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 Version: 2 - 5 / USA
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SECTION 1. IDENTIFICATION

Identification of the

company:

Clariant Corporation 500 East Morehead Street

Charlotte, NC, 28202

Telephone No.: +1 704 331 7000

Information of the substance/preparation:

Product Stewardship, +1-704-331-7710 e-mail: SDS.NORAM@clariant.com

Emergency tel. number: +1 800-424-9300 CHEMTREC

Trade name: HI Card, 30-50% RH

Material number: 248785

Chemical family: cobalt dichloride on cardboard

Primary product use: Indicator for air humidity

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Respiratory sensitisation : Category 1

Skin sensitisation : Category 1

Carcinogenicity (Inhalation) : Category 1B

Reproductive toxicity : Category 1B

GHS label elements

Hazard pictograms :



Signal word : Danger

Hazard statements : H317 May cause an allergic skin reaction.

H334 May cause allergy or asthma symptoms or breathing

difficulties if inhaled.

H350 May cause cancer by inhalation.

H360F May damage fertility.

Precautionary statements : Prevention:

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read



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and understood.

P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray. P272 Contaminated work clothing must not be allowed out of the workplace.

P280 Wear protective gloves/ protective clothing/ eye protection/

face protection.

P285 In case of inadequate ventilation wear respiratory

protection.

Response:

P302 + P352 IF ON SKIN: Wash with plenty of soap and water. P304 + P341 IF INHALED: If breathing is difficult, remove person to fresh air and keep comfortable for breathing. P308 + P313 IF exposed or concerned: Get medical advice/attention.

P333 + P313 If skin irritation or rash occurs: Get medical advice/

attention.

P363 Wash contaminated clothing before reuse.

Storage:

P405 Store locked up.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Chemical nature : cobalt dichloride on cardboard

Components

Chemical name	CAS-No.	Concentration (% w/w)
Cobalt dichloride	7646-79-9	>= 0.1 - < 1

Actual concentration is withheld as a trade secret

SECTION 4. FIRST AID MEASURES

General advice : Take off all contaminated clothing immediately.

Show this safety data sheet to the doctor in attendance.

If inhaled : INHALATION: If exposed to excessive levels of dust or fumes,

remove to fresh air and get medical attention. Get medical

attention if cough and other symptoms develop.

Remove to fresh air.

In case of skin contact : Avoid contact with skin.

Wash area with mild soap and copious amounts of water.

Remove contaminated clothing and shoes.



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Wash clothing before reuse.

If skin irritation occurs: Get medical advice/ attention.

In case of eye contact Do not rub affected area.

Rinse immediately with plenty of lukewarm water, also under

the eyelids, for at least 15 minutes.

Obtain medical attention.

If swallowed Do NOT induce vomiting.

Call your local Poison Control Center (In the U.S. call 1-800-

222-1222).

Most important symptoms and effects, both acute and

delayed

The possible symptoms known are those derived from the

labelling (see section 2).

No additional symptoms are known.

Notes to physician Chronic ingestion may cause blood abnormalities

> (polycythemia), increased clotting time, hyperplasia of the bone marrow and thyroid gland, cardiomyopathy, and damage

to the pancreas in sensitive individuals.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media : The product itself does not burn.

Use extinguishing measures that are appropriate to local

circumstances and the surrounding environment.

Specific hazards during

firefighting

In case of fire can be formed: breathable cobalt/cobalt oxide

dust

Further information Wear full protective clothing and NIOSH/MSHA-approved

positive pressure, self-contained breathing apparatus.

Evacuate area.

Fight fire with normal precautions from a reasonable distance.

for firefighters

Special protective equipment : In the event of fire, wear self-contained breathing apparatus.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation.

Avoid dust formation.

Use personal protective equipment. Avoid contact with skin, eyes and clothing.

Wearing appropriate personal protective equipment, contain

spill and collect into a suitable container. No special precautions required.

Refer to Section 8 for more information.

Environmental precautions Do not flush into surface water or sanitary sewer system.



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Methods and materials for containment and cleaning up

Sweep up or vacuum up spillage and collect in suitable

container for disposal.

SECTION 7. HANDLING AND STORAGE

Advice on safe handling : Wash thoroughly after handling.

Use only with adequate ventilation and proper protective

eyewear, gloves, and clothing. Avoid contact with eyes.

Avoid prolonged or repeated contact with skin. Minimize dust generation and accumulation.

Do NOT grind, slice, sand, scrape or otherwise break this

product.

Avoid dust formation.

Avoid contact with/or the inhalation of dusts from this product.

Conditions for safe storage : Keep tightly closed in a dry and cool place.

Further information on storage conditions

Store in a dry place.

Materials to avoid : No materials to be especially mentioned.

Further information on storage stability

Stable under recommended storage conditions.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Cobalt dichloride	7646-79-9	TWA (Inhalable particulate matter)	0.02 mg/m3 (Cobalt)	ACGIH

Engineering measures : none

Personal protective equipment

Respiratory protection : Follow facility guidelines.

Hand protection

Remarks : Wear protective gloves. Wash thoroughly after handling.

Eye protection : Safety glasses with side-shields

Skin and body protection : Wear protective clothing, including long sleeves and gloves,



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to prevent skin contact.

Protective measures : Avoid contact with skin and eyes.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : Plates

Colour : blue to pink

Odour : none

pH : 5-7

Concentration: 1 %

Information refers to the main component.

Melting point : Not applicable

Boiling point : not determined (for a component of this mixture)

Flash point : Not applicable

Evaporation rate : Not applicable

Flammability (solid, gas) : not determined

Upper explosion limit / upper

flammability limit

Not applicable

Lower explosion limit / Lower

flammability limit

Not applicable

Vapour pressure : Not applicable

Relative vapour density : Not applicable

Density : no data available

Solubility(ies)

Water solubility : partly soluble, max. 1% CoCl2 can be leached out.

Partition coefficient: n-

octanol/water

: Not applicable

Auto-ignition temperature : Not applicable

Decomposition temperature : no data available

Viscosity



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Viscosity, kinematic : Not applicable

Metal corrosion rate : Not applicable

Particle size : no data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity : Stable

Chemical stability : No decomposition if stored and applied as directed.

Possibility of hazardous

reactions

None known.

Conditions to avoid : Exposure to moisture (hygroscopic).

Incompatible materials : Water

Hazardous decomposition

products

No decomposition if stored and applied as directed.

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Eye contact Skin contact Ingestion

Acute toxicity

Product:

Acute oral toxicity : Remarks: no data available

Acute inhalation toxicity : Remarks: no data available

Acute dermal toxicity : Remarks: no data available

Components:

Cobalt dichloride:

Acute oral toxicity : Assessment: The component/mixture is moderately toxic after

single ingestion.

Skin corrosion/irritation

Product:

Remarks : no data available



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Serious eye damage/eye irritation

Product:

Remarks : no data available

Respiratory or skin sensitisation

Product:

Remarks : no data available

Components:

Cobalt dichloride:

Result : May cause sensitisation by skin contact.

Result : The product is a respiratory sensitiser, sub-category 1A.

Germ cell mutagenicity

Components:

Cobalt dichloride:

Germ cell mutagenicity - : Suspected of inducing heritable mutations in the germ cells of

Assessment humans.

Carcinogenicity

Components:

Cobalt dichloride:

Carcinogenicity - : Possible human carcinogen

Assessment

IARC

OSHANo component of this product present at levels greater than or equal to 0.1% is

on OSHA's list of regulated carcinogens.

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.

Reproductive toxicity

Components:

Cobalt dichloride:

Reproductive toxicity - : Clear evidence of adverse effects on sexual function and

Assessment fertility, based on animal experiments.

Experience with human exposure

Product:

General Information : The possible symptoms known are those derived from the

labelling (see section 2).



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Further information

Product:

Remarks : No data is available on the product itself.

Handle in accordance with good industrial hygiene and safety

practice.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Product:

Toxicity to fish : Remarks: no data available

M-Factor (Acute aquatic

toxicity)

: 10

Components:

Cobalt dichloride:

Ecotoxicology Assessment

Acute aquatic toxicity : Very toxic to aquatic life.

Chronic aquatic toxicity : Very toxic to aquatic life with long lasting effects.

Persistence and degradability

Product:

Biodegradability : Remarks: no data available

Bioaccumulative potential

Product:

Bioaccumulation : Remarks: no data available

Mobility in soil

Product:

Distribution among : Remarks: no data available

environmental compartments

Other adverse effects

Product:

Additional ecological

information

: obviously hazardous to water



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SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

RCRA - Resource : This product, if discarded as sold, is not a Federal RCRA

Conservation and Recovery hazardous waste.

Authorization Act

Waste Code : NONE

Contaminated packaging : Dispose of as unused product.

SECTION 14. TRANSPORT INFORMATION

DOT not restricted

IATA

UN/ID number: UN 3077

Proper shipping name: Environmentally hazardous substance, solid, n.o.s.

Hazard inducer(s): Cobalt dichloride

Primary risk: 9
Packing group: III

Remarks: Shipment permitted

IMDG

UN no.: UN 3077

Proper shipping name: Environmentally hazardous substance, solid, n.o.s.

Hazard inducer(s): Cobalt dichloride

Primary risk: 9
Packing group: III

Marine pollutant:
EmS:

Marine Pollutant
F-A S-F

Further information:

Non-dangerous good of class 9 for packagings <= 5 L / 5 kg

SECTION 15. REGULATORY INFORMATION

CERCLA Reportable Quantity

This material does not contain any components with a CERCLA RQ.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 Hazards : Respiratory or skin sensitisation

Carcinogenicity
Reproductive toxicity



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SARA 313 : The following components are subject to reporting levels

established by SARA Title III, Section 313:

Cobalt dichloride 7646-79-9 >= 0.1 - < 1 %

Clean Water Act

This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.

This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

This product does not contain any priority pollutants related to the U.S. Clean Water Act

The components of this product are reported in the following inventories:

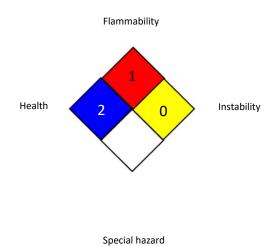
TSCA : On TSCA Inventory, All components are compliant with the

TSCA Inventory Notification (Active) rule.

SECTION 16. OTHER INFORMATION

Further information

NFPA 704:



Full text of other abbreviations

ACGIH : USA. ACGIH Threshold Limit Values (TLV)

ACGIH / TWA : 8-hour, time-weighted average

AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS -



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Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS -Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx -Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA -International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO -International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO -International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

For additional information, contact Product Stewardship.

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