SECTION 1: Identification

1.1. Identification

Product form	:	Mixtures
Product name	:	**CUREZIN®**

1.2. Alternative means of identification

None

1.3. Recommended use and restrictions on use

Use of the substance / mixture	:	Agriculture Laboratory use
Restrictions on use	:	Not determined

1.4. Supplier

VM Agritech, Inc
500 Technology Farm Drive
Geneva, NY 14456 US
sds@vmagritech.com
https://www.vmagritech.com/
1 – 855 – 582 – 7776

1.5. Emergency telephone number

Emergency number (CHEMTREC) (within North America)	:	1 – 800 – 424 – 9300
Emergency number (CHEMTREC) (within South America)	:	55 11 4349 1359
Emergency number (CHEMTREC) (within Philippines)	:	63 2 8 395 3308 or 1800 1 322 0553

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS-US classification

Corrosive to metals, category 1	H290 May be corrosive to metals
Skin corrosion, category 1C-I	H314 Causes severe skin burns and eye damage
Eye damage or irritation, category 1	H318 Causes serious eye damage

For the complete text of H-statements: see Section 16

2.2. GHS Label elements, including precautionary statements

GHS-US labeling

Hazard pictograms (GHS-US) :

GHS05

Signal word (GHS-US) : Danger

Hazard statements (GHS-US) :
H290 - May be corrosive to metals
H314 - Causes severe skin burns and eye damage

Precautionary statements (GHS-US) :
P234 - Keep only in original container
P260 - Do not breathe dusts or mists
P262 - Do not get in eyes, on skin, or on clothing
P264 - Wash thoroughly after handling
P270 - Do not eat, drink, or smoke while handling this product
P273 - Avoid release to the environment
P280 - Wear protective gloves, protective clothing, and face and eye protection (PPE index D)

P301 + P304 + P317 - IF SWALLOWED OR INHALED: Get emergency medical help
P302 + P303 + P352 + P362 + P364 - IF ON SKIN (or hair): Wash with copious water, take off and wash contaminated clothing
P305 - IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing
P390 - Absorb spillage to prevent material damage
P501 - Dispose contents and container in accordance with local, state, and federal regulations

2.3. Hazards associated with normal or reasonably anticipated uses

None known

2.4. Hazards not otherwise classified

None known

2.5. Unknown acute toxicity

None known

SECTION 3: Composition / Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	CAS No.	%	GHS-US classification
water	7732–18–5	84 – 85%	none
copper sulfate pentahydrate	7758–99–8	7%	Acute tox 4 (oral), H302: harmful if swallowed Eye dam 1, H318: causes serious eye damage Aquatic acute 1, H400: very toxic to aquatic life Aquatic chronic 1, H410: very toxic to aquatic life with long lasting effects
zinc sulfate monohydrate	7446–19–7	5%	Acute tox 4 (oral), H302: harmful if swallowed Eye dam 1, H318: causes serious eye damage Aquatic acute 1, H400: very toxic to aquatic life Aquatic chronic 1, H410: very toxic to aquatic life with long lasting effects Met corr 1, H290: may be corrosive to metals
phosphorous acid	10294–56–1	3 – 4%	Acute tox 4 (oral), H302: harmful if swallowed Skin corr 1A, H314: causes severe skin burns and eye damage

Full text of H-statements : see Section 16

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures general : Have the product container or label with you when calling a poison center or doctor, or going for treatment. For medical emergencies call Poison Control any time 24 hours / day at 1–800–222–1222. For non-emergency information concerning this product, call the National Pesticide Information Center (NPIC) at 1–800–858–7378, Monday through Friday, 8 AM to 12 PM PST, or at http://npic.orst.edu. Note to physician: Probable mucosal damage may contraindicate the use of gastric lavage. For questions regarding emergency medical treatment, you may also contact CHEMTREC®: 1–800–424–9300.

First-aid measures after inhalation : Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call

poison control center or doctor for further treatment advice.

First-aid measures after skin contact : Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 – 20 minutes. Call a poison control center or doctor for treatment advice.

First-aid measures after eye contact : Hold eye 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. Call a poison control center or doctor for treatment advice.

First-aid measures after ingestion : Call poison control or doctor immediately for treatment advice. Have person sip a glass of water, if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms / injuries after inhalation : Causes irritation

Symptoms / injuries after skin contact : Causes severe skin burns and eye damage

Symptoms / injuries after eye contact : Causes severe skin burns and eye damage. Burning, redness, itching, tears, blurry vision, and swelling.

Symptoms / injuries after ingestion : Burning or irritation of the tissues of the mouth, throat, and GI tract

Most important symptoms / injuries : Burning, redness, itching, tears, blurry vision, and swelling.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically. Get immediate medical advice and attention.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Will not burn.

5.2. Specific hazards arising from the chemical

None

5.3. Special protective equipment and precautions for fire-fighters

None

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. General procedures

Avoid personal contact, including inhalation of dusts and mists. Do not take actions that involve personal risk. Personnel with appropriate experience may partially or completely neutralize **CUREZIN®** with sodium (bi)carbonate. Absorb the discharge with inert nonflammable material, such as clay or diatomaceous earth. Close any drains if it is not dangerous to do so. Notify authorities if liquid enters sewers or public waters.

6.1.2. For non-emergency personnel

Protective equipment : Chemical goggles or face shield with safety glasses, protective gloves. Use chemically protective clothing. Respiratory protection equipment may be necessary.

Emergency procedures: Evacuate unnecessary personnel. Keep upwind. Avoid contact with skin and eyes. Mark out the danger area with appropriate signs. Notify police and fire brigade as soon as possible.

6.1.3. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls / personal protection".

Emergency procedures: Stop leak if safe to do so. Wear full protective clothing and breathing apparatus when dealing with all spillage (see item 8).

6.1.4. Environmental precautions

Prevent entry to sewers and public waters. Avoid release to the environment.

6.2. Methods and material for containment and cleaning up

Retention procedures : Contain all kinds of leaks and spills with dikes of inert nonflammable material to prevent release of liquid and entry of nonessential personnel. Stop the leak if it is not dangerous to do so.

Cleanup procedures : Personnel with appropriate experience may partially or completely neutralize **CUREZIN®** with sodium (bi)carbonate. Absorb the discharge with inert nonflammable material, such as clay or diatomaceous earth. Collect immobilized spillage in a receptacle for disposal. Immobilized spillage may present the same hazards as the spilled material. Decontaminate surfaces and equipment with a copious amount of water. Until a sufficient dilution level is reached, the rinse water may present the same hazards as the spilled material. Store the collected spilled material away from other materials and dispose it as soon as feasible according to prevailing local / regional / national / international laws.

For further information, refer to section 8: "Exposure controls / personal protection"

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the workstation. Wear personal protective equipment. Do not breathe mist, spray, vapors. Avoid contact with skin, eyes, and clothing. Do not handle until all safety precautions have been read and understood. Keep container tightly closed.

Hygiene measures : Do not eat, drink or smoke when using this product. Wash exposed skin thoroughly after handling. Wash contaminated clothing before reuse.

Additional hazards : May be corrosive to metals

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store under lock and key in a clean, dry area with good ventilation away from incompatible substances. Keep tightly closed in the original container. Avoid temperature extremes. **CUREZIN®** spoils approximately 10 × faster at 95 °F compared to 75 °F. Store away from freezing temperatures; components of **CUREZIN®** may settle out before **CUREZIN®** freezes around 23 °F, and they may not redissolve upon simple mixing. Always keep container closed. Store **CUREZIN®** in its original container only.

Storage location : Store in a cool, dry, safe place away from pets and keep out of reach of children. Store in a manner as to prevent cross contamination with other pesticides, fertilizers, food, and feed.

Incompatible materials : metals, bases, strong acids, strong oxidizing agents, strong reducing agents

Packaging material : ♳ HDPE. Keep only in original packaging.

SECTION 8: Exposure controls / personal protection

8.1. Control parameters

water (7732–18–5)

Not applicable

copper sulfate pentahydrate (7758–99–8)

US ACGIH® TLV® TWA	: 1 mg / m^3 (elemental Cu)
US OSHA PEL TWA	: 1 mg / m^3 (elemental Cu)
NIOSH REL TWA	: 1 mg / m^3 (elemental Cu)
NIOSH IDLH	: 100 mg / m^3

zinc sulfate monohydrate (7446–19–7)

None established

phosphorous acid (10294–56–1)

US ACGIH® TLV® TWA	: 1 mg / m^3
US ACGIH® TLV® STEL	: 3 mg / m^3
US OSHA PEL TWA	: 1 mg / m^3
US OSHA IDLH	: 1000 mg / m^3
NIOSH REL 10 h TWA	: 1 mg / m^3
NIOSH REL STEL	: 3 mg / m^3

8.2. Appropriate engineering controls

Appropriate engineering controls	: Provide adequate general and local exhaust ventilation. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.
Environmental exposure controls	: Avoid releasing material into the environment.

8.3. Individual protection measures / Personal protective equipment

Personal protective equipment	: Personal protective equipment (PPE) should be selected in accordance with national standards and in consultation with the PPE supplier. Wear the recommended PPE.
Hand protection	: Neoprene or nitrile rubber gloves.
Eye protection	: Chemical splash goggles or face shield over safety glasses.
Skin and body protection	: Personal protective equipment should be chosen depending on the activity and potential exposure. Protective clothing with long sleeves. Chemical-resistant apron. Boots. Full acid-resistant protective gear.
Respiratory protection	: Respiratory protection not required in normal conditions. In case of insufficient ventilation, wear a suitable respirator

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

physical state	: liquid
color	: blue
odor	: astringent
odor threshold	: No data available
pH	: 1
freezing point	: – 5 °C / 23 ° F
boiling point	: 100 °C / 212 ° F
flash point	: will not burn
flammability	: nonflammable
vapor pressure	: No data available
relative vapor density at 20 °C	: No data available
relative density	: 1.12
solubility	: soluble in water
n-octanol / water partition coefficient (log P_{ow})	: No data available

auto-ignition temperature	: will not burn
decomposition temperature	: 100 °C / 212 ° F
viscosity (kinematic)	: 1.48 mm^2 / s
upper / lower flammability or explosive limits	: No data available
particle characteristics	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under normal conditions of use, storage, and transport.

10.2. Chemical stability

Stable under normal conditions of use.

10.3. Possibility of hazardous reactions

No known hazardous reactions occur under normal conditions of use.

10.4. Conditions to avoid

Incompatible materials.

10.5. Incompatible materials

metals, bases, strong acids, strong oxidizing agents, strong reducing agents

10.6. Hazardous decomposition products

Under normal storage and use conditions, no hazardous decomposition products should be generated. Thermal decomposition generates: Carbon dioxide, carbon monoxide, and phosphoric oxides.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified
CUREZIN®	
oral LD_{50} (rat)	: 2439 mg / kg body weight
inhalation LC_{50} (rat)	: 5.14 mg / L
ATE US (oral)	: 2439 mg / kg body weight
ATE US (inhalation)	: 5.14 mg / L / 4 h
copper sulfate	
oral LD_{50} (rat)	: 960 mg / kg
oral LD_{50}	: 960 mg / kg
dermal LD_{50} (rat)	: > 2000 mg / kg
inhalation LC_{50} (rat)	: 9.92 mg / L
zinc sulfate	
oral LD_{50} (rat)	: 926 mg / kg
oral LD_{50}	: 624.1 mg / kg
dermal LD_{50} (rat)	: 926 mg / kg
phosphorous acid	
oral LD_{50}	: 1500 mg / kg
dermal LD_{50} (rat)	: 5000 mg / kg
water	
oral LD_{50} (rat)	: > 10000 mg / kg body weight
dermal LD_{50} (rat)	: > 10000 mg / kg body weight

dermal LD_{50} (rabbit)	:	> 10000 mg / kg body weight
inhalation LC_{50} (rat)	:	> 100 mg / L / 4 h
Skin corrosion or irritation	:	Causes severe skin burns
CUREZIN®		
pH	:	1
copper sulfate		
pH	:	4
phosphorous acid		
Specific concentration limits	:	Skin corrosivity 1B: C ≥ 25% Skin irritant 2: 10% ≤ C < 25%
water		
pH	:	7
Serious eye damage / irritation	:	Causes severe eye damage
CUREZIN®		
pH	:	1
copper sulfate		
pH	:	4
phosphorous acid		
Specific concentration limits	:	eye irritant 2: 10% ≤ C < 25%
water		
pH	:	7
Respiratory or skin sensitization	:	Not classified
Germ cell mutagenicity	:	Not classified
Carcinogenicity	:	Not classified
Reproductive toxicity	:	Not classified
Specific target organ toxicity – single exposure	:	Not classified
Specific target organ toxicity – repeated exposure	:	Not classified
Serious eye damage / irritation	:	Causes severe eye damage
copper sulfate		
LOAEL (oral, rat, 90 d)	:	53.8 mg / kg body weight
NOAEL (oral, rat, 90 d)	:	31.52 mg / kg body weight
Aspiration hazard	:	Not classified
CUREZIN®		
viscosity (kinematic)	:	1.48 mm^2 / s
Symptoms / effects after inhalation	:	Causes irritation (coughing, wheezing, disordered breathing)
Symptoms / effects after skin contact	:	Causes severe skin burns and eye damage
Symptoms / effects after eye contact	:	Causes severe skin burns and eye damage. Burning, redness, itching, tears, blurry vision, and swelling.
Symptoms / effects after ingestion	:	Burning or irritation of the tissues of the mouth, throat, and GI tract
Most important symptoms / injuries	:	Burning, redness, itching, tears, blurry vision, and swelling.

SECTION 13: Disposal considerations

Regional waste regulations	:	Dispose in accordance with official regulations.
Waste treatment methods	:	Dispose container and contents in accordance with the recycling instructions of the authorized waste collector.
Wastewater disposal recommendations	:	Dispose in accordance with official regulations.
Product / packaging disposal recommendations	:	Dispose in accordance with official regulations. Consult all applicable international, national, or local regulations.

Additional information : Do not reuse empty containers.
Information on environmental waste : Avoid release into the environment.

SECTION 14: Transport information

	DOT	IMDG	IATA
14.1. UN number	3264	3264	3264
14.2. UN proper shipping name		Corrosive liquid, acidic, inorganic, n.o.s. (Copper sulfate, phosphorous acid)	
14.3. Transport hazard class(es)	8	8	8
14.4. Packing group	III	III	III
14.5. Environmental hazards		Dangerous for the environment: no Marine pollutant: no	

No additional information is available

14.6. Transport in bulk

Not applicable

14.7. Special precautions

14.7.1. US DOT

UN-No.	: 3264
Packaging exceptions (49 CFR 173.xxx)	: 154
Packaging non bulk (49 CFR 173.xxx)	: 203
Packaging bulk (49 CFR 173.xxx)	: 241
Quantity limit on passenger aircraft / rail (49 CFR 173.27)	: 5 L
Quantity limit on cargo only aircraft (49 CFR 175.75)	: 60 L
Vessel stowage location	: A - The material may be stowed ''on deck'' or ''under deck'' on a cargo vessel and on a passenger vessel
Stowage - other information	: 40 - Stow "clear of living quarters" 53 - Stow "separated from" alkaline compounds 58 - Stow "separated from" cyanides

14.7.2. IMDG

Special provisions	: 223, 274
Limited quantity	: 5 L
Excepted quantity	: E1
Packaging instructions	: P001, LP01
IBC packaging instructions	: IBC03
Bulk tank instructions	: T7
Special provisions for bulk tanks	: TP1, TP28
Fire schedule	: F-A - Fire safety sheet Alfa - general
Spill schedule	: S-B - Spill safety sheet Bravo – corrosive substances
Cargo category	: A
Stowage and handling	: SW2
Segregation	: SGG1, SG36, SG49
Properties and observations	: Causes burns to skin, eyes, and mucous membranes

14.7.3. IATA

Excepted quantity on passenger aircraft	: E1
Limited quantity on passenger aircraft	: Y841
Quantity limit per outer packaging on passenger aircraft	: 1 L
Packaging instructions for passenger and cargo aircraft	: 852
Quantity limit on passenger and cargo aircraft	: 856
Quantity limit on cargo only aircraft	: 60 L
IATA ERG code	: 8L

SECTION 15: Regulatory Information

15.1. Federal regulations

Every component of this product is listed on the U.S. Environmental Protection Agency's Toxic Substances Control Act (TSCA) Inventory, except:

copper sulfate	7758–99–8	7%
zinc sulfate	7446–19–7	5%

This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use. KEEP OUT OF REACH OF CHILDREN

FIFRA SIGNAL WORD	: **DANGER**
FIFRA PRECAUTIONARY STATEMENT	: Corrosive. Causes skin burns. Causes irreversible eye damage. Harmful if swallowed.
FIFRA ENVIRONMENTAL HAZARDS	: This pesticide is toxic to fish and aquatic invertebrates and may contaminate water through runoff.
FIFRA PHYSICOCHEMICAL HAZARD	: Do not mix or allow to come in contact with any oxidizing and reducing agents. Hazardous chemical reaction may occur.

15.2. International regulations

CANADA

copper sulfate	Not included on the Canadian Domestic Substances List (DSL)
zinc sulfate	Included on the Canadian Domestic Substances List (DSL)
Phosphorous acid	Included on the Canadian Domestic Substances List (DSL)
Water	Included on the Canadian Domestic Substances List (DSL)

EUROPEAN UNION

No additional information is available

MEXICO

Ácido fosforoso	Incluido en la lista INSQ (Inventario Nacional de Sustancias Químicas)
Agua	Incluido en la lista INSQ (Inventario Nacional de Sustancias Químicas)

15.3. State regulations

CALIFORNIA

California Proposition 65 - This product does not contain any chemicals known to the State of California to cause cancer, developmental harm, and/or reproductive harm.

SECTION 16: Other information

Issue date : December 4, 2025

Conforms to 29 CFR § 1910.1200, Hazard Communication Standard (HCS)

Full text of hazard classes and H-statements

H290	May be corrosive to metals
H302	Harmful if swallowed
H314	Causes severe skin burns and eye damage
H318	Causes serious eye damage
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long-lasting effects

Disclaimer

Information in this safety data sheet (SDS) is provided in good faith and compiled from reputable published sources, statutory literature, and third-party testing conducted under good laboratory practices (GLP), and to the best of our knowledge was accurate on the date of issue. This information relates only to **CUREZIN®** based on our current knowledge and is intended to describe the product as guidance for safe operation and for the protection of health, safety, and the environment, and is provided with neither express nor implied warranty, including against typographical errors. This information may not be valid in combinations of **CUREZIN®** with other materials. Nothing herein should be construed either as advice or a guarantee of any particular outcome or product feature. The user should confirm the accuracy of this information and the applicability and suitability of it and of **CUREZIN®** to their application, and VM Agritech Inc assumes no liability for injury, loss, or any other damage resulting from either normal or abnormal use of this product, even as a consequence of information provided on this SDS. Direct any questions regarding this product to VM Agritech Inc as described in Section 1.

END OF SAFETY DATA SHEET