

SAFETY DATA SHEET

COBALT 5

SDS # : HA276-A
Revision date: 2018-07-23
Format: NA
Version 1.01



1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier

Product Name COBALT 5

Other means of identification

Product Code(s) HA276-A

Recommended use of the chemical and restrictions on use

Recommended Use: A fertilizer with micronutrients for use in agriculture and horticulture.

Restrictions on Use: Use as recommended by the label.

Supplier Address

Manufacturer Address FMC Agro Limited
Rectors Lane
Pentre
Flintshire
CH5 2DH
United Kingdom
Tel: + 44 (0) 1244 537370
E-mail: fmc.agro.uk@fmc.com

Emergency telephone number +44(0)1244 537370 (office hours only)

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Serious eye damage/eye irritation	Category 2
Respiratory sensitization	Category 1B
Skin sensitization	Category 1
Germ cell mutagenicity	Category 2
Carcinogenicity	Category 1A
Reproductive toxicity	Category 1B

GHS Label elements, including precautionary statements

EMERGENCY OVERVIEW

Danger

Hazard Statements

H317 - May cause an allergic skin reaction
H319 - Causes serious eye irritation

H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled
H341 - Suspected of causing genetic defects
H350 - May cause cancer
H350i - May cause cancer by inhalation
H360F - May damage fertility



Precautionary Statements - Prevention

P202 - Do not handle until all safety precautions have been read and understood
P261 - Avoid breathing dust/fume/gas/mist/vapors/spray
P272 - Contaminated work clothing should not be allowed out of the workplace

Precautionary Statements - Response

P308 + P313 - If exposed or concerned: Get medical advice/attention
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing
P391 - Collect spillage

Precautionary Statements - Storage

P405 - Store locked up

Precautionary Statements - Disposal

P501 - Dispose of contents/container according to label directions

Hazards not otherwise classified (HNOC)

No hazards not otherwise classified were identified.

Other Information

No information available.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	CAS-No	Weight %
COBALT (II) SULPHATE	10124-43-3	10-30

4. FIRST AID MEASURES

Eye Contact

Eye bathing equipment should be available on the premises. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention immediately if irritation persists.

Skin Contact

Immediately remove all stained or splashed clothing that is not adhering to the skin. Wash off immediately with soap and plenty of water. In case of burns: COOL IMMEDIATELY AND CONTINUOUSLY WITH COPIOUS AMOUNTS OF WATER WHILE WAITING FOR IMMEDIATE TRANSPORT TO A SPECIALISED MEDICAL CENTRE FOR EMERGENCY CARE.

Inhalation

Remove person from exposure ensuring one's own safety while doing so. Immediate

medical attention is required.

Ingestion

Rinse mouth. Do NOT induce vomiting. Immediate medical attention is required.

Most important symptoms and effects, both acute and delayed

Skin contact: There may be irritation and redness at the site of contact.
Eye contact: There may be irritation and redness. The eyes may water profusely.
Ingestion: There may be soreness and redness of the mouth and throat. Nausea and stomach pain may occur. There may be vomiting.
Inhalation: There may be irritation of the throat with a feeling of tightness in the chest.
Delayed / immediate effects: Immediate effects can be expected after short-term exposure.

Indication of immediate medical attention and special treatment needed, if necessary

Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Cool containers / tanks with water spray.

Specific Hazards Arising from the Chemical

Thermal decomposition can lead to release of toxic and corrosive gases/vapors.

Explosion data**Sensitivity to Mechanical Impact**

No information available.

Sensitivity to Static Discharge

No information available.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus and full protective gear. Prevent runoff from fire control from entering streams, sewers, or drinking water supply. If there is accidental release into water courses, drains, soil or vegetation, immediately contact the relevant authorities.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions

For personal protection see section 8. Isolate and post spill area. Keep people away from and upwind of spill/leak. Stop leak if you can do it without risk. In the case of large spills (1 ton or more), alert the appropriate authorities.

Other

Ventilate the area.

Environmental Precautions

Do not discharge into drains or rivers. Contain the spillage using bunding. Accidental release into water courses must be alerted to the appropriate regulatory body.

Methods for Containment

Dike to collect large liquid spills. Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see Section 13).

Methods for cleaning up

Pick up and transfer to properly labeled containers. Dispose of in accordance with all applicable national environmental laws and regulations.

7. HANDLING AND STORAGE

Handling

Handle in accordance with good industrial hygiene and safety practice. Do not contaminate other pesticides, fertilizers, water, food, or feed by storage or disposal. Avoid contact with skin, eyes and clothing.

Storage

Store above 5°C. Protect from freezing. Keep in a dry, cool and well-ventilated place. Keep away from direct sunlight. Keep away from heat. Keep out of reach of children and animals. Keep away from food, drink and animal feedingstuffs.

Incompatible products

Strong oxidizing agents, Strong bases

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters**COBALT (II) SULPHATE**

DNEL - Inhalation: 105.2 µg/m³ (Workers, Local Effect)

DNEL - Inhalation: 16.6 µg/m³ (Consumers, Local effect)

DNEL - Oral: 25 µg/kg.bw/day (Consumers, Systemic effect)

PNEC: Fresh water = 0.51 µg/L

PNEC: Marine water = 2.36 µg.Co/L

PNEC: Fresh water sediments = 9.5 mg.Co/kg.dw\par Marine sediments = 9.5 mg.Co/kg.dw

PNEC: Soil = 7.9 mg/kg.dw

PNEC-Microorganisms in sewage treatment = 0.373 mg.Co/L

Chemical name	ACGIH TLV	OSHA PEL	NIOSH	Mexico
COBALT (II) SULPHATE (10124-43-3)	TWA: 0.02 mg/m³	-	-	-
Chemical name	British Columbia	Quebec	Ontario TWA EV	Alberta
COBALT (II) SULPHATE (10124-43-3)	TWA: 0.02 mg/m³	TWA: 0.02 mg/m³	TWA: 0.02 mg/m³	TWA: 0.02 mg/m³

Appropriate engineering controls**Engineering measures**

Apply technical measures to comply with the occupational exposure limits. When working in confined spaces (tanks, containers, etc.), ensure that there is a supply of air suitable for breathing and wear the recommended equipment.

Individual protection measures, such as personal protective equipment**Eye/Face Protection**

Tightly fitting safety goggles. Provide emergency on-site eyewash.

Skin and Body Protection

Impermeable protective clothing.

Hand Protection

Protective gloves, Impervious butyl rubber gloves, Neoprene gloves, PVC gloves.

Respiratory Protection

The product is not likely to present an airborne exposure concern during normal handling, but in the event of a discharge of the material which produces a heavy vapour or mist, workers should put on officially approved face mask or respiratory protection: Respiratory protection with universal filter type, including particle filter.

Hygiene measures

Clean water should be available for washing in case of eye or skin contamination. Remove and wash contaminated clothing before re-use. Wash skin prior to eating, drinking, chewing gum or using tobacco. Shower or bathe at the end of working. Launder work clothing separately from regular household laundry.

General information

If the product is used in mixtures, it is recommended that you contact the appropriate protective equipment suppliers.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	No information available
Physical State	Liquid
Color	Red
Odor	Odorless
Odor threshold	No information available
pH	1.7 - 2.7
Melting point/freezing point	Not applicable
Boiling Point/Range	No information available
Flash point	Not applicable
Evaporation Rate	No information available
Flammability (solid, gas)	No information available
Flammability Limit in Air	No information available

Upper flammability limit:	No information available
Lower flammability limit:	No information available
Vapor pressure	No information available
Vapor density	No information available
Density	No information available
Specific gravity	1.16 - 1.18
Water solubility	Soluble in water
Solubility in other solvents	No information available
Partition coefficient	No information available
Autoignition temperature	No information available
Decomposition temperature	No information available
Viscosity, kinematic	No information available
Viscosity, dynamic	No information available
Explosive properties	No information available
Oxidizing properties	Non-oxidizing
Molecular weight	No information available
Bulk density	No information available

10. STABILITY AND REACTIVITY

Reactivity	Stable under recommended storage conditions
Chemical Stability	Stable under recommended storage conditions.
Possibility of Hazardous Reactions	Decomposition may occur on exposure to conditions or materials listed below.
Hazardous polymerization	Hazardous polymerization does not occur.
Conditions to avoid	Heat
Incompatible materials	Strong oxidizing agents, Strong bases.
Hazardous Decomposition Products	May emit toxic fumes under fire conditions.

11. TOXICOLOGICAL INFORMATION

Product Information

LD50 Oral	> 2000 mg/kg (Calculated Estimated Acute Toxicity - EAT)
LD50 Dermal	> 2000 mg/kg (Calculated Estimated Acute Toxicity - EAT)
LC50 Inhalation	> 5 mg/L (4-hr) (Calculated Estimated Acute Toxicity - EAT)

Serious eye damage/eye irritation	Risk of serious damage to eyes.
Skin corrosion/irritation	Not expected to be irritating based on the components.
Sensitization	May cause sensitization by inhalation and skin contact

Chemical name	LD50 Oral	LD50 Dermal	LC50 Inhalation
COBALT (II) SULPHATE (10124-43-3)	= 424 mg/kg (Rat)		

Information on toxicological effects

Symptoms	Skin contact: May see mild irritation at the site of contact. Eye contact: Possible irritation and redness. Ingestion: Possible irritation of the throat. Inhalation: May experience irritation of the throat with a feeling of tightness in the chest. Delayed/Immediate effects: Immediate effects can be expected after short-term exposure.
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Delayed and immediate effects as well as chronic effects from short and long-term exposure

Mutagenicity	May cause heritable genetic damage
Carcinogenicity	May cause cancer
Reproductive toxicity	May cause heritable genetic damage, Suspected of damaging fertility or the unborn child.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Aspiration hazard	No information available.

Chemical name	ACGIH	IARC	NTP	OSHA
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COBALT (II) SULPHATE 10124-43-3	A3	Group 2B	Reasonably Anticipated	X
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12. ECOLOGICAL INFORMATION

Ecotoxicity

FATHEAD MINNOW (*Pimephales promelas*): 96H LC50 = 27.4 mg/L (calculated)

DAPHNID (*Daphnia magna*): 48H LC50 = 45.5 mg/L (calculated)

ALGAE (*Raphidocelis subcapitata*): 72H ErC50 = 6.84 mg/L (calculated)

Persistence and degradability No information available.

Bioaccumulation No information available.

Mobility Soluble in water.

13. DISPOSAL CONSIDERATIONS

Waste disposal methods It must undergo special treatment, e.g. at suitable disposal site, to comply with local regulations. Do not flush into surface water or sanitary sewer system. Should not be released into the environment. Dispose of contents/container in accordance with local regulation.

Contaminated Packaging Clean container with water. Dispose of rinse water in accordance with local and national guidelines.

14. TRANSPORT INFORMATION

DOT

UN/ID no UN3082
Proper Shipping Name Environmentally hazardous substance, liquid, n.o.s.
Hazard class 9
Packing Group III
Marine Pollutant Cobalt sulphate.
Description UN3082, Environmentally hazardous substance, liquid, n.o.s. (cobalt sulphate), 9, III, Marine pollutant

TDG

UN/ID no UN3082
Proper Shipping Name Environmentally hazardous substance, liquid, n.o.s.
Hazard class 9
Packing Group III
Marine Pollutant Cobalt sulphate.
Description UN3082, Environmentally hazardous substance, liquid, n.o.s. (cobalt sulphate), 9, III, Marine pollutant

ICAO/IATA

UN/ID no UN3082
Proper Shipping Name Environmentally hazardous substance, liquid, n.o.s.
Hazard class 9
Packing Group III
Description UN3082, Environmentally hazardous substance, liquid, n.o.s. (cobalt sulphate), 9, III, Marine pollutant

IMDG/IMO

COBALT 5

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UN/ID no	UN3082
Proper Shipping Name	Environmentally hazardous substance, liquid, n.o.s.
Hazard class	9
Packing Group	III
Marine Pollutant	Cobalt sulphate
Description	UN3082, Environmentally hazardous substance, liquid, n.o.s. (cobalt sulphate), 9, III, Marine pollutant

15. REGULATORY INFORMATION**U.S. Federal Regulations****SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic health hazard	Yes
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

Clean Water Act

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

US State Regulations**California Proposition 65**

This product does not contain any Proposition 65 chemicals.

Chemical name	California Prop. 65
COBALT (II) SULPHATE - 10124-43-3	Carcinogen

U.S. State Right-to-Know Regulations

This product does not contain any substances regulated by state right-to-know regulations

International Inventories

Chemical name	TSCA (United States)	DSL (Canada)	EINECS/ELINC S (Europe)	ENCS (Japan)	China (IECSC)	KECL (Korea)	PICCS (Philippines)	AICS (Australia)
COBALT (II) SULPHATE 10124-43-3	X	X	X	X	X	X	X	X

16. OTHER INFORMATION

NFPA	Health Hazards 2	Flammability 1	Instability 0	Special Hazards -
HMIS	Health Hazards 2	Flammability 1	Physical hazard 0	Personal Protection X

NFPA/HMIS Ratings Legend Severe = 4; Serious = 3; Moderate = 2; Slight = 1; Minimal = 0

Revision date: 2018-07-23
Reason for revision: Format Change**Disclaimer**

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product.

Prepared By:

FMC Corporation

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End of Safety Data Sheet