		ISE Deproteinising UDC	No known significant effects or critical hazards.
		57mg Pepsin Vial	Causes skin irritation.
		M248 Wash Solution	No known significant effects or critical hazards.
Ingestion	:	Electrode Conditioning Unit Dose Container	Irritating to mouth, throat and stomach.
		ISE Deproteinising UDC	No known significant effects or critical hazards.
		57mg Pepsin Vial	Irritating to mouth, throat and stomach.
		M248 Wash Solution	No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact	:	Electrode Conditioning Unit Dose Container	Adverse symptoms may include the following: pain or irritation watering redness
		ISE Deproteinising UDC	No specific data.
		57mg Pepsin Vial	Adverse symptoms may include the following: pain or irritation watering redness
		M248 Wash Solution	No specific data.
Inhalation	:	Electrode Conditioning Unit Dose Container	No specific data.
		ISE Deproteinising UDC	No specific data.
		57mg Pepsin Vial	Adverse symptoms may include the following: wheezing and breathing difficulties asthma
		M248 Wash Solution	No specific data.
Skin contact	:	Electrode Conditioning Unit Dose Container	Adverse symptoms may include the following: irritation redness
		ISE Deproteinising UDC	No specific data.
		57mg Pepsin Vial	Adverse symptoms may include the following: irritation redness
		M248 Wash Solution	No specific data.
Ingestion	:	Electrode Conditioning Unit Dose Container	No specific data.
		ISE Deproteinising UDC	No specific data.
		57mg Pepsin Vial	No specific data.
		M248 Wash Solution	No specific data.

Section 4. First aid measures

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments : No specific treatment.

Protection of first-aiders : 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.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : In case of fire, use water spray (fog), foam or dry chemical.

Unsuitable extinguishing media : None known.

Specific hazards arising from the chemical : In a fire or if heated, a pressure increase will occur and the container may burst.

Hazardous thermal decomposition products : No specific data.

Special protective actions for fire-fighters : 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.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : 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 spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : 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".

Environmental precautions : Avoid dispersal of spilled 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).

Methods and materials for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Section 6. Accidental release measures

Large spill : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Persons with a history of asthma, allergies or chronic or recurrent respiratory disease 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 vapor or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene : 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.

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. 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. 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 unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Electrode Conditioning Unit Dose Container ammonium bifluoride	**OSHA PEL Z2 (United States, 2/2013).** TWA: 2.5 mg/m³ 8 hours. Form: Dust **ACGIH TLV (United States, 6/2013). Notes: as F** TWA: 2.5 mg/m³, (as F) 8 hours. **OSHA PEL (United States, 2/2013). Notes: as F** TWA: 2.5 mg/m³, (as F) 8 hours. **OSHA PEL 1989 (United States, 3/1989). Notes: as F** TWA: 2.5 mg/m³, (as F) 8 hours.

Appropriate engineering controls : Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

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.

Individual protection measures

Section 8. Exposure controls/personal protection

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. 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 : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Section 9. Physical and chemical properties

Physical state	:	Electrode Conditioning Unit Dose Container	Liquid.
		ISE Deproteinising UDC	Liquid.
		57mg Pepsin Vial	Solid.
		M248 Wash Solution	Liquid.
Color	:	Electrode Conditioning Unit Dose Container	Colorless.
		ISE Deproteinising UDC	Colorless.
		57mg Pepsin Vial	White.
		M248 Wash Solution	Blue.
Odor	:	Electrode Conditioning Unit Dose Container	Odorless.
		ISE Deproteinising UDC	Odorless.
		57mg Pepsin Vial	Odorless.
		M248 Wash Solution	Odorless.
pH	:	Electrode Conditioning Unit Dose Container	Not applicable.
		ISE Deproteinising UDC	Not applicable.
		57mg Pepsin Vial	Not applicable.
		M248 Wash Solution	7
Flash point	:	Electrode Conditioning Unit Dose Container	Not available.
		ISE Deproteinising UDC	Not available.
		57mg Pepsin Vial	[Product does not sustain combustion.]
		M248 Wash Solution	Not available.
Flammability (solid, gas)	:	Electrode Conditioning Unit Dose Container	Not available.
		ISE Deproteinising UDC	Not available.
		57mg Pepsin Vial	Not available.
		M248 Wash Solution	Not available.
Relative density	:	Electrode Conditioning Unit Dose Container	1
		ISE Deproteinising UDC	1
		57mg Pepsin Vial	Not available.
		M248 Wash Solution	1

Section 9. Physical and chemical properties

Solubility in water	:	Electrode Conditioning Unit Dose Container	Not available.
		ISE Deproteinising UDC	Not available.
		57mg Pepsin Vial	Not available.
		M248 Wash Solution	Not available.
Partition coefficient: n-octanol/water	:	Electrode Conditioning Unit Dose Container	Not available.
		ISE Deproteinising UDC	Not available.
		57mg Pepsin Vial	Not available.
		M248 Wash Solution	Not available.
Auto-ignition temperature	:	Electrode Conditioning Unit Dose Container	Not available.
		ISE Deproteinising UDC	Not available.
		57mg Pepsin Vial	Not available.
		M248 Wash Solution	Not available.
Viscosity	:	Electrode Conditioning Unit Dose Container	Not available.
		ISE Deproteinising UDC	Not available.
		57mg Pepsin Vial	Not available.
		M248 Wash Solution	Not available.

Section 10. Stability and reactivity

Reactivity	:	Electrode Conditioning Unit Dose Container	No specific test data related to reactivity available for this product or its ingredients.
		ISE Deproteinising UDC	No specific test data related to reactivity available for this product or its ingredients.
		57mg Pepsin Vial	No specific test data related to reactivity available for this product or its ingredients.
		M248 Wash Solution	No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	:	Electrode Conditioning Unit Dose Container	The product is stable.
		ISE Deproteinising UDC	The product is stable.
		57mg Pepsin Vial	The product is stable.
		M248 Wash Solution	The product is stable.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid : No specific data.

Incompatible materials : No specific data.

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Not available.

Conclusion/Summary	:	Electrode Conditioning Unit Dose Container	Not available.
		ISE Deproteinising UDC	Not available.
		57mg Pepsin Vial	Not available.
		M248 Wash Solution	Not available.

Irritation/Corrosion

Not available.

Conclusion/Summary

Section 11. Toxicological information

Skin : Electrode Conditioning Unit Dose Container — Not available.
ISE Deproteinising UDC — Not available.
57mg Pepsin Vial — Not available.
M248 Wash Solution — Not available.

Eyes : Electrode Conditioning Unit Dose Container — Not available.
ISE Deproteinising UDC — Not available.
57mg Pepsin Vial — Not available.
M248 Wash Solution — Not available.

Respiratory : Electrode Conditioning Unit Dose Container — Not available.
ISE Deproteinising UDC — Not available.
57mg Pepsin Vial — Not available.
M248 Wash Solution — Not available.

Sensitization

Not available.

Conclusion/Summary

Skin : Electrode Conditioning Unit Dose Container — Not available.
ISE Deproteinising UDC — Not available.
57mg Pepsin Vial — Not available.
M248 Wash Solution — Not available.

Respiratory : Electrode Conditioning Unit Dose Container — Not available.
ISE Deproteinising UDC — Not available.
57mg Pepsin Vial — Not available.
M248 Wash Solution — Not available.

Mutagenicity

Not available.

Conclusion/Summary : Electrode Conditioning Unit Dose Container — Not available.
ISE Deproteinising UDC — Not available.
57mg Pepsin Vial — Not available.
M248 Wash Solution — Not available.

Carcinogenicity

Not available.

Conclusion/Summary : Electrode Conditioning Unit Dose Container — Not available.
ISE Deproteinising UDC — Not available.
57mg Pepsin Vial — Not available.
M248 Wash Solution — Not available.

Classification

Product/ingredient name	OSHA	IARC	NTP
Electrode Conditioning Unit Dose Container ammonium bifluoride	-	3	-

Reproductive toxicity

Not available.

Conclusion/Summary : Electrode Conditioning Unit Dose Container — Not available.
ISE Deproteinising UDC — Not available.
57mg Pepsin Vial — Not available.
M248 Wash Solution — Not available.

Teratogenicity

Not available.

Conclusion/Summary : Electrode Conditioning Unit Dose Container — Not available.
ISE Deproteinising UDC — Not available.
57mg Pepsin Vial — Not available.
M248 Wash Solution — Not available.

Specific target organ toxicity (single exposure)

Section 11. Toxicological information

Name	Category	Route of exposure	Target organs
57mg Pepsin Vial Pepsin A	Category 3	Not applicable.	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact	:	Electrode Conditioning Unit Dose Container	Causes serious eye irritation.
		ISE Deproteinising UDC	No known significant effects or critical hazards.
		57mg Pepsin Vial	Causes serious eye irritation.
		M248 Wash Solution	No known significant effects or critical hazards.
Inhalation	:	Electrode Conditioning Unit Dose Container	No known significant effects or critical hazards.
		ISE Deproteinising UDC	No known significant effects or critical hazards.
		57mg Pepsin Vial	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
		M248 Wash Solution	No known significant effects or critical hazards.
Skin contact	:	Electrode Conditioning Unit Dose Container	Causes skin irritation.
		ISE Deproteinising UDC	No known significant effects or critical hazards.
		57mg Pepsin Vial	Causes skin irritation.
		M248 Wash Solution	No known significant effects or critical hazards.
Ingestion	:	Electrode Conditioning Unit Dose Container	Irritating to mouth, throat and stomach.
		ISE Deproteinising UDC	No known significant effects or critical hazards.
		57mg Pepsin Vial	Irritating to mouth, throat and stomach.
		M248 Wash Solution	No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact	:	Electrode Conditioning Unit Dose Container	Adverse symptoms may include the following: pain or irritation watering redness
		ISE Deproteinising UDC	No specific data.
		57mg Pepsin Vial	Adverse symptoms may include the following: pain or irritation watering redness
		M248 Wash Solution	No specific data.

Section 11. Toxicological information

Inhalation	:	Electrode Conditioning Unit Dose Container	No specific data.
		ISE Deproteinising UDC	No specific data.
		57mg Pepsin Vial	Adverse symptoms may include the following: wheezing and breathing difficulties asthma
		M248 Wash Solution	No specific data.
Skin contact	:	Electrode Conditioning Unit Dose Container	Adverse symptoms may include the following: irritation redness
		ISE Deproteinising UDC	No specific data.
		57mg Pepsin Vial	Adverse symptoms may include the following: irritation redness
		M248 Wash Solution	No specific data.
Ingestion	:	Electrode Conditioning Unit Dose Container	No specific data.
		ISE Deproteinising UDC	No specific data.
		57mg Pepsin Vial	No specific data.
		M248 Wash Solution	No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects	:	Electrode Conditioning Unit Dose Container	Not available.
		ISE Deproteinising UDC	Not available.
		57mg Pepsin Vial	Not available.
		M248 Wash Solution	Not available.
Potential delayed effects	:	Electrode Conditioning Unit Dose Container	Not available.
		ISE Deproteinising UDC	Not available.
		57mg Pepsin Vial	Not available.
		M248 Wash Solution	Not available.

Long term exposure

Potential immediate effects	:	Electrode Conditioning Unit Dose Container	Not available.
		ISE Deproteinising UDC	Not available.
		57mg Pepsin Vial	Not available.
		M248 Wash Solution	Not available.
Potential delayed effects	:	Electrode Conditioning Unit Dose Container	Not available.
		ISE Deproteinising UDC	Not available.
		57mg Pepsin Vial	Not available.
		M248 Wash Solution	Not available.

Potential chronic health effects

Not available.

Conclusion/Summary	:	Not available.	Electrode Conditioning Unit Dose Container
		Not available.	ISE Deproteinising UDC
		Not available.	57mg Pepsin Vial
		Not available.	M248 Wash Solution
General	:	Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.	
Carcinogenicity	:	No known significant effects or critical hazards.	
Mutagenicity	:	No known significant effects or critical hazards.	
Teratogenicity	:	No known significant effects or critical hazards.	
Developmental effects	:	No known significant effects or critical hazards.	
Fertility effects	:	No known significant effects or critical hazards.	

Numerical measures of toxicity

Acute toxicity estimates

Section 11. Toxicological information

Not available.

Interactive effects :

Electrode Conditioning Unit Dose Container	Not available.
ISE Deproteinising UDC	Not available.
57mg Pepsin Vial	Not available.
M248 Wash Solution	Not available.

Other information :

Electrode Conditioning Unit Dose Container	Not available.
ISE Deproteinising UDC	Not available.
57mg Pepsin Vial	Not available.
M248 Wash Solution	Not available.

Section 12. Ecological information

Toxicity

Not available.

Conclusion/Summary :

Electrode Conditioning Unit Dose Container	Not available.
ISE Deproteinising UDC	Not available.
57mg Pepsin Vial	Not available.
M248 Wash Solution	Not available.

Persistence and degradability

Conclusion/Summary :

Electrode Conditioning Unit Dose Container	Not available.
ISE Deproteinising UDC	Not available.
57mg Pepsin Vial	Not available.
M248 Wash Solution	Not available.

Bioaccumulative potential

Not available.

Mobility in soil

Soil/water partition coefficient (K_{OC}) :

Electrode Conditioning Unit Dose Container	Not available.
ISE Deproteinising UDC	Not available.
57mg Pepsin Vial	Not available.
M248 Wash Solution	Not available.

Mobility :

Electrode Conditioning Unit Dose Container	Not available.
ISE Deproteinising UDC	Not available.
57mg Pepsin Vial	Not available.
M248 Wash Solution	Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized 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. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. 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 spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

DOT Classification

UN number	Electrode Conditioning Unit Dose Container	Not regulated.
	ISE Deproteinising UDC	Not regulated.
	57mg Pepsin Vial	Not regulated.
	M248 Wash Solution	Not regulated.
UN proper shipping name	Electrode Conditioning Unit Dose Container	-
	ISE Deproteinising UDC	-
	57mg Pepsin Vial	-
	M248 Wash Solution	-
Transport hazard class(es)	Electrode Conditioning Unit Dose Container	-
	ISE Deproteinising UDC	-
	57mg Pepsin Vial	-
	M248 Wash Solution	-
Packing group	Electrode Conditioning Unit Dose Container	-
	ISE Deproteinising UDC	-
	57mg Pepsin Vial	-
	M248 Wash Solution	-
Environmental hazards	Electrode Conditioning Unit Dose Container	No.
	ISE Deproteinising UDC	No.
	57mg Pepsin Vial	No.
	M248 Wash Solution	No.
Additional information	Electrode Conditioning Unit Dose Container	**Reportable quantity** 17531.6 lbs / 7959.3 kg [2102.6 gal / 7959.3 L] Package sizes shipped in quantities less than the product reportable quantity are not subject to the RQ (reportable quantity) transportation requirements.
	ISE Deproteinising UDC	-
	57mg Pepsin Vial	-
	M248 Wash Solution	-

TDG Classification

UN number	Electrode Conditioning Unit Dose Container	Not regulated.
	ISE Deproteinising UDC	Not regulated.
	57mg Pepsin Vial	Not regulated.
	M248 Wash Solution	Not regulated.
UN proper shipping name	Electrode Conditioning Unit Dose Container	-
	ISE Deproteinising UDC	-
	57mg Pepsin Vial	-
	M248 Wash Solution	-
Transport hazard class(es)	Electrode Conditioning Unit Dose Container	-
	ISE Deproteinising UDC	-
	57mg Pepsin Vial	-
	M248 Wash Solution	-
Packing group	Electrode Conditioning Unit Dose Container	-
	ISE Deproteinising UDC	-
	57mg Pepsin Vial	-
	M248 Wash Solution	-

Section 14. Transport information

Environmental hazards	Electrode Conditioning Unit Dose Container	No.
	ISE Deproteinising UDC	No.
	57mg Pepsin Vial	No.
	M248 Wash Solution	No.
Additional information	Electrode Conditioning Unit Dose Container	-
	ISE Deproteinising UDC	-
	57mg Pepsin Vial	-
	M248 Wash Solution	-

Mexico Classification

UN number	Electrode Conditioning Unit Dose Container	Not regulated.
	ISE Deproteinising UDC	Not regulated.
	57mg Pepsin Vial	Not regulated.
	M248 Wash Solution	Not regulated.
UN proper shipping name	Electrode Conditioning Unit Dose Container	-
	ISE Deproteinising UDC	-
	57mg Pepsin Vial	-
	M248 Wash Solution	-
Transport hazard class(es)	Electrode Conditioning Unit Dose Container	-
	ISE Deproteinising UDC	-
	57mg Pepsin Vial	-
	M248 Wash Solution	-
Packing group	Electrode Conditioning Unit Dose Container	-
	ISE Deproteinising UDC	-
	57mg Pepsin Vial	-
	M248 Wash Solution	-
Environmental hazards	Electrode Conditioning Unit Dose Container	No.
	ISE Deproteinising UDC	No.
	57mg Pepsin Vial	No.
	M248 Wash Solution	No.
Additional information	Electrode Conditioning Unit Dose Container	-
	ISE Deproteinising UDC	-
	57mg Pepsin Vial	-
	M248 Wash Solution	-

ADR/RID

UN number	Electrode Conditioning Unit Dose Container	Not regulated.
	ISE Deproteinising UDC	Not regulated.
	57mg Pepsin Vial	Not regulated.
	M248 Wash Solution	Not regulated.
UN proper shipping name	Electrode Conditioning Unit Dose Container	-
	ISE Deproteinising UDC	-
	57mg Pepsin Vial	-
	M248 Wash Solution	-
Transport hazard class(es)	Electrode Conditioning Unit Dose Container	-
	ISE Deproteinising UDC	-
	57mg Pepsin Vial	-
	M248 Wash Solution	-

Section 14. Transport information

Packing group	Electrode Conditioning Unit Dose Container	-
	ISE Deproteinising UDC	-
	57mg Pepsin Vial	-
	M248 Wash Solution	-
Environmental hazards	Electrode Conditioning Unit Dose Container	No.
	ISE Deproteinising UDC	No.
	57mg Pepsin Vial	No.
	M248 Wash Solution	No.
Additional information	Electrode Conditioning Unit Dose Container	-
	ISE Deproteinising UDC	-
	57mg Pepsin Vial	-
	M248 Wash Solution	-

IMDG

UN number	Electrode Conditioning Unit Dose Container	Not regulated.
	ISE Deproteinising UDC	Not regulated.
	57mg Pepsin Vial	Not regulated.
	M248 Wash Solution	Not regulated.
UN proper shipping name	Electrode Conditioning Unit Dose Container	-
	ISE Deproteinising UDC	-
	57mg Pepsin Vial	-
	M248 Wash Solution	-
Transport hazard class(es)	Electrode Conditioning Unit Dose Container	-
	ISE Deproteinising UDC	-
	57mg Pepsin Vial	-
	M248 Wash Solution	-
Packing group	Electrode Conditioning Unit Dose Container	-
	ISE Deproteinising UDC	-
	57mg Pepsin Vial	-
	M248 Wash Solution	-
Environmental hazards	Electrode Conditioning Unit Dose Container	No.
	ISE Deproteinising UDC	No.
	57mg Pepsin Vial	No.
	M248 Wash Solution	No.
Additional information	Electrode Conditioning Unit Dose Container	-
	ISE Deproteinising UDC	-
	57mg Pepsin Vial	-
	M248 Wash Solution	-

IATA

UN number	Electrode Conditioning Unit Dose Container	Not regulated.
	ISE Deproteinising UDC	Not regulated.
	57mg Pepsin Vial	Not regulated.
	M248 Wash Solution	Not regulated.
UN proper shipping name	Electrode Conditioning Unit Dose Container	-
	ISE Deproteinising UDC	-
	57mg Pepsin Vial	-
	M248 Wash Solution	-

Section 14. Transport information

Transport hazard class(es)	Electrode Conditioning Unit Dose Container	-
	ISE Deproteinising UDC	-
	57mg Pepsin Vial	-
	M248 Wash Solution	-
Packing group	Electrode Conditioning Unit Dose Container	-
	ISE Deproteinising UDC	-
	57mg Pepsin Vial	-
	M248 Wash Solution	-
Environmental hazards	Electrode Conditioning Unit Dose Container	No.
	ISE Deproteinising UDC	No.
	57mg Pepsin Vial	No.
	M248 Wash Solution	No.
Additional information	Electrode Conditioning Unit Dose Container	-
	ISE Deproteinising UDC	-
	57mg Pepsin Vial	-
	M248 Wash Solution	-

Special precautions for user :	Electrode Conditioning Unit Dose Container	**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.
	ISE Deproteinising UDC	**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.
	57mg Pepsin Vial	**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.
	M248 Wash Solution	**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.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code : Not available.

Section 15. Regulatory information

U.S. Federal regulations :

TSCA 8(a) PAIR: Poly(oxy-1,2-ethanediyl), α-[(1,1,3,3-tetramethylbutyl)phenyl]-ω-hydroxy-

TSCA 8(a) CDR Exempt/Partial exemption: Not determined

Commerce control list precursor: ammonium bifluoride

United States inventory (TSCA 8b): Not determined.

Clean Water Act (CWA) 311: ammonium bifluoride; disodium hydrogenorthophosphate

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) : Not listed

Section 15. Regulatory information

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304

Composition/information on ingredients

Name	%	EHS	SARA 302 TPQ		SARA 304 RQ	
			(lbs)	(gallons)	(lbs)	(gallons)
ISE Deproteinising UDC Hydrogen chloride	0.05	Yes.	-	-	-	-

SARA 304 RQ : Not applicable.

SARA 311/312

Classification : Immediate (acute) health hazard

Composition/information on ingredients

Name	%	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
Electrode Conditioning Unit Dose Container ammonium bifluoride	0.5704	No.	No.	No.	Yes.	No.
57mg Pepsin Vial Pepsin A	13	No.	No.	No.	Yes.	No.

State regulations

Massachusetts : None of the components are listed.

New York : None of the components are listed.

New Jersey : None of the components are listed.

Pennsylvania : None of the components are listed.

International regulations

Chemical Weapons Convention List Schedule I Chemicals :

Electrode Conditioning Unit Dose Container	Not listed
ISE Deproteinising UDC	Not listed
57mg Pepsin Vial	Not listed
M248 Wash Solution	Not listed

Chemical Weapons Convention List Schedule II Chemicals :

Electrode Conditioning Unit Dose Container	Not listed
ISE Deproteinising UDC	Not listed
57mg Pepsin Vial	Not listed
M248 Wash Solution	Not listed

Chemical Weapons Convention List Schedule III Chemicals :

Electrode Conditioning Unit Dose Container	Not listed
ISE Deproteinising UDC	Not listed
57mg Pepsin Vial	Not listed
M248 Wash Solution	Not listed

Section 16. Other information

History

Date of issue/Date of revision : 1/22/2016.

Version : 1.05

Key to abbreviations : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
UN = United Nations

Indicates information that has changed from previously issued version.

Notice to reader

Allergen : **Not available.**