



MoCa 5-0-5

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
Issue date: 4/1/2025 Revision date: 4/1/2025 Version: 2.0

SECTION 1 Identification

1.1. Product identifier

Product form : Mixture
Product name : MoCa 5-0-5
Product code : M77119

1.2. Other means of identification

No additional information available

1.3. Recommended use of the chemical and restrictions on use

No additional information available

1.4. Supplier's details

JR Simplot Company
P.O. Box 70013
Boise, ID, 83707
T 1-208-336-2110

1.5. Emergency phone number

Emergency number : CHEMTREC 1-800-424-9300

SECTION 2 Hazard Identification

2.1. Classification of the substance or mixture

GHS US classification

Not classified

2.2. Label elements

GHS US labeling

No labeling applicable

2.3. Hazards associated with known or reasonably anticipated uses

No additional information available

2.4. Hazards not otherwise classified

No additional information available

2.5. Unknown acute toxicity

No additional information available

SECTION 3 Composition/information on ingredients

3.1. Substances

Not applicable

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3.2. Mixtures

Name	Product identifier	%	GHS US classification
Proprietary*	CAS-No.: Not Applicable	90 – 100	Not classified
urea (57-13-6)	CAS-No.: 57-13-6	3 – 10	Eye Irrit. 2B, H320
manganese(II) acetate, tetrahydrate	CAS-No.: 6156-78-1	1 – 3	Skin Irrit. 2, H315 Eye Irrit. 2B, H320 STOT SE 3, H335
zinc acetate, dihydrate	CAS-No.: 5970-45-6	1 – 3	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Irrit. 2A, H319

*Chemical name, CAS number and/or exact concentration have been withheld as a trade secret

Full text of hazard classes and H-statements : see section 16

SECTION 4 First aid measures

4.1. Description of necessary first-aid measures

First-aid measures general	: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. Allow affected person to breathe fresh air. Allow the victim to rest.
First-aid measures after skin contact	: Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Wash skin with plenty of water.
First-aid measures after eye contact	: Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persists. Rinse eyes with water as a precaution.
First-aid measures after ingestion	: Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention. Call a poison center/doctor/physician if you feel unwell.

4.2. Most important symptoms/effects, acute and delayed

Potential Adverse human health effects and symptoms	: Based on available data, the classification criteria are not met.
Symptoms/effects	: Not expected to present a significant hazard under anticipated conditions of normal use.
Symptoms/effects after inhalation	: None under normal conditions.
Symptoms/effects after skin contact	: None under normal conditions.
Symptoms/effects after eye contact	: None under normal conditions.
Symptoms/effects after ingestion	: None under normal conditions.

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

Other medical advice or treatment	: Treat symptomatically.
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SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media	: Foam. Dry powder. Carbon dioxide. Water spray. Sand.
Unsuitable extinguishing media	: Do not use a heavy water stream.

5.2. Specific hazards arising from the chemical

Fire hazard	: No fire hazard.
Explosion hazard	: No direct explosion hazard.
Hazardous decomposition products in case of fire	: Toxic fumes may be released.

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5.3. Special protective equipment and precautions for fire-fighters

- Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment. Do not enter fire area without proper protective equipment, including respiratory protection.
- Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection. Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6 Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Stop leak if safe to do so. Notify authorities if product enters sewers or public waters. Absorb spillage to prevent material-damage.

For non-emergency personnel

- Protective equipment : Wear recommended personal protective equipment.
- Emergency procedures : Ventilate spillage area. Evacuate unnecessary personnel.

For emergency responders

- Protective equipment : Do not attempt to take action without suitable protective equipment. Equip cleanup crew with proper protection. For further information refer to section 8: "Exposure controls/personal protection".
- Emergency procedures : Ventilate area. Evacuate unnecessary personnel. Stop leak if safe to do so.
- Environmental precautions : Avoid release to the environment. Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.2. Methods and materials for containment and cleaning up

- For containment : Absorb spilled material with sand or earth. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Stop leak, if possible without risk.
- Methods for cleaning up : Take up liquid spill into absorbent material. Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.
- Other information : Dispose of materials or solid residues at an authorized site.

See Heading 8, Exposure controls and personal protection, For further information refer to section 13

SECTION 7 Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor.
- Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.
- Additional hazards when processed : Not expected to present a significant hazard under anticipated conditions of normal use.

7.2. Conditions for safe storage, including incompatibilities

- Technical measures : Keep in a cool, well-ventilated place away from heat.
- Storage conditions : Keep only in the original container in a cool, well ventilated place away from : Keep container closed when not in use.
- Incompatible products : Strong bases. Strong acids.
- Incompatible materials : Sources of ignition. Direct sunlight.

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Packaging materials : Store always product in container of same material as original container.

SECTION 8 Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.
Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures, such as personal protective equipment

Personal protective equipment:

Avoid all unnecessary exposure.

Hand protection:
Wear protective gloves.
Eye protection:
Chemical goggles or safety glasses. Safety glasses
Skin and body protection:
Wear suitable protective clothing
Respiratory protection:
Wear appropriate mask

Personal protective equipment symbol(s):



Other information:

Do not eat, drink or smoke during use.

SECTION 9 Physical and chemical properties

9.1. Basic physical and chemical properties

Physical state : Liquid
Color : light brown
Odor : No data available on odour
Odor threshold : No data available
pH : 8.6
Melting point : 132.7 °C
Freezing point : No data available
Boiling point : No data available
Flash point : No data available
Flammability (solid, gas) : Non flammable.
Vapor pressure : 0.00001 hPa estimated
Relative vapor density at 20°C : No data available
Relative density : 1.142 g/ml (typical)
Solubility : No data available
Partition coefficient n-octanol/water (Log Pow) : No data available

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Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Explosion limits	: No data available
Particle characteristics	: No data available

urea (57-13-6)

Particle characteristics	No data available
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manganese(II) acetate, tetrahydrate

Particle characteristics	No data available
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zinc acetate, dihydrate

Particle characteristics	No data available
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Proprietary*

Particle characteristics	No data available
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9.2. Data relevant with regard to physical hazard classes (supplemental)

VOC content	: 2.57 % estimated
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SECTION 10 Stability and reactivity

10.1. Reactivity

Stable under normal conditions and use.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Strong oxidizers.

10.6. Hazardous decomposition products

fume. Carbon monoxide. Carbon dioxide.

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

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urea (57-13-6) (57-13-6)	
LD50 oral rat	8471 mg/kg (Rat; OECD 401: Acute Oral Toxicity; Literature study; 14300 mg/kg bodyweight; Rat; Experimental value)
LD50 dermal rat	> 3200 mg/kg (Rat; Literature study)
LD50 dermal rabbit	> 21000 mg/kg (Rabbit; Literature study)
ATE US (oral)	8471 mg/kg body weight

manganese(II) acetate, tetrahydrate (6156-78-1)	
LD50 oral rat	3730 mg/kg body weight (Equivalent or similar to OECD 401, Rat, Male, Experimental value, Oral, 14 day(s))
ATE US (oral)	3730 mg/kg body weight

zinc acetate, dihydrate (5970-45-6)	
LD50 oral rat	> 664 mg/kg body weight (Equivalent or similar to OECD 423, Rat, Male, Experimental value, Oral, 14 day(s))
ATE US (oral)	500 mg/kg body weight

Skin corrosion/irritation : Not classified
pH: 8.6

urea (57-13-6) (57-13-6)	
pH	7.2 (10 %)

zinc acetate, dihydrate (5970-45-6)	
pH	6 – 7 (5 %)

Serious eye damage/irritation : Not classified.
pH: 8.6

urea (57-13-6) (57-13-6)	
pH	7.2 (10 %)

zinc acetate, dihydrate (5970-45-6)	
pH	6 – 7 (5 %)

Respiratory or skin sensitization : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

STOT-single exposure : Not classified

manganese(II) acetate, tetrahydrate (6156-78-1)	
STOT-single exposure	May cause respiratory irritation.

STOT-repeated exposure : Not classified

Aspiration hazard : Not classified

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Viscosity, kinematic	No data available

urea (57-13-6) (57-13-6)	
Viscosity, kinematic	Not applicable (solid)

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urea (57-13-6) (57-13-6)	
manganese(II) acetate, tetrahydrate (6156-78-1)	
Viscosity, kinematic	No data available
zinc acetate, dihydrate (5970-45-6)	
Viscosity, kinematic	Not applicable (solid)
Proprietary* (Not Applicable)	
Viscosity, kinematic	No data available

Potential Adverse human health effects and symptoms	: Based on available data, the classification criteria are not met.
Symptoms/effects	: Not expected to present a significant hazard under anticipated conditions of normal use.
Symptoms/effects after inhalation	: None under normal conditions.
Symptoms/effects after skin contact	: None under normal conditions.
Symptoms/effects after eye contact	: None under normal conditions.
Symptoms/effects after ingestion	: None under normal conditions.

SECTION 12 Ecological information

12.1. Ecotoxicity

Ecology - general	: The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.
Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Not classified

urea (57-13-6) (57-13-6)	
LC50 - Fish [1]	> 6810 mg/l (96 h; <i>Leuciscus idus</i> ; Nominal concentration)
EC50 - Crustacea [1]	> 10000 mg/l (48 h; <i>Daphnia magna</i> ; Nominal concentration)
LC50 - Fish [2]	17500 mg/l (96 h; <i>Poecilia reticulata</i>)
EC50 - Crustacea [2]	> 10000 mg/l (24 h; <i>Daphnia magna</i>)
EC50 72h - Algae [1]	24541.9 mg/l Test organisms (species): <i>Raphidocelis subcapitata</i> (previous names: <i>Pseudokirchneriella subcapitata</i> , <i>Selenastrum capricornutum</i>)
EC50 96h - Algae [1]	42184 mg/l Source: Ecological Structure Activity Relationships
TLM - Fish [1]	17500 ppm (96 h; <i>Poecilia reticulata</i>)
Threshold limit - Other aquatic organisms [1]	120000 mg/l (16 h; Bacteria; Toxicity test)
Threshold limit - Other aquatic organisms [2]	> 10000 mg/l (<i>Pseudomonas putida</i>)
Threshold limit - Algae [1]	> 10000 mg/l (168 h; <i>Scenedesmus quadricauda</i> ; Growth rate)
Threshold limit - Algae [2]	47 mg/l (192 h; <i>Microcystis aeruginosa</i> ; Growth rate)

manganese(II) acetate, tetrahydrate (6156-78-1)	
LC50 - Fish [1]	2850 mg/l (Other, 96 h, <i>Colisa fasciatus</i> , Static system, Fresh water, Read-across)
EC50 - Crustacea [1]	65 mg/l (OECD 202: <i>Daphnia</i> sp. Acute Immobilisation Test, 48 h, <i>Daphnia magna</i> , Static system, Fresh water, Read-across)

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zinc acetate, dihydrate (5970-45-6)	
LC50 - Fish [1]	2.46 mg/l (Equivalent or similar to OECD 203, 96 h, Pimephales promelas, Static system, Fresh water, Experimental value, Anhydrous form)
EC50 - Crustacea [1]	3.72 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Semi-static system, Fresh water, Experimental value, Anhydrous form)
EC50 72h - Algae [1]	2.1 mg/l (Equivalent or similar to OECD 201, Chlorella pyrenoidosa, Static system, Fresh water, Experimental value, Anhydrous form)

12.2. Persistence and degradability

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Persistence and degradability	Not established.
urea (57-13-6) (57-13-6)	
Persistence and degradability	Inherently biodegradable, Hydrolysis in water, Not established.
ThOD	0.27 g O ₂ /g substance
manganese(II) acetate, tetrahydrate (6156-78-1)	
Persistence and degradability	Biodegradability in water: no data available, Not established.
zinc acetate, dihydrate (5970-45-6)	
Persistence and degradability	Not established.
Proprietary* (Not Applicable)	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

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Bioaccumulative potential	Not established.
urea (57-13-6) (57-13-6)	
BCF - Fish [1]	1 (72 h; Brachydanio rerio; Fresh water)
BCF - Other aquatic organisms [1]	11700 (Chlorella sp.)
Partition coefficient n-octanol/water (Log Pow)	< -1.73 (Experimental value; EU Method A.8: Partition Coefficient)
Bioaccumulative potential	Bioaccumulation: not applicable. Not established.
manganese(II) acetate, tetrahydrate (6156-78-1)	
Partition coefficient n-octanol/water (Log Pow)	-0.58 (Estimated value)
Bioaccumulative potential	No bioaccumulation data available. Not established.
zinc acetate, dihydrate (5970-45-6)	
BCF - Fish [1]	3.16 (BCFWIN, Estimated value, Anhydrous form)
Partition coefficient n-octanol/water (Log Pow)	-1.28 (Anhydrous form, KOWWIN)
Bioaccumulative potential	Not established.
Proprietary* (Not Applicable)	
Bioaccumulative potential	Not established.

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12.4. Mobility in soil

urea (57-13-6) (57-13-6)

Surface tension	No data available in the literature
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	-1.43 – -1.19 (log Koc, Calculated value)
Ecology - soil	Highly mobile in soil.

manganese(II) acetate, tetrahydrate (6156-78-1)

Ecology - soil	No (test)data on mobility of the substance available.
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zinc acetate, dihydrate (5970-45-6)

Organic Carbon Normalized Adsorption Coefficient (Log Koc)	0 (log Koc, SRC PCKOCWIN v2.0, Estimated value, Anhydrous form)
Ecology - soil	No (test)data on mobility of the substance available.

12.5. Other adverse effects

Ozone	: Not classified
Fluorinated greenhouse gases	: No
Other information	: Avoid unintentional release to the environment.

SECTION 13 Disposal considerations

Regional waste regulation	: Disposal must be done according to official regulations.
Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
Sewage disposal recommendations	: Disposal must be done according to official regulations.
Product/Packaging disposal recommendations	: Dispose in a safe manner in accordance with local/national regulations. Disposal must be done according to official regulations.
Additional information	: Do not re-use empty containers.
Ecological waste information	: Avoid unintentional release to the environment.

SECTION 14 Transport information

14.1. UN number

UN-No. (DOT)	: Not applicable
UN-No. (TDG)	: Not applicable
UN-No. (IMDG)	: Not applicable
UN-No. (IATA)	: Not applicable

14.2. UN Proper Shipping Name

Proper Shipping Name (DOT)	: Not applicable
Proper Shipping Name (TDG)	: Not applicable
Proper Shipping Name (IMDG)	: Not applicable
Proper Shipping Name (IATA)	: Not applicable

14.3. Transport hazard class(es)

DOT Transport hazard class(es) (DOT)	: Not applicable
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TDG Transport hazard class(es) (TDG)	: Not applicable
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IMDG

Transport hazard class(es) (IMDG) : Not applicable

IATA

Transport hazard class(es) (IATA) : Not applicable

14.4. Packing group

Packing group (DOT) : Not applicable
Packing group (TDG) : Not applicable
Packing group (IMDG) : Not applicable
Packing group (IATA) : Not applicable

14.5. Environmental hazards

Other information : No supplementary information available.

14.6. Transport in bulk

Not applicable

14.7. Special precautions for user

DOT

No data available

TDG

No data available

IMDG

Not applicable

IATA

Not applicable

SECTION 15 Regulatory information

15.1. Federal regulations

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory, except for:

manganese(II) acetate, tetrahydrate	CAS-No. 6156-78-1	1 – 3%
zinc acetate, dihydrate	CAS-No. 5970-45-6	1 – 3%
Proprietary*	CAS-No. Not Applicable	90 – 100%

15.2. International regulations

CANADA

urea (57-13-6) (57-13-6)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

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National regulations

urea (57-13-6) (57-13-6)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

15.3. State regulations

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

SECTION 16 Other information

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision date : 4/1/2025
Issue date : 4/1/2025
Other information : None.

Full text of hazard classes and H-statements

H302	Harmful if swallowed
H315	Causes skin irritation
H319	Causes serious eye irritation
H320	Causes eye irritation
H335	May cause respiratory irritation

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