# GENERAL STORAGE CODE GREEN

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Section	•

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

Product	METHYLENE BLUE CHLORIDE, 0.1% AQUEOUS SOLUTION					
Synonyms	Methylene Blue Chloride, Water Solution					
Section 2	Hazards identification					
Pictograms Target orga GHS Classi Acute toxicit GHS Label Hazard stat	y, oral (Category 5) information:	Precautionary statement(s): P312: Call a POISON CENTER or doctor if you feel unwell.				

#### Hazards not otherwise classified:

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

Section 3 Composition / informa	ation on ingredients			
Chemical Name	CAS #	%	EINECS	
Water Sodium benzoate, as preservative Methylene blue chloride	7732-18-5 532-32-1 61-73-4	99.7% 0.2% 0.1%	231-791-2 208-534-8 200-515-2	
Section 4 First aid measures				

INCESTION: MAY BE HARMELIN IS SWALLOWED. Coll physician or Bairon Control Conter im

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

**INHALATION:** MAY CAUSE RESPIRATORY TRACT IRRITATION. Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

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

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

### Section 5 Fire fighting measures

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

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

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

## Section 6 Accidental release measures

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

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

Containment and Cleanup: 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 Linits.	Methylene blue chloride	None established.	None established.	None established.				

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

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

Section 9 Physical and chemical pr	operties	
Appearance: Dark blue liquid. Odor: No odor. Odor threshold: Data not available. pH: Data not available. Melting / Freezing point: ~0°C (32°F) (water) Boiling point: ~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 1.1 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 and reactivity		

Chemical stability: Stable

Hazardous polymerization: Will not occur.

Conditions to avoid: Excessive temperatures which cause evaporation. Stable under recommended storage conditions.

Incompatibilities with other materials: Strong oxidizing materials and reducers

Hazardous decomposition products: Suflur oxides, nitrogen oxides, hydrogen chloride gas.

Section 11 **Toxicological information** 

Acute toxicity: Oral-rat LD50: 1180 mg/kg [Methylene blue chloride] / Oral-rat LD50: 2100 mg/kg [Sodium benzoate]

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:

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 NTF

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: May cause respiratory irritation. Ingestion: May be harmful if swallowed.

Skin: Contact with skin may cause irritation.

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.

Additional information: RTECS #: SP5740000 [Methylene blue chloride] / DH6650000 [Sodium benzoate]

#### Section 12 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

Bioaccumulative potential: No data available Persistence and degradability: 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

UN/NA number: Not applicable Shipping name: Not Regulated Hazard class: Not applicable Packing group: Not applicable **Exceptions:** Not applicable 2016 ERG Guide # Not applicable Section 15 **Regulatory information** 

Reportable Quantity: No

Marine pollutant: No

# 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) CA Prop 65 This product does not contain Methylene blue chloride Listed Not listed Not listed Listed Not listed any chemicals known to the State Sodium benzoate Listed Not listed Not listed Listed Not listed of California to cause cancer or reproductive toxicity.

#### Section 16 Other information

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

# GENERAL STORAGE CODE GREEN

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Section 1

Identification

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

Synonyms         None           Section 2         Hazards identification           Signal word:         WARNING           Pictograms:         No symbol required	Precautionary statement:
Signal word: WARNING	Precautionary statement:
	Precautionary statement
GHS Classification:         Eye irritation (Category 2B)         GHS Label information: Hazard statement:         H320: Causes eye irritation.	P264: Wash hands thoroughly after handling. P305+P351+P338: IF IN EYES: Rinse cautiously with water for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337+P313: If eye irritation persists: Get medical attention.

#### Hazards not otherwise classified:

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

Section 3 Cor	mposition / information on i	ingredients			
Chemical Name		CAS #	%	EINECS	
Water Ethylenediaminetetraacetic	c acid	7732-18-5 6381-92-6	99.44% 0.56%	231-791-2 200-449-4	
Section 4 Firs	st 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 BE HARMFUL IF ABSORBED THROUGH SKIN. MAY CAUSE SKIN IRRITATION. Remove contaminated clothing. Flush thoroughly with mild soap and water. If irritation occurs, get medical attention.

## Section 5 Fire fighting measures

Suitable Extinguishing Media: 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: 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

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 Limiter	Chemical Name	ACGIH (TLV)	OSHA (PEL)	NIOSH (REL)			
Exposure Limits:	EDTA	Not established	Not established	Not established			

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

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

approved respirator.		,	0	, ,		,			
Section 9	Physical and chemical pr	operties							
Appearance: Clear, colorless liquid.       Evaporation rate ( Water = 1): <1       Partition coefficient: Data not available         Odor: Mild characteristic odor.       Flammability (solid/gas): Data not available.       Partition coefficient: 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): 14 (water)       Viscosity: Data not available.         Melting / Freezing point: Approximately 0°C (212°F) (water)       Relative density (Specific gravity): Approximately 1.0 (water)         Flash point: Data not available       Solubility(ies): Complete in water.       Molecular weight: Mixture							: Data not available I <b>re:</b> Data not available. ble. e		
Section 10	Stability and reactivity				1				
Conditions to avoid Incompatible mater	Chemical stability:       Stable       Hazardous polymerization:       Will not occur.         Conditions to avoid:       Excessive temperatures which cause evaporation.       Incompatible materials:       Strong oxidizers, irons, brass, copper and strong alkali. Avoid contact with aluminum, zinc, nickel, copper and copper alloys.         Hazardous decomposition products:       Carbon oxides, nitrogen oxides, ammonia and water vapor.								
Section 11	Toxicological information	I							
Skin corrosion/irrita Serious eye damag Respiratory or skin Germ cell mutageni Carcinogenity: Dat NTP: No component IARC: No component OSHA: No componen OSHA: No componen Reproductive toxici STOT-single expose STOT-repeated exp Aspiration hazard: Potential health eff Inhalation: Inhalation Ingestion: Ingestion Skin: Contact with s Eyes: Contact with s	Acute toxicity:       Oral-rat LD50: >2000 mg/kg [CAS # 60-00-4]         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 a carcinogen or potential carcinogen by OSHA.         Reproductive toxicity:       Data not available         STOT-single exposure:       Data not available         STOT-repeated exposure:       Data not available         Storiarial health effects:       Inhalation:         Inhalation:       Inhalation may cause respiratory irritation.         Ingestion:       Ingestion may cause addominal pain and diarrhea.         Skin:       Contact with skin may cause irritation on prolonged contact.         Eyes:       Contact with eyes may cause redness and pain.         Signs and symptoms of exposure:       Exercise appropriate procedures to minimize potential hazards.								
Section 12	Ecological information								
Toxicity to daphnia Toxicity to algae: So Persistence and de Mobility in soil: No Other adverse effect	Section 12       Ecological information         Toxicity to fish: Lepomis macrochirus (fish, fresh water), LC50 = 41 mg/L/96 hours [CAS # 60-00-4]         Toxicity to daphnia and other aquatic invertebrates: Artemia salina (Crustacea), LC100 = 200 mg/L/24 hours [CAS # 60-00-4]         Toxicity to algae: Scenedesmus subspicatus (Algae), EC50 = 1.01 mg/L/72 hours [CAS # 60-00-4]         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	diananal of out 1		nhu Foderstrau	tione	why to come to	enteiner Otete		
	delines are intended for the different. Dispose of in acc Transport information								
UN/NA number: Hazard class: No Exceptions: Not	Not applicable ot applicableShip Paclapplicable2016	pping name: No king group: No BERG Guide #	t applicable	Reportable Qua	ntity: No	Ma	arine pollutant: No		
Section 15	Regulatory information	the extends of the	and the last of the						
A chemical is considere Compone	d to be listed if the CAS number for	the anhydrous form is TSCA	certca (RQ)	RCRA code	DSL	NDSL	CA Prop 65		
EDTA		Listed	Not listed	Not listed	Listed	Not listed	This product does not contain any chemicals known to the State of California to cause cancer or reproductive toxicity.		
Section 16	Other information								
							ered 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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### Section 1

Identification

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

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

Product	SILVER NITRATE, 0.014M	
Synonyms	Silver(I) Nitrate, Water Solution / Silver Nitrate, 0.014M (0.014N) Solution	
Section 2	Hazards identification	
Pictograms Target orga GHS Classi Skin irritation Eye irritation Aquatic Acu GHS Label H315: Caus H319: Caus	#: WARNING         :: GHS07 / GHS09         ns: Kidneys, Liver         Image: Construction of the second secon	<ul> <li>Precautionary statement(s):</li> <li>P264: Wash hands thoroughly after handling.</li> <li>P273: Avoid release to the environment.</li> <li>P280: Wear protective gloves/protective clothing/eye protection/face protection.</li> <li>P302+P352: IF ON SKIN: Wash with plenty of water and soap.</li> <li>P305+P351+P338: IF IN EYES: Rinse cautiously with water for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</li> <li>P332+P313: If skin irritation occurs: Get medical attention.</li> <li>P337+P313: If eye irritation persists: Get medical attention.</li> <li>P362+P364: Take off contaminated clothing and wash it before reuse.</li> <li>P391: Collect spillage.</li> <li>H501: Dispose of contents/container to a licensed chemical disposal agency in accordance with local/regional/national regulations.</li> </ul>

#### Hazards not otherwise classified:

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

Section 3	Composition / information on ingredients					
Chemical Name		CAS #	%	EINECS		
Water Silver nitrate		7732-18-5 7761-88-8	99.76% 0.24%	231-791-2 231-853-9		
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: CONTACT CAUSES SEVERE 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: CONTACT CAUSES IRRITATION. Remove contaminated clothing. Flush thoroughly with mild soap and water. If irritation occurs, get medical attention.

### Section 5

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

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.

Section 8	Exposure controls / personal protection						
Exposure Limits:	Chemical Name	ACGIH (TLV)	OSHA (PEL)	NIOSH (REL)			
Exposure Limits.	Silver, soluble compounds, as Ag	TWA: 0.01 mg/m <sup>3</sup>	TWA: 0.01 mg/m <sup>3</sup>	TWA: 0.01 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.

approved respirato									
Section 9	Physical and chemi	ical properties							
	cteristic odor. Data not available. lable. int: Approximately 0°C (32°F) (wa roximately 100°C (212°F) (wa	ater) Relative density	ate (Water = 1): <1 solid/gas): Data not a ts: Lower / Upper: D e (mm Hg): 14 (water (Air = 1): 0.7 (water) (Specific gravity): Appr : Complete in water.	Data not available r)	Auto-ignit Decompos Viscosity: Molecular		: Data not available Ire: Data not available. ble. e		
Section 10	Stability and reactiv	vity							
Chemical stability Conditions to avo	<b>y:</b> Stable <b>bid:</b> Excessive temperature		ous polymerization: \	Will not occur.					
Incompatible mate	erials: Combustible mater	rials, reducing agents, or	ganic substances, stro	ong basis and alkalis.					
Hazardous decom	nposition products: Nitro	gen oxides.							
Section 11	Toxicological inform	nation							
Germ cell mutage Carcinogenity: D NTP: No compone IARC: No compone OSHA: No compor Reproductive toxi	cin sensitization: Data not anicity: Data not available Data not available ent of this product present a ent of this product present inent of this product present icity: Data not available	at levels greater than or e at levels greater than or	equal to 0.1% is identi	ified as probable, pos	sible or confi	rmed human card			
STOT-repeated ex Aspiration hazard Potential health e Inhalation: Repeat Ingestion: May be Skin: Contact with Eyes: Contact with Signs and symptot thoroughly investig	bure: Data not available xposure: Data not available ffects: ted inhalation may produce harmful by ingestion. a skin can produce irritation h eyes may cauxse severe oms of exposure: See Po gated. Specific data is not a hation: RTECS #: VW472	e varying degree of respi irritaiton. otential health effects abo available. Exercise appr	ove. To the best of our	r knowledge the chen		I and toxicologica	al properties have not been		
STOT-repeated ex Aspiration hazard Potential health e Inhalation: Repeat Ingestion: May be Skin: Contact with Signs and sympto thoroughly investig Additional inform Section 12	xposure: Data not availabl d: Data not available offects: ted inhalation may produce tharmful by ingestion. a skin can produce irritation h eyes may cauxse severe oms of exposure: See Poo gated. Specific data is not a lation: RTECS #: VW472: Ecological informat	e varying degree of respi  irritaiton. otential health effects abd available. Exercise appr 55000 [Silver nitrate] <b>.ion</b>	ove. To the best of our opriate procedures to	r knowledge the chen minimize potential ha		I and toxicologica	al properties have not been		
STOT-repeated ex Aspiration hazard Potential health e Inhalation: Repeat Ingestion: May be Skin: Contact with Eyes: Contact with Signs and symptot thoroughly investig Additional inform Section 12 Toxicity to fish: C Toxicity to fish: C Toxicity to daphni Toxicity to algae: Persistence and d Mobility in soil: N Other adverse effor Section 13 These disposal g	xposure: Data not availabl d: Data not available offects: ted inhalation may produce harmful by ingestion. a skin can produce irritation h eyes may cauxse severe oms of exposure: See Po gated. Specific data is not a hation: RTECS #: VW472 Ecological informat Disposal considera Disposal considera guidelines are intended for	e varying degree of respi i. irritaiton. otential health effects aboration available. Exercise apprison [Silver nitrate] ition fresh water), LC50 = 0.0 rtebrates: Daphnia mag EC50 = Ca. 0.1 mg/l/14 ailable Bioaccumu PBT and vi azard cannot be excluded tions or the disposal of cata	ove. To the best of our opriate procedures to 0086 mg/l/96 hours [S na (Crustacia), EC50 = day - growth rate [Silv Jative potential: No PvB assessment: No d in the event of unprof log-size quantities o	r knowledge the chen minimize potential ha silver nitrate] = 0.0006 mg/l/48 hou /er nitrate] data available o data available fessional handling or nly. Federal regula	rs [Silver nitr disposal.	ate] pply to empty c	container. State and/or local		
STOT-repeated ex Aspiration hazard Potential health e Inhalation: Repeat Ingestion: May be Skin: Contact with Eyes: Contact with Eyes: Contact with Signs and symptot thoroughly investig Additional inform Section 12 Toxicity to fish: C Toxicity to fish: C Toxicity to daphni Toxicity to algae: Persistence and d Mobility in soil: N Other adverse effor Section 13 These disposal g regulations may b	xposure: Data not availabl d: Data not available offects: ted inhalation may produce harmful by ingestion. a skin can produce irritation h eyes may cauxse severe oms of exposure: See Po gated. Specific data is not a hation: RTECS #: VW472 Ecological informat Discorhynchus mykiss (fish, ia and other aquatic inver Chlorella vulgaris (Algae), degradability: No data avai No data available fects: An environmental ha Disposal considera guidelines are intended for be different. Dispose of	e varying degree of respi i. irritaiton. otential health effects aboration available. Exercise apprive (5000 [Silver nitrate] (5000 [Silver nitrate] (500 [Silver nitrat	ove. To the best of our opriate procedures to 0086 mg/l/96 hours [S na (Crustacia), EC50 = day - growth rate [Silv Jative potential: No PvB assessment: No d in the event of unprof log-size quantities o	r knowledge the chen minimize potential ha silver nitrate] = 0.0006 mg/l/48 hou /er nitrate] data available o data available fessional handling or nly. Federal regula	rs [Silver nitr disposal.	ate] pply to empty c	container. State and/or local		
STOT-repeated ex Aspiration hazard Potential health e Inhalation: Repeat Ingestion: May be Skin: Contact with Eyes: Contact with Eyes: Contact with Signs and sympto thoroughly investig Additional inform Section 12 Toxicity to fish: C Toxicity to fish: C Toxicity to daphni Toxicity to algae: Persistence and d Mobility in soil: N Other adverse effe Section 13 These disposal g regulations may b Section 14 UN/NA number: Hazard class: N	xposure: Data not available d: Data not available d: Data not available d: Inhalation may produce harmful by ingestion. a skin can produce irritation h eyes may cauxse severe oms of exposure: See Pc gated. Specific data is not a hation: RTECS #: VW472: Ecological informat Disposal considera udelines are intended for be different. Dispose of Transport informat Not applicable Not applicable	e varying degree of respi i. irritaiton. otential health effects aboration available. Exercise apprive (5000 [Silver nitrate] (5000 [Silver nitrate] (500 [Silver nitrat	ove. To the best of our opriate procedures to 0086 mg/l/96 hours [S na (Crustacia), EC50 = day - growth rate [Silv Jative potential: No PvB assessment: No d in the event of unprof log-size quantities o local, state and fede lot Regulated ot applicable	r knowledge the chen minimize potential ha silver nitrate] = 0.0006 mg/l/48 hou /er nitrate] data available fessional handling or nly. Federal regula eral regulations or o	rs [Silver nitr disposal. tions may a contract with	ate] pply to empty c a a licensed che	container. State and/or local		
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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.

# **GENERAL STORAGE CODE GREEN**

Page E1 of E2

Section 1	
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Identification

"cutting edge science for the classroom"

#### Innovating Science<sup>®</sup> by Aldon Corporation 221 Rochester Street Avon, NY 14414-9409 (585) 226-6177

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

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

Product BROMOTHYMOL BLUE, 0.04% AQUEOUS SOLUTION	
Synonyms Bromothymol Blue, Water 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. Signal word: Not classified Pictograms: Not classified Target organs: None known	Supplementary information: Do not breathe vapors, spray or mist. 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: Not classified Precautionary statement: Not classified	

### Hazards not otherwise classified:

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

Section 3	Composition / information of	n ingredients			
Chemical Name		CAS #	%	EINECS	
Water Bromothymol blue, s	odium salt	7732-18-5 34722-90-2	99.96% 0.04%	231-791-2 252-169-7	
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: MAY CAUSE EYE IRRITATION. Check for and remove contact lenses. Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get immediate medical attention.

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

#### Section 5 Fire fighting measures

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

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

Specific Hazards: 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.

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. Protect from light.

Section 8	Exposure controls / personal prot	ection		
Exposure Limits:	Chemical Name	ACGIH (TLV)	OSHA (PEL)	NIOSH (REL)
Exposure Linius.	Bromothymol blue	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 respirato									
Section 9	Physical and chem	nical properties							
Odor: No odor. Odor threshold: I pH: Data not avail Melting / Freezing poi	int: Approximately 0°C (32°F) (v proximately 100°C (212°F) (v	Water) Relative densit	rate (Water = 1): <1 y (solid/gas): Data not nits: Lower / Upper: ure (mm Hg): 14 (water y (Air = 1): 0.7 (water y (Specific gravity): App s): Complete in water.	Data not available er) )	Auto-igniti Decompos Viscosity: Molecular		e: Data not available ure: Data not available. ble. re		
Section 10	Stability and reactive	vity							
Chemical stability Conditions to avo	y: Stable bid: Excessive temperatur		lous polymerization: ation. Protect from ligh						
Incompatible mate	terials: Strong oxidizers.								
Hazardous decom	nposition products: Carl	bon oxides, sulfur oxide	s and bromine gas.						
Section 11 Acute toxicity: Da	Toxicological infor	mation							
Carcinogenity: D NTP: No compone IARC: No compone OSHA: No compor Ca Prop 65: This p Reproductive toxi	enicity: Data not available Data not available ent of this product present a uent of this product present nent of this product presen product does not contain a kicity: Data not available	at levels greater than or at levels greater than o at at levels greater than at at levels greater than ny chemicals known to	r equal to 0.1% is iden or equal to 0.1% is ider	tified as probable, pos ntified as a carcinogen	sible or confir or potential c	med human card arcinogen by OS			
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ERG: Emergency Response Guidebook.

Form 06/2015

### Section 1

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 and industrial use only.

Not for drug, food or household use.

Product	HARDNESS POWDER	
Synonyms	None	
Section 2	Hazards identification	
Pictograms Target orga GHS Classi Acute toxicit Eye irritation GHS Label H332: Harm	ans: None known.	<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>P304+P340: IF INHALED: Remove person to fresh air and keep in a position comfortable for breathing.</li> <li>P312: Call a POISON CENTER or doctor if you feel unwell.</li> <li>P305+P351+P338: IF IN EYES: Rinse cautiously with water for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</li> <li>P337+P313: If eye irritation persists: Get medical attention.</li> </ul>

#### Hazards not otherwise classified:

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

Section 3 Composition / infor	mation on ingredients		
Chemical Name	CAS #	%	EINECS
Sodium carbonate	497-19-8	60-70%	207-838-8
Sodium sulfite	7757-83-7	20-30%	231-821-4
Ammonium chloride	12125-02-9	10-20%	235-186-4
Sodium diethyldithiocarbamate	148-18-5	1-5%	205-710-6
Tetrasodium EDTA	64-02-8	<1%	200-573-9
Silica, amorphous	7631-86-9	<1%	231-545-4
Calmagite	3147-14-6	<1%	221-563-0

## 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.

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

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

### Section 5 Fire fighting measures

Extinguishing Media: Use any media suitable for extinguishing supporting fire. Water spray may be inefficient when fighting fire.

General information: In fire conditions, wear a NIOSH/MSHA-approved self-contained breathing apparatus and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Use water spray to keep fire-exposed containers cool. Sodium carbonate reacts with hydrated lime to form caustic soda. Special care should be taken where lime and sodium carbonate are handled in the same area.

## 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.

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 dusts. Wash thoroughly after handling. Remove and wash clothing before reuse.

wash clothing before							
· ·	cool, dry, well-ventilated area a						
Section 8	Exposure controls / pers Chemical Name	sonal protection	ACGIH (TLV)		OSHA (PEL)		NIOSH (REL)
Exposure Limits:	Ammonium chloride	e TWA	: 10 mg/m <sup>3</sup> STEL: 20 n	ng/m <sup>3</sup> TWA: 10	mg/m <sup>3</sup> STEL: 20 i	mg/m <sup>3</sup> TW	A: 10 mg/m <sup>3</sup> STEL: 20 mg/m <sup>3</sup>
should wear safety g		this material shou , lab coat or apron	uld be equipped with ar , appropriate protective	a eyewash facility ar gloves. Use adequ	nd a safety showe uate ventilation to	r and fire extin keep airborne	guishing material. Personnel
Section 9	Physical and chemical p	roperties					
Appearance: Solid, Odor: No odor. Odor threshold: Da pH: 10.1 Melting / Freezing p Boiling point: Data Flash point: Data n	light pink powder. ata not available. point: 95°C (203°F) not available.	Evaporation r Flammability Explosion lim Vapor pressur Vapor density Relative density	ate ( = 1): Data not a (solid/gas): Data not a its: Lower / Upper: N re (mm Hg): Data not (Air = 1): Data not av (Specific gravity): 2.25 : Soluble in water	available. lot flammable available	Auto-ignition	temperature: on temperatur ata not availab mula: Mixture	
Section 10	Stability and reactivity						
Chemical stability:	Stable	Hazard	ous polymerization:	Will not occur.			
Conditions to avoid	d: Excessive temperatures.						
Incompatibilities w	ith other materials: Strong of	kidizing agents, sti	rong acids, and strong	bases.			
Hazardous decomp	oosition products: Carbon o	ides, nitrogen oxic	les, and sulfur oxides.				
Section 11	Toxicological informatio	n					
Inhalation-rat LC50: Skin corrosion/irrit Serious eye damag Respiratory or skin Germ cell mutagen Carcinogenity: Dal NTP: No component IARC: No component IARC: No component Carcinogenity: Dal NTP: No component Car	t of this product present at leven t of this product present at levent of this product present at levent NING! This product can exposi ity: Data not available ure: Data not available Data not available ects: if inhaled. armful if swallowed. in irritation	se LD50: 2000 mg able ls greater than or els greater than or els greater than o e you to a chemic	g/kg [Sodium sulfite], O equal to 0.1% is identifi equal to 0.1% is identi r equal to 0.1% is ident al, silica, amorphus wh	ral-rat LD50: 1650 r ed as a known or ar fied as probable, po iffied as a carcinoge ich is known to the hess of breath, or di	mg/kg [Ammonium nticipated carcino possible or confirme en or potential carc State of California fficulty breathing.	n chloride] gen by NTP. d human carci cinogen by OS to cause canc	inogen by IARC. HA. Ser.
	•	n/l - 96 h [Sodium c	arbonate]   C50 - Leucis	cus idus - 170 ma/l -	96 h. [Sodium sulfit	te]   C50 - Onco	orhynchus mykiss - 3.98 mg/l - 96 h
[Ammonium chloride] Toxicity to daphnia a dium sulfite], EC50 - L Toxicity to algae: No Persistence and deg Mobility in soil: (Soi Other adverse effect	and other aquatic invertebrates Daphnia magna (Water flea) - 16 data available iradability: No data available I Organic Carbon-Water Partition s: An environmental hazard can	EC50 - Daphnia n mg/l - 48 h [Ammo Bioaccumu Coefficient): log K <sub>o</sub> not be excluded in t	nagna (Water flea) - 265 nium chloride] <b>Ilative potential:</b> No da	mg/l - 48 h [Sodium o ta available PBT and vPvB ass	carbonate], EC50 - I sessment: No data	Daphnia magna	a (Water flea) - 18 mg/l - 48 h [So-
Section 13	Disposal considerations				1.0		
	e different. Dispose of in ac						ontainer. State and/or local mical disposal agency.
Section 14	Transport information						
UN/NA number: Hazard class: N Exceptions: No	ot applicable Pa	pping name: king group: N 6 ERG Guide #		Reportable Qu	antity: No	Ма	arine pollutant: No
Section 15	Regulatory information						
	ed to be listed if the CAS number fo		-		DSL	NDSI	CA Prop 65
Compon	ent	TSCA	CERLCA (RQ)	RCRA code		NDSL Not listed	
Sodium carbonate Sodium sulfite Ammonium chloride		Listed Listed Listed	Not listed Not listed 5000 lbs (2270 kg)	Not listed D003 Not listed	Not listed Listed Listed	Not listed Not listed Not listed	A WARNING -Cancer - www.P65Warnings.ca.gov.
Section 16	Other information						
							ered by them and must make indepen-
dent determinations of	suitability and completeness of info	ormation from all sou	rces to assure proper use	of these materials and	d the safety and hea	ith of employees	s. NTP: National Toxicology Program,

the minomation contained netering is furnished without warrang of any kind. Employers should use this mormation only as a supplement to other minomation gameted by men 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 lo	dentification
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# Innovating Science<sup>®</sup> by Aldon Corporation

"cutting edge science for the classroom"

221 Rochester Street Avon, NY 14414-9409

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

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

cu	tung edge science for the classroom	(585) 226-6177	Notioi alag, iou oi nousciola asc.
Product	PHOSPHATE POWDER		
Synonyms	None		
Section 2	Hazards identification		
Pictograms Target orga GHS Classi Skin corrosid GHS Label	Ins: None Known		<ul> <li>Precautionary statement:</li> <li>P260: Do not breathe dust.</li> <li>P264: Wash hands thoroughly after handling.</li> <li>P280: Wear protective gloves/protective clothing/eye protection/face protection.</li> <li>P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.</li> <li>P305+P351+P338: IF IN EYES: Rinse cautiously with water for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</li> <li>P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.</li> <li>P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.</li> <li>P310: Immediately call a POISON CENTER or doctor.</li> <li>P363: Wash contaminated clothing before reuse.</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>
Health haza	ot otherwise classified: Irds not otherwise classified (HHNOC) - Not Known zards not otherwise classified (PHNOC) - Not Known		

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

Section 3	Composition / information on	ingredients			
Chemical Name		CAS #	%	EINECS	
Potassium pyrosulfate		7790-62-7	70-80%	232-216-8	
L-Ascorbic acid		50-81-7	20-30%	200-066-2	
Sodium molybdate		7631-95-0	1-5%	231-551-7	
Tetrasodium EDTA, dih	ydrate	10378-23-1	<1%	600-485-4	
Antimony potassium ta	rtrate	28300-74-5	<1%	608-190-2	

#### Section 4 First aid measures

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

INHALATION: HARMFUL IF INHALED. 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 DAMAGE. Check for and remove contact lenses. Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get immediate medical attention.

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

#### Section 5 Fire fighting measures

Suitable Extinguishing Media: Use extinguishing agent suitable for type of surrounding fire. The use of water spray when fighting fire may be inefficient.

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: This product causes burns of the skin, eyes, and mucous membranes. During thermal decomposition irritating gases and vapors can be released.

#### 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. Protect from moisture and store locked up. Store away from other materials.

Section 8	Exposure controls / personal protection					
Exposure Limits:	Chemical Name	ACGIH (TLV)	OSHA (PEL)	NIOSH (REL)		
	Antimony potassium tartarate	TWA: 0.5 mg/m <sup>3</sup> Sb	TWA: 0.5 mg/m <sup>3</sup>	TWA: 0.5 mg/m <sup>3</sup> Sb/		

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 and chemical pr	operties					
Appearance: Solid. white powder. Odor: Odorless Odor threshold: Data not available pH: ~1.1 @ 5% Solution Melting / Freezing point: 190°C (374°F) 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): 2.17 Solubility(ies): Soluble in water.			Partition coefficient: (n-octanol / water): log K <sub>ow</sub> : ~-0. Auto-ignition temperature: Data not available Decomposition temperature: Data not available. Viscosity: Data not available. Molecular formula: Mixture Molecular weight: Mixture		: Data not available Ire: Data not available. ble. e
Section 10	Stability and reactivity				1		
Incompatible mater	Stable : Exposure to air or moisture o ials: Acids, bases, and oxidizir osition products: Thermal de	over prolonged per ng agents.					
Section 11	Toxicological information	I					
Respiratory or skin Germ cell mutagen Carcinogenity: Dat NTP: No component IARC: No component	of this product present at levels t of this product present at leve nt of this product present at leve	ible s greater than or e Is greater than or	equal to 0.1% is identi	fied as probable, pos	sible or confi	rmed human car	5,
STOT-single expose STOT-repeated exp Aspiration hazard: Potential health effr Inhalation: Corrosive Ingestion: May be fai stomach. Skin: Contact cause Eyes: Contact cause Signs and symptom	ure: The substance or mixture osure: Data not available Data not available ects: a if inhaled. Inhalation of gases tal if swallowed and enters airw s severe skin burns. as damage to eyes. hs of exposure: Exercise appro	or fumes may cau ays. Ingestion ca ropriate procedure	use coughing, choking, uses burns of the uppe	headache, dizzines er digestive and resp	s, and weakne	ess.	
STOT-single expose STOT-repeated exp Aspiration hazard: Potential health effe Inhalation: Corrosive Ingestion: May be fai stomach. Skin: Contact cause Eyes: Contact cause Signs and sympton Additional informat Section 12	ure: The substance or mixture osure: Data not available Data not available exts: a if inhaled. Inhalation of gases ial if swallowed and enters airw s severe skin burns. as damage to eyes. Is of exposure: Exercise appr ion: RTECS #: Data not available Ecological information	or fumes may cau ays. Ingestion ca ropriate procedure able	use coughing, choking, uses burns of the uppe es to minimize potentia	headache, dizzines er digestive and resp I hazards.	s, and weakni	ess. May cause seve	re burning pain in the mouth and
STOT-single expose STOT-repeated exp Aspiration hazard: Potential health effic Inhalation: Corrosive Ingestion: May be fai stomach. Skin: Contact cause Eyes: Contact cause Signs and symptom Additional informat Section 12 Toxicity to fish: Onchours [Sodium molyc Toxicity to fish: Onchours [Sodium molyc Toxicity to daphnia Toxicity to daphnia Toxicity to daphnia Toxicity to daphnia Toxicity to algae: Da Persistence and dea Mobility in soil: (So Other adverse effect Section 13 These disposal gui	ure: The substance or mixture osure: Data not available Data not available ects: a fi inhaled. Inhalation of gases tal if swallowed and enters airw s severe skin burns. es damage to eyes. s of exposure: Exercise appr ion: RTECS #: Data not avail Ecological information orhynchus mykiss (fish, fresh v date] and other aquatic invertebrat ata not available gradability: No data available il Organic Carbon-Water Partiti ts: An environmental hazard c Disposal considerations delines are intended for the	or fumes may cau ays. Ingestion ca ropriate procedure able vater), LC50 = 420 <b>tes:</b> Daphnia mag <b>Bioaccum</b> on Coefficient): lo annot be excluded disposal of cata	use coughing, choking, uses burns of the upper es to minimize potentia 0 mg/L/96 hours [Potas na (Crustacea), LC50 <b>Jative potential:</b> No of g K <sub>oc</sub> ~-0.28 d in the event of unprof log-size quantities of	headache, dizzines er digestive and resp I hazards. ssium pyrosulfate], C = 140 mg/L/48 hours data available PBT an fessional handling or nly. Federal regula	s, and weakno iratory tracts. Incorhynchus S [Sodium mol d vPvB asse disposal.	ess. May cause seve mykiss (fish, free ybdate] <b>ssment:</b> No dat	re burning pain in the mouth and sh water), LC50 = 800 mg/L/96 a available container. State and/or local
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The information contained herein is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. NTP: National Toxicology Program, IARC: International Agency for Research on Cancer, OSHA: Occupational Safety and Health Administration, STOT: Specific Target Organ Toxicity, SE: Single Exposure, RE: Repeated Exposure, ERG: Emergency Response Guidebook.

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Section 1

Product

Identification

## Page E1 of E2

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CHLORIDE POWDER

"cutting edge science for the classroom"

Pictograms: GHS06 / GHS07 / GHS08 / GHS09       P201         Target organs: Respiratory system, Liver, Kidneys, Blood       P202         P264       P264         P267       P267         GHS Classification:       P277         Acute toxicity, oral (Category 3)       P273         Skin irritation (Category 1)       P300         Eye irritation (Category 2)       P330         STOT-SE (Category 3)       P302         Mutagenicity (Category 1B)       P330         Carcinogenicity (Category 1B)       P330         Aquatic toxicity, acute (Category 1)       P302         Aquatic toxicity, chronic (Category 1)       P304	utionary statement: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid breathing dust. Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment.
Signal word: DANGER       Prect         Pictograms: GHS06 / GHS07 / GHS08 / GHS09       P201         Target organs: Respiratory system, Liver, Kidneys, Blood       P202         Percent       P201         Percent       P201         Percent       P201         Percent       P201         Percent       P201         Percent       P202         Percent       P202         Percent       P202         Percent       P202         P201       P202         P202       P202         GHS Classification:       P272         Acute toxicity, oral (Category 3)       P202         Skin sensitization (Category 2)       P280         Skin sensitization (Category 1)       P301         Eye irritation (Category 2)       P302         STOT-SE (Category 1B)       P303         Carcinogenicity (Category 1B)       P304         Aquatic toxicity, acute (Category 1)       P305         Aquatic toxicity, chronic (Category 1)       P306         Contation       P307	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid breathing dust. Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Contaminated work clothing should not be allowed out of the workplace.
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H301: Toxic if swallowed.P304H315: Causes skin irritation.breatH317: May cause an allergic skin reaction.P312H319: Causes serious eye irritation.P319H335: May cause respiratory irritation.P403H340: May cause genetic defects.P404H300: May cause cancer.P501H400: Very toxic to aquatic lifeP501	<ul> <li>Wear protective gloves/protective clothing/eye protection/face protection.</li> <li>P310: IF SWALLOWED: Immediately call a POISON CENTER or doctor.</li> <li>Rinse mouth.</li> <li>P352: IF ON SKIN: Wash with plenty of water and soap.</li> <li>P313: If skin irritation or rash occurs: Get medical attention.</li> <li>P364: Take off contaminated clothing and wash it before reuse.</li> <li>P351+P338: IF IN EYES: Rinse cautiously with water for 15 minutes. Remove t lenses, if present and easy to do. Continue rinsing.</li> <li>P313: If eye irritation persists: Get medical attention.</li> <li>P340: IF INHALED: Remove person to fresh air and keep comfortable for ing.</li> <li>Call a POISON CENTER or doctor if you feel unwell.</li> <li>Collect spillage.</li> <li>P233: Store in a well-ventilated place. Keep container tightly closed.</li> <li>Store locked up.</li> <li>Dispose of contents/container to a licensed chemical disposal agency in lance with local/regional/national regulations.</li> </ul>

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

Section 3	Composition / information on	ingredients			
Chemical Name		CAS #	%	EINECS	
Potassium chromate Sodium bicarbonate		7789-00-6 144-55-8	50-60% 50-60%	232-140-5 205-633-8	
Section 4	First aid measures				

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

SKIN ABSORPTION: CAUSES SKIN IRRITATION. MAY CAUSE AN ALLERGIC SKIN REACTION. 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 water. Do not use dry chemicals or foams. CO<sub>2</sub> or Halon<sup>®</sup> may provide limited control.

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. Substance will accelerate burning when involved in a fire. May ignite combustibles (wood, paper, oil, clothing, etc.). Containers may explode when heated.

### 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. 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 Limiter	Chemical Name	ACGIH (TLV)	OSHA (PEL)	NIOSH (REL)		
Exposure Limits:	Chromium(VI) inorganic compounds	TWA: 0.05 mg/m <sup>3</sup> (A1) as Cr	TWA: 0.005 mg/m <sup>3</sup> as Cr(VI)	TWA: 0.001 mg/m <sup>3</sup> as Cr		

**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 and chemical pr	operties	
Appearance: Solid. Odor: No odor Odor threshold: Dat. pH: 8.2 @ 5% Solutio Melting / Freezing po Boiling point: Data no Flash point: Data no	a not available in <b>int:</b> Data not available iot 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): 2.25 Solubility(ies): Soluble 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 and reactivity		

Chemical stability: Stable

Hazardous polymerization: Will not occur.

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

Incompatible materials: Reducing agents. Strong acids, strong bases, strong oxidzing agents. Most organic substances, bromides, iodides, chlorides, hypophosphites, sulfites, sulfides. Combustible materials, oxidizable materials.

Hazardous decomposition products: Carbon oxides, Potassium oxides, chromium, chromium trioxide.

## Section 11 Toxicological information

Section II	Toxicological information						
Skin corrosion/irrita Serious eye damagg Respiratory or skin Germ cell mutageni Carcinogenity: Dat NTP: Known to be a IARC classified: Grou OSHA: Data not avai CA Prop 65: A WAR ductive harm. Reproductive toxici STOT-single exposis STOT-repeated exp Aspiration hazard: Potential health effc Inhalation: Inhalation Ingestion: Toxic if sw Skin: Causes skin in Eyes: Contact with e Signs and symptom found to be mutagen employees of the chr	human carcinogen. up 1: Carcinogenic to humans. lable. NING! : This product can expose y ty: Data not available ure: The substance or mixture is c osure: Data not available Data not available tets: n may cause burning sensation, soi allowed. Ingestion causes nausea, itation. May cause an allergic skin tyes may cause serious irritation. Is of exposure: Risk of cancer de ic in bacterial and mammalian cells omate producing industry. Exercis ion: RTECS #: GB2940000 [Pota	ou a chemical assified as sp re throat, couc vomiting, abd reaction. pends on leve , including tho e appropriate	, Chromium [hexavale becific target organ toxi gh, wheezing, labored i ominal pain, burning s el and duration of expo use of the Chinese han procedures to minimiz	nt compounds], whi icant, single exposu breathing. ensation, diarrhea, sure. Chromium co nster. Recent studi e potential hazards	ch is known to re, category 3 v shock or collap ompounds in the es indicate a sig	with respiratory e se. e form of chroma	iffects. ites and dichromates have been
Section 12	Ecological information						
ate] Toxicity to daphnia a [Sodium bicarbonate] Toxicity to algae: Nitz Persistence and degr Mobility in soil: No d	bhales promelas (fish, freshwater) LC nd other aquatic invertebrates: Dap schia sp (fish, freshwater) LC50: 0.26 adability: No data available ata available : An environmental hazard cannot be	hnia magna (C mg/I/72 hours Bioaccumu vPvB assessn	rustacea) EC50: 15 mg/ [Potassium chromate] <b>lative potential</b> : No da nent: No data available	ta available	n chromate], Daj		· ·
Section 13	Disposal considerations			5 - · ·			
regulations may be	delines are intended for the disp different. Dispose of in accord						
Section 14	Transport information						
UN/NA number:			solid, inorganic, n.o.		,		
Hazard class: 6.1	55	-	•	able Quantity: 1	0 lb (4.54 Kg)	Ma	arine pollutant: No
Exceptions: Lim	ted quantity equal to or less th	an 5 Kg (11	lbs) 2016 ER	G Guide # 151			
Section 15	Regulatory information						
A chemical is considered	to be listed if the CAS number for the	anhydrous form	is on the Inventory list.				
Compone	nt	TSCA	CERLCA (RQ)	RCRA code	DSL	NDSL	CA Prop 65
Potassium chromate Sodium bicarbonate		Listed Listed	10 lbs (4.54 kg) Not listed	D001, D007 Not listed	Listed Listed	Not listed Not listed	WARNING -Cancer and Reproductive Harm - www.P65Warnings.ca.gov.
Section 16	Other information						
The information contain dent determinations of s	ed herein is furnished without warranty uitability and completeness of informati ncy for Research on Cancer, OSHA: Oc	on from all sour	ces to assure proper use	of these materials and	the safety and h	ealth of employees	s. NTP: National Toxicology Program,

ERG: Emergency Response Guidebook Form 06/2015