

Section 2. Hazards identification

Response	: <input checked="" type="checkbox"/> Buffer A Equil/ Load/ Wash Buffer B - Elution	Not applicable. P390 - Absorb spillage to prevent material damage.
Storage	: <input checked="" type="checkbox"/> Buffer A Equil/ Load/ Wash Buffer B - Elution	Not applicable. Not applicable.
Disposal	: <input checked="" type="checkbox"/> Buffer A Equil/ Load/ Wash Buffer B - Elution	Not applicable. Not applicable.
Supplemental label elements	: <input checked="" type="checkbox"/> Buffer A Equil/ Load/ Wash Buffer B - Elution	None known. None known.
2.3 Other hazards		
Hazards not otherwise classified	: <input checked="" type="checkbox"/> Buffer A Equil/ Load/ Wash Buffer B - Elution	None known. None known.

Section 3. Composition/information on ingredients

Substance/mixture	: <input checked="" type="checkbox"/> Buffer A Equil/ Load/ Wash Buffer B - Elution	Mixture Mixture
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Ingredient name	%	CAS number
<input checked="" type="checkbox"/> Buffer A Equil/ Load/ Wash Sodium chloride	≤3	7647-14-5
Buffer B - Elution Hydrochloric acid	≤4.3	7647-01-0

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

4.1 Description of necessary first aid measures

Eye contact	: <input checked="" type="checkbox"/> Buffer A Equil/ Load/ Wash Buffer B - Elution	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. 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.
Inhalation	: <input checked="" type="checkbox"/> Buffer A Equil/ Load/ Wash Buffer B - Elution	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. 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. In case of inhalation of decomposition products in a fire, symptoms

Section 4. First aid measures

Skin contact : Buffer A Equil/ Load/ Wash

Buffer B - Elution

Ingestion : Buffer A Equil/ Load/ Wash

Buffer B - Elution

may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.

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.

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.

4.2 Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : Buffer A Equil/ Load/ Wash
Buffer B - Elution

Inhalation : Buffer A Equil/ Load/ Wash
Buffer B - Elution

Skin contact : Buffer A Equil/ Load/ Wash
Buffer B - Elution

Ingestion : Buffer A Equil/ Load/ Wash
Buffer B - Elution

No known significant effects or critical hazards.
No known significant effects or critical hazards.

No known significant effects or critical hazards.
No known significant effects or critical hazards.

No known significant effects or critical hazards.
No known significant effects or critical hazards.

No known significant effects or critical hazards.
No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact : Buffer A Equil/ Load/ Wash
Buffer B - Elution

Inhalation : Buffer A Equil/ Load/ Wash
Buffer B - Elution

Skin contact : Buffer A Equil/ Load/ Wash
Buffer B - Elution

Ingestion : Buffer A Equil/ Load/ Wash
Buffer B - Elution

No specific data.
No specific data.

No specific data.
No specific data.

No specific data.
No specific data.

No specific data.
No specific data.

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

Section 4. First aid measures

Notes to physician : Buffer A Equil/ Load/ Wash

Buffer B - Elution

Specific treatments : Buffer A Equil/ Load/ Wash
Buffer B - Elution

Protection of first-aiders : Buffer A Equil/ Load/ Wash

Buffer B - Elution

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

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.

No specific treatment.

No specific treatment.

No action shall be taken involving any personal risk or without suitable training.

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.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media : Buffer A Equil/ Load/ Wash

Buffer B - Elution

Use an extinguishing agent suitable for the surrounding fire.

Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media : Buffer A Equil/ Load/ Wash
Buffer B - Elution

None known.

None known.

5.2 Special hazards arising from the substance or mixture

Specific hazards arising from the chemical : Buffer A Equil/ Load/ Wash

Buffer B - Elution

In a fire or if heated, a pressure increase will occur and the container may burst.

In a fire or if heated, a pressure increase will occur and the container may burst.

Hazardous thermal decomposition products : Buffer A Equil/ Load/ Wash

Buffer B - Elution

Decomposition products may include the following materials:

halogenated compounds

metal oxide/oxides

Decomposition products may include the following materials:

carbon dioxide

carbon monoxide

nitrogen oxides

halogenated compounds

5.3 Advice for firefighters

Special protective actions for fire-fighters : Buffer A Equil/ Load/ Wash

Buffer B - Elution

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.

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.

Section 5. Fire-fighting measures

Special protective equipment for fire-fighters : Buffer A Equil/ Load/ Wash

Buffer B - Elution

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

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

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : Buffer A Equil/ Load/ Wash

Buffer B - Elution

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. Put on appropriate personal protective equipment.

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 : Buffer A Equil/ Load/ Wash

Buffer B - Elution

If specialized 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". If specialized 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 : Buffer A Equil/ Load/ Wash

Buffer B - Elution

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).

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).

6.3 Methods and materials for containment and cleaning up

Methods for cleaning up : Buffer A Equil/ Load/ Wash

Buffer B - Elution

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.

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. Absorb spillage to prevent

Section 6. Accidental release measures

material damage. Dispose of via a licensed waste disposal contractor.

Section 7. Handling and storage

7.1 Precautions for safe handling

Protective measures :  Buffer A Equil/ Load/ Wash

Buffer B - Elution


Put on appropriate personal protective equipment (see Section 8).

Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. 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. Absorb spillage to prevent material damage.

Advice on general occupational hygiene :  Buffer A Equil/ Load/ Wash

Buffer B - Elution

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. 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 :  Buffer A Equil/ Load/ Wash

Buffer B - Elution

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. See Section 10 for incompatible materials before handling or use. 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. Store in a corrosion resistant container with a resistant inner liner. Keep away from metals. 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. See Section 10 for incompatible materials before handling or use.

7.3 Specific end use(s)

Section 7. Handling and storage

Recommendations	: Buffer A Equil/ Load/ Wash Buffer B - Elution	Industrial applications, Professional applications. Industrial applications, Professional applications.
Industrial sector specific solutions	: Buffer A Equil/ Load/ Wash Buffer B - Elution	Not available. Not available.

Section 8. Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Buffer A Equil/ Load/ Wash Sodium chloride Buffer B - Elution Hydrochloric acid	None. ACGIH TLV (United States, 3/2020). C: 2 ppm OSHA PEL 1989 (United States, 3/1989). CEIL: 5 ppm CEIL: 7 mg/m ³ NIOSH REL (United States, 10/2016). CEIL: 5 ppm CEIL: 7 mg/m ³ OSHA PEL (United States, 5/2018). CEIL: 5 ppm CEIL: 7 mg/m ³

8.2 Exposure controls

Appropriate engineering controls	: Good general ventilation should be sufficient to control worker exposure to airborne contaminants.
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

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: safety glasses with side-shields.
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.
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.

Section 8. Exposure controls/personal protection

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.

Section 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state	: Buffer A Equil/ Load/ Wash Buffer B - Elution	Liquid. [Clear.] Liquid. [Clear.]
Color	: Buffer A Equil/ Load/ Wash Buffer B - Elution	Colorless. Colorless.
Odor	: Buffer A Equil/ Load/ Wash Buffer B - Elution	Not available. Odorless.
Odor threshold	: Buffer A Equil/ Load/ Wash Buffer B - Elution	Not available. Not available.
pH	: Buffer A Equil/ Load/ Wash Buffer B - Elution	7.4 2.25
Melting point	: Buffer A Equil/ Load/ Wash Buffer B - Elution	0°C (32°F) Not available.
Boiling point	: Buffer A Equil/ Load/ Wash Buffer B - Elution	100°C (212°F) Not available.
Flash point	: Buffer A Equil/ Load/ Wash Buffer B - Elution	Not available. Not available.
Evaporation rate	: Buffer A Equil/ Load/ Wash Buffer B - Elution	Not available. Not available.
Flammability (solid, gas)	: Buffer A Equil/ Load/ Wash Buffer B - Elution	Not applicable. Not applicable.
Lower and upper explosive (flammable) limits	: Buffer A Equil/ Load/ Wash Buffer B - Elution	Not available. Not available.
Vapor pressure	: Buffer A Equil/ Load/ Wash Buffer B - Elution	Not available. Not available.
Vapor density	: Buffer A Equil/ Load/ Wash Buffer B - Elution	Not available. Not available.
Relative density	: Buffer A Equil/ Load/ Wash Buffer B - Elution	Not available. Not available.
Solubility	: Buffer A Equil/ Load/ Wash Buffer B - Elution	Easily soluble in the following materials: cold water and hot water. Easily soluble in the following materials: cold water and hot water.
Partition coefficient: n-octanol/water	: Buffer A Equil/ Load/ Wash Buffer B - Elution	Not available. Not available.
Auto-ignition temperature	: Buffer A Equil/ Load/ Wash Buffer B - Elution	Not available. Not available.
Decomposition temperature	: Buffer A Equil/ Load/ Wash Buffer B - Elution	Not available. Not available.
Viscosity	: Buffer A Equil/ Load/ Wash Buffer B - Elution	Not available. Not available.

Section 10. Stability and reactivity

10.1 Reactivity	: Buffer A Equil/ Load/ Wash Buffer B - Elution	No specific test data related to reactivity available for this product or its ingredients. No specific test data related to reactivity available for this product or its ingredients.
10.2 Chemical stability	: Buffer A Equil/ Load/ Wash Buffer B - Elution	The product is stable. The product is stable.
10.3 Possibility of hazardous reactions	: Buffer A Equil/ Load/ Wash Buffer B - Elution	Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur.
10.4 Conditions to avoid	: Buffer A Equil/ Load/ Wash Buffer B - Elution	No specific data. No specific data.
10.5 Incompatible materials	: Buffer A Equil/ Load/ Wash Buffer B - Elution	May react or be incompatible with oxidizing materials. Reactive or incompatible with the following materials: metals
10.6 Hazardous decomposition products	: Buffer A Equil/ Load/ Wash Buffer B - Elution	Under normal conditions of storage and use, hazardous decomposition products should not be produced. 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
Buffer A Equil/ Load/ Wash Sodium chloride	LD50 Oral	Rat	3000 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Buffer A Equil/ Load/ Wash Sodium chloride	Eyes - Moderate irritant	Rabbit	-	24 hours 100 mg	-
	Eyes - Moderate irritant	Rabbit	-	10 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-

Sensitization

Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Classification

Section 11. Toxicological information

Product/ingredient name	OSHA	IARC	NTP
Buffer B - Elution Hydrochloric acid	-	3	-

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Buffer B - Elution Hydrochloric acid	Category 3	-	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure : Buffer A Equil/ Load/ Wash
Buffer B - Elution

Not available.
Routes of entry anticipated: Oral, Dermal, Inhalation.

Potential acute health effects

Eye contact	: Buffer A Equil/ Load/ Wash Buffer B - Elution	No known significant effects or critical hazards.
Inhalation	: Buffer A Equil/ Load/ Wash Buffer B - Elution	No known significant effects or critical hazards.
Skin contact	: Buffer A Equil/ Load/ Wash Buffer B - Elution	No known significant effects or critical hazards.
Ingestion	: Buffer A Equil/ Load/ Wash Buffer B - Elution	No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact	: Buffer A Equil/ Load/ Wash Buffer B - Elution	No specific data.
Inhalation	: Buffer A Equil/ Load/ Wash Buffer B - Elution	No specific data.
Skin contact	: Buffer A Equil/ Load/ Wash Buffer B - Elution	No specific data.
Ingestion	: Buffer A Equil/ Load/ Wash Buffer B - Elution	No specific data.

Delayed and immediate effects and also 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.

Section 11. Toxicological information

Potential chronic health effects

General	: Buffer A Equil/ Load/ Wash Buffer B - Elution	No known significant effects or critical hazards. No known significant effects or critical hazards.
Carcinogenicity	: Buffer A Equil/ Load/ Wash Buffer B - Elution	No known significant effects or critical hazards. No known significant effects or critical hazards.
Mutagenicity	: Buffer A Equil/ Load/ Wash Buffer B - Elution	No known significant effects or critical hazards. No known significant effects or critical hazards.
Reproductive toxicity	: Buffer A Equil/ Load/ Wash Buffer B - Elution	No known significant effects or critical hazards. No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
Buffer A Equil/ Load/ Wash Buffer A Equil/ Load/ Wash Sodium chloride	103448.3 3000	N/A N/A	N/A N/A	N/A N/A	N/A N/A
Buffer B - Elution Buffer B - Elution Hydrochloric acid	N/A N/A	N/A N/A	N/A N/A	29.2 1.038	N/A N/A

Section 12. Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
Buffer A Equil/ Load/ Wash Sodium chloride	Acute EC50 4.74 g/L Fresh water Acute EC50 519.6 mg/l Fresh water Acute IC50 6.87 g/L Fresh water Acute LC50 1000000 µg/l Fresh water Chronic LC10 781 mg/l Fresh water Chronic NOEC 6 g/L Fresh water Chronic NOEC 0.314 g/L Fresh water Chronic NOEC 100 mg/l Fresh water	Algae - Chlamydomonas reinhardtii Crustaceans - Cypris subglobosa Aquatic plants - Lemna minor Fish - Morone saxatilis - Larvae Crustaceans - Hyalella azteca - Juvenile (Fledgling, Hatchling, Weanling) Aquatic plants - Lemna minor Daphnia - Daphnia pulex Fish - Gambusia holbrooki - Adult	96 hours 48 hours 96 hours 96 hours 3 weeks 96 hours 21 days 8 weeks
Buffer B - Elution Hydrochloric acid	Acute LC50 240000 µg/l Marine water Acute LC50 282 ppm Fresh water	Crustaceans - Carcinus maenas - Adult Fish - Gambusia affinis - Adult	48 hours 96 hours

12.2 Persistence and degradability

Not available.

12.3 Bioaccumulative potential

Not available.

Section 12. Ecological information

12.4 Mobility in soil

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

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

Section 13. Disposal considerations

13.1 Waste treatment methods






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. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations. Local regulations may be more stringent than regional or national requirements.

The information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	IMDG	IATA
UN number	UN1789	UN1789	UN1789	UN1789	UN1789
UN proper shipping name	Hydrochloric acid	HYDROCHLORIC ACID	ACIDO CLORHIDRICO	HYDROCHLORIC ACID	Hydrochloric acid
Transport hazard class(es)	8 	8 	8 	8 	8 
Packing group	III	III	III	III	III
Environmental hazards	No.	No.	No.	No.	No.

Additional information

DOT Classification : **Limited quantity** Yes.
Packaging instruction Exceptions: 154. Non-bulk: 203. Bulk: 241.
Quantity limitation Passenger aircraft/rail: 5 L. Cargo aircraft: 60 L.
Special provisions A3, IB3, T4, TP1

Section 14. Transport information

- TDG Classification** : Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.40-2.42 (Class 8).
Explosive Limit and Limited Quantity Index 5
Passenger Carrying Road or Rail Index 5
- Mexico Classification** : **Special provisions** 223
- IMDG** : **Emergency schedules** F-A, S-B
Special provisions 223
- IATA** : **Quantity limitation** Passenger and Cargo Aircraft: 5 L. Packaging instructions: 852.
 Cargo Aircraft Only: 60 L. Packaging instructions: 856. Limited Quantities - Passenger Aircraft: 1 L. Packaging instructions: Y841.
Special provisions A3, A803
- 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.
- 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

- U.S. Federal regulations** : **TSCA 4(a) proposed test rules:** Glycine
TSCA 8(a) CDR Exempt/Partial exemption: Not determined
Clean Water Act (CWA) 311: Disodium hydrogenorthophosphate; Hydrochloric acid
Clean Air Act (CAA) 112 regulated toxic substances: Hydrochloric acid
- Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs)** : Listed
- 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)** : Listed

SARA 302/304

Composition/information on ingredients

Name	%	EHS	SARA 302 TPQ		SARA 304 RQ	
			(lbs)	(gallons)	(lbs)	(gallons)
Buffer A Equil/ Load/ Wash Sodium azide	<0.1	Yes.	500	-	1000	-
Buffer B - Elution Hydrochloric acid	≤4.3	Yes.	500	-	5000	-

SARA 304 RQ : 333333.3 lbs / 151333.3 kg

SARA 311/312

- Classification** : **Buffer A Equil/ Load/ Wash** Not applicable.
Buffer B - Elution CORROSIVE TO METALS - Category 1

Section 15. Regulatory information

Composition/information on ingredients

Name	%	Classification
Buffer A Equil/ Load/ Wash Sodium chloride	≤3	EYE IRRITATION - Category 2A
Buffer B - Elution Urea Hydrochloric acid	≥10 - ≤25 ≤4.3	COMBUSTIBLE DUSTS ACUTE TOXICITY (inhalation) - Category 2 SKIN CORROSION - Category 1B SERIOUS EYE DAMAGE - Category 1 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 HNOC - Corrosive to digestive tract

SARA 313

	Product name	CAS number	%
Form R - Reporting requirements	Buffer B - Elution Hydrochloric acid	7647-01-0	≤4.3
Supplier notification	Buffer B - Elution Hydrochloric acid	7647-01-0	≤4.3

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

State regulations

- Massachusetts** : The following components are listed: HYDROGEN CHLORIDE; HYDROCHLORIC ACID
- New York** : The following components are listed: Hydrochloric acid
- New Jersey** : The following components are listed: HYDROGEN CHLORIDE; HYDROCHLORIC ACID
- Pennsylvania** : The following components are listed: HYDROCHLORIC ACID

California Prop. 65

This product does not require a Safe Harbor warning under California Prop. 65.

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** : All components are listed or exempted.
- Canada** : All components are listed or exempted.
- China** : All components are listed or exempted.
- Europe** : All components are listed or exempted.
- Japan** : **Japan inventory (ENCS)**: All components are listed or exempted.
Japan inventory (ISHL): All components are listed or exempted.
- New Zealand** : All components are listed or exempted.

Section 15. Regulatory information

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	: All components are active or exempted.
Viet Nam	: All components are listed or exempted.


Section 16. Other information

History

Date of issue	: 05/21/2021
Date of previous issue	: 01/31/2020
Version	: 5

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 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution) N/A = Not available UN = United Nations
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Procedure used to derive the classification

Classification	Justification
 Buffer B - Elution CORROSIVE TO METALS - Category 1	Expert judgment

 Indicates information that has changed from previously issued version.

Notice to reader

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