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

# GENERAL STORAGE CODE GREEN

Section 1	
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Identification

INNOVATING SCIENCE

"Cutting edge science for the classroom"

# Page E1 of E2

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

Not for drug, food or household use.

ning. We hands

### Hazards not otherwise classified:

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

Section 3 Composition / informa	ion 3 Composition / information on ingredients								
Chemical Name	CAS #	%	EINECS						
Water FD&C Red #40 (C.I. No. 16035)	7732-18-5 25956-17-6	99.999% 0.001%	231-791-2 247-368-0						
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: 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.

### Section 7 Handling and storage

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

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

Section 8	Exposure controls / personal protection							
Exposure Limits:	Chemical Name	ACGIH (TLV)	OSHA (PEL)	NIOSH (REL)				
Exposure Linits.	FD&C Red #40	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 and cher	nical properties					
Ddor: No odor. Ddor threshold: DH: Data not avai Melting / Freezing po	uid, clear, light red. Data not available. ilable. pint: Approximately 0°C (32°F) proximately 100°C (212°F) (	(water) Evaporation Flammability Explosion lin Vapor press Vapor densir Relative densi	rate (Water = 1): <1 / (solid/gas): Data not : nits: Lower / Upper: D ure (mm Hg): 14 (water ty (Air = 1): 0.7 (water) ty (Specific gravity): Appr s): Complete in water.	Data not available r)	Auto-ignit Decompos Viscosity: Molecular		e: Data not available ure: Data not available. ble. re
Section 10	Stability and react	ivity					
Chemical stability Conditions to avo	ty: Stable oid: Excessive temperatu		dous polymerization:	Will not occur.			
ncompatible mat	terials: Strong oxidizers,	reducing agents.					
lazardous decon	mposition products: Oxi	ides of carbon, nitroger	oxides, sulfur oxides.				
Section 11	Toxicological info	rmation					
NTP: No compone ARC: No compon OSHA: No compo Ca Prop 65: This p <b>Reproductive tox</b>	Data not available ent of this product present nent of this product presen nent of this product prese product does not contain a <b>xicity:</b> Data not available	It at levels greater than nt at levels greater than any chemicals known to	or equal to 0.1% is iden or equal to 0.1% is iden	tified as probable, po ntified as a carcinoge	ssible or confir n or potential c	med human card arcinogen by OS	0 1
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STOT-repeated ex Aspiration hazard Potential health of nhalation: Not ex ingestion: May be Skin: Contact may Sys: Contact may system to available. Exe Additional inform ection 12 foxicity to fish: No foxicity to fish: No foxicity to algae: persistence and of toblity in soil: No ther adverse eff section 13 foxicity to algaes egulations may section 14 JN/NA number lazard class: Exceptions: No fection 15	exposure: Data not availa d: Data not available effects: xpected to be a health haz e harmful by ingestion. ay cause irritation. toms of exposure: To the ercise appropriate procedu mation: RTECS #: Data n Ecological informa No data available nia and other aquatic inv : No data available degradability: No data a No data available fects: An environmental h Disposal consider guidelines are intended be different. Dispose co Transport informa r: Not applicable Not applicable	ard. e best of our knowledge ures to minimize potent not available ation ertebrates: No data av vailable Bioaccu PBT and hazard cannot be exclu rations for the disposal of ca of in accordance with ation Shipping name: Packing group: 2020 ERG Guide iation	ai hazards. ailable mulative potential: No l vPvB assessment: No ded in the event of unpro- atalog-size quantities of all local, state and feo Not Regulated Not applicable # Not applicable	o data available o data available ofessional handling o only. Federal regu leral regulations or	r disposal. ations may a contract with	oply to empty c a licensed che	ontainer. State and/or loo mical disposal agency.
TOT-repeated ex spiration hazard otential health of halation: Not ex ngestion: May be kin: Contact may by the contact may contact may by the contact may by the conta	exposure: Data not availa d: Data not available effects: xpected to be a health haz e harmful by ingestion. ay cause irritation. toms of exposure: To the ercise appropriate procedunation: RTECS #: Data No data available degradability: No data a No data available degradability: No data a No data available fects: An environmental f Disposal consider guidelines are intended be different. Dispose of Transport informat r: Not applicable Not applicable Not applicable Regulatory informations red to be listed if the CAS nut	ard. e best of our knowledge ures to minimize potent not available ation ertebrates: No data av vailable Bioaccu PBT and hazard cannot be exclu rations for the disposal of ca of in accordance with ation Shipping name: Packing group: 2020 ERG Guide iation	ai hazards. ailable mulative potential: No l vPvB assessment: No ded in the event of unpro- atalog-size quantities of all local, state and feo Not Regulated Not applicable # Not applicable	o data available o data available ofessional handling o only. Federal regu leral regulations or	r disposal. ations may a contract with	oply to empty c a licensed che	ontainer. State and/or loo mical disposal agency.
STOT-repeated ex Aspiration hazard Potential health e Inhalation: Not ex Ingestion: May be Skin: Contact may Eyes: Conta	exposure: Data not availa d: Data not available effects: xpected to be a health haz e harmful by ingestion. ay cause irritation. toms of exposure: To the ercise appropriate procedu mation: RTECS #: Data n Ecological informa No data available nia and other aquatic inv : No data available degradability: No data a No data available fects: An environmental h Disposal consider guidelines are intended be different. Dispose co Transport informa r: Not applicable Not applicable Not applicable Regulatory inform ered to be listed if the CAS m onent	ard. a best of our knowledge ures to minimize potent not available ation ertebrates: No data av vailable Bioaccu PBT and hazard cannot be exclu rations for the disposal of ca of in accordance with ation Shipping name: Packing group: 2020 ERG Guide sation umber for the anhydrous for	al hazards. allable mulative potential: No l vPvB assessment: No ded in the event of unpro- atalog-size quantities of all local, state and feo Not Regulated Not applicable # Not applicable m is on the Inventory list.	o data available o data available ofessional handling c only. Federal regu deral regulations or <b>Reportable Qu</b>	r disposal. ations may a contract with <b>antity:</b> No	pply to empty c a licensed che Ma	ontainer. State and/or loc mical disposal agency. arine pollutant: No

ERG: Emergency Response Guidebook. Form 06/2015

Section 1	Identification	Page E1 of E2
	<b>OVATING SCIENCE</b> ting edge science for the classroom" by Aldon 21 Rochester Street Avon, NY 14414-9409 (685) 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	FOOD DYE YELLOW #5, 0.5% AQUEOUS SOLUTION	
Synonyms	Food Coloring Yellow #5 / Dye, FD&C Yellow #5, 0.5% Aqueous Solution	n / Yellow #5 Dye / Dye, Vegetable / FD&C Yellow #5
Section 2	Hazards identification	
to the Glob Chemicals. Signal word Pictograms Target orga GHS Classi GHS Label	<ul> <li>Ince or mixture has not been classified as hazardous according ally Harmonized System (GHS) of Classification and Labeling of</li> <li>I. None required</li> <li>I. No symbol required</li> <li>Ins: None known</li> <li>fication: None required</li> <li>information: Hazard statement: None required</li> <li>ary statement: None required</li> </ul>	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.

### 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 FD&C Yellow #5 (C.I. No. 19140)	7732-18-5 1934-21-0	99.5% 0.5%	231-791-2 217-699-5				
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 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.

# Section 7 Handling and storage

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

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

Section 8	Exposure controls / personal protection							
Exposure Limits:	Chemical Name	ACGIH (TLV)	OSHA (PEL)	NIOSH (REL)				
Exposure Linits.	FD&C Yellow #5	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 and chem	nical propertie	es					
Odor: No odor. Odor threshold: Definition of the short of	able. i <b>nt:</b> Approximately 0°C (32°F) ( roximately 100°C (212°F) (v	(water) Relation	imability (so osion limits or pressure or density ( ive density (So	e (Water = 1): <1 olid/gas): Data not a s: Lower / Upper: I (mm Hg): 14 (wate Air = 1): 0.7 (water) Specific gravity): Appr Complete in water.	Data not available	Auto-ignit Decompos Viscosity: Molecular	-	e: Data not available ure: Data not available. ıble. ıre
Section 10	Stability and reacti	ivity						
Chemical stability Conditions to avoi	<ul> <li>Stable</li> <li>id: Excessive temperature</li> </ul>	ires which caus		us polymerization: on.	Will not occur.			
Incompatible mate	erials: Strong oxidizers, r	reducing agents	s.					
Hazardous decom	position products: Oxid	ides of carbon, ı	nitrogen oxi	ides, sulfur oxides.				
Section 11 Acute toxicity: Da	Toxicological infor	rmation						
Carcinogenity: Da NTP: No componer IARC: No compone OSHA: No compone Ca Prop 65: This pr Reproductive toxic	nt of this product present a ent of this product present ent of this product presen roduct does not contain a	at levels greate t at levels greate nt at levels grea	ter than or e ater than or	equal to 0.1% is ident equal to 0.1% is ider	ified as probable, pos tified as a carcinoge	sible or confin	med human card arcinogen by OS	0 1
STOT-repeated ex Aspiration hazard: Potential health ef Inhalation: May cau Ingestion: Not expe Skin: May cause an Eyes: Contact may Signs and sympto not available. Exer	sure: Data not available posure: Data not available ffects: use allergy or asthma syn ected to be a hazard unle n allergic skin reaction is y cause irritation. oms of exposure: To the rcise appropriate procedur	ble mptoms or brea ess swallowed ir sensitive individ e best of our kno irres to minimize	in large amo iduals. Sym owledge the potential h	ounts. Symptoms ma ptoms may include r e chemical, physical a	y be the same as inf edness, swelling, itcf	iing, rash, and	hives.	ly investigated. Specific data
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STOT-repeated ex Aspiration hazard Potential health ef Inhalation: May cau Ingestion: Not expe Skin: May cause at Eyes: Contact may Signs and sympto not available. Exer Additional informa Section 12 Toxicity to fish: N Toxicity to fish: N Toxicity to daphni. Toxicity to algae: I Persistence and d Mobility in soil: N Other adverse effe Section 13 These disposal gr regulations may b Section 14 UN/NA number: Hazard class: N Exceptions: No Section 15 A chemical is consider	sure: Data not available posure: Data not available ffects: use allergy or asthma sym- ected to be a hazard unle n allergic skin reaction is y cause irritation. oms of exposure: To the rcise appropriate procedur ation: RTECS #: UQ640 Ecological informa lo data available la and other aquatic inve No data available legradability: No data available lo data available legradability: No data available	ble mptoms or brea ess swallowed ir sensitive individ best of our kno irres to minimize 00000 [FD&C Y ation ertebrates: No vailable ertebrates: No vailable for the dispos of in accordance ation Shipping r Packing g 2020 ERG ation mber for the anyy	n large amo iduals. Sym owledge the potential h fellow #5] o data availa Bioaccumu PBT and vP be excluded sal of catalo ce with all name: N proup: No Guide # pydrous form i	ounts. Symptoms mainptoms may include r e chemical, physical a azards. ble lative potential: No vB assessment: No in the event of unpro- og-size quantities of local, state and fect ot Regulated ot Regulated ot applicable Not applicable s on the Inventory list.	and toxicological prop data available o data available ofessional handling o only. Federal regul leral regulations or <b>Reportable Qua</b>	ning, rash, and perties have no disposal. ations may a contract with antity: No	hives. at been thorough oply to empty c a licensed che	container. State and/or loc emical disposal agency. arine pollutant: No
STOT-repeated ex Aspiration hazard Potential health ef Inhalation: May cau Ingestion: Not expe Skin: May cause at Eyes: Contact may Signs and sympto not available. Exer Additional informa Section 12 Toxicity to fish: N Toxicity to fish: N Toxicity to daphni: Toxicity to algae: I Persistence and d Mobility in soil: N Other adverse effe Section 13 These disposal gr regulations may b Section 14 UN/NA number: Hazard class: N Exceptions: No Section 15	sure: Data not available posure: Data not available ffects: use allergy or asthma sym ected to be a hazard unle n allergic skin reaction is y cause irritation. oms of exposure: To the rise appropriate procedur ation: RTECS #: UQ640 Ecological informa lo data available a and other aquatic inve No data available legradability: No data availability: No data available legradability: No data availabil	ble mptoms or brea ess swallowed ir sensitive individ best of our knd res to minimize 00000 [FD&C Y ation ertebrates: No vailable rations for the dispos of in accordance ation Shipping r Packing g 2020 ERG ation	n large amo iduals. Sym owledge the e potential h fellow #5] o data availa Bioaccumu PBT and vP be excluded sal of catalo ce with all name: N proup: No i Guide #	ounts. Symptoms mainptoms may include represented a chemical, physical a azards. ble lative potential: No vB assessment: No in the event of unpro- og-size quantities of local, state and fect ot Regulated ot applicable Not applicable	ay be the same as inf edness, swelling, itch and toxicological prop data available o data available ofessional handling o only. Federal regul leral regulations or	ning, rash, and perties have no disposal. ations may a contract with	hives. t been thorough poly to empty c a licensed che	container. State and/or loca

Form 06/2015

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Identification

# CHEMTREC 24 Hour Emergency

Phone Number (800) 424-9300

For laboratory and industrial use only.

Not for drug, food or household use.

Page E1 of E2

# **INNOVATING SCIENCE** "Cutting edge science for the classroom"

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

Product COPPER(II) CHLORIDE, 1 MOLAR SOLUTION	
Synonyms Cupric Chloride, Water Solution	
Section 2 Hazards identification	
Signal word: DANGER         Pictograms: GHS06 / GHS09         Target organs: Respiratory system, Liver, Kidneys.         Image: Comparison of the system of the	<ul> <li>Precautionary statement:</li> <li>P264: Wash hands thoroughly after handling.</li> <li>P270: Do not eat, drink or smoke when using this product.</li> <li>P273: Avoid release to the environment.</li> <li>P280: Wear protective gloves/protective clothing/eye protection/face protection.</li> <li>P301+P330+P310: IF SWALLOWED: Rinse mouth. Immediately call a POISON CENTER or doctor.</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 advice/attention.</li> <li>P362+P364: Take off contaminated clothing and wash before reuse.</li> <li>P391: Collect spillage.</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>
Hazards not otherwise 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 on ingredients							
Chemical Name		CAS #	%	EINECS				
Water Cupric chloride, dihy	drate	7732-18-5 10125-13-0	82.9% 17.1%	231-791-2 231-210-2 (anhydrous)				
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:** MAY BE HARMFUL IF INHALED. CAUSES RESPIRATORY TRACT IRRITATION. Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

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

SKIN ABSORPTION: 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.

#### Section 7 Handling and storage

Precautions for Safe Handling: Read label on container before using. Do not wear contact lenses when working with chemicals. Keep out of reach of children. Avoid contact with eyes, skin and clothing. Do not inhale 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, 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.	Copper, dusts and mists, as Cu	TWA: 1 mg/m <sup>3</sup>	TWA: 1 mg/m <sup>3</sup>	TWA: 1 mg/m <sup>3</sup>	

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: Clear, light blue liquid. Odor: No odor. Odor threshold: Data not available. pH: <1 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 and reactivity			
Chemical stability: S Conditions to avoid:		Hazardous polymerization: Will not occur. exposure or contact to extreme temperatures and incompatible	e materials.	

Incompatible materials: Potassium, sodium, hydrazine, nitromethane, aluminum, strong oxidizers, acetylene and sodium hypobromite.

Hazardous decomposition products: Copper oxides and hydrogen chloride.

### Section 11 **Toxicological information**

Acute toxicity: [Copper chloride] Oral-rat LD50: 290 mg/kg ; Oral-human LD50: 200 mg/kg

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.

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

Reproductive toxicity: Data not available

STOT-single exposure: Data not available

STOT-repeated exposure: Data not available

Aspiration hazard: Data not available

# Potential health effects:

Inhalation: Symptoms of over-exposure may include irritation, sore throat, shortness of breath, ulceration and perforation of the nasal septum and upper respiratory tract irritation.

Ingestion: May cause gastrointestinal irritation with symptoms such as nausea, vomiting and diarrhea.

Skin: Contact with skin may cause symptoms of itching, redness, blistering and possible scarring, dermatitis.

Eyes: Contact with eyes may cause redness, pain and blurred vision. Prolonged contact may cause corneal injury.

Signs and symptoms of exposure: Copper salts impart a metallic taste in the mouth. Damage to the kidneys may occur in person's with Wilson's disease. High

concentrations in contact with skin may result in burns. Chronic exposure may also lead to liver damage, anemia and other blood cell abnormalities.

# Additional information: RTECS #: GL7030000 [Copper chloride]

### Section 12 Ecological information

Toxicity to fish: Bluegill LC50: 0.9 mg/L/96 hours [Copper chloride]

Toxicity to daphnia and other aquatic invertebrates: Daphnia magna EC50: 0.04 mg/L/48 hours [Copper chloride]

Toxicity to algae: Selenastrum EC50: 0.12 mg/L/96 hours [Copper chloride]

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.

### Section 14 Transport information

<b>UN/NA</b> numbe	r: UN3082	Shipping name:	RQ, Environme	entally hazardous substa	ance, liquid, n.o.s., (Cupric cl	hloride solution)
Hazard class:	9	Packing group:	III	Reportable Quantity:	: 10 lbs (4.54 kg)	Marine pollutant: Yes
Exceptions:	imited quantity equ	al to or less than 5	Lt.; Reportable	quantity equal to or mo	re than 4.54 Kg	2020 ERG Guide # 171
Section 15	Regulatory infe	ormation				

### A chemical is considered to be listed if the CAS number for the anhydrous form is on the Inventory list.

Component	TSCA	CERLCA (RQ)	RCRA code	DSL	NDSL	CA Prop 65
Cupric chloride (anhydrous)	Listed	10 lbs (4.54 kg)	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

The information contained herein is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. NTP: National Toxicology Program, IARC: International Agency for Research on Cancer, OSHA: Occupational Safety and Health Administration, STOT: Specific Target Organ Toxicity, SE: Single Exposure, RE: Repeated Exposure, ERG: Emergency Response Guidebook. Form 06/2015

Section 1

Identification

# Page E1 of E2

# **INNOVATING SCIENCE**<sup>®</sup> "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	POTASSIUM PERMANGANATE, 0.001 MOLAR SOLU	ITION
Synonyms	Potassium Permanganate, Water Solution	
Section 2	Hazards identification	
Pictograms	d: WARNING s: GHS09 ans: None known	<ul> <li>Precautionary statement:</li> <li>P273: Avoid release to the environment.</li> <li>P312: Call a POISON CENTER or doctor if you feel unwell.</li> <li>P391: Collect spillage.</li> <li>P501: Dispose of contents/container to a licensed chemical disposal agency in accordance with local/regional/national regulations.</li> </ul>
Aquatic acu	ification: ty, ingestion (Category 5) te (Category 1) onic (Category 1)	
H303: May	information: Hazard statement: be harmful if swallowed. toxic to aquatic life with long lasting effects.	

### Hazards not otherwise classified:

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

Section 3 Composition / in	formation on ingredients			
Chemical Name	CAS #	%	EINECS	
Water Potassium permanganate	7732-18-5 7722-64-7	99.9842% 0.0158%	231-791-2 231-760-3	
Section 4 First aid measure	es			

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

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

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

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

### Section 5 Fire fighting measures

Suitable Extinguishing Media: 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 soltuion which may cause hazardous decompostion 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.

# Section 7 Handling and storage

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

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

Section 8	Exposure controls / personal prote	ction		
Exposure Limits:	Chemical Name	ACGIH (TLV)	OSHA (PEL)	NIOSH (REL)
Exposure Limits.	Manganese and inorganic compounds, as Mn	TWA: 0.2 mg/m <sup>3</sup> (A4)	STEL: C 5 mg/m <sup>3</sup>	TWA: 1 mg/m <sup>3</sup> / STEL: 3 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 respirator.								
Section 9	Physical and chemic	cal proper	ties					
Appearance: Liquid, purple water-like.       Evaporation rate (Water = 1):         Odor: No odor.       Flammability (solid/gas): Data         Odor threshold: Data not available.       Flammability (solid/gas): Data         pH: Data not available.       Vapor pressure (mm Hg): 14 (Vapor density (Air = 1): 0.7 (w         Boiling point: Approximately 100°C (212°F) (water)       Relative density (Specific gravity):         Flash point: Data not available       Solubility(ies): Complete in wa				solid/gas): Data not a its: Lower / Upper: D e (mm Hg): 14 (water (Air = 1): 0.7 (water) (Specific gravity): Appr	ata not available )	Auto-igniti Decompos Viscosity: Molecular	•	: Data not available <b>re:</b> Data not available. le.
Section 10	Stability and reactiv	ity						
Incompatible mater fites, peroxides, oxal	I: Excessive temperature ials: Alcohols, arsenites, ates, strong reducing age	bromides, i nts, strong	use evaporat iodides, chai acids, forma	coal, hydrochloric acio Idehyde, ethylene glyc	l, organic materials, f ol, combustible orgar			ophosphites, hyposulfites, sul-
Hazardous decomp	osition products: Oxyg	en, oxides c	of potassium	, oxides of manganese	·.			
Section 11	Toxicological inform	nation						
Skin corrosion/irrit Serious eye damag Respiratory or skin Germ cell mutagen Carcinogenity: Dat NTP: No component IARC: No componen OSHA: No componen Ca Prop 65: This proc Reproductive toxic STOT-single expos STOT-repeated exp Aspiration hazard: Potential health effi Inhalation: May be h Skin: Contact cause Eyes: Contact cause	Acute toxicity: Oral-rat LD50: 750 mg/kg [Potassium permanganate] Skin corrosion/irritation: Data not available Serious eye damage/irritation: 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 IARC. OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA. Ca Prop 65: This product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA. Ca Prop 65: This product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA. Ca Prop 65: This product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA. Ca Prop 65: This product does not contain any chemicals known to the State of California to cause cancer or reproductive toxicity. Reproductive toxicity: Data not available STOT-repeated exposure: Data not available STOT-repeated exposure: Data not available Aspiration hazard: Data not available Potential health effects: Inhalation: May be harmful if inhalation. Ingestion: May be harmful if swallowed. Skin: Contact causes irritation. Eyes: Contact causes 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					HĂ.		
Section 12	Ecological informati	on						
Toxicity to fish: Gambusia affinis (fish, fresh water), LC100 = 18 mg/L/24 hours [Potassium permanganate]         Toxicity to daphnia and other aquatic invertebrates: Daphnia magna (Crustacea), EC0 = >0.63 mg/L [Potassium permanganate]         Toxicity to algae: Anabaena sp. (Algae), EC50 = <0.5 mg/L/18 days/growth rate [Potassium permanganate]         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 considerat							
	e different. Dispose of i	n accorda						ontainer. State and/or local mical disposal agency.
Section 14	Transport informati	on						
Hazard class: No	UN/NA number:       Not applicable       Shipping name:       Not Regulated         Hazard class:       Not applicable       Packing group:       Not applicable       Reportable Quantity:       Marine pollutant:       No         Exceptions:       Not applicable       2024 ERG Guide #       Not applicable       Reportable Quantity:       *See Below       Marine pollutant:       No         Section 15       Regulatory information       Reportable       Reportable       Reportable       Reportable       Reportable Quantity:       *See Below       Marine pollutant:       No					rine pollutant: No		
	d to be listed if the CAS num		hydrous form	is on the Inventory list.				
Compone	ent		TSCA	CERLCA (RQ)	RCRA code	DSL	NDSL	CA Prop 65
Potassium permanga			Listed	*100 lbs (45.4 kg)	D001	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							

# 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.

### Section 1

Identification

# CHEMTREC 24 Hour Emergency

Page E1 of E2

# Phone Number (800) 424-9300 For laboratory and industrial use only.

Not for drug, food or household use.

\*Cutting edge science for the classroom" by Aldon 21 Rochester Street Avon, NY 14414-9409 (585) 228-6177

Product ERBIUM CHLORIDE 0.1M	
Synonyms None	
Section 2 Hazards identification	
Signal word: WARNING Pictograms: GHS07 Farget organs: Eyes SHS Classification: Skin irritation (Category 3) Eye irritation (Category 3) STOT-SE (Category 3) SHS Label information: Hazard statement: H316: Causes mild skin irritation. H320: Causes eye irritation. H336: May cause drowsiness or dizziness.	<ul> <li>Precautionary statement:</li> <li>P261: Avoid breathing mist/vapours/spray.</li> <li>P264+P265: Wash hands thoroughly after handling. Do not touch eyes.</li> <li>P271: Use only outdoors or with adequate ventilation.</li> <li>P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.</li> <li>P319: Get medical help if you feel unwell.</li> <li>P332+P317: If skin irritation occurs: Get medical help.</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+P317: If eye irritation persists: Get medical help.</li> <li>P403+P233: Store in a well-ventilated place. KeepContainer 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>

### Hazards not otherwise classified:

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

Section 3	Composition / information or	n ingredients			
Chemical Name		CAS #	%	EINECS	
Water Erbium chloride		7732-18-5 10025-75-9	96.2% 3.8%	231-791-2 233-385-0	
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: 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

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.

# Section 7 Handling and storage

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

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

Section 8	Exposure controls / personal prot	tection		
Exposure Limits:	Chemical Name	ACGIH (TLV)	OSHA (PEL)	NIOSH (REL)
Exposure Linits.	Erbium Chloride	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 and chemical pro	operties	
Appearance: Clear, colorless liquid.         Odor: None         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: (n-octanol / water): 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.

Incompatible materials: Strong oxidizers, strong 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 a known or anticipated carcinogen by IARC

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

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

Reproductive toxicity: Data not available

STOT-single exposure: The substance or mixture is may cause respiratory irritation.

STOT-repeated exposure: Data not available

Aspiration hazard: Data not available

Potential health effects:

Inhalation: Inhalation may cause dizziness or drowsiness.

Ingestion: No adverse health effects expected by ingestion.

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 #: Data not available

### Section 12 Ecological information

Toxicity to fish: Data not available

Mobility in soil: No data available

Toxicity to daphnia and other aquatic invertebrates: Data not available

Toxicity to algae: Data not 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.

000000114	manoport informat							
Hazard class: Not applicable Pack		Packing group: No	ipping name: Not Regulated cking group: Not applicable 24 ERG Guide # Not applicable		Reportable Quantity: No		Marine pollutant: No	
Section 15	Regulatory information	tion						
A chemical is considered	to be listed if the CAS nur	nber for the anhydrous form i	s on the Inventory list.					
Compone	nt	TSCA	CERLCA (RQ)	RCRA code	DSL	NDSL	CA Prop 65	
Erbium Cloride		Not Listed	Not listed	Not listed	Not 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							
dent determinations of s	uitability and completeness	of information from all source	es to assure proper use	e of these materials an	d the safety and h	ealth of employees	ered by them and must make indeper s. NTP: National Toxicology Program osure, RE: Repeated Exposure,	

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### Section 1

Identification

INNOVATING SCIENCE<sup>®</sup> by Aldon 221 Rochester Street

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

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

"Cu	itting edge science for the classroom"	Avon, NY 14414-9409 (585) 226-6177	Not for drug, food or household use.
Product	PRASEODYMIUM CHLORIDE 0.1 MOLAR	SOLUTION	
Synonyms	Praseodymium Chloride, Water Solution		
Section 2	Hazards identification		
Pictograms Target orga GHS Class Eye irritatio Skin Irritatio GHS Label H316: Caus	d: WARNING s: No symbol required ans: None known ification: n (Category 2B) on (Category 3) information: Hazard statement: ses mild skin irritation. ses eye irritation.		Precautionary statement: P264: Wash hands thoroughly after handling. P305+P351+P338: IF IN EYES: Rinse cautiously with water for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P332+P317: If skin irritation occurs: Get medical help. P337+P317: If eye irritation persists: Get medical help.

### 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 Praseodymium Chloride	7732-18-5 10025-90-8	96.3% 3.7%	231-791-2 233-794-4			
Section 4 First aid measures	3					

**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 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 extinguishing agent suitable for type of surrounding 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. This chemical may react violently with strong oxidizers, generating a fire and explosion hazard. May react 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.

### Section 7 Handling and storage

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

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

Section 8	Exposure controls / personal protection					
Exposure Limits:	Chemical Name	ACGIH (TLV)	OSHA (PEL)	NIOSH (REL)		
	Praseodymium Chloride	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 and chemical pro	perties					
Appearance: Clear, Odor: None Odor threshold: Da pH: Data not availab Melting / Freezing point: Boiling point: Data n Flash point: Data n	pale green liquid. ata not available. ole. 115°C (239°F) not available	Evaporation ra Flammability ( Explosion limi Vapor pressur Vapor density Relative density	ate (Water = 1): Dat solid/gas): Data not tts: Lower / Upper:   e (mm Hg): 14 (wate (Air = 1): 0.7 (water) (Specific gravity): Data : Complete in water.	available. Data not available r)	Auto-ignitie Decompos Viscosity: Molecular f	•	e: Data not available ure: Data not available. ble. re
Section 10	Stability and reactivity						
Chemical stability:       Stab							
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 a carcinogen or potential carcinogen by OSHA.         Ca Prop 65: This product does not contain any chemicals known to the State of California to cause cancer or reproductive toxicity:         Reproductive toxicity: Data not available         STOT-single exposure: Data not available         STOT-repeated exposure: Data not available         Aportation hazard: Data not available         Potential health effects:         Inhalation: Data not available         Skin: Contact with skin may cause irritation and dryness.         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.							
Section 12       Ecological information         Toxicity to fish: Data not available       Toxicity to fish: Data not available         Toxicity to daphnia and other aquatic invertebrates: Data not available       Toxicity to algae: Data not available         Toxicity to algae: Data not available       Bioaccumulative potential: Data not available         Persistence and degradability: Data not available       Bioaccumulative potential: Data not 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 o different. Dispose of in acco						
Section 14	Transport information		,			Jeres a sin	
UN/NA number:       Not applicable       Shipping name:       Not Regulated         Hazard class:       Not applicable       Packing group:       Not applicable       Reportable Quantity:       No       Marine pollutant:       No         Exceptions:       Not applicable       2024 ERG Guide #       Not applicable       Reportable Quantity:       No       Marine pollutant:       No							
Section 15 Regulatory information							
	to be listed if the CAS number for t				Del	NDO	
Compone Praseodymium Chlor		TSCA Not Listed	CERLCA (RQ) Not listed	RCRA code Not listed	DSL Not Listed	NDSL Not listed	CA Prop 65 This product does not contain any chemicals known to the State of California to cause cancer or reproductive toxicity.
Section 16	Other information	the of one kind .		nformation and the second	upplomost to atta	r information anti-	and by them and must make indexes
The information contained	ed nerein is furnished without warrai	ntv of anv kind. Em	piovers should use this i	nformation only as a si	upplement to othe	r information dath	ered by them and must make indepen-

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