## SAFETY DATA SHEET

SDS No.: AA0210

**Chemical Product and Company Information** 



# GENERAL STORAGE CODE GREEN

Section 1

# 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.

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Synonyms Ammonium Hydroxide, Water Solution	
Section 2 Hazards Identification	
Signal word: WARNING Pictograms: GHS07 / GHS09 Target organs: Eyes, Skin, Mucous membranes	<ul> <li>Precautionary statement:</li> <li>P264: Wash hands thoroughly after handling.</li> <li>P273: Avoid release to the environment.</li> <li>P280: Wear protective gloves/protective clothing/eye protection/face protection.</li> <li>P302+P352: IF ON SKIN: Wash with plenty of water and soap.</li> <li>P332+P313: If skin irritation occurs: Get medical attention.</li> <li>P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes</li> <li>Remove contact lenses, if present and easy to do. Continue rinsing.</li> <li>P337+P313: If eye irritation persists: Get medical attention.</li> <li>P362+P364: Take off contaminated clothing and wash it before reuse.</li> <li>P391: Collect spillage.</li> <li>P501: Dispose of contents/container to a licensed chemical disposal agency in accordance with local/regional/national regulations.</li> </ul>

Ca Prop 65 - This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

Chemical Name	CAS#	%	EINECS	
Water Ammonium hydroxide (as Ammonia)	7732-18-5 1336-21-6	Approximately 96.0% Approximately 4.0%	231-791-2 215-647-6	

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

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

#### Section 5 Fire Fighting Measures

Sultable 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.

#### 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: Carefully neutralize with Sodium bicarbonate, 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.

#### 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/vapors, spray or mist. Use with adequate ventilation. Avoid ingestion. Wash thoroughly after handling. Remove and wash clothing before reuse.

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

Section 8	Exposure Controls / Personal Pro	otection		
Exposure Limits:	Chemical Name	ACGIH (TLV)	OSHA (PEL)	NIOSH (REL)
Exposure Ennes.	Ammonia CAS No. 7664-41-7	TWA: 17 mg/m <sup>3</sup> ; STEL: 24 mg/m <sup>3</sup>	TWA: 50 ppm, 35 mg/m <sup>3</sup>	TWA: 18 mg/m <sup>3</sup> : STEL: 27 mg/m <sup>3</sup>

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.

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hemical stability: Stable       Hazardous polymerization: Will not occur:         onditions to avoid: Excessive temperatures which cause evaporation.         compatible matches: Adds, stablesers, heavy metals.         azardous decomposition products: Decomposes to ammonia gas and above 450°C (842°F) to hydrogen gas and nitrogen oxides.         ections 11       Toxicological Information         Matches toxichly: Oral-rat LDSD: 350 mg/lig (Ammonium hydroxide, anhydrous)         Jain considerinitation: Data not available         Sequence of the intervalue of the interva	Appearance: Clear, colorless liquid. Jdor: Strong ammonia odor. Ddor threshold: Data not available. JH: Data not available. Meting / Freezing point: Approximately 0°C (32°F) (water) Boiling point: Approximately 100°C (212°F) (water) Flash point: Data not available	Flammability (solid/gas): Data not available. Explosion limits: Lower / Upper: Data not available Vapor pressure (mm Hg): 14 (water) Vapor density (Air = 1): 0.7 (water) Relative density (Specific gravity): Approximately 1.0 (water	Auto-Ignition temperature: I Decomposition temperature: Viscosity: Data not available. Molecular formula: Mixture	Data not available : Data not available.
and tilon to avoid: Excessive temperatures which cause evaporation. scompatible materials: Acids, strong oxidizers, halogens, heavy metals. scardous decomposition products: Decomposes to ammonia gas and above 450°C (842°F) to hydrogen gas and nitrogen oxides. ection 11 Table not available inclose available into available inclose into	ection 10 Stability & Reactivity			
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ection 12       Ecological Information         Toxicity to fish: LC50 Lepomis macrochirus (bluegill) 0.024-0.093 mg/L/48H         Toxicity to daphnia and other aquatic Invertebrates: LC50 Daphnia magna (water flea) 0.66 mg/L/48H @ 22°C         Toxicity to algae: TLm Diatom (algae) 420 mg/L/120H @ 22°C (50% growth reduction)         Persistence and degradability: No data available       Bioaccumulative potential: No data available         Mobility in soll: No data available       PBT and vPVB assessment: No data available         Obtity and a 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 Consideratione         These disposal guidelines are intended for the disposal of catalog-size quantities only. Federal regulations may apply to empty container. State and/or loc regulations may be different. Dispose of in accordance with all local, state and federal regulations or contract with a licensed chemical disposal agency.         Section 14       Transport Information         UN/NA number: Not applicable       Shipping name: Not Regulated         Hazard class: Not applicable       Packing group: Not applicable         Section 15       Regulatory Information         Achemical is considered to be listed if the CAS number for the anhydrous form is on the Inventory list.       Most Classification         Component       TSCA       CE	Respiratory or skin sensitization: Data not availa Germ cell mutagenicity: Data not available Carcinogenity: Data not available NTP: No component of this product present at level JARC: No component of this product present at leve OSHA: No component of this product present at leve Reproductive toxicity: Data not available	able s greater than or equal to 0.1% is identified as a known or ar als greater than or equal to 0.1% is identified as probable, po els greater than or equal to 0.1% is identified as a carcinoge	ssible or confirmed human carcino n or potential carcinogen by OSH	Α.
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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**

# Innovating Science<sup>®</sup> 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	DEIONIZED WATER			
Synonyms	Hydrogen Oxide / Distilled Water			
Section 2 Hazards moniformination				
Harmonized Signal word Pictograms Target orga GHS Classi Not a hazard GHS Label Hazard stat	ance has not been classified at this time according to the Globally d System (GHS) of Classification and Labeling of Chemicals. d: Not a hazardous substance s: Not a hazardous substance ans: None known ification: dous substance information: tement: Not a hazardous substance ary statement(s): Not a hazardous substance	Supplemental information: Avoid contact with DANGEROUS WHEN WET and WATER-REACTIVE materials. For laboratory use only. Do not ingest.		

Ca Prop 65 - This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

Section S Composition				
Chemical Name	CAS#	%	EINECS	
Deionized water	7732-18-5	100%	231-791-2	
Bective & First Aid Mea	iures	41		

Uncontaminated water should not pose any ill health effects. If ill effects develop, get immediate medical attention.

Suitable Extinguishing Media: Not a fire hazard. Water is used for extinguishing fires.

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

Specific Hazards: Avoid contact with DANGEROUS WHEN WET and WATER-REACTIVE materials. See Section 10.

Personal Precautions: Uncontaminated material poses no hazards.

Environmental Precautions: Uncontaminated material may be flushed to sewer.

Constainment and Clea nup: Uncontaminated material may be flushed to sewer.

### Section 7

Handling & Storage

Precautions for Safe Handling: Read label on container before using. Not for drug, food or household use. Do not wear contact lenses when working with chemicals. Keep out of reach of children. Wash thoroughly after handling.

Conditions for Safe Storage: Store in a cool area away from water-reactive or dangerous when wet substances.

Section 8	Exposure Controls / Personal Protect	llon		CONTRACTOR A
Exposure Limits:	Chemical Name	ACGIH (TLV)	OSHA (PEL)	NIOSH (REL)
Exposure Linnas.	None listed	None listed	None listed	None listed

Engineering controls: None required.

Respiratory protection: None required.

Section 9 Physical & Chemical	Properties	A SHARE AND A S	Part Lances		a state of
Appearance: Clear, colorless liquid. Odor: No odor. Odor threshold: Data not available bH: Data not available Melting / Freezing point: 0°C (32°F) Boiling point: 100°C (212°F) Flash point: Not flammable	Flammability (se Explosion limits Vapor pressure Vapor density (/	Air = 1): 0.7 (Specific gravity): 0.99707 @ 20/20°C	Auto-ignition Decompositi	n temperature: N ion temperature: ata not available. rmula: H <sub>2</sub> O	: Data not available.
Section 10 Stability & Reactivity	ALL ALL DESCRIPTION		1.5.4.18	Statistics in	
Chemical stability: Stable Conditions to avoid: Absorption of fumes and		is polymerization: Will not occur.			
ncompatible materials: Water-reactive meta silicides, cerium, concentrated acids. Hazardous decomposition products: Electro				les, carbides, hyd	drides, aluminum powders,
		sive and harmable hydrogen and oxyger			
Section 11 Toxicological Inform	BLIUN				the second s
NTP: No component of this product present at IARC: No component of this product present a	t levels greater than or e	qual to 0.1% is identified as a known or a equal to 0.1% is identified as probable, po equal to 0.1% is identified as a carcinoge	ssible or confirm	ned human carcin	nogen by IARC. HA.
Reproductive toxicity: Data not available STOT-single exposure: Data not available STOT-repeated exposure: Data not available Aspiration hazard: Data not available Potential health effects: Inhalation: No ill effects expected. Ingestion: No ill effects expected. Skin: No ill effects expected. Eyes: No ill effects expected. Signs and symptoms of exposure: No ill effe	e fects expected.				
Reproductive toxicity: Data not available STOT-single exposure: Data not available STOT-repeated exposure: Data not available Aspiration hazard: Data not available Potential health effects: Inhalation: No ill effects expected. Ingestion: No ill effects expected. Skin: No ill effects expected. Eyes: No ill effects expected.	e fects expected. t available				
Reproductive toxicity: Data not available STOT-single exposure: Data not available STOT-repeated exposure: Data not available Aspiration hazard: Data not available Potential health effects: Inhalation: No ill effects expected. Ingestion: No ill effects expected. Skin: No ill effects expected. Signs and symptoms of exposure: No ill eff Additional information: RTECS #: Data not Section 12 Ecological Informatio Toxicity to fish: No data available Toxicity to daphnla and other aquatic Inver Toxicity to algae: No data available Persistence and degradability: No data available Other adverse effects: An environmental haz	e fects expected. t available on tebrates: No data availa ilable Bioaccumu PBT and vi zard cannot be excluded	Ilative potential: No data available PvB assessment: No data available	or disposal.		
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         Potential health effects:         Inhalation: No ill effects expected.         Ingestion: No ill effects expected.         Skin: No ill effects expected.         Signs and symptoms of exposure: No ill effection 12         Ecological Information:         Stotity to fish: No data available         Toxicity to fish: No data available         Persistence and degradability: No data available         Other adverse effects: An environmental hat         Section 13       Disposal Considera	e fects expected. t available on tebrates: No data availa illable Bioaccumu PBT and vf zard cannot be excluded tions	Ilative potential: No data available PvB assessment: No data available I in the event of unprofessional handling of Ingesize quantities only. Federal requ	lations may ap	oply to empty co	ontainer. State and/or loca
Reproductive toxicity: Data not available STOT-single exposure: Data not available STOT-repeated exposure: Data not available Aspiration hazard: Data not available Potential health effects: Inhalation: No ill effects expected. Ingestion: No ill effects expected. Skin: No ill effects expected. Signs and symptoms of exposure: No ill eff Additional information: RTECS #: Data not Section 12 Ecological Informatio Toxicity to fish: No data available Toxicity to daphnla and other aquatic Inver Toxicity to algae: No data available Persistence and degradability: No data available Other adverse effects: An environmental haz	fects expected. t available on tebrates: No data availa illable Bloaccumu PBT and vi zard cannot be excluded tions or the disposal of catal in accordance with all	Ilative potential: No data available PvB assessment: No data available I in the event of unprofessional handling of Ingesize quantities only. Federal requ	lations may ap	oply to empty co a licensed chem	ontainer. State and/or loca nical disposal agency.
Reproductive toxicity: Data not available STOT-single exposure: Data not available STOT-repeated exposure: Data not available Aspiration hazard: Data not available Potential health effects: Inhalation: No ill effects expected. Ingestion: No ill effects expected. Skin: No ill effects expected. Signs and symptoms of exposure: No ill eff Additional information: RTECS #: Data not Section 12 Ecological Information Toxicity to fish: No data available Toxicity to fish: No data available Persistence and degradability: No data available Other adverse effects: An environmental has Section 13 Disposal Considera These disposal guidelines are intended for regulations may be different. Dispose of interval	fects expected. t available on tebrates: No data availa illable Bloaccumu PBT and vi zard cannot be excluded tions or the disposal of catal in accordance with all	Ilative potential: No data available PVB assessment: No data available d in the event of unprofessional handling of log-size quantities only. Federal regulations of local, state and federal regulations of lot Regulated ot applicable Reportable Qu	lations may ap contract with	a licensed chen	ontainer. State and/or loca nical disposal agency. rine pollutant: No
Reproductive toxicity: Data not available         STOT-single exposure: Data not available         STOT-repeated exposure: Data not available         Aspiration hazard: Data not available         Potential health effects:         Inhalation: No ill effects expected.         Ingestion: No ill effects expected.         Signs and symptoms of exposure: No ill eff         Additional information: RTECS #: Data not         Toxicity to fish: No data available         Toxicity to daphnla and other aquatic invertioxity to algae: No data available         Persistence and degradability: No data available         Other adverse effects: An environmental hat         Section 13       Disposal Considera         These disposal guidelines are intended for regulations may be different. Dispose of is         Section 14       Transport Information:         Section 12       Not applicable         Heast Additions: No data available       Stotic information:         Other adverse effects: An environmental hat       Section 13         Disposal Considera       These disposal guidelines are intended for regulations may be different. Dispose of is         Section 14       Transport Information:         UN/NA number: Not applicable       Hazard class: Not applicable         Hazard class: Not applicable       Exceptions: Not applicable         S	e fects expected. t available on tebrates: No data available illable Bioaccumu PBT and vi PBT and v	Ilative potential: No data available PVB assessment: No data available d in the event of unprofessional handling of log-size quantities only. Federal regu local, state and federal regulations of lot Regulated ot applicable Reportable Qu Not applicable	lations may ap contract with	a licensed chen	nical disposal agency.
Reproductive toxicity: Data not available         STOT-single exposure: Data not available         STOT-repeated exposure: Data not available         Aspiration hazard: Data not available         Potential health effects:         Inhalation: No ill effects expected.         Ingestion: No ill effects expected.         Signs and symptoms of exposure: No ill eff         Additional information: RTECS #: Data not         Toxicity to fish: No data available         Toxicity to daphnia and other aquatic invertoxity to algae: No data available         Persistence and degradability: No data available         Other adverse effects: An environmental ha:         Section 13       Disposal Considera         These disposal guidelines are intended for regulations may be different. Dispose of issection 14         Transport Information: Not applicable         Hazard class: Not applicable         Exceptions: Not applicable         Section 15       Regulatory Information:	e fects expected. t available on tebrates: No data availa ilable Bioaccumu PBT and vi PBT and vi pathe disposal of catal in accordance with all on Shipping name: N Packing group: N 2012 ERG Guide # ion ber for the anhydrous form	Ilative potential: No data available PVB assessment: No data available d in the event of unprofessional handling of log-size quantities only. Federal regu- local, state and federal regulations of lot Regulated ot applicable Reportable Qu Not applicable is on the Inventory list.	lations may ap contract with antity: No	a licensed chem	nical disposal agency. rine pollutant: No
Reproductive toxicity: Data not available         STOT-single exposure: Data not available         STOT-repeated exposure: Data not available         Aspiration hazard: Data not available         Potential health effects:         Inhalation: No ill effects expected.         Ingestion: No ill effects expected.         Skin: No ill effects expected.         Signs and symptoms of exposure: No ill eff         Additional information: RTECS #: Data not         Toxicity to fish: No data available         Toxicity to fish: No data available         Persistence and degradability: No data available         Other adverse effects: An environmental ha:         Section 13       Disposal Considera         These disposal guidelines are intended for regulations may be different. Dispose of issection 14         Transport Information: Not applicable         Hazard class: Not applicable         Exceptions: Not applicable         Section 15       Regulatory Information: Not applicable	e fects expected. t available on tebrates: No data available bilable Bioaccumu PBT and vi Zard cannot be excluded tions or the disposal of catal in accordance with all on Shipping name: N Packing group: N 2012 ERG Guide # don ber for the anhydrous form TSCA	Interpretation of the second s	lations may ap contract with aantity: No DSL	a licensed chem Mar NDSL	rine pollutant: No WHMIS Classification
Reproductive toxicity: Data not available         STOT-single exposure: Data not available         STOT-repeated exposure: Data not available         Aspiration hazard: Data not available         Potential health effects:         Inhalation: No ill effects expected.         Ingestion: No ill effects expected.         Signs and symptoms of exposure: No ill eff         Additional information: RTECS #: Data not         Stotty to fish: No data available         Toxicity to fish: No data available         Portential noolity in soil: No data available         Persistence and degradability: No data available         Other adverse effects: An environmental ha         Section 13       Disposal Considera         These disposal guidelines are intended for         regulations may be different. Dispose of is         Section 14       Transport Information         Section 15       Regulatory Information	e fects expected. t available on tebrates: No data availa ilable Bioaccumu PBT and vi PBT and vi pathe disposal of catal in accordance with all on Shipping name: N Packing group: N 2012 ERG Guide # ion ber for the anhydrous form	Ilative potential: No data available PVB assessment: No data available d in the event of unprofessional handling of log-size quantities only. Federal regu- local, state and federal regulations of lot Regulated ot applicable Reportable Qu Not applicable is on the Inventory list.	lations may ap contract with antity: No	a licensed chem	nical disposal agency. rine pollutant: No

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

# SAFETY DATA SHEET

SDS No.: EE0070

# FLAMMABLE STORAGE CODE RED

Section 1

**Chemical Product and Company Information** 

Innovating Science<sup>®</sup> by Aldon Corporation

"cutting edge science for the classroom"

CHEMTREC 24 Hour Emergency Phone Number (800) 424-9300 For laboratory use only. Not for drug, food or household use.

Product ETHYL ALCOHOL, DENATURED, ANHYDROUS (200 PROC	.,
Synonyms Ethanol, Denatured, Anhydrous	
Section 2 Hazards Identification	
Signal word: DANGER Pictograms: GHS02 / GHS07 / GHS08 / GHS08 Target organs: Eyes, Central nervous system, Liver, Kidneys.	<ul> <li>Precautionary statement:</li> <li>P210: Keep away from heat/sparks/open fiames/hot surfaces. No smoking.</li> <li>P240: Ground/bond container and receiving equipment.</li> <li>P241: Use explosion-proof electrical/ventilating/lighting equipment.</li> <li>P242: Use only non-sparking tools.</li> <li>P243: Take precautionary measures against static discharge.</li> <li>P260: Do not breathe mist/vapours/spray.</li> <li>P264: Wash hands thoroughly after handling.</li> <li>P271: Use only outdoors or in a well-ventilated area.</li> <li>P280: Wear protective gloves/protective clothing/eye protection/face protection.</li> <li>P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes</li> <li>Remove contact lenses, if present and easy to do. Continue rinsing.</li> <li>P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.</li> <li>P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.</li> <li>P312: Call a POISON CENTER or doctor if you feel unwell.</li> <li>P332+P313: If skin irritation occurs: Get medical attention.</li> <li>P362+P364: Take off contaminated clothing and wash it before reuse.</li> <li>P403+P233: Store in a well-ventilated place. Keep container tightly closed.</li> <li>P501: Dispose of contents/container to a licensed chemical disposal agency in accordance with local/regional/national regulations.</li> </ul>

221 Rochester Street

(585) 228-8177

Avon, NY 14414-9409

Ca Prop 65 - This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

Chemical Name	CAS#	%	EINECS	
Ethyl alcohol	64-17-5	85.0 - 85.8%	200-578-6	
sopropyl alcohol	67-63-0	9.0%	200-661-7	
Methanol	67-56-1	4.0 - 4.3%	200-659-6	
Methyl isobutyl ketone	108-10-1	0.9 - 1.0%	203-550-1	

#### Section 4 First Ald 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. CAUSES SKIN IRRITATION. Remove contaminated clothing. Flush thoroughly with mild soap and water. If irritation occurs, get medical attention.

#### Section 5 Fire Fighting Measures

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

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

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

#### Section 6 Accidental Release Measures

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

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

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

Section 7

#### Handling & Storage

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

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

Section 8	Exposure Controls / Personal Pro	tection		
Exposure Limits:	Chemical Name	ACGIH (TLV)	OSHA (PEL)	NIOSH (REL)
Exposure Emilie.	Ethanol	STEL: 1000 ppm / 1880 mg/m <sup>3</sup> (A3)	TWA: 1000 ppm / 1900 mg/m <sup>3</sup>	TWA: 1000 ppm / 1900 mg/m <sup>3</sup>

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 1         Physical & Chemical Properties           Apperance: Calce, colorises liquid. Odor: Mits characteristic color. Odor functional chain of available. Pf: Data not available. Method fare activation of the physical color. Data not available color. Data not ava	A PROPERTY OF
Chemical stability: Stable       Hazardous polymerization: Will not occur.         Conditions to avoid: Excessive temperatures, heat, sparks, open flame and other sources of ignition.       Incompatible materials: Strong oxidizes, incompanic acids and halogens.         Hazardous decomposition products: Oxides of carbon.       Strong oxidizes, incompanic acids and halogens.         Section 1       Toxicological Information         Acute toxicity: Oral-rat LOSo: 7060 mg/tg : inhalation-rat LOSo: 124.7 mg/l4hours         Skin corrosion/irritation: Skin-rabid- Sight initant.         Response of skin sensitization: Data not available         Garrinogenity: Data not available         Garrinogenity: Data not available         Garrinogenity: Data not available         NTP: No component of his product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by OSHA.         Reproductive desposure: Data not available         STOT-regeted exposure: Data not available         Approductive desposure: Data not available         Approductive dexposure: Data not available         Appr	(721°F)
Conditions to avoid: Excessive temperatures, heat, sparka, open flame and other sources of ignition. Incompatible materials: Strong oxidizers, inorganic acids and halogens. Hazardous decomposition products: Oxides of carbon. Section 1 Toxicological Information Acute toxicity: Oral-rat LD50: 7060 mg/kg ; Inhalation-rat LC50: 124.7 mg/l4hours Skin corrosion(initation: Skin rationable) Skin corrosion(initation: Skin rationable) Section 21 Toxicological Information Acute toxicity: Oral-rat LD50: 7060 mg/kg ; Inhalation-ration Section 20 sevies and sevies and the se	Charles and the
Acute toxicity: Oral-rat LD50: 7060 mg/kg ; Inhalation-rat LC50: 124.7 mg/l/4hours Skin corroslon/inftation: Skin-rabbit - Slight initiant. Serious eye damage/initiation: Eyes-rabbit - Severe initiant. Respiratory or skin sensitization: Data not available Germ cell mutagenicity: Data not available INTP: 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 as to tils carcinogenicity to humans. [Isopropanol] 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 STDT-single exposure: Data not available Potential health effects: Inhalation: may cause dizzinesa, drowsiness, nausea, vomiting, inability to concentrate and initiation of the throat. Ingestion: Ingestion causes dizzinesa, drowsiness, decreased reaction, euphoria, nausea, vomiting, staggering gait and coma. Stin: Contact with skin causes inflation defating on prolonged contact. Eyes: Contact with eyes may cause dizzinesa. Stigms and symptome of exposure: See Potential health effects above. Additional information: RTECS & KG830000 Section 12 Ecological Information Protections (Custacia), EC50 = 11,200 mg/l/24 hours [Ethanol] Toxicity to fash: Oncontynchus mykias (fish, fresh water), LC50 = 11,200 mg/l/24 hours [Ethanol] Protectial available Mobility in soli: No data available Bioaccumulative potential: No data available Mobility in soli: No data available Mobility in s	
Skin corrosion/inftation: Skin-rabbit-Slight Initiant. Serious eye damage/initiation: Eyes-rabbit-Severe initiant. 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 classified: Group 3: Not classifiable as to its carcinogenicity to humans. [Isopropano]] 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 Potential hearts: Data not available Potential hearts: Inhalation may cause dizziness, drowsiness, accreased reaction, euphoria, nausea, vomiting, staggering gait and coma. Skin: Contact with skin causes irritation defatting on prolonged contact. Eyes: Contact with skin causes irritation defatting on prolonged contact. Eyes: Contact with skin causes irritation defatting on prolonged contact. Eyes: Contact with skin causes irritation defatting on prolonged contact. Eyes: Contact with skin causes irritation defatting on prolonged contact. Eyes: Contact with skin causes irritation defatting on prolonged contact. Eyes: Contact with skin causes irritation defatting on prolonged contact. Eyes: Contact with skin causes irritation defatting on prolonged contact. Eyes: Contact with skin causes irritation defatting on prolonged contact. Eyes: Contact with skin causes irritation defatting on prolonged contact. Eyes: Contact with skin causes irritation defatting on prolonged contact. Eyes: Contact with skin causes irritation defatting on prolonged contact. Eyes: Contact with skin causes irritation defatting on prolonged contact. Eyes: Contact with skin causes irritation the sevent of uppr	
Toxicity to fish: Oncorhynchus mykiss (fish, fresh water), LC50 = 11,200 mg//24 hours [Ethanol]         Toxicity to daphnia and other aquatic invertebrates: Daphnia magna (Crustacia), EC50 = 10,800 mg//24 hours [Ethanol, 99.8% pure]         Toxicity to algae: Chlorella pyrenoidosa (Algae), EC50 = 9,310 mg//growth rate [Ethanol, absolute]         Persistence and degradability: No data available       Bloaccumulative potential: No data available         Mobility in soil: No data available       Bloaccumulative potential: 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 accordance with al local, state and federal regulations or contract with a licensed chemical disposal agency.         Section 14       Transport Information         UN/NA number:       UN1170         Shipping name:       Ethanol         Hazard class: 3       Packing group: II Reportable Quantity: No Marine pollutant: No Exceptions: Limited quantity equal to or less that a considered to be listed if the CAS number for the anhydrous form is on the Inventory list.	
Toxicity to daphnia and other aquatic invertebrates: Daphnia magna (Crustacia), EC50 = 10,800 mg//24 hours [Ethanol, 99.8% pure]         Toxicity to algae: Chlorella pyrenoidosa (Algae), EC50 = 9,310 mg//growth rate [Ethanol, absolute]         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 accordance with all local, state and federal regulations or contract with a licensed chemical disposal agency.         Section 14       Transport Information         UN/NA number:       UN1170         Shipping name:       Ethanol         Hazard class: 3       Packing group: II         Reportable Quantity: No       Marine pollutant: No       Exceptions: Limited quantity equal to or less the state of the CAS number for the anhydrous form is on the Inventory list.	
Section 14       Transport Information         UN/NA number:       UN1170         Shipping name:       Ethanol         Hazard class:       3         Packing group:       II         Regulatory Information       Exceptions:         A chemical is considered to be listed if the CAS number for the anhydrous form is on the Inventory list.	ferent. Dispose of in
UN/NA number: UN1170 Shipping name: Ethanol Hazard class: 3 Packing group: II Reportable Quantity: No Marine pollutant: No Exceptions: Limited quantity equal to or less the Section 15 Regulatory Information A chemical is considered to be listed if the CAS number for the anhydrous form is on the Inventory list.	
Section 15 Regulatory Information A chemical is considered to be listed if the CAS number for the anhydrous form is on the Inventory list.	in the second
A chemical is considered to be listed if the CAS number for the anhydrous form is on the Inventory list.	han 1 Lt.
	WHMIS Classificatio
Ethanol         Listed         Not listed         D001         Listed         Not listed           Isopropanol         Listed         Not list	B2; D1B; D2A; D2E B2; D1B; D2A; D2E B2; D2B

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.

# **GENERAL STORAGE CODE GREEN**

# 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	VINEGAR - WHITE				
Synonyms	Not available				
Section 2	Hazards Mentilication				
according of Labeling of Signal wom Pictograms Target orga GHS Class GHS Label	n of this chemical has not been classified as a hazardous chemical to the Globally Harmonized System (GHS) of Classification and f Chemicals. rd: No data available s: No data available ans: None known bification: No data available information: thement(s): No data available	Precautionary statement(s): Do not breathe mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Wear protective gloves/protective clothing/eye protection/face protection. Wash hands thoroughly after handling. Get medical attention if you feel unwell.			

Ca Prop 65 - This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

Chemical Name	CAS #	%	EINECS	
Water Acetic acid	7732-18-5 64-19-7	92-96% 4-8%	231-791-2 200-580-7	

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

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

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

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

Suitable Extinguishing Media: Carbon dioxide, dry chemical, 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. Dangerous in contact with chromic acid, sodium peroxide, nitric acid or other oxidizing materials.

Personal Precautions: Evacuate personnel to safe area. Use proper personal protective equipment as indicated in Section 8. Provide adequate ventilation. Environmental Precautions: Avoid runoff into storm sewers and ditches which lead to waterways.

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

Section 7

#### Handling & Storage

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

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

Section 8	Exposure Controls / Personal Pro	viection		
Exposure Limits:	Chemical Name	ACGIH (TLV)	OSHA (PEL)	NIOSH (REL)
Exposure Limits:	Acetic acid	TWA: 10 ppm / STEL: 15 ppm	TWA: 10 ppm	TWA: 10 ppm / STEL: 15 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 airbome concentrations low. Respiratory protection: None should be needed in normal laboratory handling at room temperatures. If misty conditions prevail, work in fume hood or wear a NIOSH/MSHA-approved respirator.

Section 9 Physical & Chemical Pro	perues		
Appearance: Clear, colorless liquid. Odor: Vinegar-like odor. Odor threshold: No data available H: No data available Wetting / Freezing point: ~ 0°C (~ 32°F) [water] Soliling point: ~ 100°C (212°F) [water] Flash point: Not flammable. Evaporation rate (Water = 1): < 1	Flammability (solid/gas): No data av Explosion limits: Upper/Lower: No Vapor pressure (mm Hg): 14 [water] Vapor density (Air = 1): 0.7 [water] Relative density (Specific gravity): Solubility(les): Complete. Partition coefficient: (n-octanol / water): Auto-Ignition temperature: No data	data available Viscosity: Molecular Nolecular No data available	ition temperature: No data available No data available formula: Mixture. welght: Mixture.
ection 10 Stability & Reactivity			
Chemical stability: Stable Conditions to avoid: Excessive temperatures whi	Hazardous polymerization: W ch cause evaporation.	fill not occur.	
ncompatible materials: Oxidizing agents, such a	s hydrogen peroxide, nitric acid, perchlorid	c acid or chromium trioxide. Stron	ng alkalies such as sodium hydroxide.
lazardous decomposition products: Oxides of	carbon.		
Section 11 Toxicological Informatio			
NTP: No component of this product present at leve	els greater than or equal to 0.1% is identifi els greater than or equal to 0.1% is identifi	ed as a carcinogen or potential ca	arcinogen by NTP.
OSHA: No component of this product present at le Reproductive toxicity: Data not available STOT-single exposure: Data not available STOT-repeated exposure: Data not available Aspiration hazard: Data not available Potential health effects: To the best of our knowl Exercise appropriate procedures to minimize poter Inhalation: May be harmful if inhaled. Material ma Ingestion: May be harmful if swallowed. Skin: May cause irritation. Eyes: May cause irritation. Signs and symptoms of exposure: Data not ava Additional information: RTECS #: AF1225000   Section 12 Ecological information Toxicity to fish: Low chronic toxicity to fish [Acetia Toxicity to daphnia and other aquatic invertebre	vels greater than or equal to 0.1% is ident edge the chemical, physical and toxicologi tial hazards. y cause irritation to the tissue of the muco illable at this dilution. Acetic acid] : acid] tes: Daphnia magna (water flea) 300.82 r	ified as a carcinogen or potential ical properties have not been tho us membranes and upper respira mg/l / 48 hours [Acetic acid]	carcinogen by OSHA. roughly investigated. Specific data is not ava
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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.