

# ACROS ORGANICS

## Material Safety Data Sheet

Creation Date 13-Nov-2009

Revision Date 21-Dec-2009

Revision Number 2

### 1. PRODUCT AND COMPANY IDENTIFICATION

<b>Product Name</b>	<b>Cobalt(II) chloride hexahydrate</b>	
<b>Cat No.</b>	<b>AC192090000; AC192090010; AC192091000; AC192092500</b>	
<b>Synonyms</b>	Cobalt muriate hexahydrate.; Cobaltous chloride hexahydrate	
<b>Recommended Use</b>	Laboratory chemicals	
<b>Company</b> Fisher Scientific One Reagent Lane Fair Lawn, NJ 07410 Tel: (201) 796-7100	<b>Entity / Business Name</b> Acros Organics One Reagent Lane Fair Lawn, NJ 07410	<b>Emergency Telephone Number</b> For information in the US, call: 800-ACROS-01 For information in Europe, call: +32 14 57 52 11  Emergency Number, Europe: +32 14 57 52 99 Emergency Number, US: 201-796-7100  CHEMTREC Phone Number, US: 800-424-9300 CHEMTREC Phone Number, Europe: 703-527-3887

### 2. HAZARDS IDENTIFICATION

#### DANGER!

#### Emergency Overview

Possible cancer hazard. May cause cancer based on animal data. May cause cancer by inhalation. Causes burns by all exposure routes. Harmful if swallowed. May cause allergic respiratory and skin reaction. May impair fertility. Possible risks of irreversible effects. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**Appearance** Reddish-violet

**Physical State** Powder

**Odor** odorless

**Target Organs**

Skin, Respiratory system, Eyes, Gastrointestinal tract (GI), Liver, Kidney, Blood, Heart, Reproductive System

**Potential Health Effects****Acute Effects****Principle Routes of Exposure**

<b>Eyes</b>	Causes burns.
<b>Skin</b>	Causes burns. May be harmful in contact with skin. May produce an allergic reaction.
<b>Inhalation</b>	Causes burns. May be harmful if inhaled. May cause allergic respiratory reaction.
<b>Ingestion</b>	Causes burns. Harmful if swallowed.

**Chronic Effects**

Possible cancer hazard based on tests with laboratory animals. Experiments have shown reproductive toxicity effects on laboratory animals. Tumorigenic effects have been reported in experimental animals.. May cause adverse liver effects. May cause adverse kidney effects. May cause adverse cardiac effects.

See Section 11 for additional Toxicological information.

**Aggravated Medical Conditions** No information available.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Haz/Non-haz**

Component	CAS-No	Weight %
Cobalt (II) chloride, hexahydrate	7791-13-1	>95
Cobaltous chloride	7646-79-9	-

### 4. FIRST AID MEASURES

<b>Eye Contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required.
<b>Skin Contact</b>	Wash off immediately with plenty of water for at least 15 minutes. Immediate medical attention is required.
<b>Inhalation</b>	Move to fresh air. If breathing is difficult, give oxygen. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with a respiratory medical device. Immediate medical attention is required.
<b>Ingestion</b>	Do not induce vomiting. Call a physician or Poison Control Center immediately.
<b>Notes to Physician</b>	Treat symptomatically.

### 5. FIRE-FIGHTING MEASURES

<b>Flash Point</b>	Not applicable
<b>Method</b>	No information available.
<b>Autoignition Temperature</b>	No information available.
<b>Explosion Limits</b>	
<b>Upper</b>	No data available
<b>Lower</b>	No data available
<b>Suitable Extinguishing Media</b>	Substance is nonflammable; use agent most appropriate to extinguish surrounding fire..

<b>Unsuitable Extinguishing Media</b>	No information available.
<b>Hazardous Combustion Products</b>	No information available.
<b>Sensitivity to mechanical impact</b>	No information available.
<b>Sensitivity to static discharge</b>	No information available.

**Specific Hazards Arising from the Chemical**

Keep product and empty container away from heat and sources of ignition. Thermal decomposition can lead to release of irritating gases and vapors.

**Protective Equipment and Precautions for Firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

**NFPA**                      **Health** 3                      **Flammability** 0                      **Instability** 0                      **Physical hazards** N/A

## 6. ACCIDENTAL RELEASE MEASURES

<b>Personal Precautions</b>	Use personal protective equipment. Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Evacuate personnel to safe areas. Avoid dust formation. Do not get in eyes, on skin, or on clothing.
<b>Environmental Precautions</b>	Should not be released into the environment.
<b>Methods for Containment and Clean Up</b>	Sweep up or vacuum up spillage and collect in suitable container for disposal. Avoid dust formation.

## 7. HANDLING AND STORAGE

<b>Handling</b>	Use only under a chemical fume hood. Wear personal protective equipment. Do not get in eyes, on skin, or on clothing. Avoid dust formation. Do not breathe dust.
<b>Storage</b>	Keep containers tightly closed in a dry, cool and well-ventilated place. Corrosives area.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

<b>Engineering Measures</b>	Use only under a chemical fume hood. Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.
<b>Exposure Guidelines</b>	This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

**NIOSH IDLH:** *Immediately Dangerous to Life or Health*

**Personal Protective Equipment****Eye/face Protection**

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

**Skin and body protection**

Wear appropriate protective gloves and clothing to prevent skin exposure.

**Respiratory Protection**

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical State</b>	Powder
<b>Appearance</b>	Reddish-violet
<b>Odor</b>	odorless
<b>Odor Threshold</b>	No information available.
<b>pH</b>	4.9 50 g/l aq.sol.
<b>Vapor Pressure</b>	negligible
<b>Vapor Density</b>	No information available.
<b>Viscosity</b>	No information available.
<b>Boiling Point/Range</b>	No information available.
<b>Melting Point/Range</b>	86°C / 186.8°F
<b>Decomposition temperature °C</b>	>120
<b>Flash Point</b>	Not applicable
<b>Evaporation Rate</b>	negligible
<b>Specific Gravity</b>	No information available.
<b>Solubility</b>	Soluble in water
<b>log Pow</b>	No data available
<b>Molecular Weight</b>	237.93
<b>Molecular Formula</b>	Cl <sub>2</sub> Co . 6 H <sub>2</sub> O

## 10. STABILITY AND REACTIVITY

<b>Stability</b>	Stable under normal conditions.
<b>Conditions to Avoid</b>	Avoid dust formation. Incompatible products. Exposure to moisture. Excess heat.
<b>Incompatible Materials</b>	Strong oxidizing agents, Metals
<b>Hazardous Decomposition Products</b>	Hydrogen chloride gas, Thermal decomposition can lead to release of irritating gases and vapors
<b>Hazardous Polymerization</b>	No information available.
<b>Hazardous Reactions .</b>	None under normal processing.

## 11. TOXICOLOGICAL INFORMATION

### Acute Toxicity

#### Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Cobalt (II) chloride, hexahydrate	766 mg/kg ( Rat )	2 g/kg ( Rat )	Not listed
Cobaltous chloride	80 mg/kg ( Rat )	Not listed	Not listed

**Irritation** Causes burns by all exposure routes

**Toxicologically Synergistic Products** No information available.

**Chronic Toxicity**

**Carcinogenicity** The table below indicates whether each agency has listed any ingredient as a carcinogen.

Component	ACGIH	IARC	NTP	OSHA	Mexico
Cobalt (II) chloride, hexahydrate	Not listed	Group 2B	Not listed	X	Not listed
Cobaltous chloride	Not listed	Group 2B	Not listed	X	Not listed

**IARC: (International Agency for Research on Cancer)**  
 IARC: (International Agency for Research on Cancer)  
 Group 1 - Carcinogenic to Humans  
 Group 2A - Probably Carcinogenic to Humans  
 Group 2B - Possibly Carcinogenic to Humans

**Sensitization** May cause sensitization by inhalation and skin contact

**Mutagenic Effects** Mutagenic effects have occurred in humans. Possible risk of irreversible effects

**Reproductive Effects** Experiments have shown reproductive toxicity effects on laboratory animals. May impair fertility.

**Developmental Effects** Developmental effects have occurred in experimental animals.

**Teratogenicity** Teratogenic effects have occurred in experimental animals..

**Other Adverse Effects** Tumorigenic effects have been reported in experimental animals.. See actual entry in RTECS for complete information.

**Endocrine Disruptor Information** No information available

**12. ECOLOGICAL INFORMATION**

**Ecotoxicity**

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Cobalt (II) chloride, hexahydrate	Not listed	Not listed	= 16 mg/L EC50 Photobacterium phosphoreum 15 min as Co++ = 160 mg/L EC50 Photobacterium phosphoreum 5 min as Co++ = 2.8 mg/L EC50 Photobacterium phosphoreum 30 min as Co++	Not listed

**Persistence and Degradability** No information available

**Bioaccumulation/ Accumulation** No information available

**Mobility** No information available

### 13. DISPOSAL CONSIDERATIONS

**Waste Disposal Methods** Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification

### 14. TRANSPORT INFORMATION

#### DOT

**UN-No** UN3260  
**Proper Shipping Name** CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S.  
**Proper technical name** (COBALT (II) CHLORIDE)  
**Hazard Class** 8  
**Packing Group** II

#### TDG

**UN-No** UN3260  
**Proper Shipping Name** CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S.  
**Hazard Class** 8  
**Packing Group** II

#### IATA

**UN-No** UN3260  
**Proper Shipping Name** CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S.  
**Hazard Class** 8  
**Packing Group** II

#### IMDG/IMO

**UN-No** UN3260  
**Proper Shipping Name** CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S.  
**Hazard Class** 8  
**Packing Group** II

### 15. REGULATORY INFORMATION

#### International Inventories

Component	TSCA	DSL	NDSL	EINECS	ELINCS	NLP	PICCS	ENCS	AICS	CHINA	KECL
Cobalt (II) chloride, hexahydrate	-	-	-	-	-		X	X	X	X	-
Cobaltous chloride	X	X	-	231-589-4	-		X	X	X	X	KE-06095 X

**Legend:**

X - Listed

E - Indicates a substance that is the subject of a Section 5(e) Consent order under TSCA.

F - Indicates a substance that is the subject of a Section 5(f) Rule under TSCA.

N - Indicates a polymeric substance containing no free-radical initiator in its inventory name but is considered to cover the designated polymer made with any free-radical initiator regardless of the amount used.

P - Indicates a commenced PMN substance

R - Indicates a substance that is the subject of a Section 6 risk management rule under TSCA.

S - Indicates a substance that is identified in a proposed or final Significant New Use Rule

T - Indicates a substance that is the subject of a Section 4 test rule under TSCA.

XU - Indicates a substance exempt from reporting under the Inventory Update Rule, i.e. Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(B)).

Y1 - Indicates an exempt polymer that has a number-average molecular weight of 1,000 or greater.

Y2 - Indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.

**U.S. Federal Regulations****TSCA 12(b)** Not applicable**SARA 313**

Not applicable

**SARA 311/312 Hazardous Categorization**

<b>Acute Health Hazard</b>	Yes
<b>Chronic Health Hazard</b>	Yes
<b>Fire Hazard</b>	No
<b>Sudden Release of Pressure Hazard</b>	No
<b>Reactive Hazard</b>	No

**Clean Water Act**

Not applicable

**Clean Air Act**

Not applicable

**OSHA**

Not applicable

**CERCLA**

Not Applicable

**California Proposition 65**

This product does not contain any Proposition 65 chemicals.

**State Right-to-Know**

Not applicable

**U.S. Department of Transportation**

Reportable Quantity (RQ):	N
DOT Marine Pollutant	N
DOT Severe Marine Pollutant	N

**U.S. Department of Homeland Security**

This product does not contain any DHS chemicals.

## Other International Regulations

**Mexico - Grade** No information available

**Canada**

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

### WHMIS Hazard Class

D1B Toxic materials

D2A Very toxic materials

D2B Toxic materials

E Corrosive material



## 16. OTHER INFORMATION

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**Revision Summary** "\*\*\*\*", and red text indicates revision

### Disclaimer

The information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

**End of MSDS**