221 Rochester Street

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Section 1

Chemical Product and Company Identification

Innovating Science[®] by Aldon Corporation

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

"cutting edge science for the classroom"	Avon, NY 14414-9409For laboratory use only.(585) 226-6177Not for drug, food or household use.
Product ACETONE Synonyms 2-Propanone / Dimethyl Ketone / Solvent	
Section 2 Hazards Identification	
Signal word: DANGER Pictograms: GHS02 / GHS07 Target organs: Central nervous system GHS Classification: Flammable liquid (Category 2) Eye irritation (Category 2A) STOT-SE (Category 3) GHS Label information: Hazard statement: H225: Highly flammable liquid and vapour. H319: Causes serious eye irritation. H336: May cause drowsiness or dizziness. Supplemental information: Repeated exposure may cause skin dryness or cracking.	 Precautionary statement: P210: Keep away from heat/sparks/open flames/hot surfaces. No smoking. 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/yee protection/face protection. 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. 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. P312: Call a POISON CENTER or doctor if you feel unwell. P370+P378: In case of fire: Use dry chemical, alcohol foam, carbon dioxide or water spray to extinguish. P403+P233: Store in a well-ventilated place. Keep container tightly closed. P405+P235: Store locked up. Keep cool. P501: Dispose of contents/container to a licensed chemical disposal agency in accordance with local/regional/national regulations.

Ca Prop 65: This product does not contain any chemicals known to the State of California to cause cancer or reproductive toxicity.

Section 3	Composition / Information on Ingredients					
Chemical Name		CAS #	%	EINECS		
Acetone		67-64-1	100%	200-662-2		
Section 4	First Aid Measures					

INGESTION: 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: 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 SEVERE 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: REPEATED OR PROLONGED CONTACT MAY CAUSE DRYING AND DEFATTING OF SKIN. 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. Acetone is extremely flammable and its vapors form explosive mixtures with air. Dangerous when exposed to heat, sparks, flame or oxidizing agents.

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, well-ventilated area away from incompatible substances. Keep away from ignition sources.

Section 8	Exposure Controls / Personal Protection					
Exposure Limiter	Chemical Name	ACGIH (TLV)	OSHA (PEL)	NIOSH (REL)		
Exposure Limits:	Acetone	TWA: 500 ppm; STEL: 750 ppm	TWA: 1000 ppm / 2400 mg/m ³	TWA: 250 ppm / 590 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 Prope	erties	
Odor: Pungent odor. Odor threshold: Data not available. pH: Data not available. Melting / Freezing point: Approximately 95°C (139°F) Boiling point: 56°C (133°F)	Evaporation rate (Butyl acetate = 1): 7.7 Flammability (solid/gas): Data not available. Explosion limits: Lower / Upper: 2.5% / 12.8% Vapor pressure (mm Hg): 180 Vapor density (Air = 1): 2.00 Relative density (Specific gravity): 0.8 Solubility(ies): Soluble in water.	Partition coefficient: (n-octanol / water): Log Pow:24 Auto-ignition temperature: 465°C (869°F) Decomposition temperature: Data not available. Viscosity: Data not available. Molecular formula: CH ₃ COCH ₃ Molecular weight: 58.08
Section 40 Stability & Depativity		

Section 10 Stability & Reactivity

Chemical stability: Stable

Hazardous polymerization: Will not occur.

Conditions to avoid: Excessive temperatures, heat, sparks, open flame and other sources of ignition.

Incompatible materials: Chloroform, chromic anhydride, hydrogen peroxide, nitric compounds, acids, strong oxidizers, alkalies.

Hazardous decomposition products: Oxides of carbon.

Section 11 Toxicological Information

Acute toxicity: Oral-rat LD50: 5,800 mg/kg ; Inhalation-rat LC50: 76 mg/L/4 hours

Skin corrosion/irritation: Skin-rabbit - Slight irritant.

Serious eye damage/irritation: Eyes-rabbit - Severe irritant.

Respiratory or skin sensitization: Data not available

Germ cell mutagenicity: Data not available Carcinogenity: Data not available

Carcinogenity. 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.

Reproductive toxicity: Data not available

STOT-single exposure: The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with narcotic effects.

STOT-repeated exposure: Data not available

Aspiration hazard: Data not available

Potential health effects:

Inhalation: Inhalation may cause cough, sore throat, confusion, headache, dizziness, drowsiness, unconsciousness.

Ingestion: Ingestion causes nausea, vomiting, and other symptoms same as inhalation.

Skin: Contact with skin causes irritation, dry and/or defatting on prolonged contact.

Eyes: Contact with eyes causes redness, pain and blurred vision.

Signs and symptoms of exposure: See Potential health effects above. Exercise appropriate procedures to minimize potential hazards.

Additional information: RTECS #: AL3150000

Section 12 Ecological Information

	Loological information						
oxicity to fish: Gambusia affinis (fish, fresh water), LC50 = 13,000 mg/L/48 hours oxicity to daphnia and other aquatic invertebrates: Daphnia cucullata (Crustacea), EC50 = ca. 7,635 mg/L/48 hours oxicity to algae: Anabaena inaequalis (Algae), EC50 = 21,725 mg/L/14 days ersistence and degradability: No data available obility in soil: No data available PBT and vPvB assessment: No data available ther adverse effects: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.							
Section 13	Disposal Considerations						
	idelines are intended for the disp e different. Dispose of in accord						
Section 14	Transport Information (US D	OT / CANAD	A TDG)				
Hazard class: 3	JN/NA number: UN1090 Shipping name: Acetone Iazard class: 3 Packing group: II Reportable Quantity: 5,000 lbs (2270 kg) Marine pollutant: No Exceptions: Limited quantity equal to or less than 1 L 2016 ERG Guide # 127						
Section 15	ection 15 Regulatory Information						
A chemical is considered to be listed if the CAS number for the anhydrous form is on the Inventory list.							
Compon	ent	TSCA	CERLCA (RQ)	RCRA code	DSL	NDSL	
Acetone		Listed	5,000 lbs (2270 kg)	U002	Listed	Not listed	

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.

Page E1 of E2

Section 1 Chemical Product and Company Identification

Innovating Science[®] by Aldon Corporation

"cutting edge science for the classroom"

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

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

Not for drug, food or household use.

Product	HYDROCHLORIC ACID, 32-36%	
Synonyms	Muriatic Acid ; Hydrogen Chloride	
Section 2	Hazards Identification	
GHS Class Serious eye Skin corr. (0 STOT SE (0 GHS Label H314: Caus	e damage (Category 1) Category 1B)	 Precautionary statement(s): P260: Do not breathe 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. 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. P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P310: Immediately call a POISON CENTER or doctor/physician. P363: Wash contaminated clothing before reuse. P403/233: Store in a well-ventilated place. Keep container tightly closed. P405: Store locked up. P501: Dispose of contents/container to an approved waste disposal plant.

Ca Prop 65: This product does not contain any chemicals known to the State of California to cause cancer or reproductive toxicity.

Section 3	Composition / Information on Ingredients					
Chemical Name		CAS #	%	EINECS		
Water Hydrochloric acid		7732-18-5 7647-01-0	64-68% 32-36%	231-791-2 231-595-7		
Section 4	First Aid Measures					

INGESTION: 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: Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract. Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

EYE CONTACT: Causes eye burns. 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 skin 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: 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: Neutralize spill with sodium bicarbonate or calcium hydroxide, 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. Protect from physical damage and sunlight. Protect from moisture.

Section 8	Exposure Controls / Personal Protection						
Exposuro Limite:	Chemical Name	ACGIH (TLV)	OSHA (PEL)	NIOSH (REL)			
Exposure Limits:	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: Use a chemical fume hood and/or wear a NIOSH/MSHA-approved respirator.

Section 9 **Physical & Chemical Properties** Appearance: Clear, colorless, fuming liquid. Evaporation rate (= 1): Data not available. Partition coefficient: (n-octanol / water): Data not available. Odor: Pungent odor. Flammability (solid/gas): Data not available. Auto-ignition temperature: Data not available Odor threshold: Data not available. Explosion limits: Upper/Lower: Data not available. Decomposition temperature: Data not available. pH: <1.5 acidic, in solution. Vapor pressure (mm Hg): Approx. 25 @ 20°C (68°F) Viscosity: Data not available. Melting / Freezing point: Approx. -45°C (-49°F) Vapor density (Air = 1): Data not available. Molecular formula: HCI Boiling point: 81.11-85°C (178-185°F) Relative density (Specific gravity): Approx. 1.16 @ 20°C Molecular weight: 36.46 Flash point: Not flammable. Solubility(ies): Soluble in water. Section 10 **Stability & Reactivity** Chemical stability: Stable Hazardous polymerization: Will not occur. Conditions to avoid: Containers may burst when heated. Avoid contact with water. Incompatible materials: Metals, bases, active metals, alkali metals, oxidizing agents, hydroxides, amines, carbonates, cyanides, sulfides, sulfites, formaldehvde Hazardous decomposition products: Hydrogen chloride gas. Section 11 **Toxicological Information** Acute toxicity: Data not available Skin corrosion/irritation: Skin-rabbit - causes burns. Serious eye damage/irritation: Eyes-rabbit - Corrosive to eyes. Respiratory or skin sensitization: Data not available Germ cell mutagenicity: Data not available Carcinogenity: Data not available NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by NTP. IARC: Group 3: Not classifiable as to its carcinogenicity to humans. 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. Reproductive toxicity: Data not available STOT-single exposure: The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with respiratory tract irritation. STOT-repeated exposure: Data not available Aspiration hazard: Data not available Potential health effects: Inhalation: May be harmful if inhaled. Material is extrememy destructive to the tissue of the mucous membranes and upper respiratory tract. Ingestion: May be harmful if swallowed. Skin: May be harmful if absorbed through skin. Causes skin burns. Eves: Causes eve burns Signs and symptoms of exposure: Burning sensation, cough, wheezing, laryngitis, shortness of breath, spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema. Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin. Additional information: RTECS #: MW4025000 Section 12 **Ecological Information** Toxicity to fish: LC50 - Gambusia affinis (Mosquito fish) - 282 mg/l - 96 h (Hydrochloric acid) Toxicity to daphnia and other aquatic invertebrates: No data available Toxicity to algae: No data available Persistence and degradability: No data available Bioaccumulative potential: No data available Mobility in soil: No data available PBT and vPvB assessment: No data available Other adverse effects: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Section 13 **Disposal Considerations** These disposal guidelines are intended for the disposal of catalog-size quantities only. Federal regulations may apply to empty container. State and/or local regulations may be different. Dispose of in accordance with all local, state and federal regulations or contract with a licensed chemical disposal agency. Transport Information (US DOT / CANADA TDG) Section 14 UN/NA number: UN1789 Shipping name: Hydrochloric acid Hazard class: 8 Packing group: || Reportable Quantity: No Marine pollutant: No Exceptions: Limited quantity equal to or less than 1 Lt. Section 15 **Regulatory Information** A chemical is considered to be listed if the CAS number for the anhydrous form is on the Inventory list.

ComponentTSCACERLCA (RQ)RCRA codeDSLNDSLHydrochloric acidListedNot listedD002ListedNot listed

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.

221 Rochester Street

NV 14414 0400

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Section 1

Chemical Product and Company Identification

Innovating Science[®] by Aldon Corporation

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

"cu	tting edge science for the classroom"	Avon, NY 14414-9409 (585) 226-6177	Not for drug, food or household use.
Product	ISOPROPYL ALCOHOL		
Synonyms	2-Propanol ; Isopropanol		
Section 2	Hazards Identification		
CHS Classi Flammable Eye irritation STOT-SE (C CHS Label H225: Highl H319: Caus	liquid (Category 2) n (Category 2)	P P P P P P P P P P P C C P P R P P R P P R P P R P P P P	 Precautionary statement(s): 210: Keep away from heat/sparks/open flames/hot surfaces. No smoking. 233: Keep container tightly closed. 241: Use explosion-proof electrical/ventilating/lighting equipment. 242: Use only non-sparking tools. 243: Take precautionary measures against static discharge. 261: Avoid breathing mist/vapours/spray. 264: Wash hands thoroughly after handling. 271: Use only outdoors or in a well-ventilated area. 280: Wear protective gloves/protective clothing/eye protection/face protection. 203+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated lothing. Rinse skin with water/shower. 204+P340: IF INHALED: Remove person to fresh air and keep comfortable for reathing. 212: Call a POISON CENTER or doctor if you feel unwell. 305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. 237+P313: If eye irritation persists: Get medical attention. 2370+P378: In case of fire: Use dry chemical, CO₂, water spray or alcohol-resistant to an to extinguish. 403+P235: Store in a well-ventilated place. Keep cool. 405: Store locked up. 501: Dispose of contents/container to a licensed chemical disposal agency in coordance with local/regional/national regulations.

Ca Prop 65: This product does not contain any chemicals known to the State of California to cause cancer or reproductive toxicity.

Section 3	Composition / Information on Ingredients					
Chemical Name		CAS #	%	EINECS		
Isopropyl alcohol		67-63-0	100%	200-661-7		
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 SERIOUS 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: Dry chemical, CO2, water spray or alcohol-resistant 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, well-ventilated area away from incompatible substances. Keep away from ignition sources.

Section 8	Exposure Controls / Personal Protection					
Exposuro Limite:	Chemical Name	ACGIH (TLV)	OSHA (PEL)	NIOSH (REL)		
Exposure Limits:	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/MSHA-

approved respirator.			y handling at room to					
Section 9	Section 9 Physical & Chemical Properties							
Appearance:Clear, colorless liquid.Evaporation rate (Butyl acetate = 1): 2.3 Flammability (solid/gas):Partition coefficient: (n-octan Auto-ignition temperature: 33 Decomposition temperature: 34 Decomposition temperature:OdorAromatic odor.Flammability (solid/gas):Data not available. Explosion limits:Partition coefficient: (n-octan Auto-ignition temperature: 33 Decomposition temperature:Odor threshold:Data not available. Explosion limits:Lower / Upper: 2% / 12% Vapor pressure (mm Hg):Partition coefficient: (n-octan Auto-ignition temperature: 33 Decomposition temperature:Melting / Freezing point:-90°C (-130°F) Boiling point:Vapor density (Air = 1):2.1 Relative density (Specific gravity):Nolecular formula:Boiling point:12°C (53°F) CCSolubility(ies):Complete in water.Nolecular weight:60.10					399°C (750°F) ASTM-E659-78 e: Data not available. e.			
Section 10	Stability & Reactivity							
-	Chemical stability: Stable Hazardous polymerization: Will not occur. Conditions to avoid: Excessive temperatures, heat, sparks, open flame and other sources of ignition.							
Incompatible mate	rials: Strong oxidizing materials,	caustics, alumir	nums, metals, nitroforr	n, oleum, chlorinated	compounds of	can react vigorousl	ly with this alcohol.	
Hazardous decom	oosition products: Carbon oxid	es.						
Section 11	Toxicological Information							
Skin corrosion/irri Serious eye damag Respiratory or skii Germ cell mutager Carcinogenity: Da NTP: No componen IARC classified: Gro OSHA: No componen Reproductive toxis STOT-single expose STOT-repeated exp Aspiration hazard: Potential health eff Inhalation: Inhalatio and irritation of the I Ingestion: Aspiratio develop if this occur Skin: Prolonged or Eyes: Contact caus Signs and sympton Additional information	Acute toxicity: Oral-rat LD50: 4396 mg/kg ; Inhalation-rat LC50: 72.6 mg/L/4 hours ; Dermal-rat LD50: 12,800 mg/kg Skin corrosion/irritation: Skin-rabbit - Slight irritant. Serious eye damage/irritation: Eyes-rabbit - Irritating. Respiratory or skin sensitization: Not sensitizing Germ cell mutagenicity: Data not available Carcinogenity: 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 classified: Group 3: Not classifiable as to its carcinogenicity to humans 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. Reproductive toxicity: Data not available STOT-single exposure: The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with narcotic effects. STOT-single exposure: Data not available Aspiration hazard: Yes Potential health effects: Inhalation of high vapor concentrations may cause central nervous system depression resulting in dizziness, drowsiness, nausea, vomiting, inability to concentrate and irritation of the throat. Continued inhalation may result in unconsciousness and death. Ingestion: Aspiration hazard. Liquid can directly enter the lungs (aspirated) when swallowed or vomited. Serious lung damage and possible fatal chemical pneumonia can develop if this occurs. Skin: Prolonged or repeated contact may cause irritation and drying, cracking and defatting of the skin which can lead to dermatitis. Eyes: Contact causes burning sensation, redness, swelling, and/or blurred vision.							
Section 12	Ecological Information							
Toxicity to fish: Pimephales promelas (Fish, fresh water) LC50: 9640 mg/L/96 hours [Isopropanol] Toxicity to daphnia and other aquatic invertebrates: Artemia salina (Crustacea), EC50 = >10,000 mg/L/24 hours [Isopropanol] Toxicity to algae: Scenedesmus quadricauda (Algae), LOEC50 = 1,800 mg/L/7 days [Isopropanol] Persistence and degradability: No data available Bioaccumulative potential: No data available Mobility in soil: No data available PBT and VPVB assessment: No data available Other adverse effects: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.								
Section 13	Disposal Considerations							
These disposal gu regulations may be Section 14	idelines are intended for the d e different. Dispose of in acco Transport Information (US	rdance with all	l local, state and fed	only. Federal regulations or	ations may a contract with	pply to empty co a licensed chen	ntainer. State and/or local nical disposal agency.	
UN/NA number:	•	name: Isopro	•					
Hazard class: 3	Packing g nited quantity equal to or less	roup: II	Reporta	ble Quantity: No G Guide # 129		Mar	rine pollutant: No	
Section 15	Regulatory Information							
A chemical is considered to be listed if the CAS number for the anhydrous form is on the Inventory list.								
Compon	ent	TSCA	CERLCA (RQ)	RCRA code	DSL	NDSL		
Isopropyl alcohol		Listed	Not listed	Not listed	Listed	Not listed		
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

Section 1	Chemical Product and Company Iden	tification	Page E1 of E2
	vating Science [®] by Aldon Corporati tting edge science for the classroom"	on 221 Rochester Street Avon, NY 14414-9409 (585) 226-6177	CHEMTREC 24 Hour Emergency Phone Number (800) 424-9300 For laboratory use only. Not for drug, food or household use.
Product	SODIUM HYDROXIDE, ANHYDROUS		
Synonyms	Caustic Soda		
Section 2	Hazards Identification		
Pictograms Target orga GHS Classi Skin. Corr. (Serious Eye GHS Label	ns: Respiratory tract, gastrointestinal tract, eyes, skir	P P P P P P C O P C P P P P P P P P	 Precautionary statement: P260: Do not breathe dust/fume/gas/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 several 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): Remove/Take off immediately all ontaminated clothing. Rinse skin with water/shower. P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position omfortable for breathing. P310: Immediately call a POISON CENTER or doctor/physician. P363: Wash contaminated clothing before reuse. P405: Store locked up. P501: Dispose of contents/container to a licensed chemical disposal agency in iccordance with all local, state and federal regulations.

Ca Prop 65: This product does not contain any chemicals known to the State of California to cause cancer or reproductive toxicity.

Section 3	Composition / Information on Ingredients						
Chemical Name		CAS #	%	EINECS			
Sodium hydroxide		1310-73-2	96-100%	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: Flood with water, taking care not to splash or scatter. Avoid carbon dioxide as it reacts exothermically with this material.

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: Contact with metals can generate hydrogen gas. Contact with water produces intense heat and highly irritating and corrosive mist. Hot or molten material will react violently with water liberating heat and causing splashing. Contact with water may generate sufficient heat to ignite combustible materials.

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: 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 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 Protection							
Exposure Limits:	Chemical Name	ACGIH (TLV)	OSHA (PEL)	NIOSH (REL)				
Exposure Limits.	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 dusty conditions prevail, work in fume hood or wear a NIOSH/MSHAapproved respirator.

approved respirator.								
Section 9	Physical & Chemical Prop	erties						
Odor: No odor. Odor threshold: Da pH: 13.0 - 14.0 Melting / Freezing p Boiling point: 1390 Flash point: Not app	oint: 318°C (604°F) ℃ (2534°F)	Evaporation rate (=1): Not applicable. Pathologicable Flammability (solid/gas): Data not available. Ai Explosion limits: Lower / Upper: Not applicable. Di Vapor pressure (mm Hg): 1 mm Hg @ 739°C Vi Vapor density (Air = 1): Not applicable. M			Auto-igniti Decompos Viscosity: Molecular	Partition coefficient: (n-octanol / water): Data not available Auto-ignition temperature: Not applicable. Decomposition temperature: Data not available. Viscosity: Not applicable. Molecular formula: NaOH Molecular weight: 40.00		
Section 10	Stability & Reactivity							
	: Deliquescent material. Absort	os moisture from			i sodium carbo	nate.		
	ials: Metals, acids, organic corr		•					
Hazardous decomp	osition products: Sodium oxid	e. Reacts with	netals to form flammabl	e and explosive hy	drogen gas.			
Section 11	Toxicological Information							
Serious eye damag Respiratory or skin Germ cell mutageni Carcinogenity: Dat NTP: No component IARC: No componen OSHA: No compone Reproductive toxic STOT-single exposs STOT-repeated exp Aspiration hazard: Potential health effi Inhalation: May be h Skin: May be harmfi Eyes: Causes eye b Signs and sympton edema, burning sens and upper respirator	ation: Skin - rabbit - Causes se e/irritation: Eyes - rabbit - Seve sensitization: Data not availabi icity: Data not available a not available of this product present at levels t of this product present at levels nt of this product present at levels to f this product present at level ity: Data not available ure: Data not available osure: Data not available Data not available ects: marmful if inhaled. Material is extra	ere eye irritation ele greater than or greater than or s greater than o s greater than o emely destruction es skin burns. mation and eder	- 24 h equal to 0.1% is identific equal to 0.1% is identifi r equal to 0.1% is identif re to the tissue of the mo na of the larynx, spasm,	ed as probable, po fied as a carcinoge ucous membranes inflammation and	edema of the b	med human carcin carcinogen by OSH piratory tract. pronchi, pneumoniti	IĂ.	s membranes
Section 12	Ecological Information							
Toxicity to daphnia Toxicity to algae: No Persistence and de Mobility in soil: No Other adverse effect Section 13 These disposal gui	gradability: No data available	s: Immobilization Bioaccum PBT and v nnot be exclude isposal of cata rdance with al	n EC50 - Daphnia - 40. ulative potential: No d PvB assessment: No d in the event of unprofe- log-size quantities on local, state and feder	ata available data available essional handling o ly. Federal regul	ations may a			
	•							
UN/NA number: Hazard class: 8 Exceptions: Lim	ited quantity equal to or less	roup: II		le Quantity: 1,0 Guide # 154	000 lbs (454 l	(g) Mar i	ne pollutant:	No
Section 15	Regulatory Information							
	d to be listed if the CAS number for the	-						
Component		TSCA CERLCA (RQ)		RCRA code	DSL	NDSL		
Sodium hydroxide		Listed	1,000 lbs (454 kg)	D002	Listed	Not listed		
Section 16	Other Information							
	ed herein is furnished without warran	ty of any kind. En	ployers should use this inf	ormation only as a su	pplement to othe	er information gathere	d by them and mus	t make indepen-
	uitability and completeness of inform	ation from all sour		f these materials and	the safety and h	ealth of employees. I		

Ine information contained nerven 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.