

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

1.1 Product identifier

Trade name : MC3090005

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

Relevant identified uses of the substance or mixture

Type of use : Indicator for air humidity

1.3 Details of the supplier of the safety data sheet

Premier Farnell
150 Armley Road
Leeds LS12 2QQ
Tel. : +44 (0) 8701 202530

1.3 Emergency telephone number

+44 1865 407333

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according CLP regulation (Regulation (EC) No. 1272/2008, as amended)

Hazard class	Hazard category	H-phrases
Carcinogenicity	Category 1B	May cause cancer if inhaled.
Reproductive toxicity	Category 1B	May damage fertility.
Chronic aquatic toxicity	Category 2	Toxic to aquatic life with long lasting effects.

M-Factor (aquatic toxicity) : 10

Classification according EC Directive (67/548/EEC or 1999/45/EC, as amended)

Category of danger/Category	Hazard symbol	R - phrases
Carcinogenic - Category 2	Toxic	May cause cancer by inhalation.
Toxic to Reproduction Category 2	Toxic	May impair fertility.
	Dangerous for the environment	Toxic to aquatic organisms, may cause longterm adverse effects in the aquatic environment.

2.2. Label elements

Labelling in accordance with EC-Directives (67/548/EEC or 1999/45/EC, as amended)

Symbols/Indications of danger



Toxic



Dangerous for the environment

R phrases

49

May cause cancer by inhalation.

60

May impair fertility.

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51/53

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

S phrases

53

Avoid exposure --- obtain special instructions before use.

45

In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

37

Wear suitable gloves.

60

This material and its container must be disposed of as hazardous waste.

61

Avoid release to the environment. Refer to special instructions/Safety data sheets.

Sensitizing components / contains :

Cobalt dichloride

May produce an allergic reaction.

2.3. Other hazards

No additional hazards are known except those derived from the labelling.

SECTION 3: Composition/information on ingredients

3.1. Mixtures

Chemical characterization

cobalt dichloride on cardboard

Hazardous ingredients

Cobalt dichloride

Concentration : $\geq 0.5 - < 1$ %

CAS number : 7646-79-9

EC number : 231-589-4

Index Number : 027-004-00-5

Classification hazard substance EC

Carc.Cat.2	Carcinogenic Category 2	R 49
Repr.Cat.2	Toxic to Reproduction Category 2	R 60
Mut.Cat.3	Mutagenic Category 3	R 68
Xn	Harmful	R 22
		R 42/43
N	Dangerous for the environment	R 50 R 53
GHS classification EC		
Acute toxicity	Category 4	H302
Respiratory sensitisation	Category 1	H334
Skin sensitisation	Category 1	H317
Germ cell mutagenicity	Category 2	H341
Carcinogenicity	Category 1B	H350i
Reproductive toxicity	Category 1B	H360F
Acute aquatic toxicity	Category 1	H400
Chronic aquatic toxicity	Category 1	H410

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The text of the R-phrases is shown in section 16.

The text of the H-phrases is shown in section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Take off all contaminated clothing immediately.

Show this safety data sheet to the doctor in attendance.

After inhalation

Move to fresh air.

Consult a physician after significant exposure.

After contact with skin

Wash off immediately with soap and plenty of water.

After contact with eyes

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

After ingestion

Rinse mouth.

Call a physician immediately.

Do not induce vomiting without medical advice.

Never give anything by mouth to an unconscious person.

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

Hazards

see point 2

4.3. Indication of any immediate medical attention and special treatment needed

Treatment

No information available.

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Dry powder

Foam

Carbon dioxide (CO₂)

Extinguishing media that must not be used for safety reasons

Do not use a solid water stream as it may scatter and spread fire.

5.2. Special hazards arising from the substance or mixture

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

5.3. Advice for firefighters

Special protective equipment for firefighting

In the event of fire, wear self-contained breathing apparatus.

Further information

Standard procedure for chemical fires.

Cool containers / tanks with water spray.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation.
Avoid dust formation.
Use personal protective equipment.
Avoid contact with skin, eyes and clothing.

6.2. Environmental precautions

Do not flush into surface water or sanitary sewer system.

6.3. Methods and material for containment and cleaning up

Take up uncontaminated material and pass on for further processing.
Take up contaminated material by mechanical means, load into clean containers, and dispose of in accordance with legal regulations.

6.4. Reference to other sections

Additional information see point 8, 13
Avoid dust formation.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling
Avoid formation of dust and aerosols.
Handle with care to avoid abrasion or breakage.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers

Keep tightly closed in a dry and cool place.

Advice on storage compatibility

No materials to be especially mentioned.

Further information on storage conditions

Keep in a dry place.

Storage stability

Stable under recommended storage conditions.

7.3. Specific end use(s)

Not relevant

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limit values

cobalt compounds

EC number : 231-589-4

CAS number : 7646-79-9

Regulatory basis / Regulatory list	Revision	Type of value	Values	Remarks
UK. EH40 WEL - Workplace Exposure Limits United Kingdom. Workplace Exposure Limits (EH40/2005): Table 1: List of approved workplace exposure limits (WELs)	2007-08-01	Long-term exposure limit (8-hour TWA reference period) Cobalt	0.1 mg/m ³	

DNEL/DMEL values

DNEL/DMEL values are not available.

PNEC values

PNEC values are not available.

8.2. Exposure controls

Appropriate engineering controls none under normal use

Respiratory protection : not required

Hand protection : Chemical-resistant protective gloves according to EN 374, EN 388, EN 420.

Eye protection : Not required

Body protection : Not required

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Form : Plates

Particle size : not tested.

Colour : blue to pink

Odour : none

Odour threshold : cannot be determined

pH value : 4.5 - 6

Melting point : not determined

Boiling temperature : not applicable

Sublimation point : not determined

Flash point : This information is not applicable for solids.

Evaporation rate : This information is not applicable for solids.

Lower explosion limit : not tested.

Upper explosive limit : not tested.

Combustion number : not tested.

Minimum ignition energy : not tested.

Vapour pressure : Not applicable

Vapour density relative to air : This information is not applicable for solids.

Relative Density : not tested.

Solubility in water : partly soluble max. 1% CoCl₂ can be leached out.

Miscibility with water : not tested.

Soluble in ... : not tested.

Solubility/qualitative : not tested.

Octanol/water partition : Not determined

Coefficient (logPow) : NA

Ignition temperature : Not applicable

Self-ignition temperature : N/A

Viscosity (dynamic) : This information is not applicable for solids.

Viscosity (kinematic) : This information is not applicable for solids.

Viscosity (Efflux time) : This information is not applicable for solids.

Explosive properties : Explosive according to EU supply regulations : no data

Oxidizing properties : not tested.

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9.2. Other information

Density : not tested.

Bulk density : not tested.

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable

10.2. Chemical stability

No decomposition if stored and applied as directed.

10.3. Possibility of hazardous reactions

None known.

10.4. Conditions to avoid

Exposure to moisture (hygroscopic).

10.5. Incompatible materials

air humidity

water

10.6. Hazardous decomposition products

No decomposition if stored and applied as directed.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Information related to the product itself:

Acute oral toxicity : no data available

Acute dermal toxicity : no data available

Acute inhalation toxicity : no data available

Irritant effect on skin : no data available

Sensitization : no data available

Remarks

No data is available on the product itself.

Handle in accordance with good industrial hygiene and safety practice.

SECTION 12: Ecological information

12.1. Toxicity

Information related to the product itself:

Fish toxicity : no data available

12.2. Persistence and degradability

Information related to the product itself:

Biodegradability : no data available

12.3. Bioaccumulative potential

Information related to the product itself:

Bioaccumulation : no data available



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12.4. Mobility in soil

Information related to the product itself:

Transport and distribution : no data available between environmental compartments :

12.5. Results of PBT and vPvB assessment

Information related to the product itself:

No data available.

12.6. Other adverse effects

Information related to the product itself:

Additional ecotoxicological remarks water endangering

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product Uncleaned packaging

Dispose of as unused product.

SECTION 14: Transport information

Contact waste disposal services.

Dispose of as hazardous waste in compliance with local and national regulations.

Section 14.1. to 14.5.

ADR

UN no. : UN 3077
Proper shipping name : Environmentally hazardous substance, solid, n.o.s.
Hazard inducer(s) : Cobalt dichloride
Class : 9
Primary risk : 9
Packing group : III
Hazard no. : 90
Remarks : Shipment permitted

ADN

UN no. : UN 3077
Proper shipping name : Environmentally hazardous substance, solid, n.o.s.
Hazard inducer(s) : Cobalt dichloride
Class : 9
Primary risk : 9
Packing group : III
Remarks : Shipment permitted

RID

UN no. : UN 3077
Proper shipping name : Environmentally hazardous substance, solid, n.o.s.
Hazard inducer(s) : Cobalt dichloride
Class : 9
Primary risk : 9



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Packing group : III
Hazard no. : 90
Remarks : Shipment permitted

IATA

UN no. : UN 3077
Proper shipping name : Environmentally hazardous substance, solid, n.o.s.
Hazard inducer(s) : Cobalt dichloride
Class : 9
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
Class : 9
Primary risk : 9
Packing group : III
Remarks : Shipment permitted
Marine pollutant : Marine Pollutant
EmS : F-A S-F

14.6. Special precautions for user

See sections 6 to 8 of this Safety Data Sheet.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code (International Bulk Chemicals Code)

No transport as bulk according IBC - Code.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Water Hazard Class (Ger.) : WGK 2 water endangering (self-classification)

The product contains the following substance/impurity, which, according to annex XIV and XV of the REACH Regulation 1907/2006/EC, is an SVHC: Cobalt dichloride

15.2. Chemical safety assessment

A Chemical Safety Assessment is not required for this substance.

SECTION 16: Other information

Text of the R-phrases assigned to the ingredients/components

22 Harmful if swallowed.
42/43 May cause sensitization by inhalation and skin contact.
49 May cause cancer by inhalation.
50 Very toxic to aquatic organisms.
53 May cause long-term adverse effects in the aquatic environment.
60 May impair fertility.
68 Possible risk of irreversible effects.

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List of the text of the hazard statements mentioned section 3 (H-phrases) :

H302	Harmful if swallowed.
H317	May cause an allergic skin reaction.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H341	Suspected of causing genetic defects.
H350i	May cause cancer if inhaled.
H360F	May damage fertility.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

Legend

ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
AOX	Adsorbable organic bound halogens
CAS	Chemical Abstracts Service
DMEL	Derived Minimal Effect Level (genotoxic substances)
DNEL	Derived No Effect Level
EC50	Half maximal effective concentration
GHS	Globally Harmonized System
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Lethal Concentration 50%
LD50	Lethal Dose 50%
MARPOL	International Convention for the Prevention of Pollution From Ships
NOAEC	No Observed Adverse Effect Concentration
NOAEL	No Observed Adverse Effect Level
NOEC	Non Observed Effect Concentration
OEL	Occupational Exposure Limit
PBT	Persistent, Bioaccumulative, Toxic
PEC	Predicted Environmental Concentration
PNEC	Predicted No Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	International Rule for Transport of Dangerous Substances by Railway
SVHC	Substances of Very High Concern
vPvB	very Persistent and very Bioaccumulative

Part Number

MC3090005

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