

SAFETY DATA SHEET

Product: Fitosan Super Concentrate Agricultural Disinfectant**Preparation date: 2022-12-12****Revision date: 2024-02-21**

EXPLANATORY NOTES

This Safety Data Sheet has been compiled in accordance to the ECHA Guidelines (latest edition), European Regulation (EC) No. 1272/2008 (CLP), and Globally Harmonized System of Classification and Labelling of Chemicals (GHS) (latest edition).

This Safety Data Sheet in its entirety applies to the product as a packed concentrate.

All packed products (sizes up to 5l) contain tamper proof heat induction seals.

Section 3 Hazard classification refers to the 100% raw material pure substance classification in the mixture and not the product mixture or the dilutions.

Section 16 Hazard statements are as per ECHA Pure Substance Classification and refers to the 100% raw material pure substance classification as specified in Section 3 and not the product mixture or dilutions.

SECTION 1: Chemical product and company identification

Product identifier

Product form

Mixture

Trade name(s)

Fitosan Super Concentrate Agricultural Disinfectant

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses

An antimicrobial disinfectant solution used for the disinfection of hard surfaces, equipment and air spaces.

Details of the supplier of the safety data sheet

Manufacturer

Health and Hygiene (Pty) Ltd.

Address

Corner Leader and Hoefsmid Street, Stormill Ext. 10, Roodepoort, 1709, South Africa

Telephone number

+27 (0) 11 474 1668

E- mail address

info@healthandhygiene.co.za / info@f10products.com

Emergency contact number(s)

+27 (0) 11 474 1668

Country	Organisation	Website	Emergency number
Australia	Poisons Information Centre	https://www.health.gov.au/contacts/poisons-information-centre	13 11 26
Belgium	Centre Anti-Poisons/ Antigifcentrum	https://www.poisoncentre.be/	+32 70 245 245
Canada	BC Drug and Poison Information Center	https://infopoison.ca/centres/	+1 604 707 2789
China	National Poison Control Center	https://www.chinacdc.cn/en/	+86 24 25718881
Czech Republic	Toxicological Information Centre	https://www.cenia.cz/odborna-podpora/reach/bezpecnostni-listy/	+420 22 49 192 93
Finland	Poison Information Centre	https://www.hus.fi/en/medical-care/medical-services/Poison%20Information%20Centre/Pages/default.aspx	0800 147 111 09 471 977

Product: Fitosan Super Concentrate Agricultural Disinfectant	Version: 002	Revision Date: 2024-02-21	Page: Page 1 of 12
---	---------------------	----------------------------------	---------------------------

SAFETY DATA SHEET

Product: Fitosan Super Concentrate Agricultural Disinfectant

Preparation date: 2022-12-12

Revision date: 2024-02-21

France	Centre antipoison et de toxicovigilance de Paris	https://reach-info.ineris.fr/Numero_orfila	+33 (0)1 45 42 59 59
Germany	Clinical Toxicology and Berlin Poison Information Centre	https://www.reach-clp-biozid-helpdesk.de/DE/REACH/Sicherheitsdatenblatt/Sicherheitsdatenblatt-EN/Emergency-Telephone-number.html	+49 30 192 40
Hong Kong	Hong Kong Poison Information Centre	https://www.hkpcn.org.hk/eng/HKPIC.html	+852 3949 5089
Iceland	Eitrunarmiðstöð Landspítali	http://www.landspitali.is/?PageID=14556	+354 543 22 22
Iraq	Poisoning consultation centre		+964 (0)780 191 3821
Ireland	National Poison Information Centre	https://www.poisons.ie	+353 1 8092566
Italy	Poison Centre – Catholic University School of Medicine	https://preparatipericolosi.iss.it/cav.aspx	+39 06 305 43 43
Malta	Medicines & Poisons Info Office	https://deputyprimeminister.gov.mt/en/Pages/health/asp	112
Netherlands	Nationaal Vergiftigingen Informatie Centrum Uitsluitend bestemd om artsen te informeren bij accidentele vergiftigingen	https://www.umcutrecht.nl/nl/Subsites-nl/Nationaal-Vergiftigingen-Informatie-Centrum-(NVIC)/Productinformatie/Informationsheet-product-notification	+31 30 274 88 88 +31 (0)88 755 8000
New Zealand	The National Poisons Centre	https://poisons.co.nz/	0800 764 766 0800 POISON
Philippines	National Poison Management & Control Center	https://m.facebook.com/upnpmcc	+632 544 8400 local 3726
Qatar	Qatar Poison Centre		+974 4003 1111
Saudi Arabia	Drug and Poison Information Center	https://beta.sfda.gov.sa/en/toxicinfo-dept	+966 11 232 4180
South Africa	Tygerberg Poison Information Centre	https://www.sun.ac.za/english/faculty/healthsciences/Clinical%20Pharmacology/poison-information-centre	+27 (0)861 555 777
Spain	Servicio de Información Toxicológica	https://www.miteco.gob.es/es/calidad-y-evaluacion-ambiental/temas/productos-quimicos/portal-reach-clp/novedades/detalle_novedades.aspx?id=tcn:30-193752-16	+34 91 562 0420
Switzerland	Swiss Toxicological Information Centre	https://toxinfo.ch/startseite_en	+41 44 251 51 51 (in Switzerland dial 145)
United Arab Emirates	Health Poison and Drug Information Center	https://u.ae/en/information-and-services/justice-safety-and-the-law/handling-emergencies	+971 8 449 3333
United Kingdom	National Poisons Information Service	https://www.npis.org/	844 892 0111
USA	National Capital Poison Center	https://www.poison.org/	1-800-222-1222

Product: Fitosan Super Concentrate Agricultural Disinfectant	Version: 002	Revision Date: 2024-02-21	Page: Page 2 of 12
---	---------------------	----------------------------------	---------------------------

SAFETY DATA SHEET

Product: Fitosan Super Concentrate Agricultural Disinfectant

Preparation date: 2022-12-12

Revision date: 2024-02-21

In the case of country not listed above, contact your nearest local Poison Centre.

For further information refer to ECHA website for Poison Centres (<https://poisoncentres.echa.europa.eu/>).

SECTION 2: Hazards identification

Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 (CLP), Hazard class	Hazard Category	Classification procedure
Serious eye damage/eye irritation, H318	1	Study data (OPPTS 870.2400)
Hazardous to the aquatic environment, acute hazard, H401	2	Study data (OECD)

Label elements

Labelling according to Regulation (EC) No 1272/ 2008 [CLP]

Hazard pictogram(s)



GHS05

Signal word

Danger

Hazard statements

H318 — Causes serious eye damage.

H401 — Toxic to aquatic life.

Precautionary statements

P101	—	If medical advice is needed, have product container or label at hand.
P102	—	Keep out of reach of children.
P103	—	Read label before use.
P264	—	Wash hands thoroughly after handling.
P280	—	Wear correct eye safety equipment when handling this mixture.
P305 + P351 + P338	—	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P317	—	If eye irritation persists: Get emergency medical help.
P273	—	Avoid release to the environment.
P391	—	Collect spillage.

Product: Fitosan Super Concentrate Agricultural Disinfectant	Version: 002	Revision Date: 2024-02-21	Page: Page 3 of 12
---	---------------------	----------------------------------	---------------------------

SAFETY DATA SHEET**Product: Fitosan Super Concentrate Agricultural Disinfectant****Preparation date: 2022-12-12****Revision date: 2024-02-21**

P501 — Dispose of container in suitable manner as is required by country legislation.

Supplemental Hazard information**Classification as per label dilution**

Label dilution	Hazard Classification	Classification procedure
Dilution 1:1000	Non-hazardous	GHS classification
Dilution 1:500	Non-hazardous	GHS classification
Dilution 1:300	Non-hazardous	GHS classification
Dilution 1:250	Non-hazardous	GHS classification
Dilution 1:125	Non-hazardous	GHS classification
Dilution 1:100	Non-hazardous	GHS classification

Other hazards

None

SECTION 3: Composition and information on ingredients**Substances**

Not applicable

Mixtures

Substance name	CAS No EC No	Classification according Regulation (EC) No 1278/ 2008 [CLP] (100% raw material pure substance classification)	Formulated Concentration (packed product) (% w/w)
Di-decyl dimethyl-ammonium Chloride	7173-51-5 230-525-2	Acute Tox.; 3; H301/ Skin Corr.; 1B; H314 Aquatic Acute; 1; H400	2.0 – 4.0 %
Benzyl (C12-16) Alkyl Dimethyl Ammonium chloride	68424-85-1 270-325-2	Acute Tox.; 4; H302/ Skin Corr.; 1B; H314 Aquatic Acute; 1; H400/ Aquatic Chronic; 1; H410	2.0 – 4.0 %
Ingredients determined not to be hazardous			Balance

Additional information:

For full text of H- and EUH-statements, refer to SECTION 16.

Product: Fitosan Super Concentrate Agricultural Disinfectant	Version: 002	Revision Date: 2024-02-21	Page: Page 4 of 12
---	---------------------	----------------------------------	---------------------------

SAFETY DATA SHEET

Product: Fitosan Super Concentrate Agricultural Disinfectant

Preparation date: 2022-12-12

Revision date: 2024-02-21

SECTION 4: First aid measures

Description of first aid measures

General information

In case of concern or doubt, call a doctor or physician.

Following inhalation

Move the person to fresh air. Contact a physician if required.

Following skin contact

Remove all contaminated clothing immediately. Wash affected area thoroughly with soap and water. Wash contaminated clothing before reuse or discard.

Following eye contact

If in eyes, hold eyelids apart and flush the eyes continuously with running water. Remove contact lenses if present. Continue flushing for at least 15 minutes, or until advised to stop by the Poisons Information Centre or a doctor. Seek immediate medical attention.

Following ingestion

Do not induce vomiting. Wash out mouth thoroughly with water.

Most important symptoms and effects, both acute and delayed

Symptoms/ effects following inhalation

None

Symptoms/ effects following skin contact

May be some irritation and reddening of the skin which will moderate after some time.

Symptoms/ effects following eye contact

May be some pain and reddening of the eye which will moderate after some time.

Symptoms/ effects following ingestion

Ingestion of the concentrate may cause irritation to mouth, throat and digestive tract.

Indication of any immediate medical attention and special treatment needed

If you feel unwell, seek medical advice immediately and show label if possible.

Note to the doctor/ physician

Treat symptomatically.

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media

Use appropriate fire extinguisher for surrounding environment.

Product: Fitosan Super Concentrate Agricultural Disinfectant	Version: 002	Revision Date: 2024-02-21	Page: Page 5 of 12
---	---------------------	----------------------------------	---------------------------

SAFETY DATA SHEET

Product: Fitosan Super Concentrate Agricultural Disinfectant

Preparation date: 2022-12-12

Revision date: 2024-02-21

Unsuitable extinguishing media

Do not extinguish with water under high pressure.

Special hazards arising from the substance or mixture

Hazardous combustion products

This product is non-combustible. However, heating can cause expansion or decomposition leading to violent rupture of containers.

Advice for firefighters

Fire fighters should wear full protective clothing and self-contained breathing apparatus (SCBA) operated in positive pressure mode. Fight fire from safe distance and location.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Wear appropriate personal protective equipment and clothing to prevent exposure to clothing, skin and eyes. Increase ventilation.

For emergency responders

Have a copy of the SDS available. Use appropriate personal protective equipment.

Environmental precautions

In case of entry into sewers or waterways, inform the responsible authorities in accordance with relevant regulations.

Methods and material for containment and cleaning up

For containment

Contain the spill with appropriate material and techniques.

For cleaning up

Clean spillages immediately. Do not dilute material but contain it. Place inert absorbent material onto spillage. Collect the material and place into a suitable container.

Reference to other sections

Refer to SECTIONS 8 and 13 for exposure control/ personal protection equipment and disposal considerations.

SECTION 7: Handling and storage

Precautions for safe handling

Avoid skin and eye contact. Keep containers sealed when not in use. Use in well-ventilated area. Wash hands and other exposed areas with soap and water prior to eating, drinking and smoking. Handle in accordance with good hygiene and safety procedures.

Product: Fitosan Super Concentrate Agricultural Disinfectant	Version: 002	Revision Date: 2024-02-21	Page: Page 6 of 12
---	---------------------	----------------------------------	---------------------------

SAFETY DATA SHEET

Product: Fitosan Super Concentrate Agricultural Disinfectant

Preparation date: 2022-12-12

Revision date: 2024-02-21

Conditions for safe storage, including any incompatibilities

Store in a cool, dry, well-ventilated area. Protect from direct sunlight. Store in suitable, labelled containers. Keep containers tightly closed. Ensure that storage conditions comply with applicable local and national regulations.

Specific end use(s)

Refer to SECTION 1 for identified end use(s).

SECTION 8: Exposure controls and personal protection

Control parameters

Occupational exposure limits

No exposure standards have been established for the mixture. However, over-exposure to some chemicals may result in enhancement of pre-existing medical conditions and/ or allergic reactions and should be kept to the least possible levels.

Biological limit values

No biological limits allocated.

Exposure limits at intended use

DNEL/ PNEC – values — No data available

Exposure controls

Appropriate engineering controls

Handle in premises with good ventilation. Eye rinsing facilities shall be available at the workplace.

Personal protection equipment

Eye and face protection

Wear eye protection when diluting the concentrated product.

Skin protection

None required. Care should be exercised to prevent contact with skin when handling the concentrated product.

Respiratory protection

No respiratory protection required.

Environmental exposure controls

Refer to SECTION 12 for limitations on environmental exposure.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance	—	clear, colourless liquid
Odour	—	characteristic odour
Odour threshold	—	not available
Melting point/ freezing point	—	not available

Product: Fitosan Super Concentrate Agricultural Disinfectant	Version: 002	Revision Date: 2024-02-21	Page: Page 7 of 12
---	---------------------	----------------------------------	---------------------------

SAFETY DATA SHEET

Product: Fitosan Super Concentrate Agricultural Disinfectant

Preparation date: 2022-12-12

Revision date: 2024-02-21

Boiling point	—	100°C
Flammability	—	not combustible
Lower and upper explosion limit	—	not available
Flash point	—	not available
Auto-ignition temperature	—	not available
Decomposition temperature	—	not available
pH (undiluted)	—	7.5
Viscosity	—	not available
Solubility in water	—	soluble
Partition coefficient	—	not known
Vapour pressure	—	not available
Density	—	1.0g/cm ³
Vapour density (air = 1)	—	not available

Other information

No other data available

SECTION 10: Stability and reactivity

Reactivity

The product contains no substances which could lead to hazardous reactions during normal use, handling and storage.

Chemical stability

Stable when handled and stored under normal ambient conditions.

Possibility of hazardous reactions

No hazardous reactions when handled and stored under normal ambient conditions.

Conditions to avoid

Protect from direct sunlight.

Incompatible materials

Do not mix with anionic detergents and other chemicals.

Hazardous decomposition products

No known hazardous decomposition products.

Product: Fitosan Super Concentrate Agricultural Disinfectant	Version: 002	Revision Date: 2024-02-21	Page: Page 8 of 12
---	---------------------	----------------------------------	---------------------------

SAFETY DATA SHEET

Product: Fitosan Super Concentrate Agricultural Disinfectant

Preparation date: 2022-12-12

Revision date: 2024-02-21

SECTION 11: Toxicological information

Information on hazard classes as defined in Regulation (EC) No 1272/ 2008 & EPA Guidelines**

** Category 1	—	High Toxicity	Category 2	—	Moderate Toxicity
Category 3	—	Low Toxicity	Category 4	—	Very Low Toxicity

Data as per non-diluted Packed Concentrated Product

Acute toxicity (oral) (rat)	—	Toxicity > 2 000 mg / kg (EPA category 3)
Acute toxicity (dermal) (rat)	—	Toxicity > 5 000 mg / kg (EPA category 4)
Skin corrosion/ irritation	—	Causes skin irritation
Serious eye damage/ irritation	—	Causes serious eye damage
Respiratory or skin sensitisation	—	Causes no skin sensitisation
Germ cell mutagenicity	—	None predicted based on data for the raw materials
Carcinogenicity	—	None predicted based on data for the raw materials
Reproductive toxicity	—	None predicted based on data for the raw materials
STOT-single exposure	—	No known hazards for occasional exposure
STOT-repeated exposure	—	No known hazards for repeated exposure
Aspiration hazard	—	Not expected to be an aspiration hazard
Inhalation toxicity	—	> 2 mg / L for 4-hour exposure

Information on other hazards

None

SECTION 12: Ecological information

Toxicity

Acute (short-term) toxicity	—	Very toxic to aquatic life.
Chronic (long-term) toxicity	—	May cause long-term adverse effects in the aquatic environment.

Persistence and degradability

Product is readily biodegradable, and the product is neither persistent nor problematic metabolites are produced. The product is hydrolytically stable, and hydrolytic processes do not contribute to its degradation in the environment, it is neither volatile nor is it expected to be present in the air. It can be considered immobile in soil.

Bioaccumulative potential

No additional information available.

Mobility in soil

Not mobile in soil.

Product: Fitosan Super Concentrate Agricultural Disinfectant	Version: 002	Revision Date: 2024-02-21	Page: Page 9 of 12
---	---------------------	----------------------------------	---------------------------

SAFETY DATA SHEET

Product: Fitosan Super Concentrate Agricultural Disinfectant

Preparation date: 2022-12-12

Revision date: 2024-02-21

Results of PBT vPvB assessment

None of the substances in this mixture is considered to be persistent, bioaccumulating and toxic or considered to be very persistent and very bioaccumulating.

Endocrine disrupting properties

No additional information available.

Other adverse effects

No additional information available.

SECTION 13: Disposal considerations

Waste treatment methods

Waste should not be disposed of by release to sewers. Dispose of this material and its container in a safe manner in accordance with relevant and applicable local and national regulations and/ or legislation. Avoid release to the environment.

SECTION 14: Transport information

UN number or ID number

None allocated. Not classified as dangerous goods.

UN proper shipping name

None allocated.

Transport hazard class(es)

None allocated.

Packing group

Not applicable.

Environmental hazards

Not applicable.

Special precautions for user

None necessary.

Maritime transport in bulk according to IMO instruments

Not applicable.

Product: Fitosan Super Concentrate Agricultural Disinfectant	Version: 002	Revision Date: 2024-02-21	Page: Page 10 of 12
---	---------------------	----------------------------------	----------------------------

SAFETY DATA SHEET

Product: Fitosan Super Concentrate Agricultural Disinfectant

Preparation date: 2022-12-12

Revision date: 2024-02-21

SECTION 15: Regulatory information

Safety, health and environmental regulations/ legislation specific for the substance or mixture

Classified as Hazardous according to SANS 10234:2019 Globally Harmonised System of Classification and Labelling of Chemicals (GHS).

Safety, health and environmental regulations/ legislation specific for the substance or mixture:

South Africa	—	Act 36 of 1947 — Fertilizers, Farm Feeds, Agricultural Remedies and Stock Remedies
South Africa	—	SANS 636:2013 — Environmental studies (corrosiveness to steel) & Storage stability studies
United Kingdom	—	HSE Health Directorate HD D4 (Biocides and Pesticides Assessment Unit) — Safety of raw materials

During international product registration (refer countries below), of the F10® product range, all safety, health and environmental aspects are considered by the relevant authorities.

Australia (APVMA)	China	Czech Republic	France (ANSES)	Germany (BAUA)
Hong Kong	Iraq (Ministry of Health)	Kuwait	Namibia	Philippines
Qatar	Singapore	UAE (Dubai Municipality, MoChAe)		United Kingdom (HSE)
USA (EPA, FDA)				

Chemical safety assessment

Chemical safety assessment done based on available study data.

SECTION 16: Other information

Indication of changes

New format to comply with all international legislation.

Addition of explanatory notes.

Section 15 revised.

Section 3 revised with regards to raw materials.

Abbreviations and acronyms

CAS	—	Chemical Abstracts Service Number
CLP	—	Classification Labelling Packaging Regulation
DNEL	—	Derived No Effect Level
EC	—	European Community
EPA	—	Environmental Protection Agency
ECHA	—	European Chemicals Agency
GHS	—	Globally Harmonized System
HSE	—	Health and Safety Executive
IMO	—	International Maritime Organisation
NRCS	—	National Regulator for Compulsory Specifications

Product: Fitosan Super Concentrate Agricultural Disinfectant	Version: 002	Revision Date: 2024-02-21	Page: Page 11 of 12
---	---------------------	----------------------------------	----------------------------

SAFETY DATA SHEET

Product: Fitosan Super Concentrate Agricultural Disinfectant

Preparation date: 2022-12-12

Revision date: 2024-02-21

OPPTS	—	Office of Prevention, Pesticides and Toxic Substances
PBT	—	Persistent Bioaccumulative and Toxic Substance
PNEC	—	Predicted No Effect Concentration(s)
SANS	—	South African National Standards
SDS	—	Safety Data Sheet
STOT	—	Specific Target Organ Toxicity
UN	—	United Nations
vPvB	—	Very Persistent and Very Bioaccumulative
w/w	—	Weight by Weight

Key literature references and sources for data

Primary data for the calculation of the hazards has preferentially been taken from the official European classification list, Regulation (EC) 1272/ 2008 Annex I, as well as from actual test data performed on the product itself.

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/ 2008 [CLP]

All classifications were done as per available test data based on Health Effects Guideline OPPTS and EPA Guidelines or as per official European classification as listed per CLP and GHS regulations.

Relevant H- and EUH-statements (number and full text)

The following refers to the 100% raw material pure substance classification

H301	—	Toxic if swallowed
H302	—	Harmful if swallowed
H314	—	Causes severe skin burns and eye damage
H317	—	May cause an allergic skin reaction
H318	—	Causes serious eye damage
H330	—	Fatal if inhaled
H351	—	Suspected of causing cancer
H372	—	Causes damage to organs through prolonged or repeated exposure
H400	—	Very toxic to aquatic life
H410	—	Very toxic to aquatic life with long lasting effects

Training advice

All personnel handling this product must be made aware of the content of the SDS and hazards of the product if any.

Further information

Not applicable.

Product: Fitosan Super Concentrate Agricultural Disinfectant	Version: 002	Revision Date: 2024-02-21	Page: Page 12 of 12
---	---------------------	----------------------------------	----------------------------