Sanosil S010

Ready-to-use disinfectant for aerosol application

Suitability:
Surface disinfection, aerosol disinfection, room disinfection, spray disinfection.

Product type:
Ready to use.

Effectiveness:
Bacteria, viruses, yeasts/fungi, mould.

Contact time: 1 - 60 min.
Shelf life: 2 years

Authorizations (Switzerland): CHZB2204
Active ingredients:
5% Hydrogen peroxide,
0.005% Silver

Description

Sanosil S010 is an extra strong surface disinfectant with a remarkable depot effect. It is based on the proven Sanosil H_2O_2-Ag formulation, which also makes it suited for special applications like aerosol atomization.

Sanosil S010 contains the highest concentration of active ingredients of all ready-made Sanosil products and is therefore also used successfully for shock disinfection of highly polluted surfaces, e.g. in germ-infested air-conditioning systems.

Working Principle

The active substance used is hydrogen peroxide, an environmental-friendly substance. In a complex manufacturing procedure, the active substance is stabilized and boosted with silver, thus achieving a greatly improved effectiveness against micro-organisms. The traces of silver remaining on the treated surfaces are not visible and non-toxic. However, they efficiently inhibit a renewed contamination.

The elemental oxygen (O_2) separated by the hydrogen peroxide attacks the cell walls of the micro-organisms directly. The chemical reaction between the oxygen and the cell wall molecules will cause these to be denatured and destroyed. This effect is intensified by the silver ions which form a bond with the disulfide bridge of certain proteins of micro-organisms, thereby inactivating or precipitating these proteins.

Notice:

Although Sanosil S010 is also suitable for surfaces with a higher organic load, the disinfectant effect is increased many times over by a preferably thorough cleaning. The more thorough the surfaces to be disinfected are cleaned beforehand, the more effective any subsequent disinfection will be.

Aerosol Disinfection

Fogging or aerosol disinfection is used wherever large volumes have to be treated completely in a short time.

The application of S010 is popular especially in humane, veterinary and dental medicine. Aerosol disinfection is the method of choice thanks to the complete surface coverage especially in the fight against resistant micro-organisms like MRSA or germ contamination of uncertain sources. Tiny drops of the disinfectant are hereby fogged and distributed in the air with the help of a suitable cold fog system. The droplets of disinfectant develop their effect when they touch the surface to be cleaned. This allows not only time-saving treatment of entire rooms, but also the disinfection of otherwise hardly accessibly corners and cracks.

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

1.1. Product identifier
Trade name/designation:

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1.2. Relevant identified uses of the substance or mixture and uses advised against
Use of the substance/mixture:

Concentrated hard surface disinfectant against COVID-19 virus, bacteria, yeast / fungi and bacterial spores

1.3. Details of the supplier of the safety data sheet
Supplier (manufacturer/importer/only representative/downstream user/distributor):

SanosilCanada
5381 rue de Castille Montréal-Nord
(Quebec) Canada H1G 3E3
Téléphone:514-679-7266
Fax: 438-380-2737
E-mail: sanosilcanada@icloud.com
Website: https://sanosil-canada.ca/

1.4. Emergency telephone number

Au Canada : CANUTEC: 1-888-CAN-UTEC (226-8832), 613-996-6666 or *666 on a cellular phone
CENTRE ANTI-POISON DU QUÉBEC : 1-800-463-5060

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture
Classification according to Regulation (EC) No 1272/2008 [CLP]:

Hazard classes and hazard categories	Hazard statements	Classification pro cedure
Serious eye damage/eye irritation *(Eye Irrit. 2)*	H319: Causes serious eye irritation.	Calculation method.
Hazardous to the aquatic environment *(Aquatic Chronic 3)*	H412: Harmful to aquatic life with long lasting effects.	Calculation method.

2.2. Label elements
Labelling according to SIMDUT 2015

Hazard pictograms:

GHS07
Exclamation mark

Signal word: Warning

hazard statements for health hazards	
H319	Causes serious eye irritation.

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Hazard statements for environmental hazards	
H412	Harmful to aquatic life with long lasting effects.

Supplemental Hazard information (EU): -

Precautionary statements Prevention	
P264	Wash hands thoroughly after handling.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.

Precautionary statements Response	
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 + P313	If eye irritation persists: Get medical advice/attention.

Precautionary statements Disposal	
P501	Dispose of contents/container to an installation for the treatment of hazardous waste.

2.3. Other hazards

No data available

SECTION 3: Composition / information on ingredients

3.2. Mixtures

Hazardous ingredients / Hazardous impurities / Stabilisers:

product identifiers	Substance name Classification according to Regulation (EC) No 1272/2008 [CLP]	Concen-tration
CAS No.: 7722-84-1 **EC No.:** 231-765-0	**hydrogen peroxide solution ... %** Acute Tox. 4, Ox. Liq. 1, Skin Corr. 1A **Danger** H271-H302-H314-H332	5 – < 8 Wt %
CAS No.: 7664-38-2 **EC No.:** 231-633-2	**orthophosphoric acid** Skin Corr. 1B **Danger** H314	0 – ≤ 0.1 Wt %
CAS No.: 7440-22-4 **EC No.:** 231-131-3	**silver** Aquatic Acute 1, Aquatic Chronic 1 **Warning** H400-H410 M-factor (acute): 10 M-factor (chronic): 10	0 – ≤ 0.01 Wt %

Full text of H- and EUH-phrases: see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information:

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). Remove victim out of the danger area. Remove contaminated, saturated clothing. If unconscious place in recovery position and seek medical advice. Do not leave affected person unattended. First aider: Pay attention to self-protection!

Following inhalation:

In case of respiratory tract irritation, consult a physician. Provide fresh air.

In case of skin contact:

After contact with skin, wash immediately with plenty of water and soap. If skin irritation or rash occurs: Get medical advice/attention.

After eye contact:

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist. Remove contact lenses, if present and easy to do. Continue rinsing.

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After ingestion:
Rinse mouth. Let water be drunken in little sips (dilution effect). Do NOT induce vomiting. Never give anything by mouth to an unconscious person or a person with cramps. Get immediate medical advice/ attention.

Self-protection of the first aider:
Use personal protection equipment.

4.2. Most important symptoms and effects, both acute and delayed
Serious eye damage/eye irritation

4.3. Indication of any immediate medical attention and special treatment needed
Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media
Suitable extinguishing media:
The product itself does not burn. Water, Dry extinguishing powder, Carbon dioxide (CO2), alcohol resistant foam.

Unsuitable extinguishing media:
Full water jet

5.2. Special hazards arising from the substance or mixture
Hazardous combustion products:
In case of fire: Carbon monoxide. Carbon dioxide (CO2).

5.3. Advice for firefighters
Special protective equipment for firefighters:
Wear a self-contained breathing apparatus and chemical protective clothing.

5.4. Additional information
Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.
Keep closed containers cool by spraying water.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
6.1.1. For non-emergency personnel
Personal precautions:
Avoid contact with skin, eyes and clothes.
Provide adequate ventilation.
Remove persons to safety.
Use personal protection equipment.

Protective equipment:
Wear protective gloves/protective clothing/eye protection/face protection. See section 8.

6.1.2. For emergency responders
Personal protection equipment:
See section 8. Personal protection equipment: see section 8

6.2. Environmental precautions
Do not allow to enter into surface water or drains.
Prevent spread over a wide area (e.g. by containment or oil barriers).

6.3. Methods and material for containment and cleaning up
For containment:
Provide for retaining containers, eg. floor pan without outflow. Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Dispose of the residus of the product as hazardous waste (see section 13).

For cleaning up:
Wash with plenty of water.

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6.4. Reference to other sections
Safe handling: see section 7 Personal protection equipment: see section 8 Disposal: see section 13

6.5. Additional information
Losses during use of the product must be collected and disposed of in special containers as special waste.

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Protective measures

Advices on safe handling:
The simultaneous handling of incompatible substances and mixtures must be prevented. Wear personal protection equipment (refer to section 8).
When using by spraying with a hand sprayer or wiping, do not use for more than 30 minutes per day without respiratory protection. For longer periods of use or for applications with a pressure sprayer, wear suitable respiratory protection (see section 8.2).

Advices on general occupational hygiene
When using do not eat, drink or smoke. Avoid contact with skin, eyes and clothes.

7.2. Conditions for safe storage, including any incompatibilities
Technical measures and storage conditions:
Keep container tightly closed in a cool, well-ventilated place. Keep/Store only in original container.

Requirements for storage rooms and vessels:
Make sure spills can be contained, e.g. in sump pallets or kerbed areas.

Hints on storage assembly:
Do not store together with: Acid, alkali Oxidizing agent.

Storage class: 12 – non-combustible liquids that cannot be assigned to any of the above storage classes

7.3. Specific end use(s)
Recommendation:
The use of chemical disinfectants on surfaces and equipment as well as in vessels must be restricted to non-absorbent materials (metals, glass, ceramics, possibly to non-softened plastics).

SECTION 8: Exposure controls/personal protection

8.1. Control parameters
8.1.1. Occupational exposure limit values

Limit value type (country of origin)	Substance name	① long-term occupational exposure limit value ② short-term occupational exposure limit value ③ Instantaneous value ④ Monitoring and observation processes ⑤ Remark
ES	hydrogen peroxide solution ... % CAS No.: 7722-84-1	① 1 ppm (1.4 mg/m³)
VLA (FR)	hydrogen peroxide solution ... % CAS No.: 7722-84-1	① 1 ppm (1.5 mg/m³)
WEL (GB)	hydrogen peroxide solution ... % CAS No.: 7722-84-1	① 1 ppm (1.4 mg/m³) ② 2 ppm (2.8 mg/m³)
OSHA (US)	hydrogen peroxide solution ... % CAS No.: 7722-84-1	① 1 ppm (1.4 mg/m³)

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Limit value type (country of origin)	Substance name	① long-term occupational exposure limit value ② short-term occupational exposure limit value ③ Instantaneous value ④ Monitoring and observation processes ⑤ Remark
NIOSH (US)	hydrogen peroxide solution ... % CAS No.: 7722-84-1	① 1 ppm (1.4 mg/m³)
ACGIH (US)	hydrogen peroxide solution ... % CAS No.: 7722-84-1	① 1 ppm (1.4 mg/m³)
ES	orthophosphoric acid CAS No.: 7664-38-2	① 1 mg/m³ ② 2 mg/m³ ⑤ VLI, s
IOELV (EU)	orthophosphoric acid CAS No.: 7664-38-2	① 1 mg/m³ ② 2 mg/m³
VRI (FR)	orthophosphoric acid CAS No.: 7664-38-2	① 0.2 ppm (1 mg/m³) ② 0.5 ppm (2 mg/m³) ⑤ réglementaire indicative
WEL (GB)	orthophosphoric acid CAS No.: 7664-38-2	① 1 mg/m³ ② 2 mg/m³
OSHA (US)	orthophosphoric acid CAS No.: 7664-38-2	① 1 mg/m³
NIOSH (US)	orthophosphoric acid CAS No.: 7664-38-2	① 1 mg/m³ ② 3 mg/m³
ACGIH (US)	orthophosphoric acid CAS No.: 7664-38-2	① 1 mg/m³ ② 3 mg/m³
IOELV (EU)	silver CAS No.: 7440-22-4	① 0.01 mg/m³ ⑤ (Silver compounds, soluble, calculated as Ag)
VRI (FR)	silver CAS No.: 7440-22-4	① 0.01 mg/m³ ⑤ (réglementaire indicative) Argent composés, soluble, exprimé en Ag
WEL (GB)	silver CAS No.: 7440-22-4	① 0.01 mg/m³ ⑤ (compounds, soluble; calculated as Ag)
NIOSH (US)	silver CAS No.: 7440-22-4	① 0.01 mg/m³ ⑤ compounds, soluble; calculated as Ag
IOELV (EU)	silver CAS No.: 7440-22-4	① 0.1 mg/m³ ⑤ (metal)
WEL (GB)	silver CAS No.: 7440-22-4	① 0.1 mg/m³ ⑤ (metal)
VRI (FR)	silver CAS No.: 7440-22-4	① 0.1 mg/m³ ⑤ (réglementaire indicative; métal)
ACGIH (US)	silver CAS No.: 7440-22-4	① 0.01 mg/m³ ⑤ compounds, soluble
OSHA (US)	silver CAS No.: 7440-22-4	① 0.01 mg/m³
ES	silver CAS No.: 7440-22-4	① 0.1 mg/m³
ES	silver CAS No.: 7440-22-4	① 0.1 mg/m³ ⑤ (metal, fracción inhalable)

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Limit value type (country of origin)	Substance name	① long-term occupational exposure limit value ② short-term occupational exposure limit value ③ Instantaneous value ④ Monitoring and observation processes ⑤ Remark
NIOSH (US)	silver CAS No.: 7440-22-4	① 0.01 mg/m³
ACGIH (US)	silver CAS No.: 7440-22-4	① 0.1 mg/m³

8.1.2. Biological limit values
No data available

8.1.3. DNEL-/PNEC-values
No data available

8.2. Exposure controls

8.2.1. Appropriate engineering controls
Provide adequate ventilation as well as local exhaustion at critical locations.

8.2.2. Personal protection equipment

Eye/face protection:
Eye glasses with side protection DIN EN 166

Skin protection:
Use protective gloves in accordance to EN 374. The following material is suitable: NBR Normal duration of use: 480 min. Observe the wear time limits as specified by the manufacturer.

Respiratory protection:
In case of inadequate ventilation wear respiratory protection.
For spray application: Respiratory protection according to EN 136 or EN 140 with filter NO-P3 or ABEK-P3.

8.2.3. Environmental exposure controls
No data available

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance
Physical state: Liquid
Colour: colourless
Odour: odourless

Safety relevant basis data

parameter		at °C	Method	Remark
pH	> 2 – 2.5	20 °C		
Melting point	-2 °C			
Freezing point	*not determined*			
Initial boiling point and boiling range	101 °C			
Decomposition temperature	*not determined*			
Flash point	*not applicable*			
Evaporation rate	*not determined*			
Auto-ignition temperature	*not applicable*			
Upper/lower flammability or explosive limits	*not applicable*			
Vapour pressure	1.9 hPa	20 °C		Hydrogen peroxide
Vapour density	*not determined*			

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parameter		at °C	Method	Remark
Density	1 g/cm³	20 °C		
Bulk density	*not applicable*			
Water solubility	completely miscible			
Partition coefficient: n-octanol/ water	*not determined*			
Dynamic viscosity	*not determined*			
Kinematic viscosity	*not determined*			

9.2. Other information
No data available

SECTION 10: Stability and reactivity

10.1. Reactivity
No data available

10.2. Chemical stability
The product is chemically stable under recommended conditions of storage, use and temperature.

10.3. Possibility of hazardous reactions
No hazardous reaction when handled and stored according to provisions.

10.4. Conditions to avoid
Strong acid, Strong alkali, Oxidizing agent

10.5. Incompatible materials
No data available

10.6. Hazardous decomposition products
No known hazardous decomposition products.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

CAS No.	Substance name	Toxicological information
7722-84-1	hydrogen peroxide solution ... %	**LD_{50} oral:** 376 mg/kg (Rat) **LD_{50} dermal:** 3,000 mg/kg (Rat) **LC_{50} Acute inhalation toxicity (vapour):** 2 mg/l 4 h (Rat)
7664-38-2	orthophosphoric acid	**LD_{50} oral:** 1,530 mg/kg (Rat) **LD_{50} dermal:** 2,740 mg/kg (Rabbit)

Acute oral toxicity:
Based on available data, the classification criteria are not met.

Acute dermal toxicity:
Based on available data, the classification criteria are not met.

Acute inhalation toxicity:
Based on available data, the classification criteria are not met.

Skin corrosion/irritation:
Based on available data, the classification criteria are not met.

Serious eye damage/irritation:
Causes serious eye irritation.

Respiratory or skin sensitisation:
Based on available data, the classification criteria are not met.

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Germ cell mutagenicity:
Based on available data, the classification criteria are not met.

Carcinogenicity:
Based on available data, the classification criteria are not met.

Reproductive toxicity:
Based on available data, the classification criteria are not met.

STOT-single exposure:
Based on available data, the classification criteria are not met.

STOT-repeated exposure:
Based on available data, the classification criteria are not met.

Aspiration hazard:
Based on available data, the classification criteria are not met.

Additional information:
The product has not been tested. The information in this section is derived from the properties of the individual components.

SECTION 12: Ecological information

12.1. Toxicity

CAS No.	Substance name	Toxicological information
7722-84-1	hydrogen peroxide solution ... %	**LC_{50}:** 16.4 mg/l (Fish) **LC_{50}:** 2 mg/l (Daphnia pulex) **EC_{50}:** 1.38 mg/l (Alga)
7440-22-4	silver	**LC_{50}:** 0.015 mg/l 2 d (shellfish) **LC_{50}:** 0.00807 mg/l 4 d (fish) **EC_{50}:** 0.0092 mg/l 2 d (shellfish) **EC_{50}:** 0.00198 mg/l 3 d (Alga)

Aquatic toxicity:
Harmful to aquatic life with long lasting effects.

12.2. Persistence and degradability

CAS No.	Substance name	Biodegradation	Remark
7440-22-4	silver	No	

12.3. Bioaccumulative potential
No data available

12.4. Mobility in soil
No data available

12.5. Results of PBT and vPvB assessment

CAS No.	Substance name	Results of PBT and vPvB assessment
7722-84-1	hydrogen peroxide solution ... %	The substance in the mixture does not meet the PBT/vPvB criteria according to REACH, annex XIII.
7664-38-2	orthophosphoric acid	The substance in the mixture does not meet the PBT/vPvB criteria according to REACH, annex XIII.
7440-22-4	silver	The substance in the mixture does not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6. Other adverse effects
No data available

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SECTION 13: Disposal considerations

13.1. Waste treatment methods

The product may not be eliminated as municipal solid waste nor allowed to end up in the drainage system. These packs can be delivered packaging-specific to the existing collection points for hazardous waste.

13.1.1. Product/Packaging disposal

Waste codes/waste designations according to EWC/AVV

Waste code product:

16 05 07 *	discarded inorganic chemicals consisting of or containing hazardous substances

*: Evidence for disposal must be provided.

Remark:

Wastecode according to regulation EU 2014/955

Waste code packaging:

15 01 02	Plastic packaging

Waste treatment options

Appropriate disposal / Product:

Residues of the product have to be collected as hazardous waste.

Appropriate disposal / Package:

Empty packaging can be recycled or eliminated as municipal solid waste.

SECTION 14: Transport information

No dangerous good in sense of these transport regulations.

Land transport (ADR/ RID)	Inland waterway craft	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)
14.1. UN-No.			
No dangerous good in sense of these transport regulations.	No dangerous good in sense of these transport regulations.	No dangerous good in sense of these transport regulations.	No dangerous good in sense of these transport regulations.
14.2. UN proper shipping name			
No dangerous good in sense of these transport regulations.	No dangerous good in sense of these transport regulations.	No dangerous good in sense of these transport regulations.	No dangerous good in sense of these transport regulations.
14.3. Transport hazard class(es)			
not relevant			
14.4. Packing group			
not relevant			
14.5. Environmental hazards			
not relevant			
14.6. Special precautions for user			
not relevant			

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

not relevant

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SECTION 15: Regulatory information

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

15.1.1. EU legislation

Authorisations:

Regulation (EU) No. 528/2012 on biocides

15.1.2. National regulations

No data available

15.2. Chemical Safety Assessment

For this substance a chemical safety assessment has not been carried out.

SECTION 16: Other information

16.1. Indication of changes

This material safety data sheet has been revised completely and is considered new without any previous version.

16.2. Abbreviations and acronyms

ADN European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR European agreement concerning the international carriage of dangerous goods by road
CAS Chemical Abstract Service
CLP Classification, labelling and Packaging
EC50 Effective Concentration 50%
EN European norm
IATA International Air Transport Association
IMDG-Code International Maritime Dangerous Goods Code
LC50 Lethal Concentration 50%
LD50 Lethal Dose 50%
OECD Organization for Economic Cooperation and Development
PBT persistent, bioaccumulative, toxic
PNEC Predicted No Effect Concentration
REACH Registration, Evaluation and Authorization of Chemicals
RID Regulations concerning the international carriage of dangerous goods by rail
SVHC Substance of Very High Concern
UN United Nations
VOC Volatile organic compounds
vPvB very persistent, very bioaccumulative

16.3. Key literature references and sources for data

Security safety data sheet of the ingredients. Inventory of substances of the European Chemical Agency (ECHA). GESTIS database

16.4. Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]

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

Hazard classes and hazard categories	Hazard statements	Classification pro cedure
Serious eye damage/eye irritation *(Eye Irrit. 2)*	H319: Causes serious eye irritation.	Calculation method.
Hazardous to the aquatic environment *(Aquatic Chronic 3)*	H412: Harmful to aquatic life with long lasting effects.	Calculation method.

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16.5. Relevant R-, H- and EUH-phrases (Number and full text)

Hazard statements	
H271	May cause fire or explosion; strong oxidiser.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H332	Harmful if inhaled.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

16.6. Training advice

Persons charged with the handling and cleaning of the product must be trained prior to start their work and in regular intervals. They must be informed about the risks using the product and the mesures to take for efficient prevention. This concerns particularly working security, first aid, health and environment protection.

16.7. Additional information

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new madeup material.