Page E1 of E2

Section 1

Identification

INNOVATING SCIENCE

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

by Aldon Corporation

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

"Cutting edge science for the classroom" Not for drug, food or household use. HYDROCHLORIC ACID, 1 MOLAR (1 NORMAL) SOLUTION Product Synonyms Muriatic Acid, Water Solution / Hydrogen Chloride, Water Solution Section 2 Hazards identification Signal word: WARNING Precautionary statement(s): Pictograms: GHS05 P234: Keep only in original container. Target organs: Respiratory system, skin, eyes, lungs. P264: Wash hands thoroughly after handling. P305+P351+P338: IF IN EYES: Rinse cautiously with water for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P332+P313: If skin irritation occurs: Get medical attention. P337+P313: If eye irritation persists: Get medical attention. P390: Absorb spillage to prevent material damage. **GHS Classification:** P406: Store in corrosive resistant container with a resistant inner liner. Corrosive to metals (Category 1) Skin irritant (Category 3) Eye irritant (Category 2B) GHS Label information: Hazard statement(s): H290: May be corrosive to metals. H316: Causes mild skin irritation. H320: Causes eve irritation. Hazards not otherwise classified: Health hazards not otherwise classified (HHNOC) - Not Known Physical hazards not otherwise classified (PHNOC) - Not Known

Section 3 Composition / information on ingredients EINECS **Chemical Name** CAS # % Water 7732-18-5 96.86% 231-791-2 Hydrochloric acid 7647-01-0 3.14% 231-595-7 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. Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

EYE CONTACT: MAY CAUSE 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 CAUSE 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. Contact with metals produce hydrogen, which is flammable and may produce explosive mixtures with air.

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 and 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 prot	tection		
Exposure Limits:	Chemical Name	ACGIH (TLV)	OSHA (PEL)	NIOSH (REL)
Exposure Linits.	Hydrogen chloride	STEL: C 2 ppm / C 2.98 mg/m ³	STEL: C 5 ppm / C 7 mg/m ³	STEL: C 5 ppm / C 7 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.

approved respirator.							
Section 9	Physical and chemical pro	perties					
Appearance: Clear, Odor: No odor. Odor threshold: No pH: No data availabl Melting / Freezing p Boiling point: ~ 100 Flash point: Not flar Evaporation rate (=	data available e oint: ~ 0°C (~ 32°F) [water] °C (212°F) [water] nmable.	Explosion lin Vapor pressu Vapor density Relative dens Solubility(ies Partition coeffi	(solid/gas): No data a its: Upper/Lower: No re (mm Hg): 14 [water] (/Air = 1): 0.7 [water] ity (Specific gravity): : Complete. cient: (n-octanol / water): temperature: No data	o data available 1.0 [water] No data available	Viscosity: Molecular	sition temperatu No data availabl formula: Mixture weight: Mixture	e.
Section 10	Stability and reactivity						
	Containers may burst when he	eated. Avoid co					
formaldehyde.	als: Metals, bases, active meta		, oxidizing agents, hydro	oxides, amines, carl	bonates, cyani	des, sulfides, sulf	ītes,
•	osition products: Hydrogen ch	lloride gas.					
Section 11	Toxicological information						
Serious eye damage Respiratory or skin Germ cell mutageni Carcinogenity: Data NTP: No component IARC: Group 3: Not OSHA: No compone Ca Prop 65: This pro- Reproductive toxici STOT-single exposu STOT-repeated expo Aspiration hazard: Potential health effe Exercise appropriate Inhalation: May be ha Skin: May cause irrit Signs and symptom Additional informati	tion: Data not available at this dirritation: Data not available sensitization: Data not available isensitization: Data not available city: Data not available of this product present at levels classifiable as to its carcinogeni nt of this product present at level duct does not contain any chem ty: Data not available Data not available Data not available cts: To the best of our knowled procedures to minimize potentia armful if inhaled. Material may armful if swallowed. ation and/or burns. tation and/or burns. ation and/or burns. s of exposure: Data not available on: RTECS #: MW4025000 [h	at this dilution. le greater than or city to humans. ls greater than icals known to the lution. lge the chemica al hazards. cause irritation the solute at this dilution	or equal to 0.1% is iden the State of California to , physical and toxicolog o the tissue of the muco	iffied as a carcinoge cause cancer or rep ical properties have	en or potential productive toxi e not been thor	carcinogen by OS city. roughly investigat	
Section 12	Ecological information						
Toxicity to daphnia Toxicity to algae: No Persistence and dec Mobility in soil: No	radability: No data available	s: No data avai Bioaccum PBT and v	lable ulative potential: No c PvB assessment: No	lata available data available	r disposal.		
Section 13	Disposal considerations						
	delines are intended for the or different. Dispose of in acco Transport information						
UN/NA number: Hazard class: 8 Exceptions: Limi		ng group: II	lydrochloric acid I	Reportable Qua 2020 ERG Guid		lbs (2270 kg)	Marine pollutant: No
Section 15	Regulatory information						
A chemical is considered Compone	to be listed if the CAS number for t	he anhydrous forn TSCA	t is on the Inventory list.	RCRA code	DSL	NDSL	CA Prop 65
Hydrochloric acid		Listed	5000 lbs (2270 kg)	D002	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	d herein is furnished without warrar	ty of any kind Fr	nplovers should use this in	formation only as a su	ipplement to othe	er information dathe	ered by them and must make indepen-

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

Page E1 of E2

Section 1

Identification

[®] by Aldon Corporation **INNOVATING SCIENC**

221 Rochester Street Avon, NY 14414-9409 "Cutting edge science for the classroom" (585) 226-6177

CHEMTREC 24 Hour Emergency Phone Number (800) 424-9300

For laboratory and industrial use only. Not for drug, food or household use.

Physical hazards not otherwise classified (PHNOC) - Not Known

Section 3	Composition / information on ingredients						
Chemical Name		CAS #	%	EINECS			
Isopropyl alcohol Water Phenolphthalein		67-63-0 7732-18-5 77-09-8	70% 29% 1%	200-661-7 231-791-2 201-004-7			
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.

Accidental release measures Section 6

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 and 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 prof	ection		
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 and chemical pro	perties						
Boiling point: Appr	dor. Data not available.	Flammability (s Explosion limit Vapor pressure Vapor density (Relative density (te (Butyl acetate = 1): solid/gas): Data not a s: Lower / Upper: 29 e (mm Hg): 33 mm @: Air = 1): 2.1 [Pure IP/ Specific gravity): 0.8* Complete in water.	vailable. % / 12% [Pure IPA] 20°C [Pure IPA]	Auto-ignitio Decompos Viscosity: Molecular	n temperature: 39	re	
Section 10	Stability and reactivity							
Chemical stability	/: Stable	Hazardo	us polymerization: W	Vill not occur.				
	bid: Excessive temperatures, heat			0				
·	erials: Strong oxidizing materials,	,	ums, metals, nitroform,	, oleum, chlorinated	compounds o	an react vigorous	sly with this alcohol.	
Hazardous decon	nposition products: Oxides of ca	rbon.						
Section 11	Toxicological information							
)ral-rat LD50: >2000 mg/kg ; Inhala	tion-rat LC50: >5	000 ppm/1hr [leoprop	anoll				
CA Prop 65: Reproductive tox STOT-single expo STOT-repeated ex	nent of this product present at leve ARNING! :This product can expose :icity: Data not available >sure: The substance or mixture i xposure: Data not available	e you to Phenolph	thalein, which is known	n to the State of Čali	fornia to caus	se cancer.		
and irritation of the Ingestion: Aspirati develop if this occi Skin: Prolonged o Eyes: Contact caa Signs and sympto Additional inform	offects: tion of high vapor concentrations m e throat. Continued inhalation may ion hazard. Liquid can directly entr urs. r repeated contact may cause irritz uses burning sensation, redness, s oms of exposure: See Potential I nation: RTECS #: NT8050000 [Is	résult in unconso er the lungs (aspi ation and drying, o welling, and/or bl nealth effects abo	viousness and death. rated) when swallowed cracking and defatting urred vision.	d or vomited. Seriou of the skin which car	s lung damag	e and possible fa		
Potential health e Inhalation: Inhalat and irritation of the Ingestion: Aspirati develop if this occu Skin: Prolonged o Eyes: Contact cau Signs and sympt Additional inform Section 12	effects: tion of high vapor concentrations me throat. Continued inhalation may ion hazard. Liquid can directly entrurs. or repeated contact may cause irrita uses burning sensation, redness, s oms of exposure: See Potential I hation: RTECS #: NT8050000 [Is Ecological information	result in unconso er the lungs (aspi ation and drying, welling, and/or bl nealth effects abo opropanol] / SM8	iousness and death. rated) when swallowed cracking and defatting urred vision. we. 380000 [Phenolphthale	d or vomited. Seriou of the skin which car ein]	s lung damag	e and possible fa		
Potential health e Inhalation: Inhalat and irritation of the Ingestion: Aspirati develop if this occu Skin: Prolonged o Eyes: Contact cat Signs and sympton Additional inform Section 12 Toxicity to fish: F Toxicity to fish: F Toxicity to daphen Toxicity to algae: Persistence and of Mobility in soil: N	Affects: ion of high vapor concentrations m te throat. Continued inhalation may ion hazard. Liquid can directly entu- urs. r repeated contact may cause irrita uses burning sensation, redness, s oms of exposure: See Potential I nation: RTECS #: NT8050000 [Is Ecological information Pimephales promelas (Fish, fresh v ia and other aquatic invertebrate Scenedesmus quadricauda (Algae degradability: No data available No data available tects: An environmental hazard ca	résult in unconso er the lungs (aspi ation and drying, (welling, and/or bl health effects abc opropanol] / SM8 water) LC50: 9640 es: Daphnia magr a), LOEC50 = 1,8 Bioaccumu PBT and vF	iousness and death. rated) when swallowed cracking and defatting our we. 380000 [Phenolphthale 0 mg/l/96 hours [Isopro na (Crustacia), EC50 = 00 mg/l/7 days [Isopro lative potential: No c PvB assessment: No	d or vomited. Seriou of the skin which car ein] =>10,000 mg/l/24 ho panol] data available data available	s lung damag n lead to derr urs [Isopropa	e and possible fa		
Potential health e Inhalation: Inhalat and irritation of the Ingestion: Aspirati develop if this occu Skin: Prolonged o Eyes: Contact cau Signs and sympton Additional inform Section 12 Toxicity to fish: F Toxicity to fish: F Toxicity to daphen Toxicity to algae: Persistence and o Mobility in soil: N Other adverse eff Section 13	Affects: ion of high vapor concentrations m te throat. Continued inhalation may ion hazard. Liquid can directly entures. Trepeated contact may cause irritations burning sensation, redness, s oms of exposure: See Potential liation: RTECS #: NT8050000 [Is Ecological information Pimephales promelas (Fish, fresh vina and other aquatic invertebrated Scenedesmus quadricauda (Algaed degradability: No data available No data available tects: An environmental hazard ca Disposal considerations	résult in unconse er the lungs (aspi ation and drying, (welling, and/or bl tealth effects abc opropanol] / SM8 vater) LC50: 9640 se: Daphnia mag b), LOEC50 = 1,8 Bioaccumu PBT and vF nnot be excluded	iousness and death. rated) when swallowed cracking and defatting our we. 380000 [Phenolphthale 0 mg/l/96 hours [Isopro na (Crustacia), EC50 = 00 mg/l/7 days [Isopro lative potential: No co PvB assessment: No in the event of unprofe	d or vomited. Seriou of the skin which car ein] = >10,000 mg/l/24 ho panol] data available data available essional handling or	s lung damag n lead to derr urs [Isopropa disposal.	e and possible fa natitis. nol]	atal chemical pneumonia can	
Potential health e Inhalation: Inhalati and irritation of the Ingestion: Aspirati develop if this occi Skin: Prolonged o Eyes: Contact cau Signs and sympto Additional inform Section 12 Toxicity to fish: F Toxicity to fish: F Toxicity to daphen Toxicity to algae: Persistence and C Mobility in soil: N Other adverse eff Section 13 These disposal g	Affects: ion of high vapor concentrations m te throat. Continued inhalation may ion hazard. Liquid can directly entu- urs. r repeated contact may cause irrita uses burning sensation, redness, s oms of exposure: See Potential I nation: RTECS #: NT8050000 [Is Ecological information Pimephales promelas (Fish, fresh v ia and other aquatic invertebrate Scenedesmus quadricauda (Algae degradability: No data available No data available tects: An environmental hazard ca	résult in unconso er the lungs (aspi ation and drying, (welling, and/or bl health effects abo opropanol] / SM8 vater) LC50: 9640 es: Daphnia magr b), LOEC50 = 1,8 Bioaccumu PBT and vF nnot be excluded lisposal of catal	iousness and death. rated) when swallowed cracking and defatting our we. 380000 [Phenolphthale 0 mg/l/96 hours [Isopro na (Crustacia), EC50 = 00 mg/l/7 days [Isopro lative potential: No c PvB assessment: No l in the event of unprofe og-size quantities or	d or vomited. Seriou of the skin which car ein] =>10,000 mg/l/24 ho panol] data available data available data available ressional handling or	s lung damag n lead to derr urs [Isopropa disposal. tions may a	e and possible fa natitis. nol] pply to empty c	atal chemical pneumonia can	
Potential health e Inhalation: Inhalati and irritation of the Ingestion: Aspirati develop if this occi Skin: Prolonged o Eyes: Contact cau Signs and sympto Additional inform Section 12 Toxicity to fish: F Toxicity to fish: F Toxicity to daphen Toxicity to algae: Persistence and C Mobility in soil: N Other adverse eff Section 13 These disposal g	effects: ion of high vapor concentrations m e throat. Continued inhalation may ion hazard. Liquid can directly entrurs. r repeated contact may cause irrita uses burning sensation, redness, s oms of exposure: See Potential I hation: RTECS #: NT8050000 [Is Ecological information Pimephales promelas (Fish, fresh v ia and other aquatic invertebrate Scenedesmus quadricauda (Algae degradability: No data available No data available fects: An environmental hazard can Disposal considerations guidelines are intended for the constant of the constant of the second provide intended for the constant of the constant of the second provide intended for the second provid	résult in unconso er the lungs (aspi ation and drying, (welling, and/or bl health effects abo opropanol] / SM8 vater) LC50: 9640 es: Daphnia magr b), LOEC50 = 1,8 Bioaccumu PBT and vF nnot be excluded lisposal of catal	iousness and death. rated) when swallowed cracking and defatting our we. 380000 [Phenolphthale 0 mg/l/96 hours [Isopro na (Crustacia), EC50 = 00 mg/l/7 days [Isopro lative potential: No c PvB assessment: No l in the event of unprofe og-size quantities or	d or vomited. Seriou of the skin which car ein] =>10,000 mg/l/24 ho panol] data available data available data available ressional handling or	s lung damag n lead to derr urs [Isopropa disposal. tions may a	e and possible fa natitis. nol] pply to empty c	atal chemical pneumonia can	
Potential health e Inhalation: Inhalat and irritation of the Ingestion: Aspirati develop if this occu Skin: Prolonged o Eyes: Contact cat Signs and sympton Additional inform Section 12 Toxicity to fish: F Toxicity to fish: F Toxicity to daphen Toxicity to algae: Persistence and c Mobility in soil: N Other adverse eff Section 13 These disposal g regulations may I Section 14 UN/NA number: Hazard class: S	effects: ion of high vapor concentrations m te throat. Continued inhalation may ion hazard. Liquid can directly entu- urs. r repeated contact may cause irrita uses burning sensation, redness, s oms of exposure: See Potential I hation: RTECS #: NT8050000 [Is Ecological information Pimephales promelas (Fish, fresh v ia and other aquatic invertebrate Scenedesmus quadricauda (Algae degradability: No data available No data available dets: An environmental hazard can Disposal considerations guidelines are intended for the of be different. Dispose of in accor Transport information : UN1219 Shipping for	résult in unconso er the lungs (aspi ation and drying, (welling, and/or bl health effects abo opropanol] / SM8 water) LC50: 9640 es: Daphnia magr b), LOEC50 = 1,8 Bioaccumu PBT and vF nnot be excluded broace with all name: Isoprop roup: II	iousness and death. rated) when swallowed cracking and defatting our we. 380000 [Phenolphthale 0 mg/l/96 hours [Isopro ha (Crustacia), EC50 = 00 mg/l/7 days [Isopro lative potential: No c PvB assessment: No l in the event of unprofe og-size quantities or local, state and fede banol solution Reportab	d or vomited. Seriou of the skin which car ein] =>10,000 mg/l/24 ho panol] data available data available data available ressional handling or	s lung damag n lead to derr urs [Isopropa disposal. tions may a	pe and possible fanatitis. nol]	atal chemical pneumonia can	
Potential health e Inhalation: Inhalat and irritation of the Ingestion: Aspirati develop if this occu Skin: Prolonged o Eyes: Contact cat Signs and sympton Additional inform Section 12 Toxicity to fish: F Toxicity to fish: F Toxicity to daphen Toxicity to algae: Persistence and c Mobility in soil: N Other adverse eff Section 13 These disposal g regulations may I Section 14 UN/NA number: Hazard class: S	effects: ion of high vapor concentrations m ie throat. Continued inhalation may ion hazard. Liquid can directly entrurs. or repeated contact may cause irritations m repeated contact may cause irritations sees burning sensation, redness, s om of exposure: See Potential I hation: RTECS #: NT8050000 [Is Ecological information Pimephales promelas (Fish, fresh via and other aquatic invertebrate Scenedesmus quadricauda (Algae degradability: No data available locts: An environmental hazard ca Disposal considerations guidelines are intended for the c be different. Dispose of in accor Transport information : UN1219 Shipping in 3 Packing g	résult in unconso er the lungs (aspi ation and drying, (welling, and/or bl health effects abo opropanol] / SM8 water) LC50: 9640 es: Daphnia magr b), LOEC50 = 1,8 Bioaccumu PBT and vF nnot be excluded broace with all name: Isoprop roup: II	iousness and death. rated) when swallowed cracking and defatting our we. 380000 [Phenolphthale 0 mg/l/96 hours [Isopro ha (Crustacia), EC50 = 00 mg/l/7 days [Isopro lative potential: No c PvB assessment: No l in the event of unprofe og-size quantities or local, state and fede banol solution Reportab	d or vomited. Seriou of the skin which car ein] =>10,000 mg/l/24 ho panol] data available data available data available ressional handling or hly. Federal regulations or o ole Quantity: No	s lung damag n lead to derr urs [Isopropa disposal. tions may a	pe and possible fanatitis. nol]	atal chemical pneumonia can container. State and/or loca emical disposal agency.	
Potential health e Inhalation: Inhalat and irritation of the Ingestion: Aspirati develop if this occu Skin: Prolonged o Eyes: Contact cau Signs and sympt Additional inform Section 12 Toxicity to fish: F Toxicity to fish: F Toxicity to daphen 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: C Exceptions: Li Section 15 A chemical is conside	effects: ion of high vapor concentrations m ion of high vapor concentrations m e throat. Continued inhalation may ion hazard. Liquid can directly enture. or repeated contact may cause irrita urs. or repeated contact may cause irrita uses burning sensation, redness, s oms of exposure: See Potential batton: RTECS #: NT8050000 [Is Ecological information Pimephales promelas (Fish, fresh v ia and other aquatic invertebrate Scenedesmus quadricauda (Algae degradability: No data available vo be different. Dispose of in accord Transport information vo N1219 Shipping in and packing g imited quantity equal to or less Regulatory information red to be listed if the CAS number for tor	résult in unconso er the lungs (aspi ation and drying, (welling, and/or bl health effects abc opropanol] / SM8 vater) LC50: 9640 se: Daphnia magn b), LOEC50 = 1,8 Bioaccumu PBT and vF nnot be excluded lisposal of catal ordance with all name: Isoprop roup: II than 1 L he anhydrous form	iousness and death. rated) when swallowed cracking and defatting of urred vision. we. 380000 [Phenolphthale 0 mg/l/96 hours [Isopro a (Crustacia), EC50 = 00 mg/l/7 days [Isopro lative potential: No of PvB assessment: No i in the event of unprofe og-size quantities or local, state and fede banol solution Reportab 2020 ERC is on the Inventory list.	d or vomited. Seriou of the skin which car ein] =>10,000 mg/l/24 ho panol] data available data available essional handling or hly. Federal regula eral regulations or o ble Quantity: No 3 Guide # 129	s lung damag n lead to derr urs [Isopropa disposal. tions may a contract with	e and possible fa natitis. nol] pply to empty c n a licensed che Ma	container. State and/or loca emical disposal agency.	
Potential health e Inhalation: Inhalat and irritation of the Ingestion: Aspirati develop if this occu Skin: Prolonged o Eyes: Contact cau Signs and symptr Additional inform Section 12 Toxicity to fish: F Toxicity to fish: F Toxicity to fish: G 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: C Exceptions: Li Section 15 A chemical is conside Compo	effects: ion of high vapor concentrations m ion of high vapor concentrations m e throat. Continued inhalation may ion hazard. Liquid can directly enture. or repeated contact may cause irrita urs. or repeated contact may cause irrita uses burning sensation, redness, s oms of exposure: See Potential batton: RTECS #: NT8050000 [Is Ecological information Pimephales promelas (Fish, fresh v ia and other aquatic invertebrate Scenedesmus quadricauda (Algae degradability: No data available vo be different. Dispose of in accord Transport information vo N1219 Shipping in and packing g imited quantity equal to or less Regulatory information red to be listed if the CAS number for tor	résult in unconso er the lungs (aspi ation and drying, (welling, and/or bl health effects abc opropanol] / SM8 vater) LC50: 9640 vater) L	iousness and death. rated) when swallowed cracking and defatting our we. 380000 [Phenolphthale 0 mg/l/96 hours [Isopro a (Crustacia), EC50 = 00 mg/l/7 days [Isopro lative potential: No c 2vB assessment: No in the event of unprofe og-size quantities or local, state and fede coanol solution Reportab 2020 ERC is on the Inventory list. CERLCA (RQ)	d or vomited. Seriou of the skin which car ein] =>10,000 mg/l/24 ho panol] data available data available essional handling or hly. Federal regula eral regulations or of Die Quantity: No 3 Guide # 129 RCRA code	s lung damag n lead to derr urs [Isopropa disposal. titions may a contract with	e and possible fa natitis. nol] pply to empty c n a licensed che Ma NDSL	container. State and/or loca emical disposal agency. arine pollutant: No CA Prop 65	
Potential health e Inhalation: Inhalati and irritation of the Ingestion: Aspirati develop if this occu Skin: Prolonged o Eyes: Contact cau Signs and sympt Additional inform Section 12 Toxicity to fish: F Toxicity to fish: F Toxicity to daphen 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: C Exceptions: Li Section 15 A chemical is conside	effects: ion of high vapor concentrations m ion of high vapor concentrations m e throat. Continued inhalation may ion hazard. Liquid can directly enture. or repeated contact may cause irrita urs. or repeated contact may cause irrita uses burning sensation, redness, s oms of exposure: See Potential batton: RTECS #: NT8050000 [Is Ecological information Pimephales promelas (Fish, fresh v ia and other aquatic invertebrate Scenedesmus quadricauda (Algae degradability: No data available vo be different. Dispose of in accord Transport information vo N1219 Shipping in and packing g imited quantity equal to or less Regulatory information red to be listed if the CAS number for tor	résult in unconso er the lungs (aspi ation and drying, (welling, and/or bl health effects abc opropanol] / SM8 vater) LC50: 9640 se: Daphnia magn b), LOEC50 = 1,8 Bioaccumu PBT and vF nnot be excluded lisposal of catal ordance with all name: Isoprop roup: II than 1 L he anhydrous form	iousness and death. rated) when swallowed cracking and defatting of urred vision. we. 380000 [Phenolphthale 0 mg/l/96 hours [Isopro a (Crustacia), EC50 = 00 mg/l/7 days [Isopro lative potential: No of PvB assessment: No i in the event of unprofe og-size quantities or local, state and fede banol solution Reportab 2020 ERC is on the Inventory list.	d or vomited. Seriou of the skin which car ein] =>10,000 mg/l/24 ho panol] data available data available essional handling or hly. Federal regula eral regulations or o ble Quantity: No 3 Guide # 129	s lung damag n lead to derr urs [Isopropa disposal. tions may a contract with	e and possible fa natitis. nol] pply to empty c n a licensed che Ma	container. State and/or loca emical disposal agency.	

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.

GENERAL STORAGE CODE GREEN

Page E1 of E2

Section 1

Identification

INNOVATING SCIENCE

"Cutting edge science for the classroom"

by Aldon Corporation 221 Rochester Street Avon, NY 14414-9409 (585) 226-6177 CHEMTREC 24 Hour Emergency Phone Number (800) 424-9300 For laboratory and industrial use only. Not for drug, food or household use.

Product	POTASSIUM HYDROGEN PHTHALATE	
Synonyms	Potassium Biphthalate ; Potassium Acid Phthalate	
Section 2	Hazards identification	
	WARNING No symbol required s: None known	Precautionary statement: P312: Call a POISON CENTER or doctor if you feel unwell.
GHS Classifie Acute toxicity,	cation: oral (Category 5)	
	formation: Hazard statement: harmful if swallowed.	

Hazards not otherwise classified:

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				
Potassium hydrogen phthalate	877-24-7	100%	212-889-4				
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 CAUSE RESPIRATORY TRACT IRRITATION. Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

EYE CONTACT: MAY CAUSE 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 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: 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: Recover for reuse if not contaminated. Sweep or vacuum up and place in a suitable container for proper disposal. Wash spill area with soap and water.

Section 7 Handling and storage

Page E2 of E2

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 dusts. 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.

Section 8	Exposure controls / personal prot	ection		
Exposure Limits:	Chemical Name	ACGIH (TLV)	OSHA (PEL)	NIOSH (REL)
Exposure Limits.	Particles not otherwise classified	Not established	TWA: 15 mg/m ³ total dust	Not established

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 dusty conditions prevail, work in fume hood or wear a NIOSH/MSHAapproved respirator.

approved respirato)r.								
Section 9	Physical and chem	Physical and chemical properties							
Appearance:Solid. White, crystalline powder Odor:Evaporation rate (=1):Data not available Partition coefficient:Partition coefficient:Data not available Auto-ignition temperature:Odor:No dor.No dor.Flammability (solid/gas):Data not available. Explosion limits:Partition coefficient:Data not available Auto-ignition temperature:Data notpH:4.0 (0.05M aqueous solution) Melting / Freezing point:295-300°C (563-572°F) Partition coefficient:Vapor pressure (mm Hg):Data not available Vapor pressure (mm Hg):Data not available Neerity (Air = 1):Nolecular formula:C ₈ H ₅ KO ₄ Molecular weight:204.23Flash point:Data not available Data not availableSolubility(ies):Soluble in water.Solubility (ies):Soluble in water.						: Data not available re: Data not available. ıle.			
Section 10	Stability and reacti	ivity							
	mical stability: Stable Hazardous polymerization: Will not occur. ditions to avoid: Excessive temperatures and heat.								
Incompatible mat	erials: Strong oxidizers.								
Hazardous decom	nposition products: Car	bon oxides, potassi	ım oxides.						
Section 11	Toxicological infor	rmation							
Carcinogenity: D NTP: No compone IARC: No compone OSHA: No compor Ca Prop 65: This p	enicity: Data not availabl Data not available ent of this product present ent of this product present nent of this product prese product does not contain a	t at levels greater that t at levels greater th ent at levels greater t	an or equal to 0.1% is iden han or equal to 0.1% is ide	tified as probable, po entified as a carcinog	ssible or confin len or potential	med human card carcinogen by 0	cinogen by IARC.		
STOT-single expo STOT-repeated ex Aspiration hazard Potential health e Inhalation: Inhalati Ingestion: Ingestic Skin: Contact with Eyes: Contact with Signs and sympto not available. Exe	tion may cause respiratory on may cause nausea, vo n skin may cause irritation h eyes may cause irritatio oms of exposure: To the ercise appropriate procedu	e able y irritation. miting, and diarrhea ı. n. e best of our knowle ures to minimize pot	dge the chemical, physica	l and toxicological pr	operties have i	not been thoroug	hly investigated. Specific da		
STOT-single expo STOT-repeated ex Aspiration hazard Potential health e Inhalation: Inhalat Ingestion: Ingestic Skin: Contact with Eyes: Contact with Signs and sympton not available. Exe Additional inform Section 12	besure: Data not available xposure: Data not available ad: Data not available effects: tion may cause respiratory on may cause nausea, voi n skin may cause irritation h eyes may cause irritation oms of exposure: To the proces appropriate procedu- mation: RTECS #: CZ432 Ecological informa	e able miting, and diarrhea n. e best of our knowle ures to minimize pot 26000	dge the chemical, physica	l and toxicological pr	operties have i	not been thoroug	hly investigated. Specific da		
STOT-single expo STOT-repeated ex Aspiration hazaro Potential health en Inhalation: Inhalat Ingestion: Ingestic Skin: Contact with Eyes: Contact with Eyes: Contact with Eyes: Contact with Signs and symptem not available. Exe Additional inform Section 12 Toxicity to fish: N Toxicity to fish: N Toxicity to algae: Persistence and co Mobility in soil: N Other adverse effor Section 13	osure: Data not available xposure: Data not available affects: tion may cause respiratory on may cause nausea, voin a kin may cause irritation h eyes may cause irritation oms of exposure: To the action: RTECS #: CZ433 Ecological information No data available ia and other aquatic invertion No data available degradability: No data available ects: An environmental h Disposal consider	y irritation. miting, and diarrhea n. on. e best of our knowle ures to minimize pot 26000 attion ertebrates: No data vailable Bioac PBT a nazard cannot be exer rations	dge the chemical, physica ential hazards. available cumulative potential: No nd vPvB assessment: N cluded in the event of unpr	o data available lo data available ofessional handling o	r disposal.				
STOT-single expo STOT-repeated ex Aspiration hazarc Potential health en Inhalation: Inhalat Ingestion: Ingestic Skin: Contact with Eyes: Contact with Eyes: Contact with Signs and sympti- not available. Exe Additional inform Section 12 Toxicity to fish: N Toxicity to daphni Toxicity to algae: Persistence and of Mobility in soil: N Other adverse effor Section 13 These disposal g regulations may b	osure: Data not available xposure: Data not available affects: tion may cause respiratory on may cause respiratory on may cause nausea, vo a skin may cause irritation h eyes may cause irritation ons of exposure: To the percise appropriate procedu tation: RTECS #: CZ432 Ecological information No data available tia and other aquatic invor No data available degradability: No data available tects: An environmental h Disposal consider guidelines are intended be different. Dispose o	y irritation. mitting, and diarrhea n. e best of our knowle ures to minimize pot 26000 attion ertebrates: No data vailable Bioac PBT a nazard cannot be exer rations for the disposal of fi naccordance witting	dge the chemical, physica ential hazards. available cumulative potential: No nd vPvB assessment: No cluded in the event of unpr catalog-size quantities	o data available lo data available ofessional handling o only. Federal regu	r disposal. lations may a	pply to empty c	ontainer. State and/or loc		
STOT-single expo STOT-repeated ex Aspiration hazarc Potential health en Inhalation: Inhalat Ingestion: Ingestic Skin: Contact with Eyes: Contact with Eyes: Contact with Signs and sympti- not available. Exe Additional inform Section 12 Toxicity to fish: N Toxicity to daphni Toxicity to daphni Toxicity to algae: Persistence and c Mobility in soil: N Other adverse effor Section 13 These disposal g	osure: Data not available xposure: Data not available affects: tion may cause respiratory on may cause nausea, von a skin may cause irritation h eyes may cause irritation ons of exposure: To the arcise appropriate procedu- tation: RTECS #: CZ433 Ecological information No data available tegradability: No data available tects: An environmental h Disposal consider puidelines are intended	y irritation. mitting, and diarrhea n. e best of our knowle ures to minimize pot 26000 attion ertebrates: No data vailable Bioac PBT a nazard cannot be exer rations for the disposal of fi naccordance witting	dge the chemical, physica ential hazards. available cumulative potential: No nd vPvB assessment: No cluded in the event of unpr catalog-size quantities	o data available lo data available ofessional handling o only. Federal regu	r disposal. lations may a	pply to empty c	ontainer. State and/or loc		
STOT-single expo STOT-repeated ex Aspiration hazarc Potential health e Inhalation: Inhalat Ingestion: Ingestic Skin: Contact with Eyes: Contact with Eyes: Contact with Signs and sympt not available. Exe Additional inform Section 12 Toxicity to fish: N Toxicity to fish: N Toxicity to algae: Persistence and c Mobility in soil: N Other adverse effo Section 13 These disposal g regulations may b Section 14 UN/NA number: Hazard class: 1	osure: Data not available xposure: Data not available affects: tion may cause respiratory on may cause nausea, von a skin may cause irritation h eyes may cause irritation h eyes may cause irritation ons of exposure: To the arcise appropriate procedu- tation: RTECS #: CZ433 Ecological information No data available tegradability: No data available tegradability: No data available tects: An environmental h Disposal consider uidelines are intended be different. Dispose o Transport informata No tapplicable	y irritation. mitting, and diarrhea m. e best of our knowle ures to minimize pot 26000 attion ertebrates: No data vailable Bioac PBT a hazard cannot be extra trations for the disposal of fi naccordance wittion Shipping nam Packing group	dge the chemical, physica ential hazards. available cumulative potential: No nd vPvB assessment: No cluded in the event of unpr catalog-size quantities	o data available lo data available ofessional handling o only. Federal regu	r disposal. lations may a contract with	pply to empty c a licensed che	ontainer. State and/or loc		
STOT-single expo STOT-repeated ex Aspiration hazard Potential health e Inhalation: Inhalat Ingestion: Ingestic Skin: Contact with Eyes: Contact with Signs and sympt not available. Exe Additional inform Section 12 Toxicity to fish: N Toxicity to daphni Toxicity to algae: Persistence and d Mobility in soil: N Other adverse effo Section 13 These disposal g regulations may b Section 14 UN/NA number: Hazard class: N Section 15	osure: Data not available xposure: Data not available affects: tion may cause respiratory on may cause nausea, von a skin may cause irritation h eyes may cause irritation h eyes may cause irritation oms of exposure: To the arcise appropriate procedu- tation: RTECS #: CZ433 Ecological information No data available tegradability: No data available tegradability: No data available tects: An environmental h Disposal consider uidelines are intended be different. Dispose o Transport informata: Not applicable Iot applicable Regulatory information Not and the second se	y irritation. mitting, and diarrhea m. e best of our knowle ures to minimize pot 26000 attion ertebrates: No data vailable Bioac PBT a hazard cannot be extra rations for the disposal of f in accordance wittion Shipping nam Packing group 2020 ERG Gui ation	dge the chemical, physica ential hazards. available cumulative potential: No nd vPvB assessment: No cluded in the event of unpr catalog-size quantities th all local, state and feo e: Not Regulated : Not applicable de # Not applicable	o data available lo data available ofessional handling o only. Federal regu deral regulations of	r disposal. lations may a contract with	pply to empty c a licensed che	ontainer. State and/or loc mical disposal agency.		
STOT-single expo STOT-repeated ex Aspiration hazarc Potential health en Inhalation: Inhalat Ingestion: Ingestic Skin: Contact with Eyes: Contact with Eyes: Contact with Signs and sympti- not available. Exe Additional inform Section 12 Toxicity to fish: N Toxicity to fish: N Toxicity to algae: Persistence and c Mobility in soil: N Other adverse effo Section 13 These disposal g regulations may b Section 14 UN/NA number: Hazard class: I Exceptions: N Section 15 A chemical is conside	osure: Data not available xposure: Data not available affects: tion may cause respiratory on may cause respiratory on may cause nausea, von a skin may cause irritation h eyes may cause irritation ons of exposure: To the arcise appropriate procedu- tation: RTECS #: CZ433 Ecological information No data available ta and other aquatic inver- No data available degradability: No data available tects: An environmental h Disposal consider uidelines are intended be different. Dispose o Transport informatic : Not applicable Not applicable Regulatory informatic ared to be listed if the CAS nu	y irritation. mitting, and diarrhea m. e best of our knowle ures to minimize pot 26000 attion ertebrates: No data vailable Bioac PBT a hazard cannot be extra rations for the disposal of fi n accordance wittion Shipping nam Packing group 2020 ERG Gui ation mber for the anhydrou	dge the chemical, physica ential hazards. available cumulative potential: No nd vPvB assessment: No cluded in the event of unpr catalog-size quantities th all local, state and feo e: Not Regulated : Not applicable de # Not applicable a form is on the Inventory list.	o data available lo data available ofessional handling c only. Federal regu deral regulations of Reportable Qu	or disposal. lations may a contract with antity: No	pply to empty c a licensed che Ma	ontainer. State and/or loc emical disposal agency. arine pollutant: No		
STOT-single expo STOT-repeated ex Aspiration hazaro Potential health en Inhalation: Inhalat Ingestion: Ingestic Skin: Contact with Eyes: Contact with Eyes: Contact with Signs and sympty not available. Exe Additional inform Section 12 Toxicity to fish: N Toxicity to daphni Toxicity to daphni Toxicity to algae: Persistence and c Mobility in soil: N Other adverse effo Section 13 These disposal g regulations may b Section 14 UN/NA number: Hazard class: N Section 15	osure: Data not available xposure: Data not available affects: tion may cause respiratory on may cause respiratory on may cause nausea, von a skin may cause irritation h eyes may cause irritation oms of exposure: To the arcise appropriate procedu- nation: RTECS #: CZ433 Ecological information No data available tegradability: No dat	y irritation. mitting, and diarrhea m. e best of our knowle ures to minimize pot 26000 attion ertebrates: No data vailable Bioac PBT a hazard cannot be extra rations for the disposal of f in accordance wittion Shipping nam Packing group 2020 ERG Gui ation	dge the chemical, physica ential hazards. available cumulative potential: No nd vPvB assessment: No duded in the event of unpr catalog-size quantities th all local, state and fer e: Not Regulated :: Not Regulated :: Not applicable de # Not applicable s form is on the Inventory list. A CERLCA (RQ)	o data available lo data available ofessional handling o only. Federal regu deral regulations of	r disposal. lations may a contract with	pply to empty c a licensed che	ontainer. State and/or loca mical disposal agency.		

Form 06/2015

Page E1 of E2

Section 1

Identification

INNOVATING SCIENCE

"Cutting edge science for the classroom"

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

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

Not for drug, food or household use.

Product SODIUM HYDROXIDE, 6 MOLAR (6N) SOLUTION	
Synonyms Sodium Hydroxide, Water Solution (6M)	
Section 2 Hazards identification	
Signal word: DANGER Pictograms: GHS05 Target organs: Respiratory tract, gastrointestinal tract, eyes, skin. GHS Classification: Skin corrosion (Category 1A) Serious Eye Damage/ Eye Irritation (Category 1) GHS Label information: Hazard statement: H314: Causes severe skin burns and eye damage.	Precautionary statement: P260: Do not breathe mist/vapours/spray. P264: Wash hands thoroughly after handling. P280: Wear protective gloves/protective clothing/eye protection/face protection. P305+P351+P338: IF IN EYES: Rinse cautiously with water for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. P310: Immediately call a POISON CENTER or doctor. P363: Wash contaminated clothing before reuse. 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) - Not Known

Physical hazards not otherwise classified (PHNOC) - Not Known

Section 3	Composition / information on ingredients						
Chemical Name		CAS #	%	EINECS			
Water Sodium hydroxide		7732-18-5 1310-73-2	76% 24%	231-791-2 215-185-5			
Section 4	First aid measures						

INGESTION: MAY BE FATAL 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 SEVERE DAMAGE. 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 SEVERE BURNS. 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 and 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 protection								
Exposure Limits:	Chemical Name	ACGIH (TLV)	OSHA (PEL)	NIOSH (REL)					
	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/MSHA-

approved respirator.				,	I	-				
Section 9	Physical and chemical pro	perties								
Appearance: Clear, colorless liquid. Odor: No odor. Odor threshold: Not applicable. pH: Data not available. Melting / Freezing point: ~ 0°C (~ 32°F) [water] Boiling point: ~ 100°C (212°F) [water] Flash point: Not flammable.		Evaporation rate (Water = 1): < 1 Flammability (solid/gas): Not applicable. Explosion limits: Lower / Upper: Not applicable Vapor pressure (mm Hg): 14 [water] Vapor density (Air = 1): 0.7 [water] Relative density (Specific gravity): 1.0 [water] Solubility(ies): Complete in water.			Partition coefficient: (n-octanol / water): Not applicable Auto-ignition temperature: Not applicable Decomposition temperature: Data not available. Viscosity: Data not available. Molecular formula: Mixture Molecular weight: Mixture					
Section 10	Stability and reactivity									
Chemical stability: Conditions to avoid	Stable I: Can react with carbon dioxide		ous polymerization: Wi carbonate.	ll not occur.						
Incompatible mater	ials: Metals, acids, organic com	pounds, organic	nitro compounds.							
Hazardous decomp	osition products: Sodium oxide	e. Reacts with r	netals to form flammable	and explosive hy	drogen gas.					
Section 11 Acute toxicity: Dat	Toxicological information									
Serious eye damage/irritation: Eyes - rabbit - Severe eye irritation - 24 h [Sodium hydroxide] Respiratory or skin sensitization: Data not available Germ cell mutagenicity: Data not available NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP. IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC. OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA. Ca Prop 65: This product does not contain any chemicals known to the State of California to cause cancer or reproductive toxicity. Reproductive toxicity: Data not available STOT-single exposure: Data not available STOT-repeated exposure: Data not available STOT-repeated exposure: Data not available STOT-repeated exposure: Data not available STOT-single exposure: Single expos										
Section 12	Ecological information									
Toxicity to daphnia Toxicity to algae: N Persistence and de Mobility in soil: No	gradability: No data available	s: Immobilizatio Bioaccum PBT and v	n EC50 - Daphnia - 40.3 ulative potential: No da PvB assessment: No d	8 mg/l - 48 h [Sod ta available ata available	-]				
	idelines are intended for the d e different. Dispose of in acco Transport information									
UN/NA number: Hazard class: 8	•	roup: II	•	e Quantity: 1,0 Guide # 154	000 lbs (454	kg) Ma	arine pollutant: No			
Section 15	Regulatory information									
	d to be listed if the CAS number for th									
Compone	ent	TSCA	CERLCA (RQ)	RCRA code	DSL	NDSL	CA Prop 65			
Sodium hydroxide		Listed	1,000 lbs (454 kg)	D002	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.