RICCA CHEMICAL COMPANY®

Safety Data Sheet

Classified According to OSHA Hazard Communication Standard (HCS)

SECTION 1: Identification

1.1. Product Identifier

Trade Name or Designation: Color Standard, APHA / Hazen (Platinum-Cobalt), Color = 100

Product Number: 2230.100

Other Identifying Product Numbers: 2230.100-1, 2230.100-100, 2230.100-16, 2230.100-32, 2230.100-4, R2230100-50C

1.2. Recommended Use and Restrictions on Use

General Laboratory Reagent

1.3. Details of the Supplier of the Safety Data Sheet

Company: Ricca Chemical Company
Address: 448 West Fork Drive

Arlington, TX 76012 USA

Telephone: 888-467-4222

1.4. Emergency Telephone Number (24 hours)

CHEMTREC (USA)	800-424-9300
CHEMTREC (International)	1+ 703-527-3887

SECTION 2: Hazard(s) Identification

2.1. Classification of the Substance or Mixture

For the full text of the Hazard and Precautionary Statements listed below, see Section 16.

This product is not categorized as hazardous in any GHS hazard class.

2.2. GHS Label Elements

Pictograms: None Required.

Signal Word: None Required.

Hazard Statements: None Required.

Precautionary Statements: None Required.

2.4. Hazards not Otherwise Classified or Covered by GHS

Data not available.

SECTION 3: Composition / Information on Ingredients

3.1. Components of Substance or Mixture

Chemical Name	Formula	Molecular Weight	CAS Number	Weight%
Water	H_2O	18.01 g/mol	7732-18-5	99.09
Hydrochloric Acid	HCl	36.46 g/mol	7647-01-0	0.87
Potassium Hexachloroplatinate (IV)	K_2PtCl_6	485.99 g/mol	16921-30-5	< 0.1
Cobalt (II) Chloride Hexahydrate	$CoCl_2 \cdot 6H_2O$	237.93 g/mol	7791-13-1	< 0.1

SECTION 4: First-Aid Measures

4.1. General First Aid Information

Eye Contact: May cause slight irritation.

Inhalation: Not expected to require first aid. If necessary, remove to fresh air.

Skin Contact: May cause slight irritation.

Ingestion: Dilute with water or milk. Do not induce vomiting. Call a physician if necessary.

4.2. Most Important Symptoms and Effects, Acute and Delayed

Contains Cobalt Chloride, a possible carcinogen according to IARC (International Agency for Research on Cancer). May irritate eyes and skin. Wash areas of contact with water. If ingested, dilute with water. Do not induce vomiting. Call a physician if necessary. EYE CONTACT: May cause slight irritation. SKIN CONTACT: May cause slight irritation. CHRONIC EFFECTS / CARCINOGENICITY: Chronic exposure may affect thyroid, heart, lungs and kidneys due to Cobalt.

4.3. Medical Attention or Special Treatment Needed

Irrigate immediately with large quantity of water for at least 15 minutes. Call a physician if irritation develops. Remove to fresh air. Give artificial respiration if necessary. If breathing is difficult, give oxygen. Wash areas of contact with soap and water for at least 15 minutes. Call a physician if irritation develops. Dilute with water or milk. Do not induce vomiting. Call a physician if necessary.

SECTION 5: Fire-Fighting Measures

5.1. Extinguishing Media

Use any means suitable for extinguishing surrounding fire (water or water spray). Neutralize with soda ash or slaked lime.

5.2. Specific Hazards Arising from the Substance or Mixture

Not considered to be a fire or explosion hazard.

5.3. Special Protective Equipment for Firefighters

Use protective clothing and breathing equipment appropriate for the surrounding fire.

SECTION 6: Accidental Release Measures

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

Wear appropriate PPE for the size and nature of the spill. As a general rule, wear safety glasses and gloves.

6.2. Cleanup and Containment Methods and Materials

Cover the spill with Sodium Carbonate or a soda ash-slaked lime mixture (50:50). Mix and add water to form slurry. Decant the liquid to the drain with excess water. Treat the solid residue as normal refuse. Wash site with soda ash solution. Always dispose of in accordance with local regulations.

SECTION 7: Handling and Storage

7.1. Precautions for Safe Handling and Storage Conditions

As with all chemicals, wash hands thoroughly after handling. Avoid contact with eyes and skin. Protect from freezing and physical damage.

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SECTION 8: Exposure Controls / Personal Protection

8.1 Control Parameters

Chemical Name	Limit Type	Country	Exposure Limit	Information Source
Potassium Hexachloroplatinate (IV) (16	TLV-TWA	USA	"0.002 mg/m³ TWA (as Pt)" As Platinum soluble salts [RR-00046-4]	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Potassium Hexachloroplatinate (IV) (16	TWA	USA	"0.002 mg/m³ TWA (as Pt)" As Platinum, soluble salts [RR-00046-4]	U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)
Potassium Hexachloroplatinate (IV) (16	TLV-TWA	USA	0.002 mg/m³ TWA (as Pt)	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Potassium Hexachloroplatinate (IV) (16	TWA	USA	0.002 mg/m³ TWA (as Pt)	U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)
Hydrochloric Acid (7647-01-0)	TLV-Ceiling	USA	2 ppm Ceiling	ACGIH - Threshold Limit Values - Ceilings (TLV-C)
Hydrochloric Acid (7647-01-0)	PEL-Ceiling	USA	5 ppm Ceiling; 7 mg/m³ Ceiling	U.S. - OSHA - Final PELs - Ceiling Limits
Cobalt (II) Chloride Hexahydrate (7791	TLV-TWA	USA	"0.02 mg/m³ TWA (inhalable particulate matter, as Co)" As Cobalt inorganic compounds [RR-02516-1]	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Cobalt (II) Chloride Hexahydrate (7791	TLV-TWA	USA	"0.02 mg/m³ TWA (inhalable particulate matter, as Co)" As Cobalt inorganic compounds [RR-02516-1]	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Cobalt (II) Chloride Hexahydrate (7791	TLV-TWA	USA	0.02 mg/m³ TWA (inhalable particulate matter, as Co)	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Cobalt (II) Chloride Hexahydrate (7791	TLV-TWA	USA	"0.02 mg/m³ TWA (inhalable particulate matter, as Co)" As Cobalt inorganic compounds [RR-02516-1]	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)

Cobalt (II) Chloride Hexahydrate (7791 TLV-TWA	USA	"0.02 mg/m³ TWA (inhalable particulate matter, as Co)" As Cobalt inorganic compounds [RR-02516-1]	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)

8.2. Exposure Controls

Engineering Controls: No specific controls are needed. Normal room ventilation is adequate.

Respiratory Protection: Normal room ventilation is adequate.

Skin Protection: Chemical resistant gloves.

Eye Protection: Safety glasses or goggles.

8.3. Personal Protective Equipment

Normal room ventilation is adequate. Chemical resistant gloves. Safety glasses or goggles.

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SECTION 9: Physical and Chemical Properties

9.1. Basic Physical and Chemical Properties

Appearance: Yellow-brown liquid
Physical State: Liquid
Odor: Data not available.
Odor Threshold: Data not available.
pH: <1
Melting/Freezing Point: 0.0°C
Initial Boiling Point/Range: 100°C - 100°C
Flash Point: Data not available.
Evaporation Rate: Data not available.
Flammability: Data not available.
Flammability/Explosive Limits: Data not available.
Vapor Pressure: Data not available.
Vapor Density: Data not available.
Relative Density: 1.01
Solubility: Miscible
Partition Coefficient: Data not available.
Auto-Ignition Temperature: Data not available.
Decomposition Temperature: Data not available.
Viscosity: Data not available.
Explosive Properties: Data not available.
Oxidizing Properties: Data not available.

SECTION 10: Stability and Reactivity

10.1. Reactivity and Chemical Stability

Stable under normal conditions of use and storage.

10.2. Possibility of Hazardous Reactions

Data not available.

10.3. Conditions to Avoid and Incompatible Materials

Most metals, Alkalis, active metals, Cyanides, Sulfides, Sulfites, Metal Oxides, Formaldehyde. Reacts with most metals to produce Hydrogen gas which may explode.

10.4. Hazardous Decomposition Products

Will not occur.

SECTION 11: Toxicological Information

11.1. Information on Toxicological Effects

Acute Toxicity - Oral Exposure:

Not applicable.

Acute Toxicity - Dermal Exposure:

Not applicable.

Acute Toxicity - Inhalation Exposure:

Not applicable.

Acute Toxicity - Other Information:

LD50, Oral, Rabbit (Hydrochloric Acid) 900 mg/kg; Details of toxic effects not reported other than lethal dose value. LCLo, inhalation, human: 3000 ppm/5 minutes: No toxic effects noted. LD50, Oral, Rat: (Cobalt Chloride) 766 mg/kg, behavioral gastrointestinal and nutritional effects noted.

Skin Corrosion and Irritation:

Not applicable.

Serious Eye Damage and Irritation:

Not applicable.

Respiratory Sensitization:

Not applicable.

Skin Sensitization:

Not applicable.

Germ Cell Mutagenicity:

Not applicable.

Carcinogenicity:

Not applicable.

Reproductive Toxicity:

Not applicable.

Specific Target Organ Toxicity from Single Exposure:

Not applicable.

Specific Target Organ Toxicity from Repeated Exposure:

Not applicable.

Aspiration Hazard:

Not applicable.

Additional Toxicology Information:

Data not available.

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SECTION 12: Ecological Information

12.1. Ecotoxicity

Not applicable.

12.2. Persistence and Degradability

Data not available.

12.3. Bioaccumulative Potential

Data not available.

12.4. Mobility in Soil

Data not available.

12.5. Other Adverse Ecological Effects

Data not available.

SECTION 13: Disposal Considerations

13.1. Waste Treatment Methods

Data not available.

SECTION 14: Transportation Information

14.1. Transportation by Land-Department of Transportation (DOT, United States of America)

Not regulated according to DOT Regulations.

14.2. Transportation by Air - International Air Transport Association (IATA)

Not regulated according to IATA Dangerous Goods Regulations.

14.3 Transportation of Dangerous Goods (TDG, Canada)

Not regulated according to TDG Regulations.

SECTION 15: Regulatory Information

15.1. Occupational Safety and Health Administration (OSHA) Hazards

Not listed.

15.2. Superfund Amendments and Reauthorization Act (SARA) 302 Extremely Hazardous Substances

Hydrochloric Acid (CAS # 7647-01-0): 500 lb TPQ (gas only)

Hydrochloric Acid (CAS # 7647-01-0): 5000 lb EPCRA RQ (gas only)

15.3. Superfund Amendments and Reauthorization Act (SARA) 311/312 Hazardous Chemicals

Hydrochloric Acid (CAS # 7647-01-0): 5000 lb final RQ; 2270 kg final RQ

15.4. Superfund Amendments and Reauthorization Act (SARA) 313 Toxic Release Inventory (TRI)

Hydrochloric Acid (CAS # 7647-01-0): 1.0 % de minimis concentration (acid aerosols including mists, vapors, gas, fog, and other airborne forms of any particle size)

Cobalt (II) Chloride Hexahydrate (CAS # 7791-13-1): "0.1 % de minimis concentration (includes any unique chemical substance that contains Cobalt as part of that chemical's infrastructure, listed under Chemical Category N096)" As Cobalt, inorganic compounds [RR-02516-1]

Cobalt (II) Chloride Hexahydrate (CAS # 7791-13-1): 0.1 % de minimis concentration (includes any unique chemical substance that contains Cobalt as part of that chemical's infrastructure, listed under Chemical Category N096)

15.5. Massachusetts Right-to-Know Substance List

Hydrochloric Acid (CAS # 7647-01-0): Extraordinarily hazardous

15.6. Pennsylvania Right-to-Know Hazardous Substances

Potassium Hexachloroplatinate (IV) (CAS # 16921-30-5): "Present" As Platinum soluble salts [RR-00046-4]

Potassium Hexachloroplatinate (IV) (CAS # 16921-30-5): Present

Hydrochloric Acid (CAS # 7647-01-0): Environmental hazard

Hydrochloric Acid (CAS # 7647-01-0): Present

Water (CAS # 7732-18-5): "Present" As Ethyl alcohol and water [RR-00802-6]

Water (CAS # 7732-18-5): Present

Cobalt (II) Chloride Hexahydrate (CAS # 7791-13-1): "Environmental hazard" As Cobalt compounds [RR-00107-0]

Cobalt (II) Chloride Hexahydrate (CAS # 7791-13-1): "Present" As Cobalt compounds [RR-00107-0]

Cobalt (II) Chloride Hexahydrate (CAS # 7791-13-1): Environmental hazard

Cobalt (II) Chloride Hexahydrate (CAS # 7791-13-1): Present

15.7. New Jersey Worker and Community Right-to-Know Components

Hydrochloric Acid (CAS # 7647-01-0): corrosive

Hydrochloric Acid (CAS # 7647-01-0): sn 1012

Hydrochloric Acid (CAS # 7647-01-0): SN 1012 500 lb TPQ; SN 2909 500 lb TPQ (gas only)

Cobalt (II) Chloride Hexahydrate (CAS # 7791-13-1): "carcinogen" As Cobalt compounds [RR-00107-0]

Cobalt (II) Chloride Hexahydrate (CAS # 7791-13-1): "SN 2222 500 lb TPQ (Category Code N096. Includes any unique chemical substance that contains the named metal as part of that chemical structure)" As Cobalt compounds [RR-00107-0]

Cobalt (II) Chloride Hexahydrate (CAS # 7791-13-1): "sn 2222" As Cobalt compounds [RR-00107-0]

Cobalt (II) Chloride Hexahydrate (CAS # 7791-13-1): carcinogen

Cobalt (II) Chloride Hexahydrate (CAS # 7791-13-1): sn 2222

Cobalt (II) Chloride Hexahydrate (CAS # 7791-13-1): SN 2222 500 lb TPQ (Category Code N096. Includes any unique chemical substance that contains the named metal as part of that chemical structure)

15.8. California Proposition 65

Not listed.

15.9. Canada Domestic Substances List / Non-Domestic Substances List (DSL/NDSL)

Potassium Hexachloroplatinate (IV) (CAS # 16921-30-5): Present (DSL)

Hydrochloric Acid (CAS # 7647-01-0): Present (DSL)

Water (CAS # 7732-18-5): Present (DSL)

Cobalt (II) Chloride Hexahydrate (CAS # 7791-13-1): Present (DSL)

15.10. United States of America Toxic Substances Control Act (TSCA) List

All components of this solution are listed as active on the TSCA Inventory or are mixtures (hydrates) of active items listed on the TSCA Inventory.

Potassium Hexachloroplatinate (IV) (CAS # 16921-30-5): Present (ACTIVE)
Hydrochloric Acid (CAS # 7647-01-0): Present (ACTIVE)
Water (CAS # 7732-18-5): Present (ACTIVE)
Cobalt (II) Chloride Hexahydrate (CAS # 7791-13-1): Present (ACTIVE)

15.11. European Inventory of Existing Commercial Chemical Substances (EINECS), European List of Notified Chemical Substances (ELINCS), and No Longer Polymers (NLP)

Potassium Hexachloroplatinate (IV) (CAS # 16921-30-5): 240-979-3
Hydrochloric Acid (CAS # 7647-01-0): 231-595-7
Water (CAS # 7732-18-5): 231-791-2
Cobalt (II) Chloride Hexahydrate (CAS # 7791-13-1): 231-589-4

SECTION 16: Other Information

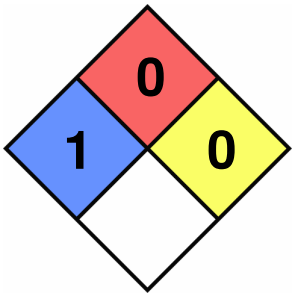
16.1. Full Text of Hazard Statements and Precautionary Statements

16.2. Miscellaneous Hazard Classes

Canadian Carcinogenicity Hazard Class: Not Applicable.
Physical Hazards Not Otherwise Classified (PHNOC): Not Applicable.
Health Hazards Not Otherwise Classified (HHNOC): Not Applicable.
Biohazardous Infectious Materials Hazard Class: Not Applicable.

16.3. National Fire Protection Association (NFPA) Rating

Health: 1
Flammability: 0
Reactivity: 0
Special Hazard:



16.4. Document Revision

Last Revision Date: 2023-09-11

DISCLAIMER

When handled properly by qualified personnel, the product described herein does not present a significant health or safety hazard. Alteration of its characteristics by concentration, evaporation, addition of other substances, or other means may present hazards not specifically addressed herein and which must be evaluated by the user. The information furnished herein is believed to be accurate and represents the best data currently available to us. No warranty, expressed or implied, is made and RICCA CHEMICAL COMPANY assumes no legal responsibility or liability whatsoever resulting from its use.