



SAFETY DATA SHEET

Section 1. Identification

Product Name:	Dicarbonylcyclopentadienylcobalt
Product Type:	Liquid
CAS Number:	12078-25-0
Product Number:	CO8250
Recommended Use:	Laboratory chemicals, synthesis of substances.
Product Manufacturer:	Ereztech LLC 11555 Medlock Bridge Road, Suite 100 Johns Creek, GA 30097
Product Information:	(888) 658-1221
<u>In Case of an Emergency:</u>	CHEMTREC: 1-800-424-9300 (USA); +1 703-527-3887 (International); CCN836180 *** Contact manufacturer for all non-emergency calls.

Section 2. Hazards Identification

Appearance/Odor:	Dark red liquid, acrid odor.
Classification:	FLAMMABLE LIQUIDS – Category 3, H226 ACUTE TOXICITY, ORAL - Category 3, H301 ACUTE TOXICITY, DERMAL - Category 3, H311 SENSITIZATION, SKIN - Category 1, H317 ACUTE TOXICITY, INHALATION - Category 3, H331 SENSITIZATION, RESPIRATORY - Category 1, H334 GERM CELL MUTAGENICITY - Category 2, H341 CARCINOGENICITY – Category 2, H351 HAZARDOUS TO THE AQUATIC ENVIRONMENT, CHRONIC TOXICITY - Category 4, H413

GHS Label Elements

Hazard Pictograms:



Signal Word: DANGER

Dicarbonylcyclopentadienylcobalt

Safety Data Sheet

Section 2. Hazards Identification

Hazard Statements:

- H226: Flammable liquid and vapor.
- H301: Toxic if swallowed.
- H311: Toxic in contact with skin.
- H317: May cause an allergic skin reaction.
- H331: Toxic if inhaled.
- H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- H341: Suspected of causing genetic defects.
- H351: Suspected of causing cancer.
- H413: May cause long lasting harmful effects to aquatic life.

Precautionary Statements

Prevention:

- P203: Obtain, read and follow all safety instructions before use.
- P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. – No smoking.
- P233: Keep container tightly closed.
- P240: Ground and bond container and receiving equipment.
- P241: Use explosion-proof electrical/ventilating/ lighting/ equipment.
- P242: Use non-sparking tools.
- P243: Take action to prevent static discharges.
- P260: Do not breathe sprays, mists, fumes or gases.
- P262: Do not get in eyes, on skin or on clothing.
- P264: Wash hands and exposed skin thoroughly after handling.
- P270: Do not eat, drink or smoke when using this product.
- P271: Use only outdoors or with adequate ventilation.
- P272: Contaminated work clothing should not be allowed out of the workplace.
- P273: Avoid release to the environment.
- P280: Wear protective gloves/ protective clothing/ eye protection/ face protection/hearing protection.
- P284: In case of inadequate ventilation, wear respiratory protection.

Response:

- P301 + P316: IF SWALLOWED: Get emergency medical help immediately.
- P302 + P352: IF ON SKIN: Wash with plenty of water.
- P303 + P361 + P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse affected areas with water or shower.
- P304 + P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- P316: Get emergency medical help immediately.
- P318: If exposed or concerned, get medical advice.
- P330: Rinse mouth.

Dicarbonylcyclopentadienylcobalt

Safety Data Sheet

Section 2. Hazards Identification

Response (cont.):	P333 + P317: If skin irritation or rash occurs: Get medical help. P342 + P316: If experiencing respiratory symptoms: Get emergency medical help immediately. P361 + P364: Take off immediately all contaminated clothing and wash it before reuse. P370 + P378: In case of fire: Use water spray (fog), alcohol-resistant foam, carbon dioxide or dry chemical for extinction. Do NOT use water jet.
Storage:	P403 + P233 + P235: Store in a well ventilated place. Keep container tightly closed. Keep cool. P405: Store locked up.
Disposal:	P501: Dispose of contents/container in accordance with federal, state and local regulations.
General:	None.
OSHA/HCS Status:	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Hazards Not Otherwise Classified (HNOC):	None identified.

Section 3. Composition/Information on Ingredients

Synonyms:	Dicarbonyl(η 5-2,4-cyclopentadien-1-yl)cobalt; Cyclopentadienyl cobalt(I) dicarbonyl; Cyclopentadienylcobalt dicarbonyl; Cobalt dicarbonyl cyclopentadiene; Cyclopentadienyldicarbonylcobalt
Formula:	(C ₅ H ₅)Co(CO) ₂
Molecular Weight:	180.05 g/mol.

Ingredient Name	%	CAS Number
Dicarbonylcyclopentadienylcobalt	≥ 99	12078-25-0

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First Aid Measures

Description of Necessary First Aid Measures

General Advice: Move out of dangerous area. Get emergency medical help immediately. Show this safety data sheet to the doctor in attendance. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Dicarbonylcyclopentadienylcobalt

Safety Data Sheet

Section 4. First Aid Measures

- Eye Contact:** Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue rinsing for at least 20 minutes. Get emergency medical help immediately.
- Skin Contact:** Wash with plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear impervious gloves. Continue to rinse for at least 20 minutes. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse. Dispose of leather shoes which have been contaminated. Get emergency medical help immediately.
- Inhalation:** Remove person to fresh air and keep comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Do not use mouth-to-mouth method if victim ingested or inhaled the product; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Get emergency medical help immediately.
- Ingestion:** Rinse mouth, then give water to drink (two glasses at most). Get emergency medical help immediately. Do NOT induce vomiting. Remove dentures if any. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person.
- In exceptional cases where medical care will not be available within one hour of ingestion, induce vomiting (only in persons who are fully awake and fully conscious) then administer activated charcoal (20 – 40 g in 10% slurry) and consult a physician as quickly as possible.

Most Important Symptoms/Effects, Acute And Delayed Potential Acute Health Effects

- Eye Contact:** Symptoms may include stinging, tearing, redness, swelling and blurred vision.
- Inhalation:** Product is toxic if inhaled. Symptoms may include shortness of breath/ difficulty in breathing (dyspnea), blueness (cyanosis) of lips and skin, nausea, headaches, disorientation, general weakness and loss of consciousness.
- Skin Contact:** Product is toxic in contact with skin. Symptoms may include shortness of breath/ difficulty in breathing (dyspnea), blueness (cyanosis) of lips and skin, nausea, headaches, disorientation, general weakness and loss of consciousness. Product may cause an allergic skin reaction. Symptoms may include reddening of skin, a burning or itching sensation, pain, blistering and tissue necrosis.
- Ingestion:** Product is toxic if ingested. Symptoms may include shortness of breath/ difficulty in breathing (dyspnea), blueness (cyanosis) of lips and skin, nausea, headaches, disorientation, general weakness and loss of consciousness. Ingestion of significant amounts of cobalt containing compounds has been reported to have potential for causing blood, heart, thyroid and pancreatic damage.

Dicarbonylcyclopentadienylcobalt

Safety Data Sheet

Section 4. First Aid Measures

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

Notes to Physician:	Treat symptomatically.
Specific Treatments:	No specific treatment.
Protection of First Responders:	No action taken shall be taken involving any personal risk without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See Toxicological Information (Section 11)

Section 5. Fire Fighting Measures

General Hazards:	Flammable liquid and vapor.
Suitable Extinguishing Media:	Use water spray (fog), alcohol-resistant foam, dry chemical or carbon dioxide.
Unsuitable Extinguishing Media:	Do not use water jet.
Unusual Fire and Explosion Hazards:	Vapor/air mixtures are explosive above flash point. Product runoff to sewer may create a fire or explosion hazard. Vapors/gases released under fire conditions are heavier than air and may spread long distances along the ground. Vapors may accumulate in low or confined areas or travel a considerable distance to an ignition source and flashback. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion.
Product of Combustion:	Decomposition products include carbon oxides, (CO _x) and toxic cobalt oxide fumes. Irritating fumes and organic acid vapors may be generated during exposure to elevated temperatures or open flame.
Protection of Firefighters:	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Prevent contact with skin or eyes. Prevent the formation and inhalation of sprays, mists, vapors and gases. Eliminate all local and distant ignition sources. Move containers from fire area if process can be accomplished without risk to firefighters. To reduce the possibility of explosion, use a water spray or fog to reduce direct vapors and to cool unopened containers. Do not cut, grind, drill or weld on or near product containers (even empty) of this product because an explosion may result. Use non-sparking tools and explosion-proof equipment.

Dicarbonylcyclopentadienylcobalt

Safety Data Sheet

Section 5. Fire Fighting Measures

Protection of Firefighters (cont.): Fire-fighters should wear appropriate protection equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in a positive pressure mode.

Section 6. Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures

For Non-Emergency Personnel: No action shall be taken involving any personal risk or without suitable training. Remove all sources of ignition. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Prevent the formation and inhalation of sprays, mists, vapors and gases. Provide adequate ventilation. Wear respiratory protection. Put on appropriate personal protective equipment.

For Emergency Responders: If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For Non-Emergency Personnel".

Environmental Precautions: Do not allow dispersal of spilled material and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods for Containment

General: Eliminate all local and distant ignition sources – NO SMOKING. Move containers from spill area if safe to do so. Prevent the formation and inhalation of sprays and mists. Use spark-proof tools and explosion-proof equipment. Dispose of collected spillage in accordance with federal, state and local regulations. Contaminated absorbent material may pose the same hazard as the spilled product.

Small Spill: Collect spillage with a dry, absorbent material (e.g. dry sand, vermiculite or diatomaceous earth) and place in dry, sealed container for disposal.

Large Spill: Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with a dry, absorbent material (e.g. dry sand, vermiculite or diatomaceous earth) and place in dry, sealed container for disposal.

Dicarbonylcyclopentadienylcobalt

Safety Data Sheet

Section 6. Accidental Release Measures

Large Spill (cont.):

Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and Storage

Precautions:

Product is air/oxygen sensitive; handle under an inert gas. Nitrogen with less than 5 ppm each of moisture and oxygen is recommended. Keep away from all sources of ignition – NO SMOKING. Keep container tightly sealed. Prevent contact with skin, eyes and clothing. Prevent the formation and inhalation of sprays, mists, vapors and gases. Do not ingest. Avoid prolonged exposure. Ensure adequate ventilation.

Protective Measures:

Protect against electrostatic discharges. Use explosion-proof electrical/ventilating/lighting/handling equipment. Use non-sparking tools and equipment. Put on appropriate personal protective equipment (see Section 8). Keep in the original container kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

General Occupational Hygiene:

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking or smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Safe Storage Conditions:

Product is air/oxygen sensitive; store under an inert gas. Nitrogen with less than 5 ppm each of moisture and oxygen is recommended. Store refrigerated at 2 – 8 °C. Keep away from all sources of ignition – NO SMOKING. Store in original container protected from direct sunlight in a dry and well-ventilated area, away from incompatible materials and food and drink. Keep container tightly closed and sealed until ready for use. Store locked up.

Section 8. Exposure Controls/Personal Protection

Introductory Remarks:

These recommendations provide general guidance for handling this product. Because work environments and material handling practices vary, safety procedures should be developed for each intended application.

Dicarbonylcyclopentadienylcobalt

Safety Data Sheet

Section 8. Exposure Controls/Personal Protection

Introductory Remarks (cont.): While developing safe handling procedures, do not overlook the need to clean equipment and conduct regular repairs. Waste from these procedures should be handled in accordance with Section 13.

Occupational Exposure Limits

List	Components	CAS-No.	Type	Value
ACGIH	Cobalt	7440-48-4	TLV	0.02 mg/m ³ (Co metal)
OSHA	Cobalt	7440-48-4	PEL	0.1 mg/m ³ (Co metal)

Engineering Controls: Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute. Provide an eyewash/shower station.

Environmental Exposure Controls: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual Protection Measures

Hygiene Measures: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Remove all soiled and contaminated clothing immediately. Contaminated clothing should not be allowed out of the workplace. Do not inhale gases/fumes/vapors. Prevent contact with eyes and skin. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/Face Protection: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles, faceshield (8-inch minimum). Refer to 29 CFR 1910.133, ANSI Z87.1, or European Standard EN166.

Skin Protection

Hand Protection: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties.

Dicarbonylcyclopentadienylcobalt

Safety Data Sheet

Section 8. Exposure Controls/Personal Protection

Hand Protection (cont.):

It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: Chemical-resistant gloves.

Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. For full contact, wear Neoprene or nitrile rubber gloves.

Other Skin Protection:

Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

Respiratory Protection:

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multipurpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Section 9. Physical and Chemical Properties

Physical State:	Liquid.
Color:	Dark red.
Odor:	Acrid.
Odor Threshold:	No data available.
pH:	No data available.
Melting Point:	-22 °C (-8 °F).
Boiling Point:	139 – 140 °C (282 – 284 °F) @ 710 mmHg.
Flash Point:	27 °C (81 °F) – closed cup.
Auto-ignition temperature:	No data available.

Dicarbonylcyclopentadienylcobalt

Safety Data Sheet

Section 9. Physical and Chemical Properties

Density:	1.35 g/cm ³ @ 20 °C (68 °F).
Vapor Pressure:	No data available.
Vapor Density:	No data available.
Water Solubility:	Insoluble.

Section 10. Stability and Reactivity

Reactivity:	No data available.
Chemical Stability:	This product is stable when stored under an inert atmosphere and away from heat. Nitrogen containing less than 5 ppm each moisture and air and a temperature range of 2 – 8 °C is recommended.
Conditions to Avoid:	Exposure to air/oxygen, sources of ignition (heat, flames, sparks, electrostatic discharge), extremes of temperature and direct sunlight.
Incompatible Materials:	Strong oxidizing agents.
Hazardous Decomposition Products:	Under normal conditions of storage and use, hazardous decomposition products should not be produced. Hazardous decomposition products formed under fire conditions: carbon oxides and toxic cobalt oxide fumes. In the event of a fire: see section 5.
Possibility of Hazardous Reactions:	Under normal conditions of storage and use, hazardous reactions will not occur. Hazardous reactions or instability may occur under certain conditions of storage or use.

Section 11. Toxicological Information

Information on Toxicological Effects

Acute Toxicity	: Product is toxic if ingested, inhaled and in contact with skin.
Irritation/Corrosion	: No specific data available.
Sensitization	: Product may cause skin and/or respiratory sensitization.
Germ Cell Mutagenicity	: No specific data available.
<u>Carcinogenicity</u>	
IARC	: Cobalt; CAS 7440-48-4. Group 2B: possibly carcinogenic to humans.
ACGIH	: Cobalt; CAS 7440-48-4. Group A3: confirmed animal carcinogen with unknown relevance to humans

Dicarbonylcyclopentadienylcobalt

Safety Data Sheet

Section 11. Toxicological Information

Carcinogenity (cont.)

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

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

Reproductive Toxicity : No specific data available.

Teratogenicity : No specific data available.

Specific Target Organ Toxicity (Single Exposure) : No specific data available.

Specific Target Organ Toxicity (Repeated Exposure) : Chronic exposure to cobalt compounds may result in permanent lung damage.

Aspiration Hazard : No specific data available.

Information on the Likely Routes of Exposure : Common routes of exposure: inhalation, dermal (failure to use skin protection), eye (failure to use safety eyewear). Less common: ingestion (failure to employ recommended hygiene measures (e.g. smoking or eating after handling product without washing hands or using hand protection)).

Additional Information : To the best of our knowledge, the chemical, physical and toxicological properties of this product have not been thoroughly investigated.

Section 12. Ecological Information

Numerical Measures of Toxicity

Toxicity to Fish : No specific data available.

Toxicity to Daphnia and Other Aquatic Invertebrates : No specific data available.

Toxicity to Algae : No specific data available.

Persistence and Degradability

Biodegradability : No specific data available.

Bioaccumulative Potential : No specific data available.

Mobility in Soil : No specific data available.

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

Dicarbonylcyclopentadienylcobalt

Safety Data Sheet

Section 13. Disposal Considerations

Waste Treatment Methods

Product

: Dispose of in accordance with local, state, and federal regulations. Refer to 40 CFR 260-299 for complete waste disposal regulations. Consult your local, state, or federal agency before disposing of any chemicals.

Contaminated Packaging

: Empty containers retain product residue (liquids, vapors and gases) and can be dangerous. Dispose of as unused product. DO NOT EXPOSE OPENED/EMPTY CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION; THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.

Section 14. Transport Information

	DOT	IMDG	IATA
UN Number	UN1992	UN1992	UN1992
UN Proper Shipping Name	Flammable liquid, toxic, n.o.s. (Dicarbonyl(η 5-2,4-cyclopentadien-1-yl)cobalt)	FLAMMABLE LIQUID, TOXIC, N.O.S. (Dicarbonyl(η 5-2,4-cyclopentadien-1-yl)cobalt)	Flammable liquid, toxic, n.o.s. (Dicarbonyl(η 5-2,4-cyclopentadien-1-yl)cobalt)
Transport Hazard Classes	3 (6.1)	3 (6.1)	3 (6.1)
Packing Group	III	III	III
Environmental Hazards	-	-	-
Additional Information		EMS No: F-E, S-D	

Special Precautions for User

: Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transporting in Bulk According to Annex II of MARPOL 73/78 and the IBC Code

: Not applicable.

Section 15. Regulatory Information

TSCA (Toxic Substance Control Act):

This product is not listed on the U.S. Toxic Substances Control Act Chemical Inventory (TSCA Inventory). Use of this product is restricted to research and development only. This product must be used under the supervision of a technically qualified individual as defined by the TSCA. This product must not be used for commercial purposes or in formulations for commercial purposes.

Dicarbonylcyclopentadienylcobalt

Safety Data Sheet

Section 15. Regulatory Information

SARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards

Fire Hazard (Flammable liquid), Acute Health Hazard (Acute Toxicity - ingestion, dermal, inhalation; Respiratory/Skin sensitization), Chronic Health Hazard (Carcinogen)

Massachusetts Right to Know Components

	CAS-No.	Revision Date
Cobalt	7440-48-4	

Pennsylvania Right to Know Components

	CAS-No.	Revision Date
Cobalt	7440-48-4	

New Jersey Right to Know Components

	CAS-No.	Revision Date
Cobalt	7440-48-4	8/2/2010

California Proposition 65 Components

This product contains a chemical known to State of California to cause cancer.

	CAS-No.	Revision Date
Cobalt	7440-48-4	11/20/2015

Section 16. Other Information

National Fire Protection Association (U.S.A.)



Dicarbonylcyclopentadienylcobalt

Safety Data Sheet

Section 16. Other Information

Reprinted with permission from NFPA 704-2001, Identification of the Hazards of Materials for Emergency Response Copyright ©1997, National Fire Protection Association, Quincy, MA 02269. This reprinted material is not the complete and official position of the National Fire Protection Association, on the referenced subject which is represented only by the standard in its entirety.

Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

HMIS Rating

HEALTH	2
FLAMMABILITY	3
PHYSICAL HAZARD	0

History

Date of Issue/Date of Revision : 12/2/2023

Date of Previous Issue : 3/11/2022.

References : None available

Abbreviations and Acronyms

ACGIH: American Conference of Governmental Industrial Hygienists.

ATE: Acute Toxicity Estimate

CAS: Chemical Abstracts Service (division of the American Chemical Society).

CLP: Classification, Labeling and Packaging (European Union (EU)).

DOT: US Department of Transportation.

GHS: Globally Harmonized System of Classification and Labeling of Chemicals.

HMIS: Hazardous Materials Identification System.

HNOC: Hazards Not Otherwise Classified.

IARC: International Agency for Research on Cancer.

IATA: International Air Transport Association.

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA).

IDLH: Immediately Dangerous to Life or Health (US National Institute for Occupation Health and Safety (NIOSH)).

IMDG: International Maritime Code for Dangerous Goods.

NFPA: National Fire Protection Association.

NIOSH: National Institute of Occupational Safety and Health.

NTP: National Toxicology Program.

OECD: Organization for Economic Co-Operation and Development.

OEL: Occupational Exposure Limit.

OSHA: Occupational Safety and Health Administration.

PEL: Permissible Exposure Limits.

Dicarbonylcyclopentadienylcobalt

Safety Data Sheet

Section 16. Other Information

Abbreviations and Acronyms (cont.)

REL: Recommended Exposure Limits.
SARA: Superfund Amendments and Reauthorization Act.
STEL (ST): Short Term Exposure Limit (ACGIH/NIOSH)
STOT: Specific Target Organ Toxicity.
TLV: Threshold Limit Values (ACGIH).
TWA: Time Weighted Average.
VOC: Volatile Organic Compound.

Disclaimer

The information herein is believed to be accurate and is presented in good faith; however, no warranties or representations are made by Ereztech LLC regarding the accuracy or completeness of the information. Ereztech LLC shall not be liable for any damages resulting from the handling, or from the contact with the above product.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.



BRIDGING CHEMICAL GAPS