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#### Section 1 **Chemical Product and Company Identification**

# 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	L+ASCORBIC ACID	
Synonyms	Vitamin C	
Section 2	Hazards Identification	
This substa to the Glob Chemicals. Signal word Pictograms Target orga GHS Classi GHS Label	ance or mixture has not been classified as hazardous according ally Harmonized System (GHS) of Classification and Labeling of	Precautionary statement(s): Do not breathe dust. 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 or reproductive toxicity.

Section 3	Composition / Information on Ingredients					
Chemical Name		CAS #	%	EINECS		
Ascorbic acid		50-81-7	100%	200-066-2		
Section 4	First Aid Measures		1			

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

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

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

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

#### Section 5

**Fire Fighting Measures** 

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

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

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

#### Section 6 **Accidental Release Measures**

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

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

Containment and Cleanup: Sweep or vacuum up and place in a suitable container for proper disposal. Wash spill area with soap and water.

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. Protect from light, air and moisture.

Section 8	Exposure Controls / Personal Protection				
Exposuro Limite:	Chemical Name	ACGIH (TLV)	OSHA (PEL)	NIOSH (REL)	
Exposure Limits:	Ascorbic acid	None established	None established	None 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.

Appearance:       Solid, white, crystalline powder.       Evaporation rate (=1):       Data not available       Partition coefficient:       Data not available         Odor:       Nearly odorless.       Flammability (solid/gas):       Data not available.       Auto-ignition temperature:       660°C (1220°F)         Odor threshold:       Data not available.       Explosion limits:       Lower / Upper:       Non flammable       Decomposition temperature:       Data not available.	Section 9 Physical & Chemical Prop	perties	
pH: Data not available.     Vapor pressure (mm Hg): Negligible     Viscosity: Data not available.       Melting / Freezing point: 190-192°C (374-377°F)     Vapor density (Air = 1): Data not available     Molecular formula: C <sub>6</sub> H <sub>8</sub> O <sub>6</sub> Boiling point: Decomposes     Relative density (Specific gravity): 1.65     Molecular weight: 176.13       Flash point: Non flammable     Solubility(ies): 30% by weight at 20°C in water.     Molecular weight: 176.13	Odor: Nearly odorless. Odor threshold: Data not available. pH: Data not available. Melting / Freezing point: 190-192°C (374-377°F) Boiling point: Decomposes	Flammability (solid/gas): Data not available. Explosion limits: Lower / Upper: Non flammable Vapor pressure (mm Hg): Negligible Vapor density (Air = 1): Data not available Relative density (Specific gravity): 1.65	Auto-ignition temperature: $660^{\circ}C$ (1220°F) Decomposition temperature: Data not available. Viscosity: Data not available. Molecular formula: $C_6H_8O_6$
Section 10 Stability & Reactivity	Section 10 Stability & Reactivity		

Chemical stability: Stable

Hazardous polymerization: Will not occur.

Conditions to avoid: Excessive temperatures, moisture, air and light.

Incompatible materials: Alkalies, iron, copper, water, oxidizing agents, acids.

Hazardous decomposition products: Oxides of carbon.

## Section 11 Toxicological Information

Acute toxicity: Data not available Skin corrosion/irritation: Data not available Serious eye damage/irritation: Data not available 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 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: Data not available STOT-repeated exposure: Data not available Aspiration hazard: Data not available Potential health effects: Inhalation: Inhalation may cause cough and sore throat. Ingestion: May cause gastrointestinal irritation. Skin: May cause mild irritation with redness. Eves: May cause mild irritation with redness and pain. Signs and symptoms of exposure: See Potential health effects above. Additional information: RTECS #: CI7650000 Section 12 **Ecological Information** Toxicity to fish: No data available 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 Hazard class: Exceptions: N		Shipping name: N Packing group: N 2016 ERG Guide #	ot applicable	Reportable Qu	antity: No	Ma	rine pollutant: No	
Section 15	Regulatory Inform	ation						
A chemical is conside	red to be listed if the CAS nu	mber for the anhydrous form	is on the Inventory list.					
Compo	nent	TSCA	CERLCA (RQ)	RCRA code	DSL	NDSL		
Ascorbic acid		Listed	Not listed	Not listed	Listed	Not listed		
Section 16	Other Information							
							ed by them and must make ind NTP: National Toxicology Pro	

dent determination of the safety and health of any kind. Employers should use this information only as a supplement to the information gameted 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.

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## Section 1 Chemical Product and Company Identification

# CHEMTREC 24 Hour Emergency

# Innovating Science® by Aldon Corporation

"cutting edge science for the classroom"

221 Rochester Street Avon, NY 14414-9409 (585) 226-6177 Phone Number (800) 424-9300 For laboratory use only. Not for drug, food or household use.

Product	BAKING POWDER	
Synonyms	None available	
Section 2	Hazards Identification	
to the Glob Chemicals. Signal word Pictograms Target orga	ance or mixture has not been classified as hazardous according ally Harmonized System (GHS) of Classification and Labeling of d: Not classified : Not classified ns: None known fication: Not classified	Precautionary statement(s): Do not breathe dust. 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.
GHS Label	information: Hazard statement(s): Not classified	

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

Section 3 Co	mposition / Information on	Ingredients			
Chemical Name		CAS #	%	EINECS	
Sodium bicarbonate		144-55-8		205-633-8	
Sodium pyrophosphate		7722-88-5		231-767-1	
Corn starch		9005-25-8		232-679-6	
Monocalcium phosphate		7758-23-8		231-837-1	

## Section 4 First Aid Measures

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

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

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

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

### Section 5

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

**Fire Fighting Measures** 

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: Sweep or vacuum up and place in a suitable container for proper disposal. Wash spill area with soap and water.

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. Store away from acids.

Section 8	Exposure Controls / Personal Protection				
Exposuro Limite:	Chemical Name	ACGIH (TLV)	OSHA (PEL)	NIOSH (REL)	
Exposure Limits:	Sodium bicarbonate	None established	None established	None 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.

Section 9 Physical & Chemical Prop	erties	
Appearance: Solid, white powder. Odor: No odor. Odor threshold: Data not available. pH: Data not available Melting / Freezing point: Data not available Boiling point: Data not available Flash point: Data not available	Evaporation rate ( = 1): Data not available Flammability (solid/gas): Data not available. Explosion limits: Lower / Upper: Data not available Vapor pressure (mm Hg): Data not available Vapor density (Air = 1): Data not available Relative density (Specific gravity): Data not available Solubility(ies): Approximately 10 g/100 ml water at 20°C	Partition coefficient: Data not available Auto-ignition temperature: Data not available Decomposition temperature: Data not available Viscosity: Data not available. Molecular formula: Mixture Molecular weight: Mixture
Section 10 Stability & Reactivity		

Chemical stability: Stable

Hazardous polymerization: Will not occur.

Conditions to avoid: High temperature causes decomposition to sodium carbonate, water and carbon dioxide.

Incompatible materials: Reacts with acids to yield acid salts, water and carbon dioxide.

Hazardous decomposition products: Gaseous carbon dioxide.

## Section 11 Toxicological Information

Acute toxicity: Oral-rat LD50: 4220-4400 mg/kg [Sodium bicarbonate] Skin corrosion/irritation: Skin-rabbit - not irritating [Sodium bicarbonate]

Serious eye damage/irritation: Eye-rabbit - not irritating [Sodium bicarbonate]

Respiratory or skin sensitization: Non sensitizing [Sodium bicarbonate]

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: 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: Data not available

STOT-repeated exposure: Data not available

Aspiration hazard: Data not available

Potential health effects:

Inhalation: Excessive dust may irritate respiratory tract.

Ingestion: Ingestion may cause gastrointestinal disturbance if ingested.

Skin: No hazard known.

Eyes: Contact with eyes may cause very slight irritation.

Signs and symptoms of exposure: See Potential health effects above.

Additional information: RTECS #: VZ0950000 [Sodium bicarbonate]

## Section 12 Ecological Information

 Toxicity to fish: Gambusia affinis (fish, freshwater) LC50: 7550 mg/l/24 hours [Sodium bicarbonate]

 Toxicity to daphnia and other aquatic invertebrates: Daphnia magna (Crustacea) EC50: 2350 mg/l/48 hours [Sodium bicarbonate]

 Toxicity to algae: Nitcheria linearis (Algae) LC50: 650 mg/l/5 day [Sodium bicarbonate]

 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 even	t of unprofessiona	I handling or	disposal
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### 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. Section 14 Transport Information (US DOT / CANADA TDG)

Hazard class: Not applicable Packing		Shipping name:Not RegulatedPacking group:Not applicable2016 ERG Guide #Not applicable		Reportable Quantity: No		Ma	Marine pollutant: No	
Section 15	Regulatory Informa	tion						
A chemical is considered	ed to be listed if the CAS num	ber for the anhydrous form i	s on the Inventory list.					
Compon	ent	TSCA	CERLCA (RQ)	RCRA code	DSL	NDSL		
Sodium bicarbonate		Listed	Not listed	Not listed	Listed	Not listed		
		1 1		1			1	
Section 16	Other Information							
	ned herein is furnished withor suitability and completeness							

dent determination contained netrent is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gameted 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.

## Section 1 Chemical Product and Company Identification

# Page E1 of E2

# 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 BAKING POWDER	
Synonyms UNKNOWN POWDER	
Section 2 Hazards Identification	
This substance or mixture has not been classified as hazardous according to the Globally Harmonized System (GHS) of Classification and Labeling of Chemicals. Signal word: Not classified Pictograms: Not classified Target organs: None known	Precautionary statement(s): Do not breathe dust. 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.
GHS Classification: Not classified	
GHS Label information: Hazard statement(s): Not classified	

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

Section 3 Co	ection 3 Composition / Information on Ingredients				
Chemical Name		CAS #	%	EINECS	
Sodium bicarbonate		144-55-8		205-633-8	
Sodium pyrophosphate		7722-88-5		231-767-1	
Corn starch		9005-25-8		232-679-6	
Monocalcium phosphate		7758-23-8		231-837-1	

## Section 4 First Aid Measures

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

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

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

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

#### Section 5

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

**Fire Fighting Measures** 

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: Sweep or vacuum up and place in a suitable container for proper disposal. Wash spill area with soap and water.

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. Store away from acids.

Section 8	Exposure Controls / Personal Protection					
Exposuro Limite:	Chemical Name	ACGIH (TLV)	OSHA (PEL)	NIOSH (REL)		
Exposure Limits:	Sodium bicarbonate	None established	None established	None 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.

Section 9 Physical & Chemical Prop	erties	
Appearance: Solid, white powder. Odor: No odor. Odor threshold: Data not available. pH: Data not available Melting / Freezing point: Data not available Boiling point: Data not available Flash point: Data not available	Evaporation rate ( = 1): Data not available Flammability (solid/gas): Data not available. Explosion limits: Lower / Upper: Data not available Vapor pressure (mm Hg): Data not available Vapor density (Air = 1): Data not available Relative density (Specific gravity): Data not available Solubility(ies): Approximately 10 g/100 ml water at 20°C	Partition coefficient: Data not available Auto-ignition temperature: Data not available Decomposition temperature: Data not available Viscosity: Data not available. Molecular formula: Mixture Molecular weight: Mixture
Section 10 Stability & Reactivity		

Chemical stability: Stable

Hazardous polymerization: Will not occur.

Conditions to avoid: High temperature causes decomposition to sodium carbonate, water and carbon dioxide.

Incompatible materials: Reacts with acids to yield acid salts, water and carbon dioxide.

Hazardous decomposition products: Gaseous carbon dioxide.

## Section 11 Toxicological Information

Acute toxicity: Oral-rat LD50: 4220-4400 mg/kg [Sodium bicarbonate] Skin corrosion/irritation: Skin-rabbit - not irritating [Sodium bicarbonate]

Serious eye damage/irritation: Eye-rabbit - not irritating [Sodium bicarbonate]

Respiratory or skin sensitization: Non sensitizing [Sodium bicarbonate]

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: 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: Data not available

STOT-repeated exposure: Data not available

Aspiration hazard: Data not available

Potential health effects:

Inhalation: Excessive dust may irritate respiratory tract.

Ingestion: Ingestion may cause gastrointestinal disturbance if ingested.

Skin: No hazard known.

Eyes: Contact with eyes may cause very slight irritation.

Signs and symptoms of exposure: See Potential health effects above.

Additional information: RTECS #: VZ0950000 [Sodium bicarbonate]

## Section 12 Ecological Information

 Toxicity to fish: Gambusia affinis (fish, freshwater) LC50: 7550 mg/l/24 hours [Sodium bicarbonate]

 Toxicity to daphnia and other aquatic invertebrates: Daphnia magna (Crustacea) EC50: 2350 mg/l/48 hours [Sodium bicarbonate]

 Toxicity to algae: Nitcheria linearis (Algae) LC50: 650 mg/l/5 day [Sodium bicarbonate]

 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 even	t of unprofessiona	I handling or	disposal
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### 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. Section 14 Transport Information (US DOT / CANADA TDG)

Hazard class: N	JN/NA number:       Not applicable       Shipping name:       Not Regulated         fazard class:       Not applicable       Packing group:       Not applicable         Exceptions:       Not applicable       2016 ERG Guide # Not applicable		Reportable Quantity: No		Ma	Marine pollutant: No		
Section 15	Regulatory Informa	tion						
A chemical is considered	ed to be listed if the CAS num	ber for the anhydrous form i	s on the Inventory list.					
Compon	ent	TSCA	CERLCA (RQ)	RCRA code	DSL	NDSL		
Sodium bicarbonate		Listed	Not listed	Not listed	Listed	Not listed		
		1 1		1			1	
Section 16	Other Information							
	ned herein is furnished withor suitability and completeness							

dent determination contained netrent is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gameted 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.

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## Section 1 Chemical Product and Company Identification

# 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	FOOD COLORING - SET OF 4	
Synonyms	Vegetable Dye	
Section 2	Hazards Identification	
to the Glob Chemicals Signal wor Pictogram Target org GHS Class GHS Labe	tance or mixture has not been classified as hazardous according bally Harmonized System (GHS) of Classification and Labeling of s. rd: None required is: No symbol required ans: None known sification: None required I information: Hazard statement: None required hary statement: None required	Supplemental information: Do not breathe mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Wea 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 or reproductive toxicity.

Section 3	Composition / Information on Ingredients				
Chemical Name		CAS #	%	EINECS	
Water		7732-18-5	Not disclosed	231-791-2	
Propylene glycol		57-55-6	Not disclosed	200-338-0	
FD&C Yellow #5	C.I. No. 19140)	1934-21-0	Not disclosed	217-699-5	
FD&C Red #40 (0	C.I. No. 16035)	25956-17-6	Not disclosed	247-368-0	
FD&C Blue #1 (C	.l. No. 42090)	3844-45-9	Not disclosed	223-339-8	
FD&C Red #3 (C	I. No. 54530)	16423-68-0	Not disclosed	240-474-8	
Propylparaben (a	s preservative)	94-13-3	0.1%	202-307-7	
*Proprietary amore	unts				

## Section 4 First Aid Measures

**INGESTION:** MAY BE HARMFUL BY 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: MAY CAUSE ALLERGIC REACTIONS. Remove contaminated clothing. Flush thoroughly with mild soap and water. If irritation occurs, get medical attention.

# Section 5

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

**Fire Fighting Measures** 

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

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

# Section 6 Accidental Release Measures

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

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

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

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				
Exposuro Limite:	Chemical Name	ACGIH (TLV)	OSHA (PEL)	NIOSH (REL)	
Exposure Limits:	None established	None established	None established	None 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 misty conditions prevail, work in fume hood or wear a NIOSH/MSHAapproved respirator.

Section 9 Physical & Chemical Prop	perties		
<ul> <li>Appearance: Liquid, dark yellow, green, blue or red.</li> <li>Odor: No odor.</li> <li>Odor threshold: Data not available.</li> <li>pH: Data not available.</li> <li>Melting / Freezing point: Approximately 0°C (32°F) (water)</li> <li>Boiling point: Approximately 100°C (212°F) (water)</li> <li>Flash point: Data not available</li> </ul>	Evaporation rate (Water = 1): <1 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) Solubility(ies): Complete in water.	Partition coefficient: Data not available Auto-ignition temperature: Data not available Decomposition temperature: Data not available. Viscosity: Data not available. Molecular formula: Mixture Molecular weight: Mixture	
Section 10 Stability & Reactivity			
Chemical stability: Stable Conditions to avoid: Excessive temperatures whic Incompatible materials: Strong oxidizers, reducing Hazardous decomposition products: Oxides of ca			

#### Section 11 **Toxicological Information**

Acute toxicity: Data not available

Skin corrosion/irritation: Data not available

Serious eye damage/irritation: Data not available 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 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: Data not available

STOT-repeated exposure: Data not available Aspiration hazard: Data not available

Potential health effects:

Inhalation: Not expected to be a health hazard.

Ingestion: May be harmful by ingestion.

Skin: Contact may cause irritation or allergic reaction.

Eyes: Contact may cause irritation.

Signs and symptoms of exposure: To the best of our knowledge the chemical, physical and toxicological properties have not been thoroughly investigated. Specific data is not available. Exercise appropriate procedures to minimize potential hazards.

Additional information: RTECS #: Data not available

## Section 12

O

**Ecological Information** 

Toxicity to fish: No data available

Mobility in soil: No data available

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

PBT and vPvB assessment: No data available

ther adverse effects:	An environmental	hazard cannot	be excluded in	n the event of	of unprofessional	handling or	disposal
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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. Section 14 Transport Information (US DOT / CANADA TDG)

UN/NA number: Hazard class: N Exceptions: No	ot applicable	Packing group:	<ul> <li>Not Regulated</li> <li>Not applicable</li> <li>e # Not applicable</li> </ul>	Reportable Qu	antity: No	Mar	ine pollutant: No	
Section 15	Regulatory Informati	on						
A chemical is considered	d to be listed if the CAS numb	er for the anhydrous f	orm is on the Inventory list.					
Compone	ent	TSCA	CERLCA (RQ)	RCRA code	DSL	NDSL		
All components listed	d with the following agenci	es: TSCA, EINECS	S, and DSL					
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 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

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## Section 1 Chemical Product and Company Identification

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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	GELATIN	
Synonyms	Protein	
Section 2	Hazards Identification	
Globally Ha Signal word Pictograms:	nce or mixture has not been classified as hazardous according to the rmonized System (GHS) of Classification and Labeling of Chemicals. : Not classified Not classified ns: None known	Precautionary statement(s): Do not breathe dust. 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.
GHS Classi	fication: Not classified	
GHS Label	nformation: Hazard statement(s): Not classified	

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		
Gelatin		9000-70-8	100%	232-554-6		
Section 4	First Aid Measures					

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

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

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

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

# Section 5 Fire Fighting Measures

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

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

Specific Hazards: During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Dust dispersed in air becomes explosive when exposed to ignition sources. If spills become wet, surface will become slippery.

# 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.

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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 Limiter	Chemical Name	ACGIH (TLV)	OSHA (PEL)	NIOSH (REL)	
Exposure Limits:	Gelatin	None established	TWA: 15 mg/m <sup>3</sup> total dust	None 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 respirator.								
Section 9	Physical & Chemical Pro	perties						
Appearance: Solid, Odor: No odor. Odor threshold: Dat pH: Data not availat Melting / Freezing po Boiling point: Decon Flash point: Data no	a not available. ole oint: Decomposes oposes	Flammability (s Explosion limits Vapor pressure Vapor density ( Relative densit	Evaporation rate ( = 1): Data not available Flammability (solid/gas): Data not available. Explosion limits: Lower / Upper: Data not available Vapor pressure (mm Hg): Negligible Vapor density (Air = 1): Data not available Relative density (Specific gravity): >1.0 Solubility(ies): Insoluble in cold water, soluble in boiling water				ata not available Data not available	
Section 10	Stability & Reactivity							
Chemical stability: Stable       Hazardous polymerization: Will not occur.         Conditions to avoid: Excessive temperatures and heat.       Incompatible materials: Strong oxidizers.         Hazardous decomposition products: Carbon oxides and nitrogen oxides.								
Section 11	Toxicological Information							
Acute toxicity: Data not available         Skin corrosion/irritation: Data not available         Serious eye damage/irritation: Data not available         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: Data not available         STOT-repeated exposure: Data not available         Aspiration hazard: Data not available         Potential health effects:         Inhalation: No hazard known.         Ingestion: No hazard known.         Skin: No hazard known.         Stys:       Contact with eyes may cause transient irritation.         Signs and symptoms of exposure: See Potential health effects above.         Additional information: RTECS #: LX8580000								
Section 12	Ecological Information							
Toxicity to fish: No data available 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 These disposal qui	Disposal Considerations	disposal of cata	log-size quantities o	only. Federal regul	ations may ar	oply to empty co	ntainer. State and/or local	
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.         Section 14       Transport Information (US DOT / CANADA TDG)								
UN/NA number:Not applicableShipping name:Not RegulatedHazard class:Not applicablePacking group:Not applicableReportable Quantity:NoMarine pollutant:NoExceptions:Not applicable2016 ERG Guide # Not applicableNot applicableNot applicableNot applicable								
Section 15         Regulatory Information           A chemical is considered to be listed if the CAS number for the anhydrous form is on the Inventory list.         Image: Construction of the construction of the anhydrous form is on the Inventory list.								
A chemical is considere Compone		the anhydrous form TSCA	is on the Inventory list.	RCRA code	DSL	NDSL		
Gelatin	/	Listed	Not listed	Not listed	Listed	Not listed		
Solution		Listed	Not noted		LISIOU			
Section 16	Other Information							
The information contain	ad barain is furnished without warrs	nty of any kind. Em	ployers should use this i	nformation only as a su	innlement to othe	r information acthor	red 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

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Section 1 Chemical Product and Company Identification

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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	PAPAIN	
Synonyms	Papayotin / Vegetable Pepsin	
Section 2	Hazards Identification	
Pictograms Target orga GHS Class Skin irritatio Eye irritatio Respiratory STOT - SE GHS Label H315: Caus H319: Caus H334: May	rd: DANGER s: GHS07 / GHS08 ans: None known sification: on (Category 2) on (Category 2A) y sensitization (Category 1) (Category 3) Information: Hazard statement: ses skin irritation. ses serious eye irritation. cause allergy or asthma symptoms or breathing difficulties if inhaled. cause respiratory irritation.	<ul> <li>Precautionary statement:</li> <li>P261: Avoid breathing dust.</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>P284: Wear respiratory 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>P362+P364: Take off contaminated clothing and wash it before reuse.</li> <li>P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.</li> <li>P342+P311: If experiencing respiratory symptoms: Call a POISON CENTER or doctor.</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>P403+P233: Store in a well-ventilated place. Keep container tightly closed.</li> <li>P405: Store locked up.</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 or reproductive toxicity.

Section 3	Composition / Information on Ingredients				
Chemical Name		CAS #	%	EINECS	
Papain		9001-73-4	100%	232-627-2	
Section 4	First Aid Measures				

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

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

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

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

### Section 5

Suitable Extinguishing Media: Use extinguishing agent suitable for type of surrounding fire.

**Fire Fighting Measures** 

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.

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. Keep away from ignition sources.

Section 8	Exposure Controls / Personal Protection				
Exposure Limits:	Chemical Name	ACGIH (TLV)	OSHA (PEL)	NIOSH (REL)	
Exposure Limits:	Papain	None established.	None established.	None 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.

Section 9 Physical & Chemical Prop	perties	
Appearance: Solid. Off-white hygroscopic powder	Evaporation rate ( = 1): Data not available	Partition coefficient: Data not available
Odor: Faint odor	Flammability (solid/gas): Data not available	Auto-ignition temperature: Data not available
Odor threshold: Data not available	Explosion limits: Lower / Upper: Data not available	Decomposition temperature: Data not available
pH: Data not available	Vapor pressure (mm Hg): Data not available	Viscosity: Data not available
Melting / Freezing point: Decomposes	Vapor density (Air = 1): Data not available	Molecular formula: Natural product
Boiling point: Decomposes	Relative density (Specific gravity): Data not available	Molecular weight: Natural product
Flash point: Data not available	Solubility(ies): Slightly soluble in water	
Section 10 Stability & Reactivity		

Chemical stability: Stable

Hazardous polymerization: Will not occur.

Conditions to avoid: Excessive temperatures and heat. Stable under recommended storage conditions.

Incompatibilities with other materials: Strong oxidizers.

Hazardous decomposition products: Carbon oxides, nitrogen oxides, sulfur oxides.

#### Section 11 **Toxicological Information**

Acute toxicity: Data not available

Skin corrosion/irritation: Data not available

Serious eye damage/irritation: Data not available

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 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 respiratory tract irritation.

STOT-repeated exposure: Data not available Aspiration hazard: Data not available

Potential health effects:

Inhalation: Causes respiratory tract irritation. May cause allergic respiratory reaction. May be harmful if inhaled.

Ingestion: May cause irritation of the digestive tract. May be harmful if swallowed.

Skin: Causes skin irritation. May be harmful if absorbed through skin.

Eyes: Causes eye irritation.

Signs and symptoms of exposure: Inhalation of this material can cause the respiratory irritation, allergic or asthmatic reaction. To the best of our knowledge the chemical, physical and toxicological properties have not been thoroughly investigated. Specific data is not available. Exercise appropriate procedures to minimize potential hazards. Additional information: RTECS #: RU4950000

Section 12 **Ecological Information** 

Toxicity to fish: No data available

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: Not a Hazard class: Not a Exceptions: Not ap	applicable	Shipping nan Packing grou 2016 ERG Gu	p: Not a	applicable	Reportable Qua	antity: No	Mar	rine pollutant: No	
Section 15 F	Regulatory Informat	ion							
A chemical is considered to	be listed if the CAS numl	ber for the anhydro	us form is c	on the Inventory list.					
Component		TS	CA	CERLCA (RQ)	RCRA code	DSL	NDSL		
Papain		Lis	ed	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 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.

## Section 1 Che

# Chemical Product and Company Identification

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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 BICARBONATE, ANHYDROUS	
Synonyms	Baking Soda / Sodium Hydrogen Carbonate / Carbonic Acid Sodium (1:1)	
Section 2	Hazards Identification	
This substa to the Glob Chemicals. Signal worr Pictograms Target orga GHS Class	ance or mixture has not been classified as hazardous according ally Harmonized System (GHS) of Classification and Labeling of	Precautionary statement(s): Do not breathe dust. 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 or reproductive toxicity.

Section 3	Composition / Information on Ingredients				
Chemical Name		CAS #	%	EINECS	
Sodium bicarbonate		144-55-8	100%	205-633-8	
Section 4	First Aid Measures				

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

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

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

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

### Section 5

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

**Fire Fighting Measures** 

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. This material is commonly used to extinguish fires.

# 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.

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. Store away from acids.

Section 8	Exposure Controls / Personal Pro	tection		
Exposure Limiter	Chemical Name	ACGIH (TLV)	OSHA (PEL)	NIOSH (REL)
Exposure Limits:	Sodium bicarbonate	None established	None established	None 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.

Section 9 Physical & Chemical Prop	perties	
<ul> <li>Appearance: Solid, white crystalline powder.</li> <li>Odor: No odor.</li> <li>Odor threshold: Data not available.</li> <li>pH: 8.2 (1% solution)</li> <li>Melting / Freezing point: Data not available</li> <li>Boiling point: Decomposes</li> <li>Flash point: Non combustible</li> </ul>	Evaporation rate (=1): Data not available Flammability (solid/gas): Data not available. Explosion limits: Lower / Upper: Data not available Vapor pressure (mm Hg): Negligible Vapor density (Air = 1): Data not available Relative density (Specific gravity): 2.16 @ 20°C Solubility(ies): 8.6 g/100 ml water at 20°C	Partition coefficient: Data not available Auto-ignition temperature: Data not available Decomposition temperature: Data not available Viscosity: Data not available. Molecular formula: NaHCO <sub>3</sub> Molecular weight: 84.01
Continue 40 Ctability 9 Depativity		

#### Section 10 Stability & Reactivity

Chemical stability: Stable

Hazardous polymerization: Will not occur.

Conditions to avoid: High temperature causes decomposition to sodium carbonate, water and carbon dioxide.

Incompatible materials: Reacts with acids to yield acid salts, water and carbon dioxide.

Hazardous decomposition products: Gaseous carbon dioxide.

#### Section 11 **Toxicological Information**

Acute toxicity: Oral-rat LD50: 4220-4400 mg/kg Skin corrosion/irritation: Skin-rabbit - not irritating Serious eye damage/irritation: Eye-rabbit - not irritating Respiratory or skin sensitization: Non 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: 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: Data not available STOT-repeated exposure: Data not available Aspiration hazard: Data not available Potential health effects: Inhalation: Excessive dust may irritate respiratory tract. Ingestion: Ingestion may cause gastrointestinal disturbance if ingested. Skin: No hazard known. Eyes: Contact with eyes may cause very slight irritation. Signs and symptoms of exposure: See Potential health effects above. Additional information: RTECS #: VZ0950000 Section 12 **Ecological Information** Toxicity to fish: Gambusia affinis (fish, freshwater) LC50: 7550 mg/l/24 hours Toxicity to daphnia and other aquatic invertebrates: Daphnia magna (Crustacea) EC50: 2350 mg/l/48 hours Toxicity to algae: Nitcheria linearis (Algae) LC50: 650 mg/l/5 day 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: Not applicable Shipping name: Not Regulated Hazard class: Not applicable Packing group: Not applicable Reportable Quantity: No Marine pollutant: No 2016 ERG Guide # Not applicable Exceptions: Not applicable Section 15 **Regulatory Information** A chemical is considered to be listed if the CAS number for the anhydrous form is on the Inventory list. RCRA code DSL NDSL Component TSCA CERLCA (RQ) Sodium bicarbonate 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 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. Form 06/2015

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

Not for drug, food or household use.

Product       STARCH, CORN         Synonyma       Maize Starch         Section 2       Hazards Identification         This substance or mixture has not been classified as hazardous according to the Globally Harmonized System (GHS) of Classification and Labeling of Chemicals.       Supplemental information: Do not breathe dust. Do not get in eyes, on skin, or on clothing. Wear protective clothing/eye protection/face protection. Wash hands thoroughly after handling. Get medical attention if you feel unwell.         Signal word:       Not classified         Pictograms:       Not classified         Pictograms:       Not classified         GHS Class/fication:       Not classified         Precautionary statement(s):       Not classified         Precautionary statement(s):       Not classified         Precautionary statement(s):       Not classified			
Section 2       Hazards Identification         This substance or mixture has not been classified as hazardous according to the Globally Harmonized System (GHS) of Classification and Labeling of Chemicals.       Supplemental information: Do not breathe dust. 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.         Signal word: Not classified Pictograms: Not classified Target organs: None known       GHS Classification: Not classified         GHS Label information: Hazard statement(s): Not classified       Hazard statement(s): Not classified	Product	STARCH, CORN	
This substance or mixture has not been classified as hazardous according to the Globally Harmonized System (GHS) of Classification and Labeling of Chemicals.Supplemental information: Do not breathe dust. Do not get in eyes, on skin, or on clothing. Wear protective 	Synonyms	Maize Starch	
to the Globally Harmonized System (GHS) of Classification and Labeling of Chemicals.Do not breathe dust. 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.Signal word: Not classified Target organs: None knownGHS Classification: Not classifiedGHS Label information: Hazard statement(s): Not classifiedHazard statement(s): Not classified	Section 2	Hazards Identification	
	to the Globa Chemicals. Signal word Pictograms Target orga GHS Classi GHS Label i Hazard stat	ally Harmonized System (GHS) of Classification and Labeling of I: Not classified I: Not classified Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information: Information:	Do not breathe dust. Do not get in eyes, on skin, or on clothing. Wear protective gloves/protective clothing/eye protection/face protection. Wash hands thoroughly

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	
Starch, corn		9005-25-8	100%	232-679-6	
Section 4	First Aid Measures				

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

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

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

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

#### Section 5

**Fire Fighting Measures** 

Suitable Extinguishing Media: 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. Dust dispersed in air becomes explosive when exposed to ignition sources.

#### 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. Sweep or vacuum up and place in a suitable container for proper disposal. Wash spill area with soap and water.

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. Keep away from ignition sources.

Section 8	Exposure Controls / Personal Protection				
Exposure Limits:	Chemical Name	ACGIH (TLV)	OSHA (PEL)	NIOSH (REL)	
Exposure Linits.	Starch, corn	TWA: 10 mg/m <sup>3</sup> (A4)	TWA: 15 mg/m <sup>3</sup> (Total dust)	TWA: 10 mg/m <sup>3</sup> (Total dust)	

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.

Section 9	Physical & Chemical P	roperties					
Appearance:Solid, white powder.Evaporation rate (=1):Data not availablePartition coefficient:Data not availableOdor:Bland odor.Flammability (solid/gas):Data not available.Partition temperature:410°C (770°F) [cloud]Odor threshold:Data not available.Explosion limits:Lower / Upper:Data not available.Decomposition temperature:Data not available.pH:Data not available.Vapor pressure (mm Hg):Data not availableViscosity:Data not available.Melting / Freezing point:Data not availableVapor density (Air = 1):Data not availableMolecular formula:(C <sub>6</sub> H <sub>10</sub> O <sub>5</sub> ) <sub>n</sub> Boiling point:Data not availableSolubility(ies):Negligible in water.Molecular weight:(162.15) <sub>n</sub>							
Section 10	Stability & Reactivity						
Chemical stability: S			is polymerization: ne and other source		practices which	produce dust.	
Incompatible materia	als: No data available.			5			
•	sition products: None.						
Section 11	Toxicological Informat	ion					
Serious eye damage Respiratory or skin s Germ cell mutagenic Carcinogenity: Data NTP: No component o IARC: No component OSHA: No component OSHA: No component STOT-single exposu STOT-repeated expoo Aspiration hazard: I Potential health effer Inhalation: Inhalation Ingestion: Ingestion n Skin: No hazard know Eyes: Contact with ey Signs and symptoms	of this product present at le of this product present at le t of this product present at y: Data not available re: Data not available sure: Data not available Data not available cts: of high concentrations may nay cause stomach irritatio	vels greater than or er evels greater than or e levels greater than or levels greater than or y cause unpleasant de n. ntial health effects abo	qual to 0.1% is iden equal to 0.1% is ider posits in the nasal p	ified as probable, po tified as a carcinoge	ossible or confir	med human carcii	
Section 12	Ecological Information						
Toxicity to fish: No data available         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							
							ntainer. State and/or local nical disposal agency.
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 (US DOT / CANADA TDG)							
UN/NA number: M Hazard class: Not Exceptions: Not a	applicable Pa	hipping name: No acking group: No 016 ERG Guide #	t applicable	Reportable Qu	antity: No	Mar	ine pollutant: No
Section 15	Regulatory Information						
	to be listed if the CAS number		s on the Inventory list.				
Componen	t	TSCA	CERLCA (RQ)	RCRA code	DSL	NDSL	
Starch, corn		Listed	Not listed	Not listed	Listed	Not listed	
Section 16	Other Information						
The information contained dent determinations of su	d herein is furnished without w itability and completeness of ir cy for Research on Cancer, OS	nformation from all source	es to assure proper use	of these materials and	the safety and he	ealth of employees.	ed by them and must make indepen- NTP: National Toxicology Program, sure, RE: Repeated Exposure,

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Section 1 C

Chemical Product and Company Identification

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

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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 ACETIC ACID, 5% SOLUTION	
Synonyms Acetic Acid, Water Solution / Simulated Acid Rain	
Section 2 Hazards Identification	
Signal word: WARNING         Pictograms: No symbol required         Target organs: None known         GHS Classification:         Eye irritation (Category 2B)         GHS Label information: Hazard statement:         H320: Causes eye irritation.	Precautionary statement: P264: Wash hands thoroughly after handling. 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.

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	Composition / Information on Ingredients			
Chemical Name		CAS #	%	EINECS	
Water Acetic acid		7732-18-5 64-19-7	95% 5%	231-791-2 200-580-7	
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. 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: 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 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. This chemical reacts violently with strong oxidizers, generating a fire and explosion hazard. Reacts violently with strong bases, strong acids and many other compounds.

## 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.

**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 Limits:	Chemical Name	ACGIH (TLV)	OSHA (PEL)	NIOSH (REL)	
Exposure Linits.	Acetic acid	TWA: 25 mg/m <sup>3</sup> STEL: 37 mg/m <sup>3</sup>	TWA: 25 mg/m <sup>3</sup>	TWA: 25 mg/m <sup>3</sup> STEL: 37 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 9 Physical & Chemical Properties						
Appearance: Clear, colorless liquid. Odor: Vinegar-like odor. Odor threshold: Data not available. pH: Data not available. Melting / Freezing point: Approximately 0°C (32°F) (water) Boiling point: Approximately 100°C (212°F) (water) Flash point: Data not available	Evaporation rate (Water = 1): <1 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) Solubility(ies): Complete in water.	Partition coefficient: Data not available Auto-ignition temperature: Data not available Decomposition temperature: Data not available. Viscosity: Data not available. Molecular formula: Mixture Molecular weight: Mixture				
Section 10 Stability & Reactivity						

Chemical stability: Stable

Hazardous polymerization: Will not occur.

Conditions to avoid: Excessive temperatures which cause evaporation.

Incompatible materials: Bases, strong oxidizers, chromic acid, nitric acid, sodium peroxide, carbonates, hydroxides, phosphates. Corrosive to some metals. Potentially violent reaction with acetaldehyde and acetic anhydride. Ignites on contact with potassium-tert-botoxide.

Hazardous decomposition products: Carbon monoxide, hydrogen sulfide and other harmful gases or vapors including oxides and/or other compounds of sulfur and sodium.

Section 11 Toxicological Information

Acute toxicity: Oral-rat LD50: 3,310 mg/kg ; Inhalation-rat LC50: 11.4 mg/L/4 hours ; Dermal-rabbit LD50: 1,060 mg/kg [Acetic acid, glacial]

Skin corrosion/irritation: Skin-rabbit - Severe irritant. [Acetic acid, glacial]

Serious eye damage/irritation: Eyes-rabbit - Severe irritant. [Acetic acid, glacial]

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 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: Data not available

STOT-repeated exposure: Data not available

Aspiration hazard: Data not available

ERG: Emergency Response Guidebook.

Form 06/2015

Potential health effects:

Inhalation: May be harmful if inhaled.

Ingestion: May be harmful if swallowed.

Skin: Contact with skin causes pain and redness.

Eyes: Contact with eyes may cause redness and pain.

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

Additional information: RTECS #: AF1225000 [Acetic acid, glacial]

## Section 12 Ecological Information

Toxicity to fish: Gambusia affinis (fish, fresh water), LC50 = 251 mg/L/24 hours [Acetic acid, glacial] Toxicity to daphnia and other aquatic invertebrates: Daphnia magna (Crustacea), EC50 = 95 mg/L/24 hours [Acetic acid, glacial] Toxicity to algae: Euglena gracilis (Algae), EC100 = 720 mg/L [Acetic acid, glacial] Persistence and degradability: Easily biodegradable Bioaccumulative potential: Not expected to bioaccumulate 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: Not applicable Shipping name: Not Regulated Hazard class: Not applicable Packing group: Not applicable Reportable Quantity: No Marine pollutant: No 2016 ERG Guide # Not applicable Exceptions: Not applicable Section 15 **Regulatory Information** A chemical is considered to be listed if the CAS number for the anhydrous form is on the Inventory list. RCRA code DSL NDSL Component TSCA CERLCA (RQ) Acetic acid, glacial Listed 5,000 lbs (2270 kg) D001. D002 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,

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Section 1 Chemical P

# Chemical Product and Company Identification

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

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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	CALCIUM CHLORIDE, 5% SOLUTION	
Synonyms	Calcium Chloride, Aqueous Solution	
Section 2	Hazards Identification	
Pictograms Target orga GHS Class Eye irritation GHS Label	d: WARNING s: No symbol required ans: None known ification: n (Category 2B) information: Hazard statement: es eye irritation.	Precautionary statement: P264: Wash hands thoroughly after handling. 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.

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 Calcium chloride		7732-18-5 10043-52-4	95% 5%	231-791-2 233-140-8	
Section 4	First Aid Measures				

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

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

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

#### Section 5

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

**Fire Fighting Measures** 

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

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

# Section 6 Accidental Release Measures

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

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

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

**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)	
Exposure Limits.	Particulates not otherwise classified	None established	TWA: 15 mg/m <sup>3</sup> total dust	None 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 misty conditions prevail, work in fume hood or wear a NIOSH/MSHAapproved respirator.

Section 9 Physical & Chemical Prop	perties	
Appearance: Clear, colorless liquid. Odor: No odor. Odor threshold: Data not available. pH: Data not available. Melting / Freezing point: Approximately 0°C (32°F) (water) Boiling point: Approximately 100°C (212°F) (water) Flash point: Data not available	Evaporation rate ( Water = 1): <1 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) Solubility(ies): Complete in water.	Partition coefficient: Data not available Auto-ignition temperature: Data not available Decomposition temperature: Data not available. Viscosity: Data not available. Molecular formula: Mixture Molecular weight: Mixture
Section 10 Stability & Reactivity		

Chemical stability: Stable

Hazardous polymerization: Will not occur.

Conditions to avoid: Excessive temperatures which cause evaporation.

Incompatible materials: Avoid contact with sulfuric acid. Flammable hydrogen may be generated from contact with metals such as zinc and sodium.

Hazardous decomposition products: None known.

## Section 11 Toxicological Information

Acute toxicity: Oral-rat LD50: 2100 mg/kg ; Dermal-rabbit LD50: >5000 mg/kg [Calcium chloride]

Skin corrosion/irritation: Data not available

Serious eye damage/irritation: Data not available

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 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: Data not available

STOT-repeated exposure: Data not available

Aspiration hazard: Data not available

Potential health effects:

Inhalation: Dust may cause irritation to the upper respiratory tract (nose and throat).

Ingestion: Low toxicity if swallowed. However, large amounts may result in gastrointestinal irritation or ulceration.

Skin: Contact with skin may cause irritation and/or defatting on prolonged contact.

Eyes: Contact with eyes may cause severe irritation and/or corneal injury.

Signs and symptoms of exposure: See Potential health effects above.

Additional information: RTECS #: EV9810000 [Calcium chloride]

## Section 12 Ecological Information

Toxicity to fish: Lepomis macrochirus (bluegill) LC50: 8,350-10,650 mg/L [Calcium chloride]

Toxicity to daphnia and other aquatic invertebrates: Daphnia magna (water flea), LC50: 759-3,005 mg/L [Calcium chloride]

Toxicity to algae: No data available Persistence and degradability: No Mobility in soil: No data available

Persistence and degradability: No data available Bioaccumulative potential: 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. Section 14 Transport Information (US DOT / CANADA TDG)

Hazard class: Not applicable Pack		Packing group 2016 ERG Gui	Shipping name: Not Regulated Packing group: Not applicable 2016 ERG Guide # Not applicable on		Reportable Quantity: No		rine pollutant: No
A chemical is consi	dered to be listed if the CAS n	umber for the anhydrous	form is on the Inventory list.				
Comp	onent	TSC	A CERLCA (RQ)	RCRA code	DSL	NDSL	
Calcium chloride		Liste	d Not listed	Not listed	Listed	Not listed	
Section 16	Other Information	ı					
dent determination	s of suitability and completene	ss of information from al	sources to assure proper us	e of these materials and	d the safety and h	ealth of employees.	ed by them and must make indepen- NTP: National Toxicology Program, sure, RE: Repeated Exposure,

ERG: Emergency Response Guidebook. Form 06/2015

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# Section 1 Chemical Product and Company Identification

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

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

Not for drug, food or household use.

"Cl	utting edge science for the classroom" (585) 226-6177	Not for drug, food or household use.
Product	DISHWASHING DETERGENT - MACHINE	
Synonyms	5% Detergent Solution	
Section 2	Hazards Identification	
to the Glob Chemicals Signal wor Pictogram Target org GHS Class GHS Labe	tance or mixture has not been classified as hazardous according bally Harmonized System (GHS) of Classification and Labeling of a. rd: None required s: No symbol required ans: None known sification: None required I information: Hazard statement: None required hary statement: None required	Supplemental information: 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 or reproductive toxicity.

Section 3	Composition / Information on	Ingredients			
Chemical Name		CAS #	%	EINECS	
Water Machine dishwashin *(Contains: Water, su	g detergent* ufactants, and other inert ingredients)	7732-18-5 Not available	95% 5%	231-791-2 Not available	
Section 4	First Aid Measures				

**INGESTION:** MAY BE HARMFUL BY 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: CAUSES IRRITATION. Check for and remove contact lenses. Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get immediate medical attention.

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

## Section 5

Suitable Extinguishing Media: Use extinguishing agent suitable for type of surrounding fire.

**Fire Fighting Measures** 

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: There are no unusual fire and explosion hazards associated with the solution.

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. Spill area may be slippery. Flush with plenty of water.

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.

Section 8	Exposure Controls / Personal Pro	tection		
Exposure Limits:	Chemical Name	ACGIH (TLV)	OSHA (PEL)	NIOSH (REL)
Exposure Limits.	Not listed	None established	None established	None 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 misty conditions prevail, work in fume hood or wear a NIOSH/MSHAapproved respirator.

approved respirator.			,			-,		
Section 9	Physical & Chemical Pro	perties						
Appearance: Clear, colorless liquid.       Evaporation rate (Water = 1): <1						Data not availabl <b>e:</b> Data not availa e.		
Section 10	Stability & Reactivity							
Conditions to avoid Incompatible materi	Chemical stability:       Stable       Hazardous polymerization:       Will not occur.         Conditions to avoid:       Excessive temperatures which cause evaporation.       Incompatible materials:       None known.         Hazardous decomposition products:       None known.       None known.       None known.							
Section 11	Toxicological Information	ı						
Skin corrosion/irrita Serious eye damage Respiratory or skin Germ cell mutageni Carcinogenity: Data NTP: No component IARC: No component OSHA: No component Reproductive toxici STOT-single exposu STOT-repeated expo Aspiration hazard: Potential health effe Inhalation: No adversi Ingestion: May be ha Skin: May cause irrit Eyes: Causes irritatio	Acute toxicity: Data not available Skin corrosion/irritation: Data not available Serious eye damage/irritation: Data not available 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 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 not available 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: Data not available STOT-repeated exposure: Data not available Aspiration hazard: Data not available Potential health effects: Inhalation: No adverse effects expected. Ingestion: May be harmful if swallowed in large amounts. Skin: May cause irritation on prolonged or repeated contact. Eyes: Causes irritation on direct contact, but no permanent injury is expected. Signs and symptoms of exposure: To the best of our knowledge the chemical, physical and toxicological properties have not been thoroughly investigated. Specific data is							
Section 12	Ecological Information							
Toxicity to fish: No Toxicity to daphnia Toxicity to algae: No Persistence and deg Mobility in soil: No Other adverse effec Section 13	data available and other aquatic invertebra o data available gradability: No data available	Bioaccum PBT and v cannot be exclude	ulative potential: No PvB assessment: No d in the event of unpro	o data available fessional handling c		inly to emoty of	ontainer State	and/or local
	different. Dispose of in acc							
Section 14	Transport Information (L	IS DOT / CANA	DA TDG)					
UN/NA number: Hazard class: Not Exceptions: Not	ot applicable Pac	oping name: king group: 6 ERG Guide #	•	Reportable	Quantity: N	o <b>Ma</b> i	rine pollutant:	No
Section 15	Regulatory Information							
	I to be listed if the CAS number for	,			Dei	NDO		
Compone No information is ava		TSCA	CERLCA (RQ)	RCRA code	DSL	NDSL		
Section 16	Other Information							
dent determinations of s	ed herein is furnished without warr uitability and completeness of info incy for Research on Cancer, OSH/ ince Guidebook	mation from all sour	ces to assure proper use	of these materials and	the safety and he	ealth of employees	. NTP: National Tox	icology Program,

IARC: International Agency for Research ERG: Emergency Response Guidebook.

221 Rochester Street

Avon, NY 14414-9409

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#### Section 1 **Chemical Product and Company Identification**

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

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

Not for drug, food or household use.

"cutting edge science for the classroom" (585) 226-6177 Product **DISHWASHING DETERGENT - HAND** Synonyms 5% Detergent Solution Section 2 Hazards Identification This substance or mixture has not been classified as hazardous according Supplemental information: to the Globally Harmonized System (GHS) of Classification and Labeling of Do not breathe mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Wear Chemicals. protective gloves/protective clothing/eye protection/face protection. Wash hands thoroughly after handling. Get medical attention if you feel unwell. Signal word: None required Pictograms: No symbol required Target organs: None known GHS Classification: None required GHS Label information: Hazard statement: None required Precautionary statement: None required

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 Liquid dishwashin	g detergent*	7732-18-5 Not available	95% 5%	231-791-2 Not available	
*(Contains: Water	, sufactants, and other inert ingredients)				
Section 4	First Aid Measures				

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

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

## Section 5

Suitable Extinguishing Media: Use extinguishing agent suitable for type of surrounding fire.

**Fire Fighting Measures** 

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: There are no unusual fire and explosion hazards associated with the solution.

#### 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. Spill area may be slippery. Flush with plenty of water.

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.

Section 8	Exposure Controls / Personal Pro	tection		
Exposure Limits:	Chemical Name	ACGIH (TLV)	OSHA (PEL)	NIOSH (REL)
Exposure Limits.	Not listed	None established	None established	None 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 misty conditions prevail, work in fume hood or wear a NIOSH/MSHAapproved respirator.

approved respirator.			.,		p			
Section 9	Physical & Chemical Pro	perties						
Appearance: Liquid. Pale yellow. Odor: Slight citrus odor.Evaporation rate ( Water = 1): <1 Flammability (solid/gas): Data not available. Explosion limits: Lower / Upper: Data not available. PH: Data not available. Melting / Freezing point: Approximately 0°C (32°F) (water) Flash point: Data not availablePartition coefficient: Data not available. Decomposition temperature: Data not available. Vapor pressure (mm Hg): 14 (water) Vapor density (Air = 1): 0.7 (water) Relative density (Specific gravity): Approximately 1.0 (water)Partition coefficient: Data not available Auto-ignition temperature: Data not available. Viscosity: Data not available. Molecular formula: Mixture Molecular weight: Mixture						Data not availabl e: Data not availa e.		
Section 10	Stability & Reactivity							
Chemical stability: Stable       Hazardous polymerization: Will not occur.         Conditions to avoid: Excessive temperatures which cause evaporation.       Incompatible materials: None known.         Hazardous decomposition products: None known.       None known.								
Section 11	Toxicological Information	l						
Skin corrosion/irrita Serious eye damage Respiratory or skin Germ cell mutageni Carcinogenity: Data NTP: No component IARC: No component OSHA: No component Reproductive toxici STOT-single exposu STOT-repeated expo Aspiration hazard: Potential health effe Inhalation: No adversi Ingestion: May be ha Skin: May cause irrit Eyes: Causes irritatio	Acute toxicity: Data not available Skin corrosion/irritation: Data not available Serious eye damage/irritation: Data not available Respiratory or skin sensitization: Data not available Germ cell mutagenicity: Data not available Garcinogenity: 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 a 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: Data not available STOT-repeated exposure: Data not available STOT-repeated exposure: Data not available Aspiration hazard: Data not available Potential health effects: Inhalation: No adverse effects expected. Ingestion: May be harmful if swallowed in large amounts. Skin: May cause irritation on prolonged or repeated contact. Eyes: Causes irritation on prolonged or repeated contact. Eyes: Causes irritation on direct contact, but no permanent injury is expected. Signs and symptoms of exposure: To the best of our knowledge the chemical, physical and toxicological properties have not been thoroughly investigated. Specific data is							pecific data is
Section 12	Ecological Information							
Toxicity to fish: No Toxicity to daphnia Toxicity to algae: No Persistence and deg Mobility in soil: No Other adverse effec Section 13 These disposal guid regulations may be	data available and other aquatic invertebra o data available gradability: No data available data available ts: An environmental hazard o Disposal Considerations delines are intended for the different. Dispose of in acc	Bioaccum PBT and v annot be exclude disposal of cata ordance with al	ulative potential: No PvB assessment: No d in the event of unpro log-size quantities o l local, state and fed	o data available fessional handling o nly. Federal regul	ations may ap			
Section 14	Transport Information (L	S DOT / CANAI	DA TDG)					
UN/NA number: Hazard class: No Exceptions: Not	ot applicable Pac	oping name: king group:  N 6 ERG Guide #	-	Reportable	Quantity: N	o <b>Mar</b>	ine pollutant:	No
Section 15	Regulatory Information							
	to be listed if the CAS number for			DODA	DO	NEO		
Compone No information is ava		TSCA	CERLCA (RQ)	RCRA code	DSL	NDSL		
Section 16	Other Information							
The information contained dent determinations of s	ed herein is furnished without warra uitability and completeness of info ncy for Research on Cancer, OSH/	mation from all sour	ces to assure proper use	of these materials and	the safety and he	ealth of employees.	NTP: National Tox	icology Program,

ERG: Emergency Response Guidebook.

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#### Section 1 **Chemical Product and Company Identification**

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

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

"cu	utting edge science for the classroom"	Avon, NY 14414-9409 (585) 226-6177	Not for drug, food or household use.
Product	IODINE-POTASSIUM IODIDE SOLUTION		
Synonyms	Iodine-Iodide / Iodine Solution / Iodine / Iodine Lugol's	Dilute / Gram's lodine Solution / lodine	2% / Dilute Lugol's Solution
Section 2	Hazards Identification		
Pictograms Target orga reproductive GHS Class Acute toxici Acute toxici Aquatic toxi GHS Label H312: Harr H332: Harr	<ul> <li>d: WARNING</li> <li>s: GHS07 / GHS09</li> <li>ans: Thyroid, kidneys, endocrine system, skin, eyes, e system, central nervous system.</li> <li>iiii (iii) (iiii) (iii) (iiii) (iii) (iii</li></ul>	P271: Use only P273: Avoid rele P280: Wear pro P302+P352: IF P312: Call a PC P362+P364: Tal P304+P340: IF breathing. P312: Call a PC P391: Collect sp P501: Dispose o	athing mist/vapours/spray. outdoors or in a well-ventilated area. ease to the environment. tective gloves/protective clothing/eye protection/face protection. ON SKIN: Wash with plenty of water and soap. DISON CENTER or doctor if you feel unwell. ke off contaminated clothing and wash it before reuse. INHALED: Remove person to fresh air and keep comfortable for DISON CENTER or doctor if you feel unwell.

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 Potassium iodide Iodine		7732-18-5 7681-11-0 7553-56-2	95.10% 3.05% 1.85%	231-791-2 231-659-4 231-442-4	
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: HARMFUL IF INHALED. Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention. Harmful if inhaled.

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: HARMFUL IN CONTACT WITH SKIN. Remove contaminated clothing. Flush thoroughly with mild soap and water. If irritation occurs, get medical attention. Harmful in contact with skin.

#### **Fire Fighting Measures** Section 5

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

General information: 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.

#### Section 6 **Accidental Release Measures**

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

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

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

Section 7	Handling & Storage	Page E2 of E2
Dead John Law sentation		I I a a sosible

Read label on container before using. Do not wear contact lenses when working with chemicals. Keep container tightly closed. Keep out of reach of children. Use with adequate ventilation. Wash thoroughly after handling.

Handling: Use with adequate ventilation. Avoid contact with eyes, skin and clothing. Avoid ingestion. Do not inhale vapors, mist or spray. Wash thoroughly after handling. Remove and wash clothing before reuse.
 Storage: Store in a cool, well-ventilated area away from incompatible substances.

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Section 8	Exposure Controls / Perso	nal Protection							
Exposure Limits:	Chemical Name				OSHA (PEL)		NIOSH (REL)		
	lodine CAS # 7553-56-2	TWA: 0	.01 ppm <sup>(IFV)</sup> / STEL: 0.1	opm <sup>(v)</sup> STEL: (	C 0.1 ppm/C 1 mg/m <sup>3</sup>	STEI	L: C 0.1 ppm/C 1 mg/m <sup>3</sup>		
should wear safety gl Respiratory protect	Engineering controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower and fire extinguishing material. Personnel should wear safety glasses, goggles, or faceshield, lab coat or apron, appropriate protective gloves. Use adequate ventilation to keep airborne concentrations low. Respiratory protection: None should be needed in normal laboratory handling at room temperatures. If misty conditions prevail, work in fume hood or wear a NIOSH/MSHA-								
approved respirator.						_			
Section 9	Physical & Chemical Prope								
Appearance: Deep a Odor: Characteristic Odor threshold: No pH: Data not availab Melting / Freezing p Boiling point: ~ 100 Flash point: Not flar	odor. t applicable. le. <b>oint:</b> ~ 0°C (~ 32°F) [water] °C (212°F) [water]	Flammability (s Explosion limit Vapor pressure Vapor density ( Relative densit	Evaporation rate (Water = 1): < 1						
Section 10	Stability & Reactivity								
Chemical stability: Conditions to avoid	Stable Stable under recommended st		bus polymerization: Volume Polymerizati		evaporation.				
iodides when reacted	th other materials: Metals or u d with gaseous ammonia.	Ū	nic compounds, ammo	nia solutions or alka	aline solutions of amm	onia salts. V	Nill form explosive nitrogen		
•	osition products: Toxic iodide	iumes.							
Section 11	Toxicological Information								
Serious eye damag Respiratory or skin Germ cell mutageni Carcinogenity: Dat IARC: No componen NTP: No component OSHA: No component CSTOT-single exposi STOT-repeated exp Aspiration hazard: Potential health eff Inhalation: Symptorr Ingestion: Causes a Skin: Contact may c Eyes: Contact cause Signs and symptom the skin. Inhalation of Repeated or prolong	Acute toxicity: Oral-Rat LD50: 14,000 mg/kg [lodine CAS # 7553-56-2] Skin corrosion/irritation: Data not available Serious eye damage/irritation: Data not available Respiratory or skin sensitization: Inhalation-rat 3.1 mg/m <sup>3</sup> / 24 hour / 13 weeks - continuous [lodine CAS # 7553-56-2] Germ cell mutagenicity: Data not available 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. 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. 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 NTP. 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: Data not available STOT-repeated exposure: Data not available Aspiration hazard: Data not available Potential health effects: Inhalation: Symptoms include cough, wheezing, and labored breathing. Symptoms may be delayed. Ingestion: Causes addominal pain, diarrhea, nausea, and vomiting. Ingestion of levels of 2-3 grams of iodine may cause death. Skin: Contact may cause redness and pain. Signs and symptoms of exposure: Effects of short-term exposure: Lachrymator. The substance is severely irritating to the eyes and the respiratory tract, and is irritating to the skin. Inhalation of the vapor may cause asthma-like reactions. Inhalation of the vapor may cause asthma-like syndrome. The substance may cause asthma-like syndrome. The substance is severely irritating to the eyes and the respiratory tract, and is irritating to the skin. Inhalation of the vapor may cause asthma-like reactions. Inhalation of the vapor may cause asthma-like syndrome. The substance may cause asthma-like syndrome. The substance may have effects on the thyroid.								
Section 12	Ecological Information								
Toxicity to fish: Very toxic to aquatic life.         Toxicity to daphnia and other aquatic invertebrates: No data available         Toxicity to algae: No data available         Persistence and degradability: 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									
	delines are intended for the di different. Dispose of in acco								
Section 14	Transport Information (US	DOT / CANAD	A TDG)						
UN/NA number: Hazard class: Not Exceptions: Not	ot applicable Packi applicable 2016	bing name: N ng group: Ne ERG Guide #	0	Reportable Qu	antity: No	Marin	ne pollutant: No		
Section 15 A chemical is considered	Regulatory Information I to be listed if the CAS number for th	e anhydrous form	is on the Inventory list						
Compone		TSCA	CERLCA (RQ)	RCRA code	DSL N	DSL			
Iodine Potassium iodide		Listed Listed	Not listed Not listed	Not listed Not listed		t listed t listed			
Section 16	Other Information								
	ed herein is furnished without warrant	ty of any kind. Emp	ployers should use this in	formation only as a su	upplement to other inform	ation gathered	d by them and must make indepen-		
dent determinations of s	uitability and completeness of informative for Research on Cancer, OSHA:	ation from all source	es to assure proper use	of these materials and	I the safety and health of	employees. N	NTP: National Toxicology Program,		

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#### Section 1

# **Chemical Product and Company Identification**

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

"cutting edge science for the classroom"	221 Rochester Street Avon, NY 14414-9409 (585) 226-6177	For laboratory use only. Not for drug, food or household use.
Product LUGOL'S DILUTE IODINE		
Synonyms Iodine-Iodide / Iodine Solution / Iodine / Iodine Lugol's Di	ilute / Gram's lodine Solution / lodir	e 2% / Dilute Lugol's Solution
Section 2 Hazards Identification		
<ul> <li>Signal word: WARNING</li> <li>Pictograms: GHS07 / GHS09</li> <li>Target organs: Thyroid, kidneys, endocrine system, skin, eyes, reproductive system, central nervous system.</li> <li>www.www.word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/word.com/wo</li></ul>	P261: Avoid bi P271: Use onl P273: Avoid re P280: Wear pr P302+P352: If P312: Call a P P362+P364: T P304+P340: If breathing. P312: Call a P P391: Collect : P501: Dispose	<ul> <li>y statement(s):</li> <li>reathing mist/vapours/spray.</li> <li>y outdoors or in a well-ventilated area.</li> <li>lease to the environment.</li> <li>otective gloves/protective clothing/eye protection/face protection.</li> <li>ON SKIN: Wash with plenty of water and soap.</li> <li>OISON CENTER or doctor if you feel unwell.</li> <li>ake off contaminated clothing and wash it before reuse.</li> <li>F INHALED: Remove person to fresh air and keep comfortable for</li> <li>OISON CENTER or doctor if you feel unwell.</li> <li>spillage.</li> <li>of contents/container to a licensed chemical disposal agency in th 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 or reproductive toxicity.

Section 3	Composition / Information on	Ingredients			
Chemical Name		CAS #	%	EINECS	
Water Potassium iodide Iodine		7732-18-5 7681-11-0 7553-56-2	95.10% 3.05% 1.85%	231-791-2 231-659-4 231-442-4	
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: HARMFUL IF INHALED. Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention. Harmful if inhaled.

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: HARMFUL IN CONTACT WITH SKIN. Remove contaminated clothing. Flush thoroughly with mild soap and water. If irritation occurs, get medical attention. Harmful in contact with skin.

#### Section 5 **Fire Fighting Measures**

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

General information: 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.

#### Section 6 **Accidental Release Measures**

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

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

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

Section 7	Handling & Storage	Page E2 of E2
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Read label on container before using. Do not wear contact lenses when working with chemicals. Keep container tightly closed. Keep out of reach of children. Use with adequate ventilation. Wash thoroughly after handling.

Handling: Use with adequate ventilation. Avoid contact with eyes, skin and clothing. Avoid ingestion. Do not inhale vapors, mist or spray. Wash thoroughly after handling. Remove and wash clothing before reuse.
 Storage: Store in a cool, well-ventilated area away from incompatible substances.

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Section 8	Exposure Controls / Perso	nal Protection						
Exposure Limits:	Chemical Name				OSHA (PEL)		NIOSH (REL)	
	lodine CAS # 7553-56-2	TWA: 0	.01 ppm <sup>(IFV)</sup> / STEL: 0.1	opm <sup>(v)</sup> STEL: (	C 0.1 ppm/C 1 mg/m <sup>3</sup>	STEI	L: C 0.1 ppm/C 1 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/MSHA-								
approved respirator.						_		
Section 9	Physical & Chemical Prope							
Odor: Characteristic odor. Flammability (solid/gas): Not applicable. Auto-ignition tempera					<b>perature:</b> N <b>emperature:</b> ot available. <b>a:</b> Mixture	<b>perature:</b> Data not available. available. Mixture		
Section 10	Stability & Reactivity							
Chemical stability: Conditions to avoid	Stable Stable under recommended st		bus polymerization: Volume Polymerizati		evaporation.			
iodides when reacted	th other materials: Metals or u d with gaseous ammonia.	Ū	nic compounds, ammo	nia solutions or alka	aline solutions of amm	onia salts. V	Nill form explosive nitrogen	
•	osition products: Toxic iodide	iumes.						
Section 11	Toxicological Information							
Acute toxicity: Oral-Rat LD50: 14,000 mg/kg [lodine CAS # 7553-56-2] Skin corrosion/irritation: Data not available Serious eye damage/irritation: Data not available Respiratory or skin sensitization: Inhalation-rat 3.1 mg/m <sup>3</sup> / 24 hour / 13 weeks - continuous [lodine CAS # 7553-56-2] Germ cell mutagenicity: Data not available Carcinogenity: Data not available 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. 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. 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: Data not available STOT-repeated exposure: Data not available STOT-single available cough, wheezing, and labored breathing. Symptoms may be delayed. Indextor: Symptoms include cough, wheezing, and labored breathing. Symptoms may be delayed. Indextor: Available cough available cover available available cover available STOT-single available available cover available available co								
Section 12	Ecological Information							
Toxicity to fish: Very toxic to aquatic life.         Toxicity to daphnia and other aquatic invertebrates: No data available         Toxicity to algae: No data available         Persistence and degradability: 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								
	delines are intended for the di different. Dispose of in acco							
Section 14	Transport Information (US	DOT / CANAD	A TDG)					
UN/NA number: Hazard class: Not Exceptions: Not	ot applicable Packi applicable 2016	bing name: N ng group: Ne ERG Guide #	0	Reportable Qu	antity: No	Marin	ne pollutant: No	
Section 15 A chemical is considered	Regulatory Information I to be listed if the CAS number for th	e anhydrous form	is on the Inventory list					
Compone		TSCA	CERLCA (RQ)	RCRA code	DSL N	DSL		
Iodine Potassium iodide		Listed Listed	Not listed Not listed	Not listed Not listed		t listed t listed		
Section 16	Other Information							
	ed herein is furnished without warrant	ty of any kind. Emp	ployers should use this in	formation only as a su	upplement to other inform	ation gathered	d by them and must make indepen-	
dent determinations of s	uitability and completeness of informative for Research on Cancer, OSHA:	ation from all source	es to assure proper use	of these materials and	I the safety and health of	employees. N	NTP: National Toxicology Program,	

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## Section 1 Chemical Product and Company Identification

# 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	SOAP - LIQUID, 5%	
Synonyms	5% Liquid Soap	
Section 2	Hazards Identification	
to the Globa Chemicals. Signal word: Pictograms: Target organ GHS Classifi GHS Label in	nce or mixture has not been classified as hazardous according ally Harmonized System (GHS) of Classification and Labeling of : None required : No symbol required ns: None known ication: None required nformation: Hazard statement: None required ry statement: None required	Supplemental information: Do not breathe mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Wea 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 or reproductive toxicity.

Section 3	Composition / Information on	Ingredients			
Chemical Name		CAS #	%	EINECS	
Water Oleic acid Sodium hydroxide		7732-18-5 112-80-1 1310-73-2	99.88% 0.10% 0.02%	231-791-2 204-007-1 215-185-2	
Section 4	First Aid Measures				

**INGESTION:** MAY BE HARMFUL BY 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: CAUSES IRRITATION. Check for and remove contact lenses. Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get immediate medical attention.

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

#### Section 5

Suitable Extinguishing Media: Use extinguishing agent suitable for type of surrounding fire.

**Fire Fighting Measures** 

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: There are no unusual fire and explosion hazards associated with the solution.

# 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. Spill area may be slippery. Flush with plenty of water.

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.

Section 8	Exposure Controls / Personal Protection						
Exposuro Limite:	Chemical Name	ACGIH (TLV)	OSHA (PEL)	NIOSH (REL)			
Exposure Limits:	Not listed	None established	None established	None 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 misty conditions prevail, work in fume hood or wear a NIOSH/MSHA-

approved respirator.	approved respirator.							
Section 9	Physical & Chemical Pro	perties						
Appearance: Clear, colorless liquid.       Evaporation rate ( Water = 1): <1								
Section 10	Stability & Reactivity							
Incompatible materia	Stable : Excessive temperatures whi als: Strong oxidizers, acids. psition products: None know	ch cause evaporat	us polymerization:	Will not occur.				
Section 11	Toxicological Information	ſ						
Acute toxicity: Data not available Skin corrosion/irritation: Data not available Serious eye damage/irritation: Data not available 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 a carcinogen or potential 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: Data not available STOT-repeated exposure: Data not available STOT-repeated exposure: Data not available Aspiration hazard: Data not available Potential health effects: Inhalation: No adverse effects expected. Ingestion: May be harmful if swallowed in large amounts. Skin: May cause irritation on prolonged or repeated contact. Eyes: Causes irritation on prolonged or repeated contact. Eyes: Causes irritation on direct contact, but no permanent injury is expected. Signs and symptoms of exposure: To the best of our knowledge the chemical, physical and toxicological properties have not been thoroughly investigated. Specific data is not available. Exercise appropriate procedures to minimize potential hazards. Additional information: RTECS #: Data not available								
Section 12	Ecological Information							
Toxicity to fish: No d Toxicity to daphnia a Toxicity to algae: No Persistence and deg Mobility in soil: No d Other adverse effect Section 13 These disposal guid	data available and other aquatic invertebra o data available gradability: No data available	Bioaccum PBT and vi annot be excluded disposal of catal ordance with all	ulative potential: No PvB assessment: No d in the event of unpro log-size quantities o local, state and fede	o data available fessional handling or nly. Federal regula	ations may ap			
	•		•					
UN/NA number: Hazard class: No Exceptions: Not	t applicable Pac	oping name: N king group: N 6 ERG Guide #	ot applicable	Reportable	Quantity: N	o <b>Mar</b> i	ine pollutant:	No
Section 15	Regulatory Information							
	to be listed if the CAS number for	,			DOI	NDC		
Componer All components listed	nt	LIsted	CERLCA (RQ) Not listed	RCRA code Not listed	DSL Listed	NDSL Not listed		
Section 16	Other Information							
The information containe dent determinations of su	d herein is furnished without warra uitability and completeness of infor cy for Research on Cancer, OSHA	mation from all source	ces to assure proper use	of these materials and	the safety and he	ealth of employees.	NTP: National Tox	icology Program,

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Section 1

Chemical Product and Company Identification

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

Product         STARCH, 1% INDICATOR SOLUTION           Synonyms         Starch, Aqueous Solution           Section 2         Hazards Identification           This substance or mixture has not been classified as hazardous according to the Globally Harmonized System (GHS) of Classification and Labeling of Chemicals.         Supplemental information: Do not get in eyes, on skin, or on clothing. Wear protective gloves/protective clothing/eye protection. Wash hands thoroughly after handling. Get medical attention if you feel unwell.           Signal word:         Not classified Prictograms: Not classified         Wear protective gloves/protective clothing/eye protection. Wash hands thoroughly after handling. Get medical attention if you feel unwell.           GHS Classification:         Not classified         Precaution:: Not classified           Precautionary statement(s):         Not classified         Precaution:: Not classified		vating Science <sup>®</sup> by Aldon Corporation utting edge science for the classroom"	221 Rochester Stree Avon, NY 14414-94 (585) 226-6177	
Section 2       Hazards Identification         This substance or mixture has not been classified as hazardous according to the Globally Harmonized System (GHS) of Classification and Labeling of Chemicals.       Supplemental information: Do not get in eyes, on skin, or on clothing. Wear protective clothing/eye protection/face protection. Wash hands thoroughly after handling. Get medical attention if you feel unwell.         Signal word: Not classified Pictograms: Not classified Target organs: None known       GHS Classification: Not classified         GHS Label information: Hazard statement(s): Not classified       Hazard statement(s): Not classified	Product	STARCH, 1% INDICATOR SOLUTION		
This substance or mixture has not been classified as hazardous according to the Globally Harmonized System (GHS) of Classification and Labeling of Chemicals.       Supplemental information:       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.         Signal word: Not classified       Pictograms: Not classified       GHS Classification: Not classified         GHS Label information:       Hazard statement(s): Not classified	Synonyms	Starch, Aqueous Solution		
to the Globally Harmonized System (GHS) of Classification and Labeling of Chemicals.       Do not breathe mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Wear protective clothing/eye protection/face protection. Wash hands thoroughly after handling. Get medical attention if you feel unwell.         Signal word: Not classified Pictograms: Not classified Target organs: None known       GHS Classification: Not classified         GHS Label information: Hazard statement(s): Not classified       Hazard statement(s): Not classified	Section 2	Hazards Identification		
	This substa to the Glob Chemicals. Signal word Pictograms Target orga GHS Class GHS Label Hazard stat	ance or mixture has not been classified as hazardous a bally Harmonized System (GHS) of Classification and La d: Not classified s: Not classified ans: None known ification: Not classified information: tement(s): Not classified		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

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 Starch, soluble Methylparaben		7732-18-5 9005-84-9 99-76-3	98.9% 1.0% 0.1%	231-791-2 232-686-4 202-785-7	
Section 4	First Aid Measures				

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

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

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

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

### Section 5

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

**Fire Fighting Measures** 

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

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

# Section 6 Accidental Release Measures

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

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

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

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 Pr	otection			
Exposure Limiter	Chemical Name	ACGIH (TLV)	OSHA (PEL)	NIOSH (REL)	Г
Exposure Limits:	Starch (9005-25-8)	TWA: 10 mg/m <sup>3</sup> (A4)	TWA: 15 mg/m <sup>3</sup> (Total dust)	TWA: 10 mg/m <sup>3</sup> (Total dust)	1

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

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

Section 9	Physical & Chemical Pro	perties						
• •	ta not available. le. Approximately 0°C (32°F) (water) kimately 100°C (212°F) (water)	Flammability ( Explosion limi Vapor pressure Vapor density Relative density	te (Water = 1): <1 solid/gas): Data not ts: Lower / Upper: e (mm Hg): 14 (water (Air = 1): 0.7 (water) (Specific gravity): App Complete in water.	Data not available er)	Auto-igniti Decompos Viscosity: Molecular	•	Data not available e: Data not available. e.	
Section 10	Stability & Reactivity							
Chemical stability:	Stable	Hazardo	us polymerization:	Will not occur.				
	: Excessive temperatures whi	ich cause evaporati	on.					
Incompatible materi	als: No data available.							
Hazardous decomp	osition products: None.							
Section 11	Toxicological Information	n						
Serious eye damage/irritation: Data not available 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 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: Data not available STOT-repeated exposure: Data not available STOT-repeated exposure: Data not available Aspiration hazard: Data not available Potential health effects: Inhalation: None expected at this concentration. Ingestion: Ingestion may cause stomach irritation. Skin: No hazard known. Eyes: Contact with eyes may cause irritation. Signs and symptoms of exposure: To the best of our knowledge the chemical, physical and toxicological properties have not been thoroughly investigated. Specific data is not available. Exercise appropriate procedures to minimize potential hazards.								
Section 12	ion: RTECS #: GM5090000 Ecological Information	[Starch 9005-25-6]						
Toxicity to algae: No Persistence and deg Mobility in soil: No Other adverse effect Section 13	data available and other aquatic invertebra o data available gradability: No data available data available ts: An environmental hazard o Disposal Considerations	Bioaccumu PBT and vF cannot be excluded	lative potential: No PvB assessment: No in the event of unpro	o data available ofessional handling or	•			
	delines are intended for the different. Dispose of in acc							
Section 14	Transport Information (L							
UN/NA number: Hazard class: No Exceptions: Not	t applicable Pac	pping name: N king group: No 6 ERG Guide #	ot applicable	Reportable Qua	antity: No	Mar	ine pollutant: No	
Section 15	Regulatory Information							
	to be listed if the CAS number for		•					
Compone	nt	TSCA	CERLCA (RQ)	RCRA code	DSL	NDSL		
Starch, soluble		Listed	Not listed	Not listed	Listed	Not listed		
Section 16	Other Information							
dent determinations of s	uitability and completeness of info	rmation from all sourc	es to assure proper use	of these materials and	the safety and he	ealth of employees.	ed by them and must make indepen- NTP: National Toxicology Program, ure, RE: Repeated Exposure,	