Sani-99™ Disinfectant
Safety Data Sheet
(Prepared in accordance with regulation (EC) 2015/830)
Anhydrous Powder Latest Revision: 14 November 2024

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product Identifier
Product Name: Sani-99™ (Anhydrous Powder)
UFI Code: N5U0-V9G1-K00G-4MDC

1.2 Relevant uses of the substance or mixture and uses advised against.
1.2.1 PT1 – Human Hygiene

1.2.2 PT2 - Disinfectants and algaecides
- Used for the disinfection of surfaces, materials, equipment and furniture which are not used for direct contact with food or feeding stuffs. Usage areas include, inter alia, swimming pools, aquariums, bathing and other waters; air conditioning systems; and walls and floors in private, public, and industrial areas and in other areas for professional activities.
- Used for disinfection of air, water not used for human or animal consumption, chemical toilets, wastewater, hospital waste and soil.
- Used as algaecides for treatment of swimming pools, aquariums and other waters and for remedial treatment of construction materials.
- Used to be incorporated in textiles, tissues, masks, paints and other articles or materials with the purpose of producing treated articles with disinfecting properties.

1.2.3 PT3 - Veterinary hygiene
- Used for veterinary hygiene purposes such as disinfectants, disinfecting soaps, oral or corporal hygiene products or with anti-microbial function.
- Used to disinfect the materials and surfaces associated with the housing or transportation of animals.

1.2.4 PT4 - Food and feed area
- Used for the disinfection of equipment, containers, consumption utensils, surfaces or pipework associated with the production, transport, storage or consumption of food or feed (including drinking water) for humans and animals.
- Used to impregnate materials which may enter into contact with food.

1.3.4. Uses advised against: None, provided that the information on this MSDS is followed.

1.3 Details of the Supplier of the Material Safety Data Sheet:

Manufacturer:
Scientific Sanitation Solutions (Pty) Ltd
Unit 7, 67 Regency Drive,
Route 21 Corporate Park,
Irene, Pretoria, 0178,
South Africa.
victor@scisan.co.za
www.scisan.co.za

1.4 Emergency Numbers:
For routine poisons advice you should contact your general practitioner or
telephone NHS 111 (England) or
NHS 24 (Scotland) on 111.
For information or to report a poisoning incident contact:
The National Poisons Information Centre: 01 809 2166 8am-10pm 7 days a week.
Healthcare Professionals: 01 809 2566

SECTION 2: Hazards Identification

2.1. CLASSIFICATION OF THE SUBSTANCE OR MIXTURE
Product definition : Mixture

2.1.1. Classification according to regulation (EC) 1272/2008 (CLP/GHS)

May cause major eye irritation, category 1	H314: Causes sever skin burns and eye damage
Acute toxicity if ingested, Category 4	H302: Harmful if swallowed
Acute toxicity to aquatic life, Category 2	H401:Toxic to aquatic Life
Chronic toxicity to aquatic life, Category 3	H412: Harmful to aquatic life with long lasting effects.

2.2. Label Elements

2.2.1. According to regulation (EC) 1272/2008 [CLP/GHS]

Pictograms:

Signal Word:
Danger

Hazard Statement:
H272 - May intensify fire.
H302 - Harmful if swallowed.
H317 - May cause an allergic skin reaction.
H318 - Causes serious eye damage.
H335 - May cause respiratory irritation.
H401 - Toxic to aquatic life

Precautionary Statements:
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260 Do not breathe dusts or mists.
P273 Avoid release to the environment.
P280 Wear protective gloves.

P301 + P312 + P330 **IF SWALLOWED:**
Call a POISON CENTER/doctor if you feel unwell. Rinse mouth.

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.

- **When diluted/dissolved into water the following pictograms and hazards are applicable.**

Pictograms: None
Signal Word: None
Hazard Statement: None
Precautionary Statements: None

2.3. Other Hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of

0.1% or higher. When applied in high concentrations on fabrics and other materials, bleaching may occur.

SECTION 3: Composition/Information on Ingredients

3.1. Substance
Mixture

3.2. Mixture
Proprietary blend of various inorganic salts and oxidants.
The substances classified according to regulation (EC) 1272/2008 present in this mixture are reported in the following table.

Ingredient Name	Ingredient Type	Percentage (%)	CAS Number
Potassium Peroxymonosulfate	Active Ingredient	8 - 10	70693-62-8
Peracetic Acid	Active Ingredient	10 - 12	79-21-0
Sodium Persulfate	Supplementary Ingredient	48 - 50	7775-27-1
Potassium Persulfate	Supplementary Ingredient	30 - 32	7727-21-7

SECTION 4: First Aid Measures

4.1 SKIN CONTACT:
Remove & isolate contaminated clothing and shoes.
For minor skin contact, avoid spreading material on unaffected areas.
Flush affected area with water for at least 5 minutes.

4.2 EYE CONTACT:
Flush your eyes with water for 10 minutes. Hold eyelids open while washing.
Remove contact lenses, if present and easy to do.
Consult a physician if burning sensation persists.

4.3 INGESTION:
Do not induce vomiting.
Rinse mouth with water.
Seek medical attention.
Never give anything by mouth to an unconscious person.

4.4 INHALATION:
Move person to fresh air. If not breathing give artificial respiration.
Do not use mouth-to-mouth, if person has inhaled or ingested the substance.
Induce artificial respiration with the aid of a pocket mask with a one-way valve.
If breathing of victim is difficult, administer oxygen. The effects of exposure may be delayed.

- **First aid measures and precautions are specific to the anhydrous powder. No safety concerns are associated with the product once introduced into water.**
  If you feel unwell, see a physician. Treat exposure symptomatically.

SECTION 5: Fire Fighting Measures

5.1 EXTINGUISHING MEDIA

SUITABLE EXTINGUISHING MEDIA
Small Fires: Dry chemical, CO2, water spray, dry sand.
Large Fires: Dry chemical, CO2, alcohol-resistant foam or water spray.

5.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE
Carbon oxides, Sulfur oxides, Potassium oxides, Magnesium oxide, Sodium oxides.
Not combustible.

5.3 ADVICE FOR FIREFIGHTERS
Wear self-contained breathing apparatus for firefighting if necessary.

5.4 FURTHER INFORMATION
In case of large/bulk fires.

- Move containers from fire area if you can do it without risk.
- Dike fire control water for later disposal: do not scatter the material.
- Fire involving Tanks or Bulk Containers: Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. Do not get water inside containers. ALWAYS stay away from the ends of tanks.
- Cool containers with flooding quantities of water until well after fire is out.
- Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- Isolate spill or leak areas immediately for at least 25 to 50 meters (80 to 160 feet) in all directions.
- Keep unauthorized personnel away. Stay upwind. Keep out of low areas. Ventilate enclosed areas.
- Wear positive pressure self-contained breathing apparatus (SCBA)
- Wear chemical protective clothing.
- Structural firefighter's protective clothing is recommended for fire situations ONLY; it is not effective in spill situations.
- If ROAD OR RAIL TANKER is involved in a fire, ISOLATE for 800 meters (1/2 Mile) in all directions;
- Also, consider initial evacuation for 800 meters (1/2 Mile) in all directions.

- **Firefighting measures are only applicable to the anhydrous powder stage of the product. Once the product is dissolved in water, no fire hazard is needed.**

SECTION 6: Accidental Release Measures

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES
Isolate defective containers immediately, if possible and safe to do.
Keep away from heat. Protect from moisture.

Wear personal protective equipment; see section 8
Keep unprotected persons at a distance.
Keep unauthorized persons away.
Avoid breathing vapors, mist or gas.
Ensure adequate ventilation.

6.2 ENVIRONMENTAL PRECAUTIONS
Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
Discharge into the environment must be avoided.

6.3 METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP
Pick up and arrange disposal without creating dust. Sweep up and shovel.
Keep in suitable, closed containers for disposal.
Keep containers open: do not seal hermetically.
Avoid contact with incompatible substances. See section 10.
Rinse away any leftover residue with plenty of water.

6.4 ADDITIONAL INFORMATION
Never return spilled product into its original container for re-use. (Risk of decomposition).

For disposal see section 13.

SECTION 7: Handling and Storage

7.1 HANDLING:

7.2 DIRECTIONS FOR SAFE HANDLING:
Avoid contact with impurities, decomposition catalysts and Incompatible substances. See section 10
Wear personal protective equipment. See section 8
Avoid contact with the eyes, skin and clothing.
Remove contaminated or saturated clothing.
Avoid production of dust. If dust occurs: wear dust mask and eye protection.

7.3 ADDITIONAL GUIDELINES:
Provide for installation of emergency shower and eye bath.
Production of safety guides and operating instructions.
(Relating to the workplace)

7.4 DIRECTIONS ON FIRE AND EXPLOSION SAFETY:
Avoid sun rays, heat and heat effect.
Keep away from combustible material.
Product itself is not combustible.

7.5 STORAGE:
Store in cool and dry place. Protect from sources of heat.
Ensure adequate ventilation.

7.6 REQUIREMENT FOR STORAGE ROOMS:
Cool, dry, clean, lockable.

7.7 REQUIREMENTS FOR CONTAINERS:
Use only suitable materials for transportation, storage and handling.

7.8 SUITABLE MATERIALS ARE:
Polyvinyl chloride (PVC)
Polyethylene
Polypropylene
Glass
Ceramics
Triple foil packaging

In bulk supply, always close container tightly after removal of product.
Do not keep the container sealed.
Store in a cool and dry place.

7.9 DIRECTIONS ON STORING MATERIALS TOGETHER:
Do not store together with: metallic, salts, alkalis, reducing agents. (Risk of decomposition)

SECTION 8: Exposure Controls / Personal Protection

8.1 OCCUPATIONAL EXPOSURE LIMITS:
No Exposure Limits Established.

8.2 CONTROLS:

The control measures appropriate for a particular worksite depend on how this material is used and on the extent of exposure.
The best protection is to enclose operations and / or provide local exhaust ventilation at the site of chemical release.

Use a non-sparking, grounded ventilation system separate from other exhaust ventilation systems. Exhaust directly to the outside.
Supply sufficient replacement air to make up for air removed.
Have a safety shower/eye wash fountain readily available in the immediate work area.

8.3 PERSONAL PROTECTION:
Personal protective equipment.

8.4 MEASURES FOR GENERAL PROTECTION AND HYGIENE:

Avoid raw product contact with skin and eyes.
If there is the possibility of skin/eye contact the indicated hand/eye/body protection should be used.
The workplace related airborne concentrations have to be below the indicated exposure limits.
If the limits at the workplace are exceeded and/or larger amounts are released (leakage, spillage, dust) the indicated respiratory protection should be used.
No eating, drinking, smoking or snuffing tobacco at work.
Wash face and/or hands before break and end of work.
Preventive skin protection recommended.

8.5 RESPIRATORY PROTECTIVE EQUIPMENT:
If dust occurs: wear dust mask.
If necessary, wear nose and mouth mask with P2 particle filter.
When blended with water, none needed.

8.6 HAND PROTECTION
Wear protective gloves made of the following materials: PVC, rubber.
When blended with water, none needed.

8.7 EYE PROTECTION:
If dust occurs, wear basket shaped glasses. When blended with water, none needed.

8.8 BODY PROTECTION:
Wear suitable protective clothing.
Avoid contaminating clothes with product.
Remove contaminated or saturated clothing Wash contaminated clothing immediately with water.

SECTION 9: Physical & Chemical Properties

PHYSICAL APPEARANCE:	White crystalline solid, odorless.
ALTERATION IN CONDITIONS:	not applicable
MELTING POINT/RANGE:	ca.180 °C at 1.013 hPa
BOILING POINT/RANGE:	Not Applicable
FLASHPOINT:	not applicable
INFLAMMABILITY:	not applicable

IGNITION TEMPERATURE:	not applicable
SPONTANEOUS IGNITION:	not applicable
EXPLOSION LIMITS	
DUST EXPLOSION:	not applicable
VAPOR PRESSURE:	no applicable
BULK DENSITY:	1100 – 1680 kg/m³
ACTIVE OXYGEN CONTENT:	Approx. 4.50%
SOLUBILITY:	approx. 72g/l (20ºC)
pH VALUE:	approx. 2.2-2.7 (0.6% solution)
ADDITIONAL INFORMATION:	Water based Disinfectant.

SECTION 10: Stability and Reactivity

10.1 CONDITIONS TO AVOID:
Avoid direct sunrays, excessive heat, heat effects and humidity.

10.2 STABILITY:
Sani-99™ is stable for 2 years in original sealed sachet.
Sani-99™ is stable at ambient temperatures.
In dilution, Sani-99 is active for 3 months when mixed with water as directed.

Product is not flammable
Product is not combustible

10.3 INCOMPATIBLE MATERIALS:
Impurities, metal ions, metallic salts.
Alkalis, reducing agents – reducing agents (risk of decomposition).
Combustible substances (danger of fire).

Never mix with other disinfectants, alcohol sanitisers or cleaning detergents.

SECTION 11: Toxicological Information

Toxicological Endpoint	Value
Acute Oral Toxicity	LD 50 = 1204 mg/kg, rat, literature
Acute Dermal Toxicity	LD 50 > 11000 mg/kg, rabbit, literature
Acute Inhalation Toxicity	LC 50 > 5 mg/1/4h, rat, literature
Skin Irritation	Corrosive, rabbit, OECD 404
Eye Irritation	highly irritative, rabbit, literature
Skin sensitization	Maximization test, guinea pig, not sensitizing, OECD 406
Repeat dose toxicity (short term)	Data not available
Germ cell mutagenicity	Ames test, salmonella typhimurium, negative, literature
Carcinogenicity	None of the components of the mixture are classified as carcinogenic
Reproductive toxicity	None of the components of the mixture are classified as toxic to reproduction
Experience with Humans	Rat, inhalative (dust), duration: 2 weeks No effect level (NOEL): 0.043mg/l, target organ

	Eye (irritating effect) Body weight development negative

SECTION 12: Ecotoxicological Information

12.1 DATA ON ELIMINATION (PERSISTENCE AND DEGRADABILITY):
Medium: water/soil biotic degradation on account of hydrolysis, reduction.

12.2 BEHAVIOR IN ENVIRONMENTAL FIELDS:
Under ambient condition hydrolysis, decomposition or reduction may occur.

Sani-99™ is readily biodegradable when exposed to large bodies of water.

The following substances are formed when hydrolyzed: oxygen and sulphate.

12.3 BIOACCUMULATION POTENTIAL
Bioaccumulation: none

12.4 MOBILITY POTENTIAL
None

12.5 ECO-TOXIC EFFECTS:
(The ecotoxicological values for Potassium Peroxymonosulfate taken from the EU Biocide CAR are presented below).

Fish toxicity:
LC_{50} (96h) > 32 mg/l <56 mg/l, Brachydanio rerio, OECD 2

Acute water flea toxicity:
EC_{50} (24h) = 5.3 mg/l. Daphnia magna, OECD 202

Acute water flea toxicity:
NOEC (24h) = 1.8 mg/l, Daphnia magna OECD 202

12.6 BACTERIA TOXICITY:
Escherichia coli ATCC 10536, (10 sec) = 6g/l
Escherichia coli 0157 ATCC 43888, (5min) = 6g/l
Staphylococcus aureus ATCC 6538, (10 sec) = 6g/l
Staphylococcus aureus ATCC 6538P, (5min) = 6g/l
Enterococcus hirae ATCC 10541, (10 sec) = 6g/l
Pseudomonas aeruginosa ATCC 15442, (10 sec) = 6 g/l
Pseudomonas aeruginosa ATCC 27853, (5min) = 6 g/l
Salmonella typhimurium ATCC 14028 (5min) = 6 g/l
Listeria monocytogenes ATCC 7644 (5min sec) = 6 g/l
Candida albicans ATCC 10231 (15min) = 6 g/l
Aspergillus brasiliensis ATCC 16404 (15min) = 6 g/l
Legionella Sero Group 7 (no regrowth) = 6 g/l
(When mixed with water, 6g per Liter)

12.7 VIRAL TOXICITY:
SARS-CoV-2 (30 sec) = 6 g/l
[EN 14476:2013 + A2:2019] performed by BluTest Laboratories, Glasgow, UK, [07/2020].
(When mixed with water, 6g per Liter)

12.8 FURTHER ECOLOGICAL INFORMATION:
Chemical oxygen demand:

COD value: not applicable (inorganic product)

Biochemical oxygen demand:

BOD5 value: not applicable (inorganic product)

AOX information:
The product does not contain any organically bonded halogen.

SECTION 13: Disposal Consideration

13.1 DISPOSAL METHOD PRODUCT:
This product must be disposed of as an inorganic salt.
Chemical in accordance with the regulations issued by the appropriate local authorities.

Recommendation
Add product to water to ensure decomposition.
Return residue and solutions that cannot be re-used to a recognized waste disposal company.

If necessary contact the relevant authorities.

13.2 LABORATORY
Chemical in accordance with the regulations issued by the appropriate local authorities.

13.3 DISPOSAL METHOD PACKAGING:
No specific disposal method for solution packaging required.
Do not re-use empty sachets

Recommended cleaning agent of packaging material: WATER.

Disposal of packaging in accordance with local authorities**.**

SECTION 14: Transport Information

14.1 NOT CLASSIFIED AS DANGEROUS IN THE MEANING OF TRANSPORT REGULATIONS.

SECTION 15: Regulatory Information

15.1 EEC HAZARD CLASSIFICATION
Unavailable.

15.2 RISK PHRASES:
R 8/22/36/37
Contact with combustible material may cause fire.
Harmful if swallowed.
Irritation to eyes.
Irritation to respiratory system.

15.3 SAFETY PHRASES:
S 26-29/37/39-46

In case of raw product getting into eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing, gloves and eye/face protection when handling the raw product. In case of accident or if you feel unwell, seek medical advice immediately. (Show the label where possible)

15.4 NATIONAL LEGISLATION:
Keep locked up and out of reach of small children.

15.5 SAFETY HEALTH AND ENVIRONMENTAL REGULATIONS SPECIFIC FOR THE SUBSTANCE
This safety data sheet has been compiled according to the requirements of regulation (EC) No. 1907/2006

15.6 Product in Solution:
Once Sani-99 is introduced into water at the correct dosage specified for the targeted pathogen, the product becomes safe to use on surfaces and skin. No fire hazard is present when diluted and the product is safe to use. The product should be stored out of direct sunlight and below temperatures of 40°C.

SECTION 16: OTHER INFORMATION

Further information on properties and safe handling of product can be obtained from the Owners: Scientific Sanitation Solutions (Pty) Ltd.
www.scisan.co.za
+2712 111 1313

DISCLAIMER: This information is based on our current knowledge and is intended to describe the product for the purposes of health and safety requirements only. It should not, therefore, in itself be construed as a guarantee of any specific quality and efficacy relating to the product, in raw or diluted form. The user must satisfy himself/herself that the product is suitable for his/her purpose.
Product is not tested on fabrics, leather, dyed hair, damaged skin and animals, in its diluted form of 6g =1lt. When SANI-99™ raw product is *on-selled* by the buyer who has been invoiced by the manufacturer, the manufacturer does not take responsibility for the incorrect use of the product by the end-user. It is the responsibility of the invoiced person/on-seller, to give proper induction to the end-user on proper use, dosage, correct dilutions and risks, when using the product in raw, or diluted format.

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