Chemical Product and Company Identification Section 1

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HOME SCIENCE TOOLS

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CHEMTREC 24 Hour Emergency USA Phone Number (800) 424-9300 1 703-741-5500 (from anywhere in the world). For laboratory and industrial use only. Not for drug, food or household use.

CORROSIVE STORAGE CODE WHITE

CALCIUM HYDROXIDE Product

Synonyms Hydrated Lime / Slaked Lime / Caustic Lime / Calcium Hydrate

Section 2 **Hazards Identification**

Signal word: DANGER Pictograms: GHS05

Target organs: Eyes, Skin, Respiratory system



GHS Classification:

Skin corrosion (Category 1B) Eye damage (Category 1)

GHS Label information: Hazard statement:

H314: Causes severe skin burns and eye damage.

Precautionary statement:

P260: Do not breathe dust

P264: Wash hands thoroughly after handling.

P280: Wear protective gloves/protective clothing/eye protection/face protection. P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated

clothing. Rinse skin with water/shower.

P363: Wash contaminated clothing before reuse.

P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P310: Immediately call a POISON CENTER or doctor.

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

P405: Store locked up.

P501: Dispose of contents/container to a licensed chemical disposal agency in accordance with local/regional/national regulations.

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		
Calcium hydroxide	;	1305-62-0	>98%	215-137-3		
·						

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 SEVERE BURNS AND EYE DAMAGE. Check for and remove contact lenses. Flush thoroughly with water for at least 15 minutes, lifting upper and lower evelids occasionally. Get immediate medical attention.

SKIN ABSORPTION: MAY BE HARMFUL IF ABSORBED THROUGH SKIN. CAUSES SKIN BURNS. Remove contaminated clothing. Flush thoroughly with mild soap and water. If irritation occurs, get medical attention.

Section 5 Fire Fighting Measures

Suitable Extinguishing Media: 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: 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.

Product Identifier: CRAYOLA® CHALK SDS ID: CRAY-028

* * *Section 1 - IDENTIFICATION* * *

Material Name: CRAYOLA® CHALK

Synonyms

CRAYOLA COLORED CHALK; CRAYOLA DRAWING CHALK; CRAYOLA MOLDED CHALK; CRAYOLA SIDEWALK CHALK/CRAYONS; CRAYOLA GIANT CHALK; CRAYOLA 3-D CHALK; CRAYOLA GLOW CHALK; CRAYOLA GLITTER CHALK; CRAYOLA TIE DYED CHALK; CRAYOLA CHALKBOARD CHALK; CRAYOLA ANTI-DUST LOW DUST CHALK;; PRODUCT CODE(S): 03-5037; 03-5039; 03-5053; 03-5044; 03-5061; 03-5063; 03-5064; 03-5066; 03-5067; 03-5068; 03-5071; 03-5072; 03-5073; 03-5078; 03-5079; 03-5080; 03-5081; 03-5090; 03-5091; 03-5092; 03-5093; 03-5101; 03-5102; 03-5103; 03-5104; 03-5105; 03-5106; 03-5107; 03-5108; 03-5111; 03-5200; 03-5201; 03-5202; 03-5203; 03-5204; 03-5205; 03-5206; 03-5207; 03-5208; 03-5209; 03-5210; 03-5211; 03-5212; 03-5213; 03-5214; 03-5215; 03-5216; 03-5217; 03-5218; 03-5220; 03-5228; 03-5229; 03-5230; 03-5231; 03-5800; 03-5801; 03-5802; 03-5803; 03-5804; 03-5805; 03-7603; 04-1907; 04-1950; 04-1951; 04-2542; 04-5033; 04-5350; 04-5355; 04-5358; 04-5718; 04-5719; 04-5727; 04-5873; 04-6010; 51-2004; 51-0312; 51-0400; 51-0403; 51-0404; 51-0816; 51-1200; 51-1202; 51-1206; 51-1206; 51-1216; 51-1503; 51-1515; 51-1524; 51-1650; 51-2010; 51-2012; 51-2016; 51-2024; 51-2048; 51-2515; 51-3505; 51-3515; 51-3523; 51-4005; 51-4105; 51-4107; 51-4108; 51-4109; 51-4110; 51-8015; 51-8020; 51-8052; 51-8064; 55-4403

Recommended Use

Arts and Crafts

Restrictions on Use

Easton, PA 18044

None known.

Manufacturer Information

CRAYOLA LLC Phone: 1-800-272-9652 1100 Church Lane

Mfg Contact: support@crayola.com

Emergency # Health Emergency - Call local POISON CONTROL

* * *Section 2 - HAZARD(S) IDENTIFICATION* * *

Classification in accordance with paragraph (d) of 29 CFR 1910.1200.

No classification is assigned, based on classification criteria. Review the entire data sheet for any additional information which did not result in a GHS classification.

GHS LABEL ELEMENTS

Symbol(s)

None

Signal Word

None

Hazard Statement(s)

None needed according to classification criteria.

Precautionary Statement(s)

Prevention

None needed according to classification criteria.

Response

None needed according to classification criteria.

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Product Identifier: CRAYOLA® CHALK SDS ID: CRAY-028

Storage

None needed according to classification criteria.

Disposal

Dispose in accordance with all applicable federal, state/regional and local laws and regulations.

Hazard(s) Not Otherwise Classified

No data available.

0% of the mixture consists of ingredient(s) of unknown acute toxicity.

* * *Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS* * *

CAS	Component	Percent
Not Available	Product has been certified as nontoxic by the Art & Creative Materials	100
	Institute, Inc. and conforms to ASM D 4236 standard practice for labeling art	
	materials for acute and chronic adverse health hazards.	

* * *Section 4 - FIRST-AID MEASURES* * *

Description of Necessary Measures

Inhalation

It is unlikely that emergency treatment will be required. Remove from exposure. Get medical attention, if needed.

Skin Contact

It is unlikely that emergency treatment will be required. If adverse effects occur, wash with soap or mild detergent and large amounts of water. Get medical attention, if needed.

Eve Contact

It is unlikely that emergency treatment will be required. Flush eyes with plenty of water for at least 15 minutes. Get medical attention immediately.

Ingestion

Contact local poison control center or physician immediately.

Most Important Symptoms/Effects

Acute

No information on significant adverse effects.

Delayed

No information on significant adverse effects.

Indication of Immediate Medical Attention and Special Treatment Needed, If Needed

Treat symptomatically and supportively.

* * *Section 5 - FIRE-FIGHTING MEASURES* * *

Suitable Extinguishing Media

carbon dioxide, regular dry chemical, regular foam, water

Unsuitable Extinguishing Media

None known.

Special Protective Equipment and Precautions for Firefighters

Slight fire hazard.

Special Hazards Arising from the Chemical

Hazardous Combustion Products

Combustion: oxides of carbon

Fire Fighting Measures

Move container from fire area if it can be done without risk. Avoid inhalation of material or combustion by-products. Stay upwind and keep out of low areas.

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Sensitivity to Mechanical Impact

No

Sensitivity to Static Discharge

Νc

* * *Section 6 - ACCIDENTAL RELEASE MEASURES* * *

Personal Precautions, Protective Equipment and Emergency Procedures

None

Methods and Materials for Containment and Cleaning Up

Collect spilled material in appropriate container for disposal.

* * *Section 7 - HANDLING AND STORAGE* * *

Precautions for Safe Handling

Use methods to minimize dust.

Conditions for Safe Storage, including any Incompatibilities

Store and handle in accordance with all current regulations and standards. See original container for storage recommendations. Keep separated from incompatible substances.

Incompatibilities: oxidizing materials

* * *Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION* * *

Component Exposure Limits

ACGIH, OSHA, and NIOSH have not developed exposure limits for any of this product's components.

Appropriate Engineering Controls

Based on available information, additional ventilation is not required.

Individual Protection Measures, such as Personal Protective Equipment

Eyes/Face Protection

Eye protection not required under normal conditions.

Skin Protection

Protective clothing is not required under normal conditions.

Glove Recommendations

Protective gloves are not required under normal conditions.

Respiratory Protection

No respirator is required under normal conditions of use.

Under conditions of frequent use or heavy exposure, respiratory protection may be needed.

* * *Section 9 - PHYSICAL AND CHEMICAL PROPERTIES* * *

Physical State:SolidAppearance:various colorsColor:various colorsPhysical Form:solidOdor:odorlessOdor Threshold:Not available

pH:Not availableMelting Point:Not availableBoiling Point:Not availableFlash Point:No flash pointVapor Pressure:Not applicableVapor Density (air = 1):Not applicableDensity:Not availableSpecific Gravity (water = 1):Not availableWater Solubility:InsolubleCoeff. Water/Oil Dist:Not available

VOC: Not available

Viscosity: Not available

Product Identifier: CRAYOLA® CHALK SDS ID: CRAY-028

* * *Section 10 - STABILITY AND REACTIVITY* * *

Reactivity

No hazard expected.

Chemical Stability

Stable at normal temperatures and pressure.

Possibility of Hazardous Reactions

Will not polymerize.

Conditions to Avoid

None reported.

Incompatible Materials

oxidizing materials

Hazardous Decomposition Products

oxides of carbon

Hazardous Decomposition

Combustion: oxides of carbon

* * *Section 11 - TOXICOLOGICAL INFORMATION* * *

Acute and Chronic Toxicity

Component Analysis - LD50/LC50

The components of this material have been reviewed in various sources and no selected endpoints have been identified.

RTECS Acute Toxicity (selected)

The components of this material have been reviewed and RTECS publishes no data as of the date on this document.

Information on Likely Routes of Exposure

Inhalation

No information on significant adverse effects.

Ingestion

No information on significant adverse effects.

Skin Contact

No information on significant adverse effects.

Eye Contact

No information on significant adverse effects.

Immediate Effects

No information on significant adverse effects.

Delayed Effects

No information on significant adverse effects.

Medical Conditions Aggravated by Exposure

No data available.

Irritation/Corrosivity Data

None

RTECS Irritation

The components of this material have been reviewed and RTECS publishes no data as of the date on this document.

Respiratory Sensitization

No information available for the product.

Product Identifier: CRAYOLA® CHALK SDS ID: CRAY-028

Dermal Sensitization

No information available for the product.

Germ Cell Mutagenicity

No information available for the product.

Carcinogenicity

Component Carcinogenicity

None of this product's components are listed by ACGIH, IARC, or DFG.

Reproductive Toxicity

No information available for the product.

Specific Target Organ Toxicity - Single Exposure

No target organs identified.

Specific Target Organ Toxicity - Repeated Exposure

No target organs identified.

Aspiration Hazard

No data available.

* * *Section 12 - ECOLOGICAL INFORMATION* * *

Ecotoxicity

No information available for the product.

Component Analysis - Aquatic Toxicity

No LOLI ecotoxicity data are available for this product's components.

Persistence and Degradability

No information available for the product.

Bioaccumulative Potential

No information available for the product.

Mobility in Soil

No information available for the product.

* * *Section 13 - DISPOSAL CONSIDERATIONS* * *

Disposal Methods

Dispose in accordance with all applicable regulations.

Disposal of Contaminated Packaging

Dispose of in accordance with all applicable federal, state and local regulations. Recycle if possible.

* * *Section 14 - TRANSPORT INFORMATION* * *

US DOT Information

Not regulated as a hazardous material.

TDG Information

Not regulated as dangerous goods.

IATA Information

Not regulated as dangerous goods.

ICAO Information

Not regulated as dangerous goods.

IMDG Information

Not regulated as dangerous goods.

Product Identifier: CRAYOLA® CHALK SDS ID: CRAY-028

* * *Section 15 - REGULATORY INFORMATION* * *

U.S. Federal Regulations

Component Analysis

None of this products components are listed under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 311/312 (40 CFR 370.21), SARA Section 313 (40 CFR 372.65), CERCLA (40 CFR 302.4), TSCA 12(b), or require an OSHA process safety plan.

SARA Section 311/312

Acute Health: No Chronic Health: No Fire: No Pressure: No Reactive: No

U.S. State Regulations

Component Analysis - State

None of this product's components are listed on the state lists from CA, MA, MN, NJ or PA.

Not regulated under California Proposition 65

Canada Regulations

This product has been classified in accordance with the criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

WHMIS Classification: Not a Controlled Product under Canada's Workplace Hazardous Material Information System.

Canadian WHMIS Ingredients Disclosure List

Components of this material have been checked against the Canadian WHMIS Ingredients Disclosure List and no components were found on the list.

Inventory

All of the components of this product are listed on the TSCA Inventory. All components of this product are listed on the DSL.

Component Analysis - Inventory

No information is available.

* * *Section 16 - OTHER INFORMATION* * *

NFPA Ratings: Health: 1 Fire: 1 Reactivity: 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

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Product Identifier: CRAYOLA® CHALK SDS ID: CRAY-028

Key / Legend

ACGIH - American Conference of Governmental Industrial Hygienists; ADR - European Road Transport; AU -Australia: BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CAS - Chemical Abstracts Service; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CN - China; CPR -Controlled Products Regulations: DFG - Deutsche Forschungsgemeinschaft: DOT - Department of Transportation: DSL - Domestic Substances List; EEC - European Economic Community; EINECS - European Inventory of Existing Commercial Chemical Substances; EPA - Environmental Protection Agency; EU - European Union; F - Fahrenheit; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDL - Ingredient Disclosure List; IDLH - Immediately Dangerous to Life and Health: IMDG - International Maritime Dangerous Goods: JP - Japan: Kow - Octanol/water partition coefficient; KR - Korea; LEL - Lower Explosive Limit; LOLI - List Of LIsts™ - ChemADVISOR's Regulatory Database; MAK - Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; NFPA - National Fire Protection Agency: NIOSH - National Institute for Occupational Safety and Health: NJTSR -New Jersey Trade Secret Registry: NTP - National Toxicology Program; NZ - New Zealand; OSHA - Occupational Safety and Health Administration: PH - Philippines: RCRA - Resource Conservation and Recovery Act: RID -European Rail Transport; RTECS - Registry of Toxic Effects of Chemical Substances®; SARA - Superfund Amendments and Reauthorization Act; STEL - Short-term Exposure Limit; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act; TWA - Time Weighted Average; UEL - Upper Explosive Limit; US -**United States**

Other Information

The information contained in this document express our current knowledge and experience, however cannot imply guarantee of any nature. Considering the variety of factors that can affect their process or application, the information on this sheet does not exempt the processors from the responsibility of executing their own tests and experiments.

End of Sheet CRAY-028

 Section 7 Handling & Storage Page E2 of E2

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

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

Section 8	Exposure Controls / Personal Protection					
Exposure Limits:	Chemical Name	ACGIH (TLV)	OSHA (PEL)	NIOSH (REL)		
Exposure Limits.	Calcium hydroxide	TWA: 5 mg/m ³	TWA: 5 mg/m ³ Respirable fraction	TWA: 5 mg/m ³		

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

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

Section 9 Physical & Chemical Properties

Appearance: Solid. White to yellow powder.

Odor: No odor.

Odor threshold: Data not available.

pH: Data not available

Melting / Freezing point: as CaO 2850°C (5162°F)

Boiling point: as CaO 579°C (1076°F)

Flash point: Not flammable

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): 2.24 Solubility(ies): 0.185% @ 0°C in water. Partition coefficient: Data not available
Auto-ignition temperature: Data not available
Decomposition temperature: Data not available.

Viscosity: Data not available. Molecular formula: Ca(OH)₂ Molecular weight: 74.10

Section 10 Stability & Reactivity

Chemical stability: Stable Hazardous polymerization: Will not occur.

Conditions to avoid: Absorbs CO₂ from air to form calcium carbonate.

Incompatible materials: Acids, fluorine.

Hazardous decomposition products: None known.

Section 11 Toxicological Information

Acute toxicity: Oral-rat LD50: 7340 mg/kg Skin corrosion/irritation: Skin-rabbit - Irritant.

Serious eye damage/irritation: Eyes-rabbit - Severe irritant Respiratory or skin sensitization: Data not available

Germ cell mutagenicity: Data not available

Carcinogenity: Data not available

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

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

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

Reproductive toxicity: Data not available STOT-single exposure: Data not available STOT-repeated exposure: Data not available Aspiration hazard: Data not available

Potential health effects:

Inhalation: Inhalation may cause sore throat, burning sensation.

Ingestion: Ingestion may cause burning sensation, abdominal pain, abdominal cramps, vomiting.

Skin: Contact with skin causes redness, roughness, pain, dry skin, burns, blisters.

Eves: Contact with eves causes redness, pain, severe deep burns.

Signs and symptoms of exposure: Exercise appropriate procedures to minimize potential hazards.

Additional information: RTECS #: EW2800000

Section 12 Ecological Information

Toxicity to fish: Gambusia affinis (fish, fresh water), LC50 = 220 mg/L/48 hours Toxicity to daphnia and other aquatic invertebrates: No data available

Toxicity to algae: No data available

Persistence and degradability: No data available

Mobility in soil: No data available

Bioaccumulative potential: No data available

PBT and vPvB assessment: No data available

Other adverse effects: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Section 13 Disposal Considerations

These disposal guidelines are intended for the disposal of catalog-size quantities only. Federal regulations may apply to empty container. State and/or local regulations may be different. Dispose of in accordance with all local, state and federal regulations or contract with a licensed chemical disposal agency.

Section 14 Transport Information (US DOT / CANADA TDG)

UN/NA number:Not applicableShipping name:Not RegulatedHazard class:Not applicablePacking group:Not applicable

I class: Not applicable Packing group: Not applicable Reportable Quantity: No Marine pollutant: No

Exceptions: Not applicable 2016 ERG Guide # Not applicable

Section 15 Regulatory Information

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

Component	TSCA	CERLCA (RQ)	RCRA code	DSL	NDSL	CA Prop 65
Calcium hydroxide	Listed	Not listed	D002	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 Revision Date: February 2, 2018 Supercedes: November 18, 2016

Chemical Product and Company Identification Section 1

665 Carbon Street Billings, MT 59102 800-860-6272

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Product	IODINE-POTASSIUM IODIDE SOLUTION
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Synonyms Iodine-Iodide / Iodine Solution / Iodine / Iodine Lugol's Dilute / Gram's Iodine Solution / Dilute Lugol's Solution

Section 2 Hazards Identification

Signal word: WARNING Pictograms: GHS07 / GHS09

Target organs: Thyroid, kidneys, endocrine system, skin, eyes,

reproductive system, central nervous system.



GHS Classification:

Acute toxicity, dermal (Category 4) Acute toxicity, inhalation (Category 4) Aquatic toxicity, acute (Category 1)

GHS Label information: Hazard statement(s):

H312: Harmful in contact with skin. H332: Harmful if inhaled. H400: Very toxic to aquatic life.

Precautionary statement(s):

P261: Avoid breathing mist/vapours/spray.

P271: Use only outdoors or in a well-ventilated area.

P273: Avoid release to the environment.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

P302+P352: IF ON SKIN: Wash with plenty of water and soap. P312: Call a POISON CENTER or doctor if you feel unwell.

P362+P364: Take off contaminated clothing and wash it before reuse.

P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P312: Call a POISON CENTER or doctor if you feel unwell.

P391: Collect spillage.

P501: Dispose of contents/container to a licensed chemical disposal agency in accordance with local/regional/national regulations.

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		7732-18-5	95.10%	231-791-2		
Potassium iodide		7681-11-0	3.05%	231-659-4		
Iodine		7553-56-2	1.85%	231-442-4		

Section 4 First Aid Measures

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

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

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

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

Section 5 **Fire Fighting Measures**

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

General information: In fire conditions, wear a NIOSH/MSHA-approved self-contained breathing apparatus and full protective gear. Use water spray to keep fire-exposed

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.

Page E2 of E2 Section 7 Handling & Storage

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

Handling: Use with adequate ventilation. Avoid contact with eyes, skin and clothing. Avoid ingestion. Do not inhale vapors, mist or spray. Wash thoroughly after handling. Remove and wash clothing before reuse.

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

Section 8	Exposure Controls / Personal Protection					
Exposure Limits:	Chemical Name	ACGIH (TLV)	OSHA (PEL)	NIOSH (REL)		
Exposure Limits:	lodine CAS # 7553-56-2	TWA: 0.01 ppm ^(IFV) / STEL: 0.1 ppm ^(V)	STEL: C 0.1 ppm/C 1 mg/m ³	STEL: C 0.1 ppm/C 1 mg/m ³		

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

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

Physical & Chemical Properties Section 9

Appearance: Deep amber liquid. Odor: Characteristic odor Odor threshold: Not applicable. pH: Data not available.

Melting / Freezing point: ~ 0°C (~ 32°F) [water] Boiling point: ~ 100°C (212°F) [water]

Flash point: Not flammable.

Evaporation rate (Water = 1): < 1 Flammability (solid/gas): Not applicable. Explosion limits: Lower / Upper: Not applicable

Vapor pressure (mm Hg): 14 [water] Vapor density (Air = 1): 0.7 [water]

Relative density (Specific gravity): 1.0 [water]

Solubility(ies): Complete in water.

Partition coefficient: (n-octanol / water): Not applicable

Auto-ignition temperature: Not applicable Decomposition temperature: Data not available.

Viscosity: Data not available. Molecular formula: Mixture Molecular weight: Mixture

Section 10 Stability & Reactivity

Chemical stability: Stable Hazardous polymerization: Will not occur.

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

Incompatibilities with other materials: Metals or unsaturated organic compounds, ammonia solutions or alkaline solutions of ammonia salts. Will form explosive nitrogen iodides when reacted with gaseous ammonia.

Hazardous decomposition products: Toxic iodide fumes

Section 11 **Toxicological Information**

Acute toxicity: Oral-Rat LD50: 14,000 mg/kg [lodine CAS # 7553-56-2]

Skin corrosion/irritation: Data not available Serious eve damage/irritation: Data not available

Respiratory or skin sensitization: Inhalation-rat 3.1 mg/m³ / 24 hour / 13 weeks - continuous [lodine CAS # 7553-56-2]

Germ cell mutagenicity: Data not available

Carcinogenity: Data not available

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

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

Reproductive toxicity: Data not available STOT-single exposure: Data not available STOT-repeated exposure: Data not available Aspiration hazard: Data not available

Potential health effects:

Inhalation: Symptoms include cough, wheezing, and labored breathing. Symptoms may be delayed.

Ingestion: Causes abdominal pain, diarrhea, nausea, and vomiting. Ingestion of levels of 2-3 grams of iodine may cause death.

Skin: Contact may cause redness and pain.

Eyes: Contact causes watering of the eyes, redness and pain.

Signs and symptoms of exposure: Effects of short-term exposure: Lachrymator. The substance is severely irritating to the eyes and the respiratory tract, and is irritating to the skin. Inhalation of the vapor may cause asthma-like reactions. Inhalation of the vapor may cause lung edema. The effects may be delayed. Effects of long-term exposure: Repeated or prolonged contact may cause skin sensitization in rate cases. Repeated or prolonged inhalation exposure may cause asthma-like syndrome. The substance may have effects on the thyroid. Specific data not available for this mixture. Exercise appropriate procedures to minimize potential hazards..

Additional information: RTECS #: NN1575000 [lodine CAS # 7553-56-2]

Section 12 **Ecological Information**

Toxicity to fish: Very toxic to aquatic life.

Toxicity to daphnia and other aquatic invertebrates: No data available

Toxicity to algae: No data available

Persistence and degradability: No data available 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.

Disposal Considerations

These disposal guidelines are intended for the disposal of catalog-size quantities only. Federal regulations may apply to empty container. State and/or local regulations may be different. Dispose of in accordance with all local, state and federal regulations or contract with a licensed chemical disposal agency.

Transport Information (US DOT / CANADA TDG) Section 14

UN/NA number: Not applicable Shipping name: Not Regulated Hazard class: Not applicable Packing group: Not applicable

Exceptions: Not applicable 2016 ERG Guide # Not applicable Reportable Quantity: No Marine pollutant: No

Section 15 **Regulatory Information**

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

Component	TSCA	CERLCA (RQ)	RCRA code	DSL	NDSL	CA Prop 65
lodine Potassium iodide	Listed Listed	Not listed Not listed	Not listed Not listed	Listed 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

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

Revision Date: February 27, 2018 Supercedes: February 22, 2018 Form 06/2015

Section 1 Chemical Product and Company Identification

HOME SCIENCE TOOLS

665 Carbon Street Billings, MT 59102 800-860-6272 www.homesciencetools.com

Product

CHEMTREC 24 Hour Emergency USA
Phone Number (800) 424-9300
1 703-741-5500 (from anywhere in the world).
For laboratory and industrial use only.
Not for drug, food or household use.

Page E1 of E2

METHYLENE BLUE CHLORIDE, 1% AQUEOUS SOLUTION

Synonyms | Methylene Blue Chloride, Water Solution

Section 2 Hazards Identification

Signal word: WARNING
Pictograms: No symbol required
Target organs: None known

GHS Classification:

Acute toxicity, oral (Category 5)

GHS Label information: Hazard statement(s):

H303: May be harmful if swallowed.

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 / Information on Ingredients						
Chemical Name	CAS#	%	EINECS			
Water Methylene blue chloride Sodium benzoate, as preservative	7732-18-5 61-73-4 532-32-1	98.8% 1.0% 0.2%	231-791-2 200-515-2 208-534-8			

Section 4 First Aid Measures

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

INHALATION: 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.

Section 7 Handling & Storage Page E2 of E2

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

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

Section 8	Exposure Controls / Personal Protection					
Exposure Limits:	Chemical Name	ACGIH (TLV)	OSHA (PEL)	NIOSH (REL)		
Exposure Limits.	Methylene blue 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/MSHA-approved respirator.

Section 9 Physical & Chemical Properties

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)
Flack point: Data not available

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 & 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 NTP.

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

Reproductive toxicity: Data not available STOT-single exposure: Data not available STOT-repeated exposure: Data not available Aspiration hazard: Data not available

Potential health effects:

Inhalation: 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

Toxicity to daphnia and other aquatic invertebrates: No data available

Toxicity to algae: No data available

Persistence and degradability: No data available

Mobility in soil: No data available

PBT and vPvB assessment: No data available

Other adverse effects: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Section 13 Disposal Considerations

These disposal guidelines are intended for the disposal of catalog-size quantities only. Federal regulations may apply to empty container. State and/or local regulations may be different. Dispose of in accordance with all local, state and federal regulations or contract with a licensed chemical disposal agency.

Section 14 Transport Information (US DOT / CANADA TDG)

UN/NA number: Not applicable

Hazard class: Not applicable

Shipping name: Not Regulated
Packing group: Not applicable

Hazard class: Not applicable Packing group: Not applicable Reportable Quantity: No Marine pollutant: No

Exceptions: Not applicable 2016 ERG Guide # Not applicable

Section 15 Regulatory Information

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

Component	TSCA	CERLCA (RQ)	RCRA code	DSL	NDSL	CA Prop 65
Methylene blue chloride	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.
Sodium benzoate	Listed	Not listed	Not listed	Listed	Not listed	

Section 16 Other Information

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

Form 06/2015 Revision Date: May 21, 2018 Supercedes: March 5, 2018



Safety Data Sheet

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012.

Date of issue: 09/26/2016 Revision date: 01/31/2018 Version: 1.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name : Sakrete Sands & Gravel

Product code : Not available

1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended use : Various

1.3. Details of the supplier of the safety data sheet

Sakrete of North America 625 Griffith Rd., Ste 100 Charlotte, NC 28217 T 866-725-7383

1.4. Emergency telephone number

Emergency number : For Hazardous Materials [or Dangerous Goods] Incident

Spill, Leak, Fire, Exposure, or Accident

Call CHEMTREC Day or Night

1-800-424-9300 [USÁ] / +1 703-527-3887 [CAN]

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification

Carc. 1A STOT RE 1

2.2. Label elements

GHS-US labeling

Hazard pictograms (GHS-US)



GHS08

Signal word (GHS-US) : Dange

Hazard statements (GHS-US) : May cause cancer. Causes damage to organs through prolonged or repeated exposure.

Precautionary statements (GHS-US) : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves/protective clothing/eye protection/face protection.

Do not breathe dust/fume/gas/mist/vapors/spray. Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product. If exposed or concerned: Get medical

advice/attention. Store locked up. Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3. Other hazards

No additional information available.

2.4. Unknown acute toxicity (GHS US)

Not applicable.

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable.

3.2. Mixtures

Name	Product identifier	%
Quartz	(CAS No) 14808-60-7	60 - 100

^{*} The exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200.





Safety Data Sheet

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012.

SECTION 4: First aid measures

Description of first aid measures

First-aid measures after inhalation : If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for

breathing. Get medical advice/attention if you feel unwell.

: In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing First-aid measures after skin contact

and shoes. Wash clothing before reuse. Call a physician if irritation develops and persists.

First-aid measures after eve contact In case of contact, immediately flush eves with plenty of water, Remove contact lenses, if worn,

If irritation persists, get medical attention.

First-aid measures after ingestion If swallowed, do NOT induce vomiting unless directed to do so by medical personnel. Never give

anything by mouth to an unconscious person. Get medical advice/attention if you feel unwell.

4.2. Most important symptoms and effects, both acute and delayed

: May cause respiratory tract irritation. Symptoms/injuries after inhalation

Symptoms/injuries after skin contact : May cause skin irritation. Symptoms may include redness, drying, defatting and cracking of the skin.

Symptoms/injuries after eye contact : May cause eye irritation. Symptoms may include discomfort or pain, excess blinking and tear

production, with possible redness and swelling.

: May be harmful if swallowed. May cause stomach distress, nausea or vomiting. Symptoms/injuries after ingestion

Indication of any immediate medical attention and special treatment needed

Symptoms may not appear immediately. In case of accident or if you feel unwell, seek medical advice immediately (show the label or SDS where possible).

SECTION 5: Firefighting measures

5.1. **Extinguishing media**

Suitable extinguishing media : Treat for surrounding material.

Unsuitable extinguishing media None known.

5.2. Special hazards arising from the substance or mixture

: Products of combustion may include, and are not limited to: oxides of carbon. Fire hazard

Advice for firefighters

Protection during firefighting : Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory

protection (SCBA).

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

: Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to General measures

unnecessary and unprotected personnel.

Methods and material for containment and cleaning up

: Contain spill, then place in a suitable container. Minimize dust generation. Do not flush to sewer For containment

or allow to enter waterways. Use appropriate Personal Protective Equipment (PPE).

: Vacuum or sweep material and place in a disposal container. Methods for cleaning up

Reference to other sections

See section 8 for further information on protective clothing and equipment and section 13 for advice on waste disposal.

SECTION 7: Handling and storage

Precautions for safe handling

Precautions for safe handling : Avoid contact with skin and eyes. Do not breathe dust. Do not swallow. Handle and open

container with care. Avoid dust formation. Good housekeeping is important to prevent accumulation of dust. The use of compressed air for cleaning clothing, equipment, etc, is not recommended. When using do not eat, drink or smoke.

Hygiene measures : Launder contaminated clothing before reuse. Wash hands before eating, drinking, or smoking.

7.2. Conditions for safe storage, including any incompatibilities

: Keep out of the reach of children. Keep container tightly closed. Avoid any dust build-up by Storage conditions frequent cleaning and suitable construction of the storage area. Do not store in an area

equipped with emergency water sprinklers.

7.3. Specific end use(s)

Not available.

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Safety Data Sheet

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Quartz (14808-60-7)						
ACGIH	ACGIH TWA (mg/m³)	0.025 mg/m³ (respirable fraction)				
OSHA	OSHA PEL (mg/m³)	(30)/(%SiO2 + 2) mg/m3 TWA (total dust) (250)/(%SiO2 + 5) mppcf TWA (respirable fraction) (10)/(%SiO2 + 2) mg/m3 TWA (respirable fraction)				

8.2. Exposure controls

Appropriate engineering controls : Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, etc.) below

recommended exposure limits.

Hand protection : Wear suitable waterproof gloves.

Eye protection : Wear approved eye protection (properly fitted dust- or splash-proof chemical safety goggles)

and face protection (face shield).

Skin and body protection : Wear suitable waterproof protective clothing.

Respiratory protection : A NIOSH approved dust mask or filtering facepiece is recommended in poorly ventilated areas

or when permissible exposure limits may be exceeded. Respirators should be selected by and used under the direction of a trained health and safety professional following requirements found in OSHA's respirator standard (29 CFR 1910.134) and ANSI's standard for respiratory

protection (Z88.2).

Environmental exposure controls : Maintain levels below Community environmental protection thresholds.

Other information : Do not eat, smoke or drink where material is handled, processed or stored. Wash hands carefully

before eating or smoking. Handle according to established industrial hygiene and safety practices.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Solid

Appearance : Granular powder Color No data available No data available Odor Odor threshold No data available : No data available Hq Melting point No data available Freezing point No data available Boiling point No data available No data available Flash point Relative evaporation rate (butyl acetate=1) : No data available Not flammable Flammability (solid, gas) **Explosion limits** : No data available Explosive properties No data available Oxidizing properties No data available : No data available Vapor pressure Relative density No data available Relative vapor density at 20 °C No data available No data available Solubility Partition coefficient n-octanol/water No data available Auto-ignition temperature : No data available Decomposition temperature No data available Viscosity No data available

9.2. Other information

Viscosity, kinematic

Viscosity, dynamic

No additional information available.

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No data available
No data available



Safety Data Sheet

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012.

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reaction known under conditions of normal use.

10.2. Chemical stability

Stable under normal storage conditions. Keep dry in storage.

10.3. Possibility of hazardous reactions

No dangerous reaction known under conditions of normal use.

10.4. Conditions to avoid

Heat. Incompatible materials.

10.5. Incompatible materials

Moisture. Wet cement is alkaline and incompatible with acid, ammonium salts and aluminum metal.

10.6. Hazardous decomposition products

May include, and are not limited to: oxides of carbon.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

Sakrete Sands & Gravel	
LD50 oral rat	No data available
LD50 dermal rat	No data available
LC50 inhalation rat	No data available
Skin corrosion/irritation	: Based on available data, the classification criteria are not met.
Serious eye damage/irritation	: Based on available data, the classification criteria are not met.
Respiratory or skin sensitization	: Based on available data, the classification criteria are not met.
Germ cell mutagenicity	: Based on available data, the classification criteria are not met.
Carcinogenicity	: May cause cancer.

Quartz (14808-60-7)	
IARC group	1 - Carcinogenic to humans
National Toxicology Program (NTP) Status	2 - Known Human Carcinogens
Demonstration to delta	Describes a scalable data the classification of taken as a treat

Reproductive toxicity : Based on available data, the classification criteria are not met. STOT-single exposure : Based on available data, the classification criteria are not met.

STOT-repeated exposure : Causes damage to organs through prolonged or repeated exposure. Respirable crystalline silica in the form of quartz or cristobalite from occupational sources is listed by the International Agency for Research on Cancer (IARC) and National Toxicology Program (NTP) as a lung carcinogen. Prolonged exposure to respirable crystalline silica has been known to cause silicosis, a lung disease, which may be disabling. While there may be a factor of individual susceptibility to a given exposure to respirable silica dust, the risk of contracting silicosis and the severity of the disease is clearly related to the amount of dust exposure and the length of

time (usually years) of exposure.

Aspiration hazard : Based on available data, the classification criteria are not met.

Symptoms/injuries after inhalation : May cause respiratory tract irritation.

Symptoms/injuries after skin contact : May cause skin irritation. Symptoms may include redness, drying, defatting and cracking of the skin.

Symptoms/injuries after eye contact : May cause eye irritation. Symptoms may include discomfort or pain, excess blinking and tear

production, with possible redness and swelling.

Symptoms/injuries after ingestion : May be harmful if swallowed. May cause stomach distress, nausea or vomiting.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : No ecological consideration when used according to directions. Normal dilution of this product to drains, sewers, septic systems and treatment plants is not considered environmentally harmful.

12.2. Persistence and degradability

Sakrete Sands & Gravel		
Persistence and degradability	Not established.	
01/31/2018	EN (English US)	4/5



Safety Data Sheet

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012.

12.3. Bioaccumulative potential

Sakrete Sands & Gravel	
Bioaccumulative potential	Not established.

12.4. Mobility in soil

No additional information available.

12.5. Other adverse effects

Effect on global warming : No known effects from this product.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations

: This material must be disposed of in accordance with all local, state, provincial, and federal regulations. The generation of waste should be avoided or minimized wherever possible.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Not regulated for transport

Additional information

Other information

: No supplementary information available.

Special transport precautions

: Do not handle until all safety precautions have been read and understood.

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

15.3. US State regulations

Sakrete Sands & Gravel	
State or local regulations	This product contains Crystalline Silica, Quartz and may also contain trace amounts of other chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

SECTION 16: Other information

Date of issue : 09/26/2016
Revision date : 01/31/2018
Other information : None.

Disclaimer: We believe the statements, technical information and recommendations contained herein are reliable, but they are given without warranty or guarantee of any kind. The information contained in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. It is the user's responsibility to satisfy oneself as to the suitability and completeness of this information for the user's own particular use.

01/31/2018 EN (English US) 5/5



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Section 1 Chemical Product and Company Identification

HOME SCIENCE TOOLS

665 Carbon Street Billings, MT 59102 800-860-6272 www.homesciencetools.com

Product

CHEMTREC 24 Hour Emergency USA
Phone Number (800) 424-9300
1 703-741-5500 (from anywhere in the world).
For laboratory and industrial use only.
Not for drug, food or household use.

POTASSIUM PERMANGANATE

Synonyms Chameleon Mineral

Section 2 Hazards Identification

Signal word: DANGER

Pictograms: GHS03 / GHS07 / GHS09

Target organs: None known



GHS Classification:

Oxidizing solid (Category 2)
Acute toxicity, ingestion (Category 4)
Aquatic acute (Category 1)

Aquatic chronic (Category 1)

GHS Label information: Hazard statement:

H272: May intensify fire; oxidizer. H302: Harmful if swallowed. H400: Very toxic to aquatic life.

H410: Very toxic to aquatic life with long lasting effects.

Precautionary statement:

P210: Keep away from heat/sparks/open flames/hot surfaces. No smoking.

P220: Keep away from clothing/incompatible/combustible materials.

P221: Take any precaution to avoid mixing with combustibles/acids/oxidizers.

P264: Wash hands thoroughly after handling.

P270: Do not eat, drink or smoke when using this product.

P273: Avoid release to the environment.

P280: Wear protective gloves/protective clothing/eye protection/face protection. P301+P330+P312: IF SWALLOWED: Rinse mouth. Call a POISON CENTER or doctor if you feel unwell.

P370+P378: In case of fire: Use water to extinguish.

P391: Collect spillage.

P501: Dispose of contents/container to a licensed chemical disposal agency in accordance with local/regional/national regulations.

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			
Potassium permanganate	7722-64-7	97-100%	231-760-3			
. 0						

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

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

SKIN ABSORPTION: CAUSES 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 water. Do not use dry chemicals or foams. CO2 or Halon® 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. Powerful oxidizing material, will accelerate burning when involved in a fire. Explosive in contact with sulfuric acid or hydrogen peroxide. May react explosively with hydrocarbons (fuels). May ignite combustibles (wood, paper, oil, clothing, etc.). Spontaneously flammable on contact with glycerin or ethylene glycol.

Section 6 Accidental Release Measures

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

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

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

Page E2 of E2 Section 7 Handling & Storage

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

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

Section 8	Exposure Controls / Personal Protection						
Exposure Limits:	Chemical Name	ACGIH (TLV)	OSHA (PEL)	NIOSH (REL)			
Exposure Limits.	Manganese and inorganic compounds, as Mn	TWA: 0.2 mg/m ³ (A4)	STEL: C 5 mg/m ³	TWA: 1 mg/m ³ / STEL: 3 mg/m ³			

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

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

Section 9 **Physical & Chemical Properties**

Appearance: Solid, shiny, dark purple crystals.

Odor: No odor.

Odor threshold: Data not available.

pH: 7-9 (20 g/L water)

Melting / Freezing point: Decomposes

Boiling point: Decomposes

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): 5.47

Relative density (Specific gravity): 2.7032 @ 25°C

Solubility(ies): 6.5 g/100 ml water @ 20°C

Partition coefficient: Data not available Auto-ignition temperature: Data not available **Decomposition temperature:** 150°C (302°F)

Viscosity: Data not available. Molecular formula: KMnO₄ Molecular weight: 158.04

Stability & Reactivity Section 10

Chemical stability: Stable Hazardous polymerization: Will not occur.

Conditions to avoid: Avoid exposure to incompatible materials and excessive temperatures.

Incompatible materials: Alcohols, arsenites, bromides, iodides, charcoal, hydrochloric acid, organic materials, ferrous or mercurous salts, hypophosphites, hyposulfites, sul-

fites, peroxides, oxalates, strong reducing agents, strong acids, formaldehyde, ethylene glycol, combustible organics, metal powders.

Hazardous decomposition products: Oxygen, oxides of potassium, oxides of manganese.

Section 11 **Toxicological Information**

Acute toxicity: Oral-rat LD50: 750 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.

Reproductive toxicity: Data not available STOT-single exposure: Data not available STOT-repeated exposure: Data not available Aspiration hazard: Data not available

Potential health effects:

Inhalation: Inhalation may cause burning sensation, cough, sore throat, shortness of breath, labored breathing. Symptoms may be delayed.

Ingestion: Ingestion causes burning sensation, abdominal pain, diarrhea, nausea, vomiting, shock or collapse.

Skin: Contact with skin causes redness, burns and pain.

Eyes: Contact with eyes causes redness, pain and severe deep burns. Signs and symptoms of exposure: See Potential health effects above.

Additional information: RTECS #: SD6475000

Section 12 **Ecological Information**

Toxicity to fish: Gambusia affinis (fish, fresh water), LC100 = 18 mg/L/24 hours

Toxicity to daphnia and other aquatic invertebrates: Daphnia magna (Crustacea), EC0 = >0.63 mg/L

Toxicity to algae: Anabaena sp. (Algae), EC50 = <0.5 mg/L/18 days/growth rate

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.

Disposal Considerations

These disposal guidelines are intended for the disposal of catalog-size quantities only. Federal regulations may apply to empty container. State and/or local regulations may be different. Dispose of in accordance with all local, state and federal regulations or contract with a licensed chemical disposal agency.

Section 14 Transport Information (US DOT / CANADA TDG)

UN/NA number: UN1490 Shipping name: Potassium permanganate

Reportable Quantity: 100 lbs (45.4 kg) Hazard class: 5.1 Packing group: || Marine pollutant: No

2016 ERG Guide # 140 **Exceptions:** Limited quantity equal to or less than 1 Kg

Section 15 **Regulatory Information**

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
Potassium permanganate	Listed	100 lbs (45.4 kg)	D001	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

Revision Date: March 22, 2018 Supercedes: February 20, 2017 Form 06/2015

CORROSIVE STORAGE CODE WHITE

Section 1 Chemical Product and Company Identification

HOME SCIENCE TOOLS

665 Carbon Street Billings, MT 59102 800-860-6272 www.homesciencetools.com

Product Synonyms CHEMTREC 24 Hour Emergency USA Phone Number (800) 424-9300 1 703-741-5500 (from anywhere in the world). For laboratory and industrial use only.

Not for drug, food or household use.

HYDROCHLORIC ACID, 32-36%

Section 2 Hazards Identification

Signal word: DANGER Pictograms: GHS05 / GHS07

Target organs: Respiratory system, skin, eyes, lungs.





Muriatic Acid; Hydrogen Chloride

GHS Classification:

Serious eye damage (Category 1) Skin corr. (Category 1B) STOT SE (Category 3)

GHS Label information: Hazard statement(s):

H314: Causes severe skin burns and eye damage.

H335: May cause respiratory irritation.

Precautionary statement(s):

P260: Do not breathe mist/vapours/spray. P264: Wash hands thoroughly after handling.

P271: Use only outdoors or in a well-ventilated area.

P280: Wear protective gloves/protective clothing/eye protection/face protection. P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated

clothing. Rinse skin with water/shower.

P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310: Immediately call a POISON CENTER or doctor.

P363: Wash contaminated clothing before reuse.

P403/233: Store in a well-ventilated place. Keep container tightly closed.

P405: Store locked up

P501: Dispose of contents/container to a licensed chemical disposal agency in accordance with local/regional/national regulations.

Hazards not otherwise classified:

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

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

Section 4 First Aid Measures

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

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

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

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

Section 5 Fire Fighting Measures

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

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

Specific Hazards: During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Contact with metals produce hydrogen, which is flammable and may produce explosive mixtures with air.

Section 6 Accidental Release Measures

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

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

Containment and Cleanup: Neutralize spill with sodium bicarbonate or calcium hydroxide, absorb with inert dry material, sweep or vacuum up and place in a suitable container for proper disposal. Wash spill area with soap and water.

Page E1 of E2

Page E2 of E2 Section 7 Handling & Storage

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

Conditions for Safe Storage: Store in a cool, dry, well-ventilated area away from incompatible substances. Protect from physical damage and sunlight. Protect from moisture.

Section 8	Exposure Controls / Personal Protection						
Exposure Limits:	Chemical Name	ACGIH (TLV)	OSHA (PEL)	NIOSH (REL)			
Exposure Limits.	Hydrogen chloride	STEL: C 2 ppm / C 2.98 mg/m ³	STEL: C 5 ppm / C 7 mg/m ³	STEL: C 5 ppm / C 7 mg/m ³			

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

Respiratory protection: Use a chemical fume hood and/or wear a NIOSH/MSHA-approved respirator.

Physical & Chemical Properties Section 9

Appearance: Clear, colorless, fuming liquid.

Odor: Pungent odor.

Odor threshold: Data not available.

pH: <1.5 acidic, in solution.

Melting / Freezing point: Approx. -45°C (-49°F) **Boiling point:** 81.11-85°C (178-185°F)

Flash point: Not flammable.

Evaporation rate (= 1): Data not available. Flammability (solid/gas): Data not available. Explosion limits: Upper/Lower: Data not available. Vapor pressure (mm Hg): Approx. 25 @ 20°C (68°F)

Vapor density (Air = 1): Data not available. Relative density (Specific gravity): Approx. 1.16 @ 20°C

Solubility(ies): Soluble 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: HCI Molecular weight: 36.46

Section 10 Stability & Reactivity

Chemical stability: Stable Hazardous polymerization: Will not occur.

Conditions to avoid: Containers may burst when heated. Avoid contact with water.

Incompatible materials: Metals, bases, active metals, alkali metals, oxidizing agents, hydroxides, amines, carbonates, cyanides, sulfides, sulfites,

formaldehyde

Hazardous decomposition products: Hydrogen chloride gas.

Section 11 **Toxicological Information**

Acute toxicity: Data not available

Skin corrosion/irritation: Skin-rabbit - causes burns.

Serious eye damage/irritation: Eyes-rabbit - Corrosive to eyes.

Respiratory or skin sensitization: Data not available

Germ cell mutagenicity: Data not available

Carcinogenity: Data not available

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

IARC: Group 3: Not classifiable as to its carcinogenicity to humans.

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

Reproductive toxicity: Data not available

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

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

Potential health effects:

Inhalation: May be harmful if inhaled. Material is extrememy destructive to the tissue of the mucous membranes and upper respiratory tract.

Ingestion: May be harmful if swallowed.

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

Eves: Causes eve burns

Signs and symptoms of exposure: Burning sensation, cough, wheezing, laryngitis, shortness of breath, spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema. Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin.

Additional information: RTECS #: MW4025000

Section 12 **Ecological Information**

Toxicity to fish: LC50 - Gambusia affinis (Mosquito fish) - 282 mg/l - 96 h (Hydrochloric acid)

Toxicity to daphnia and other aquatic invertebrates: No data available

Toxicity to algae: No data available

Persistence and degradability: No data available Bioaccumulative potential: No data available Mobility in soil: No data available PBT and vPvB assessment: No data available

Other adverse effects: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Section 13 **Disposal Considerations**

These disposal guidelines are intended for the disposal of catalog-size quantities only. Federal regulations may apply to empty container. State and/or local regulations may be different. Dispose of in accordance with all local, state and federal regulations or contract with a licensed chemical disposal agency.

Section 14 Transport Information (US DOT / CANADA TDG)

UN/NA number: UN1789 Shipping name: Hydrochloric acid

Hazard class: 8 Packing group: II Reportable Quantity: No Marine pollutant: No

Exceptions: Limited quantity equal to or less than 1 Lt 2016 ERG Guide # 157

Section 15 **Regulatory Information**

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
Hydrochloric acid	Listed	Not listed	D002	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

Revision Date: February 19, 2018 Supercedes: February 17, 2017 Form 06/2015

Section 1 Chemical Product and Company Identification

665 Carbon Street Billings, MT 59102 800-860-6272

www.homesciencetools.com

HOME SCIENCE TOOLS

CHEMTREC 24 Hour Emergency USA Phone Number (800) 424-9300 1 703-741-5500 (from anywhere in the world).

For laboratory and industrial use only.

Not for drug, food or household use.

Product	BIURET TEST REAGENT (for protein test)
_	

Synonyms Biuret Reagent Solution / Biuret Reagent / Biuret Solution

Section 2 Hazards Identification

Signal word: DANGER Pictograms: GHS05

Target organs: Respiratory tract, gastrointestinal tract, eyes, skin.



GHS Classification:

Skin corrosion (Category 1A) Eye damage (Category 1)

GHS Label information: Hazard statement:

H314: Causes severe skin burns and eye damage.

Precautionary statement:

P260: Do not breathe mist/vapours/spray. P264: Wash hands thoroughly after handling.

P280: Wear protective gloves/protective clothing/eye protection/face protection. P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

P363: Wash contaminated clothing before reuse.

P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for

breathing.

P310: Immediately call a POISON CENTER or doctor.

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P405: Store locked up.

P501: Dispose of contents/container to a licensed chemical disposal agency in accordance with local/regional/national regulations.

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	7732-18-5	90.03%	231-791-2				
Sodium hydroxide	1310-73-2	6.42%	215-185-5				
Potassium sodium tartrate	6381-59-5	2.00%	206-156-8				
Cupric sulfate, pentahydrate	7758-99-8	1.18%	231-847-6				
Potassium iodide	7681-11-0	0.35%	231-659-4				
Ethylenediaminetetraacetic acid	6381-92-6	0.02%	None assigned.				

Section 4 First Aid Measures

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

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

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

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

Section 5 Fire Fighting Measures

Suitable Extinguishing Media: Dry chemical, water spray, alcohol foam. Can react with carbon dioxide to form sodium carbonate.

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. Contact with metals can generate hydrogen gas.

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.

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Page E2 of E2 Section 7 Handling & Storage

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

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

Section 8	Exposure Controls / Personal Protection						
Exposure Limits:	Chemical Name	ACGIH (TLV)	OSHA (PEL)	NIOSH (REL)			
	Sodium hydroxide	STEL: C 2 mg/m ³	TWA: 2 mg/m ³	STEL: C 2 mg/m ³			

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

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

Physical & Chemical Properties Section 9

Appearance: Clear, colorless liquid. Odor: No odor. Odor threshold: Not applicable.

pH: Data not available

Melting / Freezing point: ~ 0°C (~ 32°F) [water]

Flash point: Not flammable.

Boiling point: ~ 100°C (212°F) [water]

Solubility(ies): Complete in water.

Evaporation rate (Water = 1): < 1 Flammability (solid/gas): Not applicable. Auto-ignition temperature: Not applicable Explosion limits: Lower / Upper: Not applicable

Vapor pressure (mm Hg): 14 [water] Vapor density (Air = 1): 0.7 [water]

Relative density (Specific gravity): 1.0 [water]

Partition coefficient: (n-octanol / water): Not applicable

Decomposition temperature: Data not available. Viscosity: Data not available.

Molecular formula: Mixture Molecular weight: Mixture

Section 10 Stability & Reactivity

Chemical stability: Stable Hazardous polymerization: Will not occur.

Conditions to avoid: Can react with carbon dioxide to form sodium carbonate.

Incompatible materials: Metals, acids, organic compounds, organic nitro compounds.

Hazardous decomposition products: Sodium oxide. Reacts with metals to form flammable and explosive hydrogen gas.

Section 11 **Toxicological Information**

Acute toxicity: Data not available

Skin corrosion/irritation: Skin - rabbit - Causes severe burns. - 24 h [Sodium hydroxide] Serious eye damage/irritation: Eyes - rabbit - Severe eye irritation - 24 h [Sodium hydroxide]

Respiratory or skin sensitization: Data not available

Germ cell mutagenicity: Data not available

Carcinogenity: Data not available

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

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

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

Reproductive toxicity: Data not available STOT-single exposure: Data not available STOT-repeated exposure: Data not available Aspiration hazard: Data not available

Potential health effects:

Inhalation: May be harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.

Ingestion: May be harmful if swallowed.

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

Eyes: Causes eye burns. Causes severe eye burns

Signs and symptoms of exposure: Spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary

edema, burning sensation, cough, wheezing, laryngitis, shortness of breath, headache, nausea, vomiting. Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin.

Additional information: RTECS #: WB4900000 [Sodium hydroxide]

Section 12 **Ecological Information**

Toxicity to fish: LC50 - Gambusia affinis (Mosquito fish) - 125 mg/l - 96 h [Sodium hydroxide]

Toxicity to daphnia and other aquatic invertebrates: Immobilization EC50 - Daphnia - 40.38 mg/l - 48 h [Sodium hydroxide]

Toxicity to algae: No data available

Persistence and degradability: No data available Bioaccumulative potential: No data available Mobility in soil: No data available PBT and vPvB assessment: No data available

Other adverse effects: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Disposal Considerations

These disposal guidelines are intended for the disposal of catalog-size quantities only. Federal regulations may apply to empty container. State and/or local regulations may be different. Dispose of in accordance with all local, state and federal regulations or contract with a licensed chemical disposal agency.

Section 14 Transport Information (US DOT / CANADA TDG)

UN/NA number: UN1824 Shipping name: Sodium hydroxide solution

Hazard class: 8 Packing group: || Reportable Quantity: 1,000 lbs (454 kg) Marine pollutant: No

2016 ERG Guide # 154 **Exceptions:** Limited quantity equal to or less than 1 L

Section 15 **Regulatory Information**

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
Sodium hydroxide	Listed	1,000 lbs (454 kg)	D002	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

Revision Date: January 31, 2018 Supercedes: November 2, 2016 Form 06/2015

Chemical Product and Company Identification Section 1

665 Carbon Street Billings, MT 59102 800-860-6272

www.homesciencetools.com

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

1 703-741-5500 (from anywhere in the world).

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

Product	1% PHENOLPHTHALEIN IN ISOPROPYL ALCOHOL SOLUTION

Synonyms 1% Phenolphthalein in IPA

HOME SCIENCE TOOLS

Section 2 **Hazards Identification**

Signal word: DANGER

Pictograms: GHS02 / GHS07 / GHS08

Target organs: Central nervous system, Liver, Kidneys.







GHS Classification:

Flammable liquid (Category 2) Eye irritation (Category 2) STOT-SE (Category 2) Mutagenicity (Category 2) Carcinogen (Category 1B) Reproductive toxicity (Category 2)

GHS Label information: Hazard statement(s):

H225: Highly flammable liquid and vapour.

H319: Causes serious eye irritation.

H336: May cause drowsiness or dizziness. H341: Suspected of causing genetic defects.

H350: May cause cancer.

H361: Suspected of damaging fertility.

Precautionary statement(s):

P201: Obtain special instructions before use

P202: Do not handle until all safety precautions have been read and understood.

P210: Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P233: Keep container tightly closed.

P240: Ground/bond container and receiving equipment.

P241: Use explosion-proof electrical/ventilating/lighting equipment.

P242: Use only non-sparking tools.

P243: Take precautionary measures against static discharge.

P260: Do not breathe fume/gas/mist/vapours/spray.

P264: Wash hands thoroughly after handling.

P271: Use only outdoors or in a well-ventilated area.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

P303+P361+P353: IF ON SKIN (or hair): Remove/Take off immediately all

contaminated clothing. Rinse skin with water/shower.

P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

P312: Call a POISON CENTER or doctor/physician if you feel unwell.

P308+P313: If exposed or concerned: Get medical advice/attention.

P337+P313: If eye irritation persists: Get medical advice/attention.

P362: Take off contaminated clothing and wash before reuse.

P370+P378: In case of fire: Use dry chemical, alcohol foam, carbon dioxide or water spray to extinguish.

P403+P235: Store in a well-ventilated place. Keep cool.

P501: Dispose of contents/container to a licensed chemical disposal agency in

accordance with local/regional/national regulations.

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				
Isopropyl alcohol Water Phenolphthalein		67-63-0 7732-18-5 77-09-8	70% 29% 1%	200-661-7 231-791-2 201-004-7				

Section 4 First Aid Measures

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

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

EYE CONTACT: CAUSES 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: Carbon dioxide, dry chemical, dry sand, alcohol foam.

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

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

Accidental Release Measures

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

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

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

Page E1 of E2

Page E2 of E2 Section 7 Handling & Storage

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

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

Section 8	Exposure Controls / Personal Protection						
Exposure Limits:	Chemical Name	ACGIH (TLV)	OSHA (PEL)	NIOSH (REL)			
	Isopropanol	TWA: 200 ppm / STEL: 400 ppm	TWA: 400 ppm / 980 mg/m ³	TWA: 400 ppm / STEL: 500 ppm			

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

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

Physical & Chemical Properties Section 9

Appearance: Clear, colorless liquid. Odor: Aromatic odor Odor threshold: Data not available

pH: Data not available

Melting / Freezing point: Approximately -50°C (-58°F)*

Boiling point: Approximately 85-100°C (185-212°F)* Flash point: 21.7°C (71°F) TCC [70% IPA]

Evaporation rate (Butyl acetate = 1): >1

Flammability (solid/gas): Data not available.

Explosion limits: Lower / Upper: 2% / 12% [Pure IPA] Vapor pressure (mm Hg): 33 mm @20°C [Pure IPA]

Vapor density (Air = 1): 2.1 [Pure IPA] Relative density (Specific gravity): 0.8* Solubility(ies): Complete in water.

Partition coefficient: (n-octanol / water): Data not available Auto-ignition temperature: 399°C (750°F) ASTM-E659-78 [Pure IPA] Decomposition temperature: Data not available.

Viscosity: Data not available. Molecular formu la: Mixture Molecular weight: Mixture

*[70% IPA]

Stability & Reactivity Section 10

Chemical stability: Stable Hazardous polymerization: Will not occur. Conditions to avoid: Excessive temperatures, heat, sparks, open flame and other sources of ignition.

Incompatible materials: Strong oxidizing materials, caustics, aluminums, metals, nitroform, oleum, chlorinated compounds can react vigorously with this alcohol.

Hazardous decomposition products: Oxides of carbon.

Section 11 **Toxicological Information**

Acute toxicity: Oral-rat LD50: >2000 mg/kg; Inhalation-rat LC50: >5000 ppm/1hr [Isopropanol]

Skin corrosion/irritation: Skin-rabbit - Slight irritant. Serious eye damage/irritation: Eyes-rabbit - Severe irritant. Respiratory or skin sensitization: Data not available

Germ cell mutagenicity: Data not available

Carcinogenity: Data not available

NTP: Reasonably anticipated to be a human carcinogen. [Phenolphthalein] IARC classified: Group 2B: Possibly carcinogenic to humans. [Phenolphthalein]

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: 🛆 WARNING! :This product can expose you to Phenolphthalein, which is known to the State of California to cause cancer

Reproductive toxicity: Data not available STOT-single exposure: The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with narcotic effects.

STOT-repeated exposure: Data not available

Aspiration hazard: Yes Potential health effects:

Inhalation: Inhalation of high vapor concentrations may cause central nervous system depression resulting in dizziness, drowsiness, nausea, vomiting, inability to concentrate and irritation of the throat. Continued inhalation may result in unconsciousness and death.

Ingestion: Aspiration hazard. Liquid can directly enter the lungs (aspirated) when swallowed or vomited. Serious lung damage and possible fatal chemical pneumonia can develop if this occurs.

Skin: Prolonged or repeated contact may cause irritation and drying, cracking and defatting of the skin which can lead to dermatitis.

Eyes: Contact causes burning sensation, redness, swelling, and/or blurred vision.

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

Additional information: RTECS #: NT8050000 [Isopropanol] / SM8380000 [Phenolphthalein]

Section 12 **Ecological Information**

Toxicity to fish: Pimephales promelas (Fish, fresh water) LC50: 9640 mg/l/96 hours [Isopropanol]

Toxicity to daphnia and other aquatic invertebrates: Daphnia magna (Crustacia), EC50 = >10,000 mg/l/24 hours [Isopropanol]

Toxicity to algae: Scenedesmus quadricauda (Algae), LOEC50 = 1,800 mg/l/7 days [Isopropanol] Persistence and degradability: No data available Bioaccumulative potential: No data available Mobility in soil: No data available PBT and vPvB assessment: No data available

Other adverse effects: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Disposal Considerations

These disposal guidelines are intended for the disposal of catalog-size quantities only. Federal regulations may apply to empty container. State and/or local regulations may be different. Dispose of in accordance with all local, state and federal regulations or contract with a licensed chemical disposal agency.

Transport Information (US DOT / CANADA TDG) Section 14

UN/NA number: UN1219 Shipping name: Isopropanol solution

Hazard class: 3 Packing group: || Reportable Quantity: No Marine pollutant: No

2016 ERG Guide # 129 **Exceptions:** Limited quantity equal to or less than 1 L

Section 15 **Regulatory Information**

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
Isopropyl alcohol	Listed	Not listed	Not listed	Listed	Not listed	⚠ WARNING -Cancer and Reproductive Harm - www.P65Warnings.ca.gov.
Phenolphthalein	Listed	Not listed	Not listed	Listed	Not listed	

Section 16 Other Information

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

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