

FortiSolve 200 SM

Safety Data Sheet

According to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012 and the Hazardous Products Regulations (HPR) WHMIS 2015

Issue date: 2022-10-13
Revision date: 2023-03-22
Version: 2.0

SECTION 1: Identification

1.1. Identification

Product form : Mixture
Product name : FortiSolve 200 SM
EPA Registration # : Adjuvant for: FortiSolve 100 (EPA # 63761-8)

1.2. Recommended use and restrictions on use

Recommended use : Activator

1.3. Supplier

Manufacturer

Sterilex LLC
111 Lake Front Dr
Hunt Valley, MD 21030 - USA
T 443-541-8800

1.4. Emergency telephone number

Emergency number : ChemTel LLC (800)255-3924 (North America); +1 (813)248-0585 (International)

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS classification

Skin corrosion/irritation, Category 2
Serious eye damage/eye irritation, Category 1

2.2. GHS Label elements, including precautionary statements

GHS labelling

Hazard pictograms (GHS) :



Signal word (GHS) :

Danger

Hazard statements (GHS) :

H315 - Causes skin irritation.
H318 - Causes serious eye damage.

Precautionary statements (GHS) :

P264 - Wash hands, forearms and face thoroughly after handling.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352 - If on skin: Wash with plenty of water.
P362+P364 - Take off contaminated clothing and wash it before reuse.
P332+P313 - If skin irritation occurs: Get medical advice/attention.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 - Immediately call a poison center or doctor.

2.3. Other hazards which do not result in classification

No additional information available

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2.4. Unknown acute toxicity

Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Chemical name / Synonyms	Product identifier	%
Carbonic acid, dipotassium salt	Carbonic acid, dipotassium salt Potassium carbonate / Potash / Potassium carbonate (2:1) / Carbonic acid, potassium salt (1:2) / POTASSIUM CARBONATE / Dipotassium carbonate / Potassium carbonate, anhydrous / potassium carbonate	CAS-No.: 584-08-7	3 - 7
Disodium carbonate	Disodium carbonate Sodium carbonate / Carbonic acid, disodium salt / Soda ash / Sodium carbonate (2:1) / Sodium carbonate, anhydrous / Carbonic acid sodium salt (1:2) / SODIUM CARBONATE / Bisodium carbonate / Sodium carbonate anhydrous / sodium carbonate	CAS-No.: 497-19-8	3 - 7
Glycine, N,N'-1,2-ethanediybis[N-(carboxymethyl)-, tetrasodium salt	Glycine, N,N'-1,2-ethanediybis[N-(carboxymethyl)-, tetrasodium salt Tetrasodium ethylenediaminetetraacetate / Ethylenediaminetetraacetic acid, tetrasodium salt / N,N'-1,2-Ethanediybis(N-(carboxymethyl)glycine) tetrasodium salt / Tetrasodium ethylene diamine tetraacetate / edetate sodium / Edetate sodium / Tetrasodium edetate / EDTA, tetrasodium / Acetic acid, (ethylenedinitrilo)tetra-, tetrasodium salt / Tetrasodium salt of ethylenediaminetetraacetic acid / EDTA tetrasodium salt / TETRASODIUM EDTA / Glycine, N,N'-1,2-ethanediybis[N-(carboxymethyl)-, tetrasodium salt / Glycine, N,N'-1,2-ethanediybis[N-(carboxymethyl)-, sodium salt (1:4) / Tetrasodium 2,2',2'',2'''-(ethylenedinitrilo)tetraacetate	CAS-No.: 64-02-8	1 – 5
Sodium metasilicate	Sodium metasilicate Disodium metasilicate / Silicate, disodium / Silicic acid (H ₂ SiO ₃), disodium salt / Sodium metasilicate, anhydrous / Silicic acid, disodium salt / Disodium metasilicate (Na ₂ SiO ₃) / Disodium trioxosilicate / Silicic acid (H ₂ SiO ₃), sodium salt (1:2) / SODIUM METASILICATE / Silicic acid, sodium salt (1:2) / Sodium silicate	CAS-No.: 6834-92-0	1 – 5

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

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures after inhalation

: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell.

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First-aid measures after skin contact	: IF ON SKIN: Wash with plenty of water. Take off contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical advice/attention.
First-aid measures after eye contact	: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.
First-aid measures after ingestion	: Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Get medical advice/attention if you feel unwell.

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

Symptoms/effects after inhalation	: May cause irritation to the respiratory tract.
Symptoms/effects after skin contact	: Causes skin irritation. Symptoms may include redness, drying, defatting and cracking of the skin.
Symptoms/effects after eye contact	: Causes serious eye damage. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva. May cause burns.
Symptoms/effects after ingestion	: May be harmful if swallowed. May cause gastrointestinal irritation, nausea, vomiting and diarrhea.

4.3. Immediate medical attention and special treatment, if necessary

Symptoms may be delayed. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media	: Use extinguishing media appropriate for surrounding fire.
Unsuitable extinguishing media	: Do not use water jet.

5.2. Specific hazards arising from the chemical

Fire hazard	: Products of combustion may include, and are not limited to: oxides of carbon. Toxic and irritating gases may be released. Nitrogen oxides.
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5.3. Special protective equipment and precautions for fire-fighters

Protection during firefighting	: Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA).
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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	: Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel.
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6.1.1. For non-emergency personnel

No additional information available

6.1.2. For emergency responders

No additional information available

6.2. Environmental precautions

Prevent entry to sewers and public waters.

6.3. Methods and material for containment and cleaning up

For containment	: Absorb and/or contain spill with inert material (sand, vermiculite or other appropriate material), then place in suitable container. Do not flush into surface water or sewer system. Wear recommended personal protective equipment.
Methods for cleaning up	: Sweep or shovel spills into appropriate container for disposal. Provide ventilation.

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6.4. Reference to other sections

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	: Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapours/spray. Do not swallow. Handle and open container with care. When using do not eat, drink or smoke. Use only outdoors or in a well-ventilated area.
Hygiene measures	: Take off contaminated clothing and wash it before reuse. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	: Keep out of the reach of children. Keep container tightly closed. Store in a dry, cool and well-ventilated place. Keep away from food, drink and animal feedingstuffs.
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SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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No additional information available

Carbonic acid, dipotassium salt (584-08-7)

No additional information available

Disodium carbonate (497-19-8)

No additional information available

Glycine, N,N'-1,2-ethanediylbis[N-(carboxymethyl)-, tetrasodium salt (64-02-8)

No additional information available

Sodium metasilicate (6834-92-0)

No additional information available

8.2. Appropriate engineering controls

Appropriate engineering controls	: Ensure good ventilation of the work station. Provide readily accessible eye wash stations and safety showers.
Environmental exposure controls	: Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Hand protection:

Wear suitable gloves resistant to chemical penetration

Eye protection:

Wear eye/face protection

Skin and body protection:

Wear suitable protective clothing

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Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Other information:

Handle in accordance with good industrial hygiene and safety procedures. Do not eat, drink or smoke when using this product.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: No data available
Colour	: Colourless
Odour	: Odourless
Odour threshold	: No data available
pH	: 11 – 14
Melting point	: No data available
Freezing point	: No data available
Boiling point	: 100 °C
Flash point	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Flammability	: Not flammable
Vapour pressure	: 23 hPa @ 20 °C / 68 °F
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: 1.15 – 1.2 g/cm ³
Solubility	: Water: Fully miscible
Partition coefficient n-octanol/water	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive limits	: No data available
Explosive properties	: No data available
Oxidising properties	: Not oxidizing.

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reactions known under normal conditions of use.

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

Heat. Incompatible materials. Do not allow product to dry out.

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10.5. Incompatible materials

Strong oxidizers. Strong acids.

10.6. Hazardous decomposition products

May include, and are not limited to: oxides of carbon. Toxic and irritating gases may be released. Nitrogen 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.

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LD50 dermal rat	> 2000 mg/kg
LC50 inhalation rat	> 2.5 mg/l

Carbonic acid, dipotassium salt (584-08-7)

LD50 oral rat	1870 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
LC50 inhalation rat	> 4.96 mg/l (Exposure time: 4.5 h)
ATE CA (oral)	1870 mg/kg bodyweight

Disodium carbonate (497-19-8)

LD50 oral rat	4090 mg/kg
LD50 dermal rabbit	> 2000 mg/kg bodyweight Animal: rabbit, Guideline: other:EPA 16 CFR 1500.40
ATE CA (oral)	4090 mg/kg bodyweight

Glycine, N,N'-1,2-ethanediylbis[N-(carboxymethyl)-, tetrasodium salt (64-02-8)

LD50 oral rat	1658 mg/kg
ATE CA (oral)	1210 mg/kg bodyweight

Sodium metasilicate (6834-92-0)

LD50 oral rat	1153 mg/kg
LD50 dermal rat	> 5000 mg/kg bodyweight Animal: rat, Guideline: EPA OPPTS 870.1200 (Acute Dermal Toxicity)
LC50 inhalation rat	> 2.06 mg/l air Animal: rat, Guideline: EPA OPPTS 870.1300 (Acute inhalation toxicity)
ATE CA (oral)	1153 mg/kg bodyweight

Skin corrosion/irritation : Causes skin irritation.
pH: 11 – 14
Serious eye damage/irritation : Causes serious eye damage.
pH: 11 – 14
Respiratory or skin sensitisation : Not classified.
Germ cell mutagenicity : Not classified.
Carcinogenicity : Not classified.
Reproductive toxicity : Not classified.

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Sodium metasilicate (6834-92-0)	
NOAEL (animal/female, F0/P)	> 159 mg/kg bodyweight Animal: rat, Animal sex: female

STOT-single exposure : Not classified.

Carbonic acid, dipotassium salt (584-08-7)	
STOT-single exposure	May cause respiratory irritation.

Sodium metasilicate (6834-92-0)	
STOT-single exposure	May cause respiratory irritation.

STOT-repeated exposure : Not classified.

Glycine, N,N'-1,2-ethanediylbis[N-(carboxymethyl)-, tetrasodium salt (64-02-8)	
LOAEC (inhalation, rat,dust/mist/fume, 90 days)	0.015 mg/l air Animal: rat, Animal sex: female, Guideline: OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day Study)
NOAEL (oral, rat, 90 days)	≥ 500 mg/kg bodyweight Animal: rat

Sodium metasilicate (6834-92-0)	
NOAEL (oral, rat, 90 days)	227 – 237 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)

Aspiration hazard : Not classified.

Symptoms/effects after inhalation : May cause irritation to the respiratory tract.

Symptoms/effects after skin contact : Causes skin irritation. Symptoms may include redness, drying, defatting and cracking of the skin.

Symptoms/effects after eye contact : Causes serious eye damage. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva. May cause burns.

Symptoms/effects after ingestion : May be harmful if swallowed. May cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Other information : Likely routes of exposure: ingestion, inhalation, skin and eye.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : May cause long-term adverse effects in the aquatic environment.

Carbonic acid, dipotassium salt (584-08-7)	
LC50 - Fish [1]	68 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri)
EC50 - Crustacea [1]	630 mg/l (Exposure time: 48 h - Species: Ceriodaphnia dubia)

Disodium carbonate (497-19-8)	
LC50 - Fish [1]	300 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])
EC50 - Crustacea [1]	265 mg/l (Exposure time: 48 h - Species: Daphnia magna)
LC50 - Fish [2]	310 – 1220 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])
EC50 - Crustacea [2]	200 – 227 mg/l Test organisms (species): Ceriodaphnia sp.

Glycine, N,N'-1,2-ethanediylbis[N-(carboxymethyl)-, tetrasodium salt (64-02-8)	
LC50 - Fish [1]	41 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])
EC50 - Crustacea [1]	140 mg/l Test organisms (species): Daphnia magna
LC50 - Fish [2]	59.8 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])
ErC50 algae	1.01 mg/l

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Glycine, N,N'-1,2-ethanediylbis[N-(carboxymethyl)-, tetrasodium salt (64-02-8)	
LOEC (chronic)	50 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC (chronic)	25 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC chronic fish	≥ 25.7 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio) Duration: '35 d'

Sodium metasilicate (6834-92-0)	
LC50 - Fish [1]	210 mg/l (Exposure time: 96 h - Species: Brachydanio rerio [semi-static])
EC50 - Crustacea [1]	1700 mg/l Test organisms (species): Daphnia magna
LC50 - Fish [2]	210 mg/l (Exposure time: 96 h - Species: Brachydanio rerio)

12.2. Persistence and degradability

FortiSolve 200 SM	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

FortiSolve 200 SM	
Bioaccumulative potential	Not established.

Disodium carbonate (497-19-8)	
BCF - Fish [1]	(no bioaccumulation)

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Other information : No other effects known.

SECTION 13: Disposal considerations

13.1. Disposal methods

Product/Packaging disposal recommendations : Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

SECTION 14: Transport information

In accordance with DOT / TDG / IMDG / IATA

14.1. UN number

DOT NA No : UN3266
UN-No. (TDG) : UN3266
UN-No. (IMDG) : 3266
UN-No. (IATA) : 3266

14.2. UN proper shipping name

Proper Shipping Name (DOT) : Corrosive liquid, basic, inorganic, n.o.s. (potassium carbonate, disodium metasilicate)
Proper Shipping Name (TDG) : Corrosive liquid, basic, inorganic, n.o.s. (potassium carbonate, disodium metasilicate)

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Proper Shipping Name (IMDG) : Corrosive liquid, basic, inorganic, n.o.s. (potassium carbonate, disodium metasilicate)
Proper Shipping Name (IATA) : Corrosive liquid, basic, inorganic, n.o.s. (potassium carbonate, disodium metasilicate)

14.3. Transport hazard class(es)

DOT

Transport hazard class(es) (DOT) : 8
Hazard labels (DOT) : 8



Note: Limited Quantity for packages less than 30 kg gross and inner packagings less than 5 L each.

TDG

Transport hazard class(es) (TDG) : 8
Hazard labels (TDG) : 8



Note: Limited Quantity for packages less than 30 kg gross and inner packagings less than 5 L each.

IMDG

Transport hazard class(es) (IMDG) : 8
Danger labels (IMDG) : 8



Note: Limited Quantity for packages less than 30 kg gross and inner packagings less than 5 L each.

IATA

Transport hazard class(es) (IATA) : 8
Danger labels (IATA) : 8



Note: See IATA for Limited Quantity Information.

14.4. Packing group

Packing group (DOT) : III
Packing group (TDG) : III
Packing group (IMDG) : III
Packing group (IATA) : III

14.5. Environmental hazards

Other information : No supplementary information available.

14.6. Special precautions for user

Special transport precautions : Do not handle until all safety precautions have been read and understood.

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14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

All components of this product are listed, or excluded from listing, on the Canadian DSL (Domestic Substances List) and NDSL (Non-Domestic Substances List) inventories

15.2. International regulations

No additional information available

15.3. US State regulations

California Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986) - This product contains no listed substances known to the State of California to cause cancer, birth defects or other reproductive harm, at levels which would require a warning under the statute.

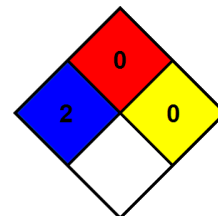
SECTION 16: Other information

According to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012 and the Hazardous Products Regulations (HPR) WHMIS 2015

Revision date : 03/22/2023
Other information : None.
Prepared by : Nexreg Compliance Inc.
www.Nexreg.com



NFPA health hazard : 2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.
NFPA fire hazard : 0 - Materials that will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand.
NFPA reactivity : 0 - Material that in themselves are normally stable, even under fire conditions.



Hazard Rating
Health : 2 Moderate Hazard - Temporary or minor injury may occur
Flammability : 0 Minimal Hazard - Materials that will not burn
Physical : 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.

SDS HazCom 2012 - WHMIS 2015 (Nexreg) 2021

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