

SAFETY DATA SHEET
COBALT 5

SDS # : HA276-A
Revision date: 2017-05-11
Format: NA
Version 1



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

Headland Agrochemicals
Rectors Lane
Pentre
Flintshire
CH5 2DH
United Kingdom
Tel: +44(0)1244 537370
Fax: +44(0)1244 532097
Email: flintshire.enquiry@fmc.com

Manufacturer Address

Headland Agrochemicals
Rectors Lane
Pentre
Flintshire
CH5 2DH
United Kingdom
Tel: +44(0)1244 537370
Fax: +44(0)1244 532097
Email: flintshire.enquiry@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	<p>Skin contact: There may be irritation and redness at the site of contact.</p> <p>Eye contact: There may be irritation and redness. The eyes may water profusely.</p> <p>Ingestion: There may be soreness and redness of the mouth and throat. Nausea and stomach pain may occur. There may be vomiting.</p> <p>Inhalation: There may be irritation of the throat with a feeling of tightness in the chest.</p> <p>Delayed / immediate effects: Immediate effects can be expected after short-term exposure.</p>
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
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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

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	
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

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.

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

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.

U.S. State Right-to-Know Regulations

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

International Inventories

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

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Reason for revision: Format Change

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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:

Headland Agrochemicals

End of Safety Data Sheet