

CS 2005

SDS Number: 834

Revision Date: 5/2/2017

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**1 PRODUCT AND COMPANY IDENTIFICATION**

**Manufacturer**

Magna-Bon II, LLC  
1531 NW 25th Drive  
Okeechobee, FL 34972

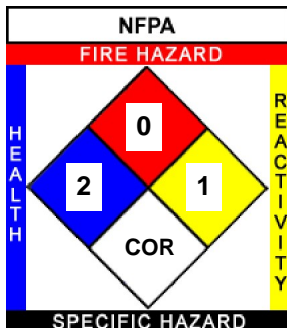
**Contact:** Magna-Bon II, LLC  
**Phone:** 1-863-357-0400 // 1-800-845-1357  
**Web:** www.magnabon.com

**Product Name:** CS 2005  
**Revision Date:** 5/2/2017  
**Version:** 1  
**SDS Number:** 834  
**Common Name:** Inorganic Acid Salts  
**CAS Number:** MIXTURE  
**EPA Number:** 66675-3  
**Chemical Family:** Inorganic Acid Salts  
**Chemical Formula:** \*\*\* PROPRIETARY \*\*\*  
**Synonyms:** Magna-Bon CS 2005  
**Product Use:** Bactericide / Fungicide  
**Emergency Phone:** 1-800-424-9300 (CHEMTREC, 24 Hours)

**2 HAZARDS IDENTIFICATION**

NFPA:  
HMIS III:

Health = 2, Fire = 0, Reactivity = 1  
H2/F0/PH1



HMIS III	
HEALTH	2
FLAMMABILITY	0
PHYSICAL HAZARDS	1
PERSONAL PROTECTION D   Face Shield and Eye Protection, Gloves, Apron	

PERSONAL PROTECTION INDEX													
A		G											
B		H											
C		I											
D		J											
E		K											
F		X	Consult your supervisor or S.O.P. for "SPECIAL" handling directions										
A		n		O		p		q		r		S	
t		u		w		y		z		Additional Information			

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GHS Signal Word:

DANGER

GHS Hazard Pictograms:



GHS Classifications:

- Physical, Corrosive to Metals, 1
- Health, Acute toxicity, 4 Oral
- Health, Skin corrosion/irritation, 1 B
- Health, Serious Eye Damage/Eye Irritation, 1
- Environmental, Hazards to the aquatic environment - Chronic, 1

GHS Phrases:

- H290 - May be corrosive to metals
- H302 - Harmful if swallowed
- H314 - Causes severe skin burns and eye damage
- H318 - Causes serious eye damage
- H410 - Very toxic to aquatic life with long lasting effects

GHS Precautionary Statements:

- P234 - Keep only in original container.
- P260 - Do not breathe dust/fume/gas/mist/vapors/spray.
- P262 - Do not get in eyes, on skin, or on clothing.
- P264 - Wash skin thoroughly after handling.
- P270 - Do not eat, drink or smoke when using this product.
- P271 - Use only outdoors or in a well-ventilated area.
- P280 - Wear protective gloves/protective clothing/eye protection/face protection.
- P301+310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
- P301+330+331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
- P303+361+353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
- P304+340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- P305+351+338 - IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
- P321 - Specific treatment (see supplementary first aid instructions on this label).
- P362 - Take off contaminated clothing and wash before reuse.
- P390 - Absorb spillage to prevent material damage.
- P403+233 - Store in a well ventilated place. Keep container tightly closed.
- P405 - Store locked up.
- P501 - Dispose of contents/container to an approved waste disposal plant.

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### 3 COMPOSITION/INFORMATION ON INGREDIENTS

**Ingredients:**

Cas #	Percentage	Chemical Name
N/A	>76.19%	Proprietary, non-hazardous, non-regulated**
7758-99-8	18.81-20.79%	Copper sulfate pentahydrate
N/A	<5%	Trade Secret*

\*The specific chemical identities of the ingredients of this mixture labeled as "Trade Secret" are considered to be proprietary and are withheld in accordance with the provisions of 29CFR1910.1200 Sect. (i) Trade Secrets.

\*\*Balance of ingredients are non-hazardous, as defined by OSHA 29CFR1910.1200 or the Globally Harmonized System of Classification and Labeling of Chemicals (GHS), or hazardous in less than 1% concentration (or 0.1% for carcinogens, reproductive toxins, or respiratory/skin sensitizers).

### 4 FIRST AID MEASURES

- Inhalation:** Give oxygen or artificial respiration if needed. If symptoms develop, move victim to fresh air. If symptoms persist, obtain medical attention.
- Skin Contact:** Take off contaminated clothing and shoes immediately. Promptly flush skin with water for at least 15 minutes to ensure all chemical is removed. If reddening develops and/or persists, obtain medical attention.
- Eye Contact:** Flush with large amounts of water for at least 15 minutes, lifting upper and lower lids occasionally. Remove contact lenses if present and easy to do so. Get immediate medical attention. Continue rinsing eyes during transport to hospital.
- Ingestion:** Rinse mouth with water. Do NOT induce vomiting unless instructed to do so. Give 3-4 glasses of water or milk to dilute stomach contents. Never give anything by mouth to an unconscious person. Contact a Poison Control Center for advice. Get immediate medical attention.

### 5 FIRE FIGHTING MEASURES

- Flammability:** Not flammable
- Flash Point:** DNA
- Flash Point Method:** DNA
- Burning Rate:** No data available
- Autoignition Temp:** No data available
- LEL:** DNA
- UEL:** DNA

**Extinguishing Media:**

- Water Spray
- Carbon Dioxide
- Alcohol-Resistant Foam
- Dry Chemical

**Special Hazards Arising From the Substance or Mixture:**

- Copper Oxides
- Nitrogen Oxides (NOx)
- Sulfur Oxides

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**Advice for Firefighters:**

Firefighters should wear full-face, positive-pressure respirators.

**Further Information:**

If incinerated, may release toxic fumes.

Gives off Hydrogen by reaction with metals. Hydrogen is flammable and potentially explosive. Use caution.

Use water spray to cool unopened containers.

See Section 7 for more information on safe handling.

See Section 8 for more information on personal protection equipment.

See Section 13 for disposal information.

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**ACCIDENTAL RELEASE MEASURES****Personal Precautions, Protective Equipment and Emergency Procedures:**

Use personal protective equipment.

Keep from contacting skin or eyes.

Avoid breathing vapors, mist or gas.

Ensure adequate ventilation.

Evacuate personnel to safe areas.

**Environmental Precautions:**

Prevent further release (leakage/spillage) if safe to do so.

Do not allow product to enter drains.

Do not allow to drain to environment.

**Methods and Materials for Containments and Cleaning Up:**

Absorb with liquid-binding material (sand, diatomite, universal binders, acid binders, sawdust).

Neutralizing agent like Sodium Bicarbonate may also be used to absorb/neutralize any spilled material.

Place contaminated material into suitable, closed containers for disposal.

Dispose of contaminated material according to Section 13.

After spillage has been collected, area may be flushed with water or wet-brushed.

Ensure adequate ventilation.

**Reference to Other Sections:**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for information on proper disposal.

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**HANDLING AND STORAGE****Handling Precautions:**

Avoid breathing vapors or mist.

Avoid contact with eyes, skin, or clothing.

Use approved containers only.

Keep containers closed when not in use.

Do not expose containers to open flame, excessive heat, or direct sunlight.

Do not puncture or drop containers.

Handle with care and avoid spillage on the floor.

Keep material out of reach of children.

Keep material away from incompatible materials.

Do not use corrosive-sensitive materials such as mild steel.

Wash thoroughly after handling.

Ensure adequate ventilation.

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**Storage Requirements:** Keep container tightly closed.  
Avoid inhalation of vapors or mist upon opening container.  
Store in a well-ventilated place.  
Do not store in direct sunlight.  
Store away from strong bases, strong oxidizing agents, organic materials, Carbides, Fulminates, Picrates, Cyanides, Chlorates, Alkali Halides, Azides, Nitromethane, Phosphorous, Cyclopentadiene, Cyclopentanone Oxime, Nitroaryl Amines, Hexalithium Disilicide, Phosphorous(III) Oxide, Hydroxylamine, reactive metals (Zinc & Aluminum) and their alloys (Brass, etc.), powdered metals and metals salts.

**8****EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Engineering Controls:** All ventilation should be designed in accordance with OSHA standard (29 CFR 1910.94). Use local exhaust at filling zones and where leakage and dust formation is probable. Use mechanical (general) ventilation for storage areas. Use appropriate ventilation as required to keep Exposure Limits in Air below TLV & PEL limits.

**Personal Protective Equip:** Eye/face protection:  
When using material use safety goggles, gloves, apron and face shield according to HMIS PP, D. A vapor respirator according to HMIS PP, U is also highly recommended when working with heated and/or concentrated product in poorly-ventilated spaces. All safety equipment should be tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

Skin protection:  
Handle with gloves made from Viton, Nitrile, PVC or Buna rubber. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact. Dispose of contaminated gloves according to applicable laws and laboratory practices.

Body Protection:  
Chemically resistant gloves, apron, safety goggles and face shield are recommended. Type of protective equipment should be selected based on concentration amount and conditions of use of this material.

Respiratory protection:  
Full-face vapor respirator may be required as backup to engineering controls when proper engineering controls are not in place to keep TLV and PEL limits below defined thresholds. Respiratory protection must comply with 29 CFR 1910.134.

Control of environmental exposure:  
Prevent leakage or spillage if safe to do so. Do not let material enter drains.

**Components with workplace control parameters:**

Component(s): Copper sulfate pentahydrate  
CAS No(s): 7758-99-8  
USA NIOSH Recommended Exposure Limits (TWA): 1 mg/m<sup>3</sup>  
California permissible exposure limits for chemical contaminants (Title 8, Article 107) (PEL): 1 mg/m<sup>3</sup>

Component(s): Trade Secret  
CAS No(s): N/A  
USA ACGIH (TWA/TLV): 0.2 mg/m<sup>3</sup>  
USA OSHA Occupational Exposure Limits Table Z-1 Limits for Air Contaminants (TWA): 1 mg/m<sup>3</sup>

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USA OSHA Table Z-1 Limits for Air Contaminants (TWA): 1 mg/m<sup>3</sup>

### Biological occupational exposure limits:

Contains no substances with biological occupational exposure limits values.

### Derived No Effect Level (DNEL):

Component(s): Trade Secret

CAS No(s): N/A

Inhalation - Workers (Acute local effects): 0.1 mg/m<sup>3</sup>

Inhalation - Consumers (Long-term local effects): 0.05 mg/m<sup>3</sup>

### Predicted No Effect Concentration (PNEC):

Component(s): Trade Secret

CAS No(s): N/A

Marine Water: 0.00025 mg/l

Fresh Water: 0.0025 mg/l

Marine Sediment: 0.002 mg/kg

Fresh Water Sediment: 0.002 mg/kg

Onsite Sewage Treatment Plant: 8.8 mg/l

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## PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance:</b>	Clear, Blue Liquid	<b>Odor:</b>	Mild
<b>Physical State:</b>	Liquid	<b>Molecular Formula:</b>	MIXTURE
<b>Odor Threshold:</b>	Not determined	<b>Solubility:</b>	100%
<b>Particle Size:</b>	Not determined	<b>Softening Point:</b>	Not determined
<b>Spec Grav./Density:</b>	1.180 g/ml (9.85 lbs/gal)	<b>Percent Volatile:</b>	Not determined
<b>Viscosity:</b>	Not determined	<b>Heat Value:</b>	Not determined
<b>Sat. Vap. Conc.:</b>	Not determined	<b>Freezing/Melting Pt.:</b>	Not determined
<b>Boiling Point:</b>	104.4 °C (220.0 °F)	<b>Flash Point:</b>	DNA
<b>Flammability:</b>	(solid, gas): Not flammable	<b>Octanol:</b>	Not determined
<b>Partition Coefficient:</b>	Not determined	<b>Vapor Density:</b>	(air = 1): 1.0
<b>Vapor Pressure:</b>	(mm Hg @ 20 °C): 0.1	<b>VOC:</b>	0 g/l
<b>pH:</b>	@ 100%: 2.05	<b>Bulk Density:</b>	Not determined
<b>Evap. Rate:</b>	(N-Butyl Acetate = 1): Not determined	<b>Auto-Ignition Temp:</b>	Not determined
<b>Molecular weight:</b>	MIXTURE	<b>UFL/LFL:</b>	Not determined
<b>Decomp Temp:</b>	Not determined		

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**10 STABILITY AND REACTIVITY**

**Stability:** Product is stable under normal conditions.

**Conditions to Avoid:** Incompatibilities, flames, ignition sources.

**Materials to Avoid:** Strong bases, strong oxidizing agents, organic materials, Carbides, Fulminates, Picrates, Cyanides, Chlorates, Alkali Halides, Azides, Nitromethane, Phosphorous, Cyclopentadiene, Cyclopentanone Oxime, Nitroaryl Amines, Hexalithium Disilicide, Phosphorous(III) Oxide, Hydroxylamine, reactive metals (Zinc & Aluminum) and their alloys (Brass, etc.), powdered metals and metals salts.

**Hazardous Decomposition:** Carbon Oxides, Nitrogen Oxides (NO<sub>x</sub>) and Sulfur Oxides.

**Hazardous Polymerization:** Will not occur.

**11 TOXICOLOGICAL INFORMATION**

**Component(s):** Copper sulfate pentahydrate  
**CAS No(s):** 7758-99-8

**Acute Toxicity:**  
LD50 Oral - Rat: 482 mg/kg  
LC50 Dermal - Rat: > 2,000 mg/kg

**Component(s):** Trade Secret  
**CAS No(s):** N/A

**Acute Toxicity:**  
LD50 Oral - Rat: 2,140 mg/kg  
LC50 Inhalation - Rat: 510 mg/m<sup>3</sup> (2 h)

**Skin Corrosion/Irritation:** Rabbit skin - Corrosive (24 h).

**Serious Eye Damage/Eye Irritation:** Rabbit eyes - Corrosive (24 h).

**Respiratory or Skin Sensitation:** Prolonged or repeated exposure may cause allergic reaction in certain sensitive individuals.

**Germ Cell Mutagenicity:** No data available.

**Carcinogenicity:**

**IARC:** No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by IARC.

**ACGIH:** No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

**NTP:** No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by NTP.

**OSHA:** No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

**Reproductive Toxicity:** No data available.

**Specific Target Organ Toxicity - Single Exposure:** Respiratory system - May cause respiratory irritation. Product has low vapor pressure at ambient conditions and is not expected to present a significant hazard. If product is aerosolized, sprayed

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and/or used at elevated temperature, product may present a respiratory hazard.

**Specific Target Organ Toxicity - Repeated Exposure:** No data available.

**Aspiration Hazard:** No data available.

**Additional Information:**

Component: Copper sulfate pentahydrate; RTECS: GL8900000

Component: Trade Secret; RTECS: Withheld

**12****ECOLOGICAL INFORMATION**

**Component(s):** Copper sulfate pentahydrate

**CAS No(s):** 7758-99-8

**Toxicity:**

*Toxicity to algae:*

EC50 - Daphnia magna (Water Flea): 0.024 mg/l (48 h)

**Component(s):** Trade Secret

**CAS No(s):** N/A

**Toxicity:**

*Toxicity to fish:*

LC50 - Gambusia affinis (Mosquito Fish): 42 mg/l (96 h)

*Toxicity to algae:*

EC50 - Daphnia magna (Water Flea): 29 mg/l (24 h)

**Persistence and Degradability:**

The methods for determining the biological degradability are not applicable to inorganic substances.

**Bioaccumulative potential:**

No data available.

**Mobility in Soil:**

No data available.

**Results of PBT and vPvB assessment:**

Not required/conducted.

**Other Adverse Effects:**

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Concentrated spills may present environmental hazard due to low pH. Very toxic to aquatic life with long lasting effects.



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**13 DISPOSAL CONSIDERATIONS**

Product: Hazardous wastes shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution, release into the environment or damage to people and animals. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated Packaging: Dispose of as unused product.

**14 TRANSPORT INFORMATION**

DOT Class: Corrosive (8) #8

UN #: UN 3264, Class: 8, Proper Shipping Name: Corrosive liquid, acidic, inorganic, n.o.s. (Copper sulfate pentahydrate)

**DOT (US)**

UN Number: 3264

Class: 8

Packing Group: III

ERG #: 154

Proper Shipping Name: Corrosive liquid, acidic, inorganic, n.o.s. (Copper sulfate pentahydrate)

Marine Pollutant: Yes

Poison Inhalation Hazard(s): No

Reportable Quantity (RQ): > 50 lbs

**IMDG**

UN Number: 3264

Class: 8

Packing Group: III

EMS-No: F-A, S-B

Proper Shipping Name: Corrosive liquid, acidic, inorganic, n.o.s. (Copper sulfate pentahydrate)

Marine Pollutant: Yes

**IATA**

UN Number: 3264

Class: 8

Packing Group: III

ERG #: 154

Proper Shipping Name: Corrosive liquid, acidic, inorganic, n.o.s. (Copper sulfate pentahydrate)

Marine Pollutant: Yes



**15 REGULATORY INFORMATION**

COMPONENT / (CAS/PERC) / CODES

\*Copper sulfate pentahydrate (7758998 18.81-20.79%) CERCLA, CSWHS, EPCRAWPC, MASS, NJHS, PA, SARA311/312, SARA313, TSCA

\*Trade Secret (N/A <5%) CERCLA, CSWHS, EHS302, EPCRAWPC, MASS, NJHS, OSHAWAC, PA, PROP65,

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SARA311/312, SARA313, TSCA, TXAIR

**REGULATORY KEY DESCRIPTIONS**  
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CERCLA = Superfund clean up substance  
CSWHS = Clean Water Act Hazardous substances  
EHS302 = Extremely Hazardous Substance  
EPCRAWPC = EPCRA Water Priority Chemicals  
MASS = MA Massachusetts Hazardous Substances List  
NJHS = NJ Right-to-Know Hazardous Substances  
OSHA WAC = OSHA Workplace Air Contaminants  
PA = PA Right-To-Know List of Hazardous Substances  
PROP65 = CA Prop 65  
SARA311/312 = SARA 311/312 Toxic Chemicals  
SARA313 = SARA 313 Title III Toxic Chemicals  
TSCA = Toxic Substances Control Act  
TXAIR = TX Air Contaminants with Health Effects Screening Level

**16****OTHER INFORMATION****Disclaimer:**

The data in this Safety Data Sheet relates only to the specific material designated herein and does not relate to use in combination with any other material in any process. The information set forth herein is furnished free of charge and is based on technical data that Magna-Bon II, LLC believes to be reliable. It is intended for use by persons having technical skill and at their own discretion and risk. Since conditions of use are outside of Magna-Bon II, LLC's control, Magna-Bon II, LLC makes no warranties, expressed or implied, and assumes no liability in connection with any use of this information. Nothing herein is to be taken as a license to operate under, or a recommendation to infringe upon, any patents.

**Preparation Information:**

GHS Conversion Services  
[www.ghsconversionservices.com](http://www.ghsconversionservices.com)  
(414) 336-2546