SAFETY DATA SHEET

Section 1

Chemical Product and Company Identification

Page E1 of E2

CHEMTREC 24 Hour Emergency USA

Innovating Science[®] by Aldon Corporation

"cutting edge science for the classroom"

221 Rochester Street Avon, NY 14414-9409 (585) 226-6177

Phone Number (800) 424-9300 For laboratory and industrial use only. Not for drug, food or household use.

Product	BUFFER SOLUTION PH10	
Synonyms	Aqueous Buffer Solution	
Section 2	Hazards Identification	
Pictogram Target orga GHS Class Acute toxic Eye irritatio STOT SE (I GHS Label H303: May H320: Caus	ans: None known	 Precautionary statement(s): P261: Avoid breathing mist/vapours/spray. P264: Wash hands thoroughly after handling. P271: Use only outdoors or in a well-ventilated area. P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing. P312: Call a POISON CENTER or doctor if you feel unwell. 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. P403+P233: Store in a well-ventilated place. Keep container tightly closed. P405: Store locked up. P501: Dispose of contents/container to a licensed chemical disposal agency in accordance with local/regional/national regulations.

Hazards not otherwise classified:

Health hazards not otherwise classified (HHNOC) - Lachrymator Physical hazards not otherwise classified (PHNOC) - Not Known

Section 3 Compositi	ion / Information on Ingredients			
Chemical Name	CAS #	%	EINECS	
Water Ammonium hydroxide, 28-30% Ammonium chloride	7732-18-5 1336-21-6 12125-02-9	93.66% 5.70% 0.64%	231-791-2 215-647-6 235-186-4	
Section 4 First Aid M	leasures			

INGESTION: Call physician or Poison Control Center immediately. Induce vomiting only if advised by appropriate medical personnel. Never give anything by mouth to an unconscious person.

INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

EYE CONTACT: Check for and remove contact lenses. Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get immediate medical attention.

SKIN ABSORPTION: Remove contaminated clothing. Flush thoroughly with mild soap and water. If irritation occurs, get medical attention.

Section 5 **Fire Fighting Measures**

Suitable Extinguishing Media: Use any media suitable for extinguishing supporting fire

Protective Actions for Fire-fighters: In fire conditions, wear a NIOSH/MSHA-approved self-contained breathing apparatus and full protective gear. Use water spray to keep fire-exposed containers cool.

Specific Hazards: During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

Section 6 Accidental Release Measures

Personal Precautions: Evacuate personnel to safe area. Use proper personal protective equipment as indicated in Section 8. Provide adequate ventilation.

Environmental Precautions: Avoid runoff into storm sewers and ditches which lead to waterways.

Containment and Cleanup: Absorb with inert dry material, sweep or vacuum up and place in a suitable container for proper disposal. Wash spill area with soap and water.

Page E2 of E2 Section 7 Handling & Storage

Precautions for Safe Handling: Read label on container before using. Do not wear contact lenses when working with chemicals. Keep out of reach of children. Avoid contact with eyes, skin and clothing. Do not inhale vapors, spray or mist. Use with adequate ventilation. Avoid ingestion. Wash thoroughly after handling. Remove and wash clothing before reuse.

Conditions for Safe Storage: Store in a cool, well-ventilated area away from incompatible substances.

Section 8	Exposure Controls / Personal Pro	tection		
Exposure Limits:	Chemical Name	ACGIH (TLV)	OSHA (PEL)	NIOSH (REL)
Exposure Limits.	Ammonia	TWA: 17 mg/m ³ / STEL: 24 mg/m ³	TWA: 35 mg/m ³	TWA: 18 mg/m ³ / STEL: 27 mg/m ³

Engineering controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower and fire extinguishing material. Personnel should wear safety glasses, goggles, or faceshield, lab coat or apron, appropriate protective gloves. Use adequate ventilation to keep airborne concentrations low.

Respiratory protection: None should be needed in normal laboratory handling at room temperatures. If misty conditions prevail, work in fume hood or wear a NIOSH/MSHA-

approved respirator.							
Section 9	Physical & Chemica	I Properties					
	nia odor. ata not available. :: Approximately 0°C (32°F) (wa ximately 100°C (212°F) (wai	ter) Flammability Explosion lim Vapor pressu Vapor density Relative density	ate (Water = 1): >1 (solid/gas): Data not a its: Lower / Upper: D re (mm Hg): 14 (water (Air = 1): 0.7 (water) (Specific gravity): Appr : Complete in water.	Data not available ')	Auto-igniti Decompos Viscosity: Molecular		: Data not available re: Data not available. ble. e
Section 10	Stability & Reactivity	y					
Chemical stability:			ous polymerization:	Will not occur.			
	d: Excessive temperature	•					
-	ith other materials: Stro position products: Ammonian		ers, bases.				
Section 11	Toxicological Inform	ation					
Carcinogenity: Da NTP: No component IARC: No component OSHA: No component Reproductive toxic STOT-single expose STOT-repeated exp Aspiration hazard: Potential health eff Inhalation: May be I Ingestion: May be I Skin: May cause int Eyes: May cause int Signs and sympton not available. Exerct	t of this product present at int of this product present a ent of this product present ity: Data not available ure: Data not available Data not available ects: harmful if inhaled. harmful if swallowed. itation. ritation.	at levels greater than or at levels greater than o e e best of our knowledge t ts to minimize potential	equal to 0.1% is identi or equal to 0.1% is iden he chemical, physical a hazards.	fied as probable, pos tified as a carcinogen	sible or confir or potential o	med human card	5,
Section 12	Ecological Information	. ,	···,				
Toxicity to algae: N Persistence and de Mobility in soil: No	a nd other aquatic inver lo data available gradability: No data ava	ilable Bioaccum PBT and v	ulative potential: No PvB assessment: No	o data available	disposal.		
Section 13	Disposal Considerat	tions					
	idelines are intended fo e different. Dispose of i						ontainer. State and/or local emical disposal agency.
Section 14	Transport Informati	on (US DOT / CANA	DA TDG)				
UN/NA number:	• •	Shipping name:	•	Dementative O	- 414 1 1 .		anima mallatanta bia
Hazard class: No Exceptions: No		Packing group: N 2016 ERG Guide #		Reportable Quar	ntity: No	Ma	arine pollutant: No
Section 15	Regulatory Informat						
	ed to be listed if the CAS num		n is on the Inventory list.				
Compon		TSCA	CERLCA (RQ)	RCRA code	DSL	NDSL	CA Prop 65
Ammonium hydroxid Ammonium chloride	le	Listed Listed	1000 lbs (454 kg) 5000 lbs (2270 kg)	Not listed Not listed	Listed Listed	Not listed Not listed	This product does not contain any chemicals known to the State of California to cause cancer or reproductive toxicity.
Section 16	Other Information						

The information contained herein is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. NTP: National Toxicology Program, IARC: International Agency for Research on Cancer, OSHA: Occupational Safety and Health Administration, STOT: Specific Target Organ Toxicity, SE: Single Exposure, RE: Repeated Exposure, ERG: Emergency Response Guidebook. Form 06/2015

SAFETY DATA SHEET

221 Rochester Street

(585) 226-6177

Avon, NY 14414-9409

FLAMMABLE STORAGE CODE RED

Section 1

Chemical Product and Company Identification

Innovating Science[®] by Aldon Corporation

"cutting edge science for the classroom"

Page E1 of E2

CHEMTREC 24 Hour Emergency USA

Phone Number (800) 424-9300 For laboratory and industrial use only. Not for drug, food or household use.

Product ERIOCHROME BLACK T, 0.1% SOLUTION	
Synonyms None	
Section 2 Hazards Identification	
 Signal word: DANGER Pictograms: GHS02 / GHS07 Target organs: Central nervous system, Liver, Kidneys. Image: System of the system of th	 Precautionary statement(s): P210: Keep away from heat/sparks/open flames/hot surfaces. No smoking. P233: Keep container tightly closed. P240: Ground/bond container and receiving equipment. P241: Use explosion-proof electrical/ventilating/lighting equipment. P242: Use only non-sparking tools. P243: Take precautionary measures against static discharge. P261: Avoid breathing mist/vapours/spray. P264: Wash hands thoroughly after handling. P271: Use only outdoors or in a well-ventilated area. P280: Wear protective gloves/protective clothing/eye protection/face protection. P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing. P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P312: Call a POISON CENTER or doctor if you feel unwell. P337+P313: If eye irritation persists: Get medical attention. P370+P378: In case of fire: Use dry chemical, alcohol foam, carbon dioxide or water spray to extinguish. P403: Store locked up. P501: Dispose of contents/container to a licensed chemical disposal agency in accordance with local/regional/national regulations.

Health hazards not otherwise classified (HHNOC) - Not Known Physical hazards not otherwise classified (PHNOC) - Not Known

Section 3	Composition / Information on	Ingredients			
Chemical Name		CAS #	%	EINECS	
lsopropyl alcohol Water Eriochrome black T		67-63-0 7732-18-5 1787-61-7	69.93% 29.97% 0.1%	200-661-7 231-791-2 217-250-3	
Section 4	First Aid Measures				

INGESTION: MAY BE HARMFUL IF SWALLOWED. Call physician or Poison Control Center immediately. Induce vomiting only if advised by appropriate medical personnel. Never give anything by mouth to an unconscious person.

INHALATION: MAY BE HARMFUL. IF INHALED. CAUSES RESPIRATORY TRACT IRRITATION. Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

EYE CONTACT: CAUSES EYE IRRITATION. Check for and remove contact lenses. Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get immediate medical attention.

SKIN ABSORPTION: MAY BE HARMFUL IF ABSORBED THROUGH SKIN. MAY CAUSE SKIN IRRITATION. Remove contaminated clothing. Flush thoroughly with mild soap and water. If irritation occurs, get medical attention.

Section 5 Fire Fighting Measures

Suitable Extinguishing Media: Carbon dioxide, dry chemical, dry sand, alcohol foam.

Protective Actions for Fire-fighters: In fire conditions, wear a NIOSH/MSHA-approved self-contained breathing apparatus and full protective gear. Use water spray to keep fire-exposed containers cool.

Specific Hazards: During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Vapors formed from this product are heavier than air and may travel along the ground to a distant source of ignition and flash back instantly. Flame may not be visible in daylight.

Section 6 Accidental Release Measures

Personal Precautions: Evacuate personnel to safe area. Use proper personal protective equipment as indicated in Section 8. Provide adequate ventilation.

Environmental Precautions: Avoid runoff into storm sewers and ditches which lead to waterways.

Containment and Cleanup: Remove all sources of ignition. Absorb with inert dry material, sweep or vacuum up and place in a suitable container for proper disposal. Wash spill area with soap and water.

Section 7 Handling & Storage

Precautions for Safe Handling: Read label on container before using. Do not wear contact lenses when working with chemicals. Keep out of reach of children. Avoid contact with eyes, skin and clothing. Do not inhale vapors, spray or mist. Use with adequate ventilation. Avoid ingestion. Wash thoroughly after handling. Remove and wash clothing before reuse.

Conditions for Safe Storage: Store in a cool, dry, well-ventilated area away from incompatible substances. Keep away from ignition sources.

Section 8	Exposure Controls / Personal Pro	tection		
Exposure Limits:	Chemical Name	ACGIH (TLV)	OSHA (PEL)	NIOSH (REL)
Exposure Linits.	Isopropanol	TWA: 200 ppm / STEL: 400 ppm	TWA: 400 ppm / 980 mg/m ³	TWA: 400 ppm / STEL: 500 ppm

Engineering controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower and fire extinguishing material. Personnel should wear safety glasses, goggles, or faceshield, lab coat or apron, appropriate protective gloves. Use adequate ventilation to keep airborne concentrations low.

Respiratory protection: None should be needed in normal laboratory handling at room temperatures. If misty conditions prevail, work in fume hood or wear a NIOSH/MSHAapproved respirator.

Section 9							
	Physical & Chemical Prop	erties					
Odor: Aromatic o Odor threshold: pH: Data not avai Melting / Freezing p	Data not available. ilable. point: Approximately -50°C (-58°F) roximately 85-100°C (185-212°F)	Flammability (Explosion limi Vapor pressur Vapor density Relative density	tte (Butyl acetate = 1) solid/gas): Data not a ts: Lower / Upper: 2 e (mm Hg): 33 mm @ (Air = 1): 2.1 [Pure IF (Specific gravity): 0.8 Complete in water.	available. ?% / 12% [Pure IPA] 020°C [Pure IPA]	Auto-ignition Decompos Viscosity: Molecular	n temperature: 39	
Section 10	Stability & Reactivity						
Chemical stabilit Conditions to av	y: Stable oid: Excessive temperatures, heat		ous polymerization:				
	terials: Strong oxidizing materials.	, I , I		0	compounds c	an react vigorous	sly with this alcohol.
Hazardous deco	mposition products: Oxides of ca	arbon.					
Section 11	Toxicological Information						
Respiratory or si Germ cell mutag Carcinogenity: I NTP: No comport IARC classified: G OSHA: No comport Reproductive too STOT-single exp STOT-repeated e Aspiration health Inhalation: Inhala and irritation of the	ent of this product present at levels Group 3: Not classifiable as to its ca onent of this product present at leve kicity: Data not available osure: The substance or mixture i xposure: Data not available d: Yes	greater than or e rcinogenicity to h ls greater than o s classified as sp nay cause centra result in uncons	umans r equal to 0.1% is iden pecific target organ tox l nervous system depr ciousness and death.	tified as a carcinoge	n or potential o	carcinogen by OS	cts.
develop if this occ Skin: Prolonged o Eyes: Contact ca Signs and sympt Additional inform	curs. or repeated contact may cause irrita uses burning sensation, redness, s toms of exposure: See Potential nation: RTECS#: NT8050000 [Is	ation and drying, welling, and/or b health effects abo	cracking and defatting lurred vision.				atal chemical pneumonia can
develop if this occ Skin: Prolonged o Eyes: Contact ca Signs and sympt Additional inform Section 12	or repeated contact may cause irrita uses burning sensation, redness, s toms of exposure: See Potential nation: RTECS #: NT8050000 [Is Ecological Information	ation and drying, welling, and/or b health effects abo opropanol]	cracking and defatting lurred vision. ove.	ı of the skin which ca			atal chemical pneumonia can
develop if this occ Skin: Prolonged of Eyes: Contact ca Signs and sympl Additional inform Section 12 Toxicity to fish: Toxicity to daphr Toxicity to algae: Persistence and Mobility in soil: 1 Other adverse ef	or repeated contact may cause irrit uses burning sensation, redness, s toms of exposure: See Potential nation: RTECS #: NT8050000 [Is Ecological Information Pimephales promelas (Fish, fresh w nia and other aquatic invertebrate : Scenedesmus quadricauda (Algae degradability: No data available No data available fects: An environmental hazard ca	ation and drying, welling, and/or b health effects abd opropanol] vater) LC50: 964 as: Artemia salina a), LOEC50 = 1,8 Bioaccum PBT and v	cracking and defatting lurred vision. ove. 0 mg/L/96 hours [Isop a (Crustacea), EC50 = 00 mg/L/7 days [Isop ulative potential: No PvB assessment: No	ropanol] → >10,000 mg/L/24 hc opanol] data available o data available	n lead to dern urs [Isopropa	natitis.	atal chemical pneumonia can
develop if this occ Skin: Prolonged of Eyes: Contact ca Signs and sympt Additional inform Section 12 Toxicity to fish: Toxicity to daphr Toxicity to algae: Persistence and Mobility in soil: Other adverse ef Section 13	or repeated contact may cause irrit uses burning sensation, redness, s toms of exposure: See Potential nation: RTECS #: NT8050000 [Is Ecological Information Pimephales promelas (Fish, fresh v nia and other aquatic invertebrate : Scenedesmus quadricauda (Algae degradability: No data available No data available fects: An environmental hazard ca Disposal Considerations	ation and drying, welling, and/or b health effects abo opropanol] vater) LC50: 964 as: Artemia salina a), LOEC50 = 1,8 Bioaccum PBT and vi innot be excluded	cracking and defatting lurred vision. ove. 0 mg/L/96 hours [Isop a (Crustacea), EC50 = 800 mg/L/7 days [Isopr Jative potential: No PvB assessment: No d in the event of unpro-	ropanol] > >10,000 mg/L/24 ho opanol] data available o data available fessional handling of	n lead to dern urs [Isopropa disposal.	natitis.	
develop if this occ Skin: Prolonged of Eyes: Contact ca Signs and sympt Additional inform Section 12 Toxicity to fish: Toxicity to daphr Toxicity to algae: Persistence and Mobility in soil: Other adverse ef Section 13 These disposal of	or repeated contact may cause irrita uses burning sensation, redness, s toms of exposure: See Potential nation: RTECS #: NT8050000 [Is Ecological Information Pimephales promelas (Fish, fresh v nia and other aquatic invertebrate c Scenedesmus quadricauda (Algae degradability: No data available fects: An environmental hazard ca Disposal Considerations quidelines are intended for the o	ation and drying, welling, and/or b health effects abo opropanol] vater) LC50: 964 es: Artemia salina e), LOEC50 = 1,8 Bioaccume PBT and vi unnot be excluded	cracking and defatting lurred vision. ove. 0 mg/L/96 hours [Isop a (Crustacea), EC50 = 800 mg/L/7 days [Isopr Jative potential: No PvB assessment: No d in the event of unpro	of the skin which ca ropanol] >>10,000 mg/L/24 hc opanol] data available fessional handling or nly. Federal regula	n lead to dern urs [Isopropa disposal.	natitis. nol]	ontainer. State and/or loca
develop if this occ Skin: Prolonged of Eyes: Contact ca Signs and sympt Additional inform Section 12 Toxicity to fish: Toxicity to daphr Toxicity to algae: Persistence and Mobility in soil: Other adverse ef Section 13 These disposal of regulations may	or repeated contact may cause irrit uses burning sensation, redness, s toms of exposure: See Potential nation: RTECS #: NT8050000 [Is Ecological Information Pimephales promelas (Fish, fresh v nia and other aquatic invertebrate : Scenedesmus quadricauda (Algae degradability: No data available No data available fects: An environmental hazard ca Disposal Considerations	ation and drying, welling, and/or b health effects abo opropanol] vater) LC50: 964 as: Artemia salina e), LOEC50 = 1,8 Bioaccum PBT and vi innot be excluded disposal of cata ordance with all	cracking and defatting lurred vision. ove. 0 mg/L/96 hours [Isop a (Crustacea), EC50 = 00 mg/L/7 days [Isopr Jative potential: No PvB assessment: No d in the event of unpro log-size quantities of local, state and fed	of the skin which ca ropanol] >>10,000 mg/L/24 hc opanol] data available fessional handling or nly. Federal regula	n lead to dern urs [Isopropa disposal.	natitis. nol]	ontainer. State and/or loca
develop if this occ Skin: Prolonged of Eyes: Contact ca Signs and sympt Additional inform Section 12 Toxicity to fish: Toxicity to daphr Toxicity to daphr Toxicity to dapae: Persistence and Mobility in soil: Other adverse ef Section 13 These disposal of regulations may Section 14 UN/NA number Hazard class:	or repeated contact may cause irrita uses burning sensation, redness, s toms of exposure: See Potential nation: RTECS #: NT8050000 [Is Ecological Information Pimephales promelas (Fish, fresh v nia and other aquatic invertebrate : Scenedesmus quadricauda (Algae degradability: No data available fects: An environmental hazard ca Disposal Considerations guidelines are intended for the of be different. Dispose of in acco Transport Information (US r: UN1219 Shipping I 3 Packing g	ation and drying, welling, and/or b health effects abd opropanol] vater) LC50: 964 as: Artemia salina a), LOEC50 = 1,8 Bioaccum PBT and vi innot be excluded disposal of cata ordance with all S DOT / CANAL name: Isopro roup: II	cracking and defatting lurred vision. ove. 0 mg/L/96 hours [Isop a (Crustacea), EC50 = 300 mg/L/7 days [Isopr Jative potential: No PvB assessment: No d in the event of unpro- log-size quantities of local, state and fed DA TDG) panol solution Reportal	of the skin which ca ropanol] >>10,000 mg/L/24 ho opanol] data available ofessional handling or only. Federal regula eral regulations or ble Quantity: No	n lead to dern urs [Isopropa disposal.	nol] pply to empty c	ontainer. State and/or loca
develop if this occ Skin: Prolonged of Eyes: Contact ca Signs and sympt Additional inform Section 12 Toxicity to fish: Toxicity to dapher Persistence and Mobility in soil: Other adverse ef Section 13 These disposal of regulations may Section 14 UN/NA number Hazard class: Exceptions: L	or repeated contact may cause irrita uses burning sensation, redness, s toms of exposure: See Potential mation: RTECS #: NT8050000 [Is Ecological Information Pimephales promelas (Fish, fresh v nia and other aquatic invertebrate : Scenedesmus quadricauda (Algae degradability: No data available No data available fects: An environmental hazard ca Disposal Considerations guidelines are intended for the of be different. Dispose of in acco Transport Information (US : UN1219 Shipping I 3 Packing g imited quantity equal to or less	ation and drying, welling, and/or b health effects abd opropanol] vater) LC50: 964 as: Artemia salina a), LOEC50 = 1,8 Bioaccum PBT and vi innot be excluded disposal of cata ordance with all S DOT / CANAL name: Isopro roup: II	cracking and defatting lurred vision. ove. 0 mg/L/96 hours [Isop a (Crustacea), EC50 = 300 mg/L/7 days [Isopr Jative potential: No PvB assessment: No d in the event of unpro- log-size quantities of local, state and fed DA TDG) panol solution Reportal	of the skin which ca ropanol] >>10,000 mg/L/24 hc opanol] data available ofessional handling or fessional handling or only. Federal regula eral regulations or	n lead to dern urs [Isopropa disposal.	nol] pply to empty c	ontainer. State and/or loca mical disposal agency.
develop if this occ Skin: Prolonged of Eyes: Contact ca Signs and sympt Additional inform Section 12 Toxicity to fish: Toxicity to dapher Persistence and Mobility in soil: Other adverse ef Section 13 These disposal of Section 14 UN/NA number Hazard class: Exceptions: L Section 15	or repeated contact may cause irrita uses burning sensation, redness, s toms of exposure: See Potential nation: RTECS #: NT8050000 [Is Ecological Information Pimephales promelas (Fish, fresh v nia and other aquatic invertebrate : Scenedesmus quadricauda (Algae degradability: No data available fects: An environmental hazard ca Disposal Considerations guidelines are intended for the of be different. Dispose of in acco Transport Information (US r: UN1219 Shipping I 3 Packing g	ation and drying, welling, and/or b health effects abd opropanol] vater) LC50: 964 as: Artemia salina a), LOEC50 = 1,8 Bioaccum PBT and vi innot be excluded disposal of cata ordance with all S DOT / CANAL name: Isopro roup: II 5 than 1 L	cracking and defatting lurred vision. ove. 0 mg/L/96 hours [Isop a (Crustacea), EC50 = 00 mg/L/7 days [Isop ulative potential: No PvB assessment: No d in the event of unpro- log-size quantities of local, state and fed DA TDG) panol solution Reportal 2016 ER	of the skin which ca ropanol] >>10,000 mg/L/24 ho opanol] data available ofessional handling or only. Federal regula eral regulations or ble Quantity: No	n lead to dern urs [Isopropa disposal.	nol] pply to empty c	ontainer. State and/or loca mical disposal agency.
develop if this occ Skin: Prolonged of Eyes: Contact ca Signs and sympt Additional inform Section 12 Toxicity to fish: Toxicity to dapher Persistence and Mobility in soil: Other adverse ef Section 13 These disposal of regulations may Section 14 UN/NA number Hazard class: Exceptions: L Section 15	or repeated contact may cause irrita uses burning sensation, redness, s toms of exposure: See Potential mation: RTECS #: NT8050000 [Is Ecological Information Pimephales promelas (Fish, fresh v hia and other aquatic invertebrate : Scenedesmus quadricauda (Algad degradability: No data available No data available fects: An environmental hazard ca Disposal Considerations guidelines are intended for the of be different. Dispose of in acco Transport Information (US : UN1219 Shipping I 3 Packing g imited quantity equal to or less Regulatory Information ered to be listed if the CAS number for the	ation and drying, welling, and/or b health effects abd opropanol] vater) LC50: 964 as: Artemia salina a), LOEC50 = 1,8 Bioaccum PBT and vi innot be excluded disposal of cata ordance with all S DOT / CANAL name: Isopro roup: II 5 than 1 L	cracking and defatting lurred vision. ove. 0 mg/L/96 hours [Isop a (Crustacea), EC50 = 00 mg/L/7 days [Isop ulative potential: No PvB assessment: No d in the event of unpro- log-size quantities of local, state and fed DA TDG) panol solution Reportal 2016 ER	of the skin which ca ropanol] >>10,000 mg/L/24 ho opanol] data available ofessional handling or only. Federal regula eral regulations or ble Quantity: No	n lead to dern urs [Isopropa disposal.	nol] pply to empty c	ontainer. State and/or loca mical disposal agency.
develop if this occ Skin: Prolonged of Eyes: Contact ca Signs and sympt Additional inform Section 12 Toxicity to fish: Toxicity to dapher Toxicity to algae: Persistence and Mobility in soil: Other adverse ef Section 13 These disposal of regulations may Section 14 UN/NA number Hazard class: Exceptions: L Section 15 A chemical is conside	or repeated contact may cause irrita uses burning sensation, redness, s toms of exposure: See Potential mation: RTECS #: NT8050000 [Is Ecological Information Pimephales promelas (Fish, fresh v hia and other aquatic invertebrate : Scenedesmus quadricauda (Algad degradability: No data available No data available fects: An environmental hazard ca Disposal Considerations guidelines are intended for the of be different. Dispose of in acco Transport Information (US : UN1219 Shipping I 3 Packing g imited quantity equal to or less Regulatory Information ered to be listed if the CAS number for the	ation and drying, welling, and/or b health effects abd opropanol] vater) LC50: 964 ss: Artemia salina a), LOEC50 = 1,8 Bioaccum PBT and vi innot be excluded disposal of cata ordance with all S DOT / CANAL name: Isopro roup: II 5 than 1 L he anhydrous form	cracking and defatting lurred vision. ove. 0 mg/L/96 hours [lsop a (Crustacea), EC50 = 00 mg/L/7 days [lsop ulative potential: No PvB assessment: No d in the event of unpro- log-size quantities of local, state and fed DA TDG) panol solution Reportal 2016 ER	of the skin which ca ropanol] >10,000 mg/L/24 hc opanol] data available fessional handling or only. Federal regula eral regulations or ble Quantity: No G Guide # 129	n lead to dern urs [Isopropa disposal. ations may a contract with	nol] pply to empty c a licensed che	ontainer. State and/or loca mical disposal agency. arine pollutant: No

dent determinations of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. NTP: National Toxicology Program, IARC: International Agency for Research on Cancer, OSHA: Occupational Safety and Health Administration, STOT: Specific Target Organ Toxicity, SE: Single Exposure, RE: Repeated Exposure, ERG: Emergency Response Guidebook. Form 06/2015

SAFETY DATA SHEET

Section 1

Product

Chemical Product and Company Identification

Page E1 of E2

Innovating Science[®] by Aldon Corporation

"cutting edge science for the classroom"

EDTA DISODIUM 0.005 MOLAR SOLUTION

221 Rochester Street Avon, NY 14414-9409 (585) 226-6177

CHEMTREC 24 Hour Emergency USA Phone Number (800) 424-9300 For laboratory and industrial use only.

Not for drug, food or household use.

Product	EDTA DISODIUM, 0.005 MOLAR SOLUTION	
Synonyms	Ethylenediaminetetraacetic Acid, Water Solution	
Section 2	Hazards Identification	
Pictograms Target orga GHS Classi Skin irritation Eye irritation GHS Label H316: Cause	d: WARNING s: No symbol required ans: None known ification: n (Category 3) n (Category 2B) information: Hazard statement: ses mild skin irritation. ses eye irritation.	Precautionary statement: P264: Wash hands thoroughly after handling. 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.

Hazards not otherwise classified:

Health hazards not otherwise classified (HHNOC) - Not Known Physical hazards not otherwise classified (PHNOC) - Not Known

Section 3 Comp	oosition / Information on In	gredients			
Chemical Name		CAS #	%	EINECS	
Water Ethylenediaminetetraacetic ac Sodium hydroxide Magnesium chloride	cid	7732-18-5 6381-92-6 1310-73-2 7786-30-3	99.69% 0.2% 0.1% 0.01%	231-791-2 200-449-4 215-185-5 232-094-6	

Section 4 First Aid Measures

INGESTION: MAY BE HARMFUL IF SWALLOWED. Call physician or Poison Control Center immediately. Induce vomiting only if advised by appropriate medical personnel. Never give anything by mouth to an unconscious person.

INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

EYE CONTACT: CAUSES IRRITATION. Check for and remove contact lenses. Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get immediate medical attention.

SKIN ABSORPTION: CAUSES IRRITATION. Remove contaminated clothing. Flush thoroughly with mild soap and water. If irritation occurs, get medical attention.

Section 5 Fire Fighting Measures

Suitable Extinguishing Media: Dry chemical, water spray, alcohol foam. Can react with carbon dioxide to form sodium carbonate.

Protective Actions for Fire-fighters: In fire conditions, wear a NIOSH/MSHA-approved self-contained breathing apparatus and full protective gear. Use water spray to keep fire-exposed containers cool.

Specific Hazards: In fire conditions, water may evaporate from this solution which may cause hazardous decomposition products to be formed as dust or fume. Contact with metals can generate hydrogen gas.

Section 6 Accidental Release Measures

Personal Precautions: Evacuate personnel to safe area. Use proper personal protective equipment as indicated in Section 8. Provide adequate ventilation.

Environmental Precautions: Avoid runoff into storm sewers and ditches which lead to waterways.

Containment and Cleanup: Absorb with inert dry material, sweep or vacuum up and place in a suitable container for proper disposal. Wash spill area with soap and water.

Section 7 Handling & Storage

Precautions for Safe Handling: Read label on container before using. Do not wear contact lenses when working with chemicals. Keep out of reach of children. Avoid contact with eyes, skin and clothing. Do not inhale vapors, spray or mist. Use with adequate ventilation. Avoid ingestion. Wash thoroughly after handling. Remove and wash clothing before reuse.

Conditions for Safe Storage: Store in a cool, well-ventilated area away from incompatible substances.

Section 8	Exposure Controls / Personal Pro	tection		
Exposure Limits:	Chemical Name	ACGIH (TLV)	OSHA (PEL)	NIOSH (REL)
Exposure Linits.	Sodium hydroxide	STEL: C 2 mg/m ³	TWA: 2 mg/m ³	STEL: C 2 mg/m ³

Engineering controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower and fire extinguishing material. Personnel should wear safety glasses, goggles, or faceshield, lab coat or apron, appropriate protective gloves. Use adequate ventilation to keep airborne concentrations low.

Respiratory protection: None should be needed in normal laboratory handling at room temperatures. If misty conditions prevail, work in fume hood or wear a NIOSH/MSHAapproved respirator.

Section 9	Physical & Chemical Pro	perties					
	Not applicable. able. point: ~ 0°C (~ 32°F) [water] 00°C (212°F) [water]	Flammability (Explosion limi Vapor pressur Vapor density Relative densi	tte (Water = 1): < 1 solid/gas): Not applied ts: Lower / Upper: N e (mm Hg): 14 [water (Air = 1): 0.7 [water] ty (Specific gravity): Complete in water.	Not applicable r]	Auto-ignitio Decomposi Viscosity: Molecular f	on temperature	e
Section 10	Stability & Reactivity						
Chemical stability Conditions to avo	 y: Stable bid: Excessive temperatures which 		us polymerization:	Will not occur.			
Incompatible mat	erials: Strong oxidizers.						
Hazardous decon	nposition products: Oxides of c	arbon and nitroge	n oxides.				
Section 11	Toxicological Information	Ì					
Germ cell mutage Carcinogenity: D NTP: No compone IARC: No compone OSHA: No compon Reproductive tox STOT-single expo STOT-repeated ex	tin sensitization: Data not availa enicity: Data not available bata not available ent of this product present at level ent of this product present at leve nent of this product present at lev icity: Data not available spure: Data not available xposure: Data not available	s greater than or e Is greater than or	equal to 0.1% is ident	ified as probable, po	ssible or confir	med human card	• •
Potential health e Inhalation: May be Ingestion: May be Skin: Contact may Eyes: Contact may Signs and sympton not available. Exe	e harmful if inhaled. harmful if swallowed. y cause irritation.	ninimize potential	hazards.	and toxicological pro	perties have no	ot been thorough	ily investigated. Specific data
Potential health e Inhalation: May be Ingestion: May be Skin: Contact may Eyes: Contact may Signs and sympt not available. Exe Additional inform Section 12	effects: e harmful if inhaled. e harmful if swallowed. y cause irritation. y cause irritation. oms of exposure: To the best of irrcise appropriate procedures to n hation: RTECS #: WB4900000 [Ecological Information	ninimize potential	hazards.	and toxicological pro	perties have no	ot been thorough	lly investigated. Specific data
Potential health e Inhalation: May be Skin: Contact may Eyes: Contact may Signs and sympto not available. Exe Additional inform Section 12 Toxicity to fish: N Toxicity to daphn Toxicity to algae: Persistence and c Mobility in soil: N	effects: a harmful if inhaled. b harmful if swallowed. y cause irritation. y cause irritation. oms of exposure: To the best of rcise appropriate procedures to n hation: RTECS #: WB4900000 [Ecological Information No data available ia and other aquatic invertebrat No data available degradability: No data available lo data available codata available codata available codata available codata available codata available and other aquatic invertebrat codata available codata avail	ninimize potential Sodium hydroxide tes: No data avail Bioaccumu PBT and vi	hazards.] able µlative potential: No PvB assessment: No	data available o data available		ot been thorough	ıly investigated. Specific data
Potential health e Inhalation: May be Skin: Contact may Eyes: Contact may Signs and sympto not available. Exe Additional inform Section 12 Toxicity to fish: N Toxicity to daphn Toxicity to algae: Persistence and c Mobility in soil: N Other adverse eff Section 13	effects: a harmful if inhaled. b harmful if swallowed. y cause irritation. y cause irritation. oms of exposure: To the best of rcise appropriate procedures to n hation: RTECS #: WB4900000 [Ecological Information No data available ia and other aquatic invertebrat No data available degradability: No data available ko data available iects: An environmental hazard c Disposal Considerations	ninimize potential Sodium hydroxide tes: No data avail Bioaccume PBT and vi annot be excluded	hazards.] able Ilative potential: No PvB assessment: No d in the event of unpro	data available o data available ofessional handling o	r disposal.		
Potential health e Inhalation: May be Skin: Contact may Eyes: Contact may Signs and sympto not available. Exe Additional inform Section 12 Toxicity to fish: N Toxicity to daphen Toxicity to algae: Persistence and o Mobility in soil: N Other adverse eff Section 13 These disposal of	effects: a harmful if inhaled. b harmful if swallowed. y cause irritation. y cause irritation. oms of exposure: To the best of ricise appropriate procedures to n hation: RTECS #: WB4900000 [Ecological Information No data available ia and other aquatic invertebrat No data available degradability: No data available vo data available ects: An environmental hazard c Disposal Considerations guidelines are intended for the be different. Dispose of in acc	ninimize potential Sodium hydroxide tes: No data avail Bioaccume PBT and vi annot be excluded disposal of cata cordance with all	hazards.] able ulative potential: No PvB assessment: No d in the event of unpro- log-size quantities of local, state and fed	data available o data available fessional handling o only. Federal regu	r disposal. lations may ap	oply to empty c	container. State and/or loca
Potential health e Inhalation: May be Skin: Contact may Eyes: Contact may Eyes: Contact may Signs and sympto not available. Exe Additional inform Section 12 Toxicity to fish: N Toxicity to daphen Toxicity to algae: Persistence and o Mobility in soil: N Other adverse eff Section 13 These disposal of	effects: a harmful if inhaled. b harmful if swallowed. y cause irritation. y cause irritation. oms of exposure: To the best of irrise appropriate procedures to n hation: RTECS #: WB4900000 [Ecological Information No data available ia and other aquatic invertebrat No data available degradability: No data available io data available degradability: No data available icets: An environmental hazard c Disposal Considerations quidelines are intended for the	ninimize potential Sodium hydroxide tes: No data avail Bioaccume PBT and vi annot be excluded disposal of cata cordance with all	hazards.] able ulative potential: No PvB assessment: No d in the event of unpro- log-size quantities of local, state and fed	data available o data available fessional handling o only. Federal regu	r disposal. lations may ap	oply to empty c	container. State and/or loca
Potential health e Inhalation: May be Skin: Contact may Eyes: Contact may Signs and sympto not available. Exe Additional inform Section 12 Toxicity to fish: N Toxicity to fish: N Toxicity to daphn Toxicity to algae: Persistence and C Mobility in soil: N Other adverse eff Section 13 These disposal g regulations may	e harmful if inhaled. e harmful if swallowed. y cause irritation. yy cause irritation. yy cause irritation. yy cause irritation. yy cause irritation. oms of exposure: To the best of roise appropriate procedures to n hation: RTECS #: WB4900000 [Ecological Information No data available ia and other aquatic invertebrat No data available degradability: No data available degradability: No data available degradability: No data available defrects: An environmental hazard c Disposal Considerations puidelines are intended for the be different. Dispose of in acc Transport Information (U : : Not applicable Pact Not applicable Pact lot applicable 2016	ninimize potential Sodium hydroxide tes: No data avail Bioaccume PBT and vi annot be excluded disposal of cata cordance with all	hazards.] able Jative potential: No PvB assessment: No d in the event of unpro- log-size quantities of local, state and fed DA TDG) Jot Regulated ot applicable	data available o data available fessional handling o only. Federal regu	r disposal. ations may ap contract with	oply to empty o a licensed che	container. State and/or loca
Potential health e Inhalation: May be Skin: Contact may Eyes: Contact may Eyes: Contact may Signs and sympto not available. Exe Additional inform Section 12 Toxicity to fish: N Toxicity to fish: N Toxicity to daphn Toxicity to daphn Toxicity to algae: Persistence and C Mobility in soil: N Other adverse eff Section 13 These disposal g regulations may Section 14 UN/NA number Hazard class: I Exceptions: N Section 15	effects: a harmful if inhaled. b harmful if swallowed. y cause irritation. y cause irritation. y cause irritation. oms of exposure: To the best of rcise appropriate procedures to n hation: RTECS #: WB4900000 [Ecological Information No data available ia and other aquatic invertebrat No data available degradability: No data available No data available degradability: No data available vo data available degradability: No data available vo data available defrects: An environmental hazard c Disposal Considerations puidelines are intended for the be different. Dispose of in acc Transport Information (U C: Not applicable Pac lot applicable 2016 Regulatory Information	hinimize potential Sodium hydroxide tes: No data avail Bioaccume PBT and vi annot be excluded disposal of cata cordance with all IS DOT / CANAL Sping name: N king group: N S ERG Guide #	hazards.] able Ilative potential : No PvB assessment : No d in the event of unpro- log-size quantities of local, state and fed DA TDG) Iot Regulated ot applicable Not applicable	data available o data available ofessional handling o only. Federal regu eral regulations or	r disposal. ations may ap contract with	oply to empty o a licensed che	container. State and/or loca
Potential health e Inhalation: May be Skin: Contact may Eyes: Contact may Eyes: Contact may Signs and sympton not available. Exe Additional inform Section 12 Toxicity to fish: N Toxicity to fish: N Toxicity to daphn Toxicity to daphn Toxicity to algae: Persistence and C Mobility in soil: N Other adverse eff Section 13 These disposal g regulations may Section 14 UN/NA number Hazard class: N Section 15 A chemical is conside	a harmful if inhaled. a harmful if swallowed. y cause irritation. yy cause irritation. torfies appropriate procedures to neation: RTECS #: WB4900000 [Ecological Information No data available degradability: No data available degradability: No data available degradability: No data available detta available	hinimize potential Sodium hydroxide tes: No data avail Bioaccume PBT and vi annot be excluded disposal of cata cordance with all S DOT / CANAL Dig group: No 5 ERG Guide # the anhydrous form	hazards. J able Jlative potential: No PvB assessment: No d in the event of unpro- log-size quantities of local, state and fed DA TDG) Jot Regulated ot applicable Not applicable is on the Inventory list.	data available o data available ofessional handling o only. Federal regu eral regulations of Reportable Qu	r disposal. ations may ag contract with antity: No	oply to empty o a licensed che Ma	container. State and/or loca emical disposal agency. arine pollutant: No
Potential health e Inhalation: May be Skin: Contact may Eyes: Contact may Eyes: Contact may Signs and sympto not available. Exe Additional inform Section 12 Toxicity to fish: N Toxicity to fish: N Toxicity to daphn Toxicity to algae: Persistence and C Mobility in soil: N Other adverse eff Section 13 These disposal g regulations may Section 14 UN/NA number Hazard class: N Section 15	a harmful if inhaled. a harmful if swallowed. y cause irritation. orms of exposure: To the best of troise appropriate procedures to n hation: RTECS #: WB4900000 [Ecological Information No data available ia and other aquatic invertebrat No data available degradability: No data available degradability: No data available degradability: No data available detres: An environmental hazard or Disposal Considerations Buidelines are intended for the be different. Dispose of in acc Transport Information (U : Not applicable Paci Not applicable Paci Iot applicable 2016 Regulatory Information Browner for or to be listed if the CAS number for Browner for	hinimize potential Sodium hydroxide tes: No data avail Bioaccume PBT and vi annot be excluded disposal of cata cordance with all IS DOT / CANAL Sping name: N king group: N S ERG Guide #	hazards.] able Ilative potential : No PvB assessment : No d in the event of unpro- log-size quantities of local, state and fed DA TDG) Iot Regulated ot applicable Not applicable	data available o data available ofessional handling o only. Federal regu eral regulations or	r disposal. ations may ap contract with	oply to empty o a licensed che	container. State and/or loca emical disposal agency.

IARC: International Agency for Research on Cancer, OSHA: Occupational Safety and Health Administration, STOT: Specific Target Organ Toxicity, SE: Single Exposure, RE: Repeated Exposure, ERG: Emergency Response Guidebook.