

TranSorb™ MicroMix 5-0-0

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
Issue date: 3/13/2026 Version: 1.0

SECTION 1 Identification

1.1. Product identifier

Product form : Mixture
Product name : TranSorb™ MicroMix 5-0-0
Product code : 52005

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

Simplot AB Retail, Inc., DBA Simplot Turf and Horticulture
P.O. Box 9296
Boise, ID, 83707

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

Skin corrosion/irritation, Category 2	H315	Causes skin irritation.
Serious eye damage/eye irritation, Category 2	H319	Causes serious eye irritation.

Full text of H statements : see section 16

2.2. Label elements

GHS US labeling

Hazard pictograms (GHS US) :



Signal word (GHS US) : Warning

Hazard statements (GHS US) : H315 - Causes skin irritation
H319 - Causes serious eye irritation

Precautionary statements (GHS US) : P264 - Wash hands, forearms and face thoroughly after handling.
P280 - Wear protective gloves.
P302+P352 - If on skin: Wash with plenty of water.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P321 - Specific treatment (see supplemental first aid instruction on this label).
P332+P313 - If skin irritation occurs: Get medical advice or attention.
P337+P313 - If eye irritation persists: Get medical advice or attention.
P362+P364 - Take off contaminated clothing and wash it before reuse.

TranSorb™ MicroMix 5-0-0

Safety Data Sheet

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

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

3.2. Mixtures

Name	Product identifier	%	GHS US classification
iron(II) sulphate, heptahydrate	CAS-No.: 7782-63-0	26.78	Skin Irrit. 2, H315 Eye Irrit. 2, H319
urea (57-13-6)	CAS-No.: 57-13-6	10.87	Eye Irrit. 2B, H320
Sodium Glucoheptonate 50%	CAS-No.: 31138-65-5	7.5	Eye Irrit. 2, H319
zinc sulfate, monohydrate	CAS-No.: 7446-19-7	1.37	Acute Tox. 4 (Oral), H302 Eye Irrit. 2A, H319

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	: If you feel unwell, seek medical advice.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: Wash skin with plenty of water. Take off contaminated clothing. If skin irritation occurs: Get medical advice/attention.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion	: Call a poison center/doctor/physician if you feel unwell.
Personal protection for first-aid responders.	: First aid workers will be equipped with suitable personal protective equipment.

4.2. Most important symptoms/effects, acute and delayed

Symptoms/effects after inhalation	: None under normal conditions.
Symptoms/effects after skin contact	: Irritation.
Symptoms/effects after eye contact	: Eye irritation.
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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TranSorb™ MicroMix 5-0-0

Safety Data Sheet

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

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.
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.

5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions : Fight fire from safe distance and protected location. Do not enter fire area without proper protective equipment, including respiratory protection.
Protection during firefighting : 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. Avoid contact with skin and eyes.

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 : Evacuate unnecessary personnel. Stop leak if safe to do so.
Environmental precautions : Avoid release to the environment.

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.
Other information : Dispose of materials or solid residues at an authorized site.

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. Avoid contact with skin and eyes. Wear personal protective equipment.
Hygiene measures : Wash contaminated clothing before reuse. 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.

TranSorb™ MicroMix 5-0-0

Safety Data Sheet

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

7.2. Conditions for safe storage, including incompatibilities

Technical measures	: Keep in a cool, well-ventilated place away from heat.
Storage conditions	: Keep cool. Protect from sunlight.
Packaging materials	: Store always product in container of same material as original container.

SECTION 8 Exposure controls/personal protection

8.1. Control parameters

iron(II) sulphate, heptahydrate (7782-63-0)

USA - ACGIH - Occupational Exposure Limits

ACGIH® TLV® TWA	1 mg/m ³
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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:

Wear recommended personal protective equipment.

Hand protection:

Protective gloves

Eye protection:

Safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

Personal protective equipment symbol(s):



SECTION 9 Physical and chemical properties

9.1. Basic physical and chemical properties

Physical state	: Liquid
Appearance	: White or tan pellets.
Color	: Mixture contains one or more component(s) which have the following color(s): Colorless Blue Rose Colourless or white White Blue-green On exposure to air: yellow-brown Colourless to white
Odor	: There may be no odor warning properties, odor is subjective and inadequate to warn of overexposure. Mixture contains one or more component(s) which have the following odor: Odourless In moist air: Ammonia odour

TranSorb™ MicroMix 5-0-0

Safety Data Sheet

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

Odor threshold	: No data available
pH	: 2.0-2.5
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Flammability (solid, gas)	: Not applicable.
Vapor pressure	: No data available
Relative vapor density at 20°C	: No data available
Relative density	: No data available
Density	: 1.414
Solubility	: No data available
Partition coefficient n-octanol/water (Log Pow)	: No data available
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

9.2. Data relevant with regard to physical hazard classes (supplemental)

No additional information available

SECTION 10 Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11 Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: No data available
Acute toxicity (dermal)	: No data available
Acute toxicity (inhalation)	: No data available

zinc sulfate, monohydrate (7446-19-7)

LD50 oral rat	1710 mg/kg
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TranSorb™ MicroMix 5-0-0

Safety Data Sheet

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

zinc sulfate, monohydrate (7446-19-7)	
ATE US (oral)	1710 mg/kg body weight
iron(II) sulphate, heptahydrate (7782-63-0)	
LD50 oral rat	> 2000 mg/kg body weight (OECD 401: Acute Oral Toxicity, Rat, Male / female, Read-across, Oral, 14 day(s))
LD50 dermal rat	> 2000 mg/kg body weight (OECD 402: Acute Dermal Toxicity, 24 h, Rat, Male / female, Read-across, Anhydrous form, Dermal, 14 day(s))
LC50 Inhalation - Rat	> 1.1 mg/l (EPA OPP 81-3: Acute Inhalation Toxicity, 4 h, Rat, Male / female, Read-across, Anhydrous form, Inhalation)
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

Skin corrosion/irritation : Causes skin irritation.
pH: 2.0-2.5

zinc sulfate, monohydrate (7446-19-7)	
pH	3.7 – 4.07 (Literature, 20 °C)
iron(II) sulphate, heptahydrate (7782-63-0)	
pH	2.1 (1 %, 22 °C)
urea (57-13-6) (57-13-6)	
pH	7.2 (10 %)

Serious eye damage/irritation : Causes serious eye irritation.
pH: 2.0-2.5

zinc sulfate, monohydrate (7446-19-7)	
pH	3.7 – 4.07 (Literature, 20 °C)
iron(II) sulphate, heptahydrate (7782-63-0)	
pH	2.1 (1 %, 22 °C)
urea (57-13-6) (57-13-6)	
pH	7.2 (10 %)

Respiratory or skin sensitization : No data available

Germ cell mutagenicity : No data available

Carcinogenicity : No data available

Reproductive toxicity : No data available

STOT-single exposure : No data available

STOT-repeated exposure : No data available

Aspiration hazard : No data available

TranSorb™ MicroMix 5-0-0

Safety Data Sheet

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

urea (57-13-6) (57-13-6)	
Viscosity, kinematic	Not applicable (solid)
Sodium Glucoheptonate 50% (31138-65-5)	
Viscosity, kinematic	Not applicable
Symptoms/effects after inhalation	: None under normal conditions.
Symptoms/effects after skin contact	: Irritation.
Symptoms/effects after eye contact	: Eye irritation.
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)	: No data available
Hazardous to the aquatic environment, long-term (chronic)	: No data available

zinc sulfate, monohydrate (7446-19-7)	
LC50 - Fish [1]	0.33 – 0.78 mg/l (96 h, Pimephales promelas, Static system, Fresh water, Experimental value, Anhydrous form)
EC50 - Crustacea [1]	1.13 mg/l (48 h, Ceriodaphnia dubia, Literature study, Monohydrate)
EC50 72h - Algae [1]	3.73 mg/l (Selenastrum capricornutum, Literature study, Monohydrate)

iron(II) sulphate, heptahydrate (7782-63-0)	
LC50 - Fish [1]	925 mg/l (96 h, Poecilia reticulata, Static system, Literature study)
EC50 - Crustacea [1]	152 mg/l (48 h, Daphnia magna, Literature study, Anhydrous form)

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

TranSorb™ MicroMix 5-0-0

Safety Data Sheet

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

12.2. Persistence and degradability

TranSorb™ MicroMix 5-0-0	
Persistence and degradability	Rapidly degradable
zinc sulfate, monohydrate (7446-19-7)	
Persistence and degradability	Biodegradability: not applicable, Not established.
Chemical oxygen demand (COD)	Not applicable (inorganic)
ThOD	Not applicable (inorganic)
iron(II) sulphate, heptahydrate (7782-63-0)	
Persistence and degradability	Biodegradability in water: no data available, Biodegradability in soil: no data available, Adsorbs into the soil, Not established.
Chemical oxygen demand (COD)	Not applicable (inorganic)
ThOD	Not applicable (inorganic)
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
Sodium Glucoheptonate 50% (31138-65-5)	
Persistence and degradability	Rapidly degradable

12.3. Bioaccumulative potential

zinc sulfate, monohydrate (7446-19-7)	
BCF - Other aquatic organisms [1]	38 – 28960 (28 day(s), Palaemon elegans, Semi-static system, Salt water, Read-across, Fresh weight)
Bioaccumulative potential	Bioaccumable. Not established.
iron(II) sulphate, heptahydrate (7782-63-0)	
BCF - Fish [1]	≤ 20 (OECD 305: Bioconcentration: Flow-Through Fish Test, 28 day(s), Cyprinus carpio, Flow-through system, Fresh water, Read-across, Fresh weight)
Bioaccumulative potential	Not bioaccumulative. 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.

12.4. Mobility in soil

zinc sulfate, monohydrate (7446-19-7)	
Ecology - soil	No (test)data on mobility of the substance available.
iron(II) sulphate, heptahydrate (7782-63-0)	
Ecology - soil	Adsorbs into the soil.

TranSorb™ MicroMix 5-0-0

Safety Data Sheet

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

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.

12.5. Other adverse effects

Ozone : No data available
Fluorinated greenhouse gases : No

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 : Disposal must be done according to official regulations.
Additional information : Do not re-use empty containers.

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

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

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

TranSorb™ MicroMix 5-0-0

Safety Data Sheet

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

14.5. Environmental hazards

Other information : No supplementary information available.

14.6. Transport in bulk

Not applicable

14.7. Special precautions for user

DOT

Not applicable

TDG

Not applicable

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:

zinc sulfate, monohydrate	CAS-No. 7446-19-7	1.37%
iron(II) sulphate, heptahydrate	CAS-No. 7782-63-0	26.78%
Sodium Glucoheptonate 50%	CAS-No. 31138-65-5	7.5%

iron(II) sulphate, heptahydrate (7782-63-0)

CERCLA RQ 1000 lb

15.2. International regulations

CANADA

zinc sulfate, monohydrate (7446-19-7)

Listed on the Canadian DSL (Domestic Substances List)

iron(II) sulphate, heptahydrate (7782-63-0)

Not listed on the Canadian DSL (Domestic Substances List)/NDSL (Non-Domestic Substances List)

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

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

TranSorb™ MicroMix 5-0-0

Safety Data Sheet

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

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

Component	State or local regulations
iron(II) sulphate, heptahydrate(7782-63-0)	U.S. - Massachusetts - Right To Know List; U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16 Other information

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

Issue date : 3/13/2026

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

Safety Data Sheet (SDS), USA

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.