

SAFETY DATA SHEET (SDS)

Agro-K Corporation

I. PRODUCT AND COMPANY IDENTIFICATION

Product Name: BioMulch 7-0-0
 Common Name: Liquid fertilizer
 Identified Uses: Intended for agriculture. Not for human consumption.

Supplier: AGRO-K CORPORATION
 8030 MAIN STREET NE
 MINNEAPOLIS, MN 55432
 Telephone: (763) 780-4116 / (800) 328-2418
 FAX: (763) 780-4316

CHEMTREC
 Emergency Telephone: (800) 424-9300

II. HAZARDS IDENTIFICATION

Classification:
 Skin Irritant 3 H316
 Eye Irritant 2A H319
 STOT SE 3 H335
 Aquatic Acute 3 H402



Hazard pictogram:

Signal word: Warning
 Hazard statements:
 H316 – May cause skin irritation
 H319 – Causes eye irritation
 H335 – May cause respiratory irritation
 H402 – Harmful to aquatic life
 Precautionary statements:
 P261 – Avoid breathing dust
 P264 – Wash thoroughly after handling
 P271 – Use only outdoors or in a well-ventilated area
 P273 – Avoid release to aquatic environment
 P280 – Wear protective gloves/clothing/eyewear/face
 P302+P352 – If on skin: Wash with plenty of soap and water
 P304+P340 – If inhaled: Remove person to fresh air and keep comfortable for breathing
 P305+P351+P338 – If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
 P312 – Call a poison center/doctor if you feel unwell
 P332+P313 – If skin irritation occurs: Get medical advice/attention
 P337+P313 – If eye irritation occurs: Get medical advice/attention
 P362 – Take off contaminated clothing and wash before reuse
 P501 – Dispose of contents/container in accordance with local/regional/national regulations

III. COMPOSITION/INFORMATION ON INGREDIENTS

Blend of the following ingredients:

Chemical Compound	CAS Number
Cobalt Carbonate	513-79-1

*Ingredients not specifically listed are non-hazardous and are considered to be confidential

IV. FIRST AID MEASURES

If in Eyes:	Hold eyelid open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. If irritation develops and persists, call a poison control center or doctor immediately for treatment advice.
If on Skin:	Take off contaminated clothing. Rinse skin immediately with plenty of soap and water for 15-20 minutes. Call a poison control center or doctor immediately for treatment advice.
If Swallowed:	Do not induce vomiting unless told to do so by a poison control center or doctor. Have a person sip a glass of water if able to swallow. Do not give anything to an unconscious or convulsing person. Call a poison control center or doctor immediately for treatment advice.
If Inhaled:	Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.

Hotline Number: Have the product container or label with you when calling a poison control center or doctor or going for treatment. In case of emergency, call ChemTrec at 1-800-424-9300.

V. FIRE FIGHTING MEASURES

Suitable extinguishing media:	Foam. Dry Powder. Carbon dioxide. Water spray. Sand. Use extinguishing media for underlying cause of fire. Do not use heavy water stream.
Advice for firefighters:	Wear self-contained breathing apparatus and full protective equipment. Use water spray to cool containers exposed to heat and flame. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.

VI. ACCIDENTAL RELEASE MEASURES

Spill procedure:	Capture product and reuse material if uncontaminated. If contaminated, place in a suitable container for proper disposal. Prevent entry to sewers and water supplies.
Protective equipment:	Equip cleanup crew with proper protection.
Emergency procedures:	If indoors: ventilate area

VII. HANDLING AND STORAGE

Precautions for safe handling:	Wash hands and exposed areas with soap and water before eating, drinking, or smoking. Provide good ventilation in process area. Avoid breathing dust
Storage Conditions:	Keep in closed container and properly labeled. Avoid generating dust.

VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION

Chemical Compound	CAS Number	ACGIH TLV	OSHA TWA
Cobalt Carbonate	513-79-1	0.02 mg/m ³ (listed under cobalt, inorganic compounds)	0.1 mg/m ³ (listed under cobalt, inorganic compounds)

Personal protective equipment:	Avoid all unnecessary exposure.
Hand protection:	Wear protective gloves.
Eye protection:	Wear protective eyewear if misting exposure is expected.
Respiratory protection:	Wear appropriate mask if exposure is expected.
Other information:	Do not eat, drink, or smoke during use.

IX. PHYSICAL AND CHEMICAL PROPERTIES

Physical description:	Liquid with suspended solids
Color:	Brownish pink
Odor:	Slight sweet
Odor threshold:	No data available
Vapor density:	No data available
pH:	4.0
Relative density:	1.085
Melting/freezing point:	No data available
Solubility:	Not soluble in water
Boiling point:	No data available
Flash point:	No data available
Flammability:	No data available
Vapor Pressure:	No data available
Partition coefficient:	No data available
Auto-ignition temperature:	No data available
Viscosity:	No data available

X. STABILITY AND REACTIVITY

Chemical stability:	Stable.
Conditions to avoid:	None currently known.
Incompatibility with other materials:	None currently known.
Hazardous combustion:	Will not occur.
Hazardous polymerization:	Will not occur.

XI. TOXICOLOGY

Potential acute health effects:

Eyes:	Irritating to eyes. May cause sensitization by inhalation.
Skin:	Irritating to skin.
Inhalation:	Mist may cause irritation.
Ingestion:	May cause sensitization by skin contact.

Potential chronic health effects

Carcinogenic effects:	No known significant effects or critical hazards.
Mutagenic effects:	No known significant effects or critical hazards.

United States

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Cobalt carbonate	LD50 Oral	Rat	640 mg/kg	Not Available

Conclusion Summary: carbonic acid, cobalt(2+) salt (1:1): Inhalation of this material may cause sensitive individuals to develop eczema and/or asthma

Chronic Effects on Humans:	CARCINOGENIC EFFECTS: Classified A3 (Proven for animals.) by ACGIH [carbonic acid, cobalt(2+) salt (1:1)].
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MUTAGENIC EFFECTS: Classified 3 by European Union [carbonic acid, cobalt(2+) salt (1:1)].
 Other Toxic Effects Very hazardous by the following route of exposure – ingestion

XII. ECOLOGICAL INFORMATION

Aquatic ecotoxicity: No data available
Biodegradability: No data available
Environmental Precautions: No known significant effects or critical hazards
Mobility: Not available
Other Adverse Effects: No known significant effects or critical hazards

XIII. DISPOSAL CONSIDERATIONS

Waste Disposal Method: This material must be disposed of according to federal, state, or local procedures under the resource conservation and recovery act.

FERTILIZER DISPOSAL: Use according to label instructions, contact your State or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

CONTAINER DISPOSAL:

Nonrefillable container:

Do not reuse or refill this container. Then offer for recycling if available, or puncture and dispose in a sanitary landfill, or by other procedures approved by state and local authorities. If rinsed cannot be used, follow fertilizer disposal instructions. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.

To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 % full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times

XIV. TRANSPORT INFORMATION

Shipping Name: Not regulated by DOT
Hazard Class: None
Identification No.: None
Labels Required: None
Placarding: None

XV. REGULATORY INFORMATION

HCS Classification: Irritating material
 Sensitizing material

U.S. Federal regulations:

TSCA 8(a) IUR Exempt/Partial exemption: Not determined
 United States inventory (TSCA 8b): All components are listed or exempted.
 Clean Air Act (CAA) 112 accidental release prevention: No products were found.
 SARA 302/304/311/312 extremely hazardous substances: No products were found.
 SARA 302/304 emergency planning and notification: No products were found.
 SARA 302/304/311/312 hazardous chemicals: No products were found.

SARA 311/312 MSDS distribution - chemical inventory - hazard identification: No products were found.

Form R – Reporting requirements Supplier notification:

Carbonic acid, cobalt (2+) salt (1:1) 513-79-1

SARA 313 notifications must not be detached from the MSDS and any copying and redistribution of the MSDS shall include copying and redistribution of the notice attached to copies of the MSDS subsequently redistributed.

USA

TSCA 8(a) IUR Exempt/Partial exemption: Not determined

United States inventory (TSCA 8b): All components are listed or exempted.

EU regulations carbonic acid, cobalt(2+) salt (1:1)

S53- Avoid exposure - obtain special instructions before use.

S22- Do not breathe dust.

S36/37- Wear suitable protective clothing and gloves.

S45- In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

S61- Avoid release to the environment. Refer to special instructions/safety data sheet.

R49- May cause cancer by inhalation.

R68- Possible risk of irreversible effects.

R60- May impair fertility.

R20/22- Also harmful by inhalation and if swallowed.

R42/43- May cause sensitization by inhalation and skin contact.

R50/53- Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

International regulations/ International lists:

Australia inventory (AICS): All components are listed or exempted.

China inventory (IECSC): All components are listed or exempted.

Japan inventory: All components are listed or exempted.

Korea inventory: All components are listed or exempted.

New Zealand Inventory of Chemicals (NZIoC): All components are listed or exempted.

Philippines inventory (PICCS): All components are listed or exempted.

XVI. OTHER INFORMATION

DISCLAIMER: The information presented herein is based on available data from reliable sources and is correct to the best of Agro-K, Corporation knowledge. Agro-K, Corporation makes no warranty, express or implied, regarding the accuracy of the data or the results obtained from the use of this product. Nothing herein may be construed as recommending any practice or any product in violation of any law or regulations. The user is solely responsible for determining the suitability of any material or product for a specific purpose and for adopting any appropriate safety precautions.

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