

**SECTION 1: Identification** 

## FortiSolve 200

## Safety Data Sheet

According to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012 and the Hazardous Products Regulations (HPR) WHMIS 2015 Issue date: 2022-09-23 Revision date: 2023-03-21 Version: 2.0

1.1. Identification	
Product form	: Mixture
Product name EPA Registration #	: FortiSolve 200 : Adjuvant for: FortiSolve 100 (EPA # 63761-8)
-	
1.2. Recommended use and restriction	is on use
Recommended use	: Activator
1.3. Supplier	
<b>Manufacturer</b> 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)
2.1. Classification of the substance or GHS classification Skin corrosion/irritation, Category 2 Serious eye damage/eye irritation, Category	1
2.2. GHS Label elements, including pro	ecautionary statements
GHS labelling Hazard pictograms (GHS)	
Signal word (GHS)	: Danger
Hazard statements (GHS)	<ul> <li>H315 - Causes skin irritation.</li> <li>H318 - Causes serious eye damage.</li> </ul>
Precautionary statements (GHS)	<ul> <li>P264 - Wash hands, forearms and face thoroughly after handling.</li> <li>P280 - Wear protective gloves/protective clothing/eye protection/face protection.</li> <li>P302+P352 - If on skin: Wash with plenty of water.</li> <li>P362+P364 - Take off contaminated clothing and wash it before reuse.</li> <li>P332+P313 - If skin irritation occurs: Get medical advice/attention.</li> <li>P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove</li> </ul>

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-ethanediylbis[N-(carboxymethyl)-, tetrasodium salt	Glycine, N,N'-1,2-ethanediylbis[N-(carboxymethyl)-, tetrasodium salt Tetrasodium ethylenediaminetetraacetate / Ethylenediaminetetraacetic acid, tetrasodium salt / N,N'-1,2-Ethanediylbis(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-ethanediylbis[N-(carboxymethyl)-, tetrasodium salt / Glycine, N,N'-1,2-ethanediylbis[N- (carboxymethyl)-, sodium salt (1:4) / Tetrasodium 2,2',2'',2'''-(ethylenedinitrilo)tetraacetate	CAS-No.: 64-02-8	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.	
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 unconsciour person. Get medical advice/attention if you feel unwell.	

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4.2. Most important symptoms and effects (acute and delayed)		
Symptoms/effects after inhalation Symptoms/effects after skin contact	<ul> <li>May cause irritation to the respiratory tract.</li> <li>Causes skin irritation. Symptoms may include redness, drying, defatting and cracking of the skin.</li> </ul>	
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 Unsuitable extinguishing media	<ul><li>Use extinguishing media appropriate for surrounding fire.</li><li>Do not use water jet.</li></ul>
5.2. Specific hazards arising from the chem	ical
Fire hazard	: Products of combustion may include, and are not limited to: oxides of carbon. Toxic and irritating gases may be released. Nitrogen oxides.
5.3. Special protective equipment and preca	autions for fire-fighters
Protection during firefighting	: Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA).
SECTION 6: Accidental release measure	es
6.1. Personal precautions, protective equip	ment and emergency procedures
General measures	: Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel.
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 a	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.

: Sweep or shovel spills into appropriate container for disposal. Provide ventilation.

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

Methods for cleaning up

6.4. Reference to other sections

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SECTION 7: Handling and stora	ıge	
7.1. Precautions for safe handling		
Precautions for safe handling Hygiene measures	<ul> <li>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.</li> <li>Take off contaminated clothing and wash it before reuse. Always wash hands after handling the</li> </ul>	
	product.	
7.2. Conditions for safe storage, in	cluding 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.	
SECTION 8: Exposure controls/personal protection		
8.1. Control parameters		
FortiSolve 200		
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

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
Respiratory protection:
In case of insufficient ventilation, wear suitable respiratory equipment. Respirator selection must be based on known or anticipated exposure levels, the

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.

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## **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
рН	: 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 <sup>3</sup>
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.

**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.

## Safety Data Sheet

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SECTION 11: Toxicological information		
11.1. Information on toxicological effects		
	Not classified.	
	Not classified.	
, ,	Not classified.	
FortiSolve 200	1	
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	
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.	
	Not classified.	
	Not classified.	
	Not classified.	
STOT-single exposure :	Not classified.	
Carbonic acid, dipotassium salt (584-08-7)		
STOT-single exposure	May cause respiratory irritation.	
:	Not classified.	

### STOT-repeated exposure

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
Aspiration hazard	: Not classified.
Symptoms/effects after inhalation Symptoms/effects after skin contact Symptoms/effects after eye contact	<ul> <li>May cause irritation to the respiratory tract.</li> <li>Causes skin irritation. Symptoms may include redness, drying, defatting and cracking of the skin.</li> <li>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.</li> </ul>

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Symptoms/effects after ingestion	: May be harmful if swallowed. May cause gastrointestinal irritation, nausea, vomiting and
Other information	<ul><li>diarrhea.</li><li>Likely routes of exposure: ingestion, inhalation, skin and eye.</li></ul>

<b>SECTION 12:</b>	Ecoloa	ical information	on
	Looidg	iour mornau	

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-(carboxyme	ethyl)-, 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
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'

## 12.2. Persistence and degradability

FortiSolve 200	
Persistence and degradability	Not established.
12.3. Bioaccumulative potential	
FortiSolve 200	
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.

## Safety Data Sheet

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

SECTION 13: Disposal considerations	S
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

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

#### 14.3. Transport hazard class(es)

### DOT

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



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

: 8

### TDG

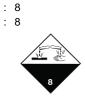
Transport hazard class(es) (TDG)	
Hazard labels (TDG)	



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

#### IMDG

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



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

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#### ΙΑΤΑ

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



Note: See IATA for Limited Quantity Information.

14.4. Packing group	
Packing group (DOT) Packing group (TDG) Packing group (IMDG) Packing group (IATA)	: III : III : III : 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.
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 : 03/21/2023

Other information Prepared by

- : None.
- : Nexreg Compliance Inc. www.Nexreg.com



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NFPA health hazard NFPA fire hazard	<ul> <li>2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.</li> <li>0 - Materials that will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand.</li> </ul>
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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