

PRODUCT OF DATA SHEET:

KITCHEN SHIELD

CONCENTRATED SURFACE SANITISER



ABOUT THE PRODUCT

Kitchen Shield is a high-efficacy surface sanitiser designed for quick, safe, and effective sanitising of hard, non-porous surfaces in kitchens and food-preparation areas.

DIRECTIONS OF USE AND PROPERTIES

Areas surfaces above the floor such as Non-porous, food-contact surfaces: Dilute at 2% of concentrate (100ml to 5lt) Wipe surface until visibly wet; leave for 5 minutes contact time; allow to air dry

Floors: Wet mopping with a microfiber mop and bucket system at a dilution of 200ml to every 10lt of water for 5 minutes contact time; allow to air dry.

Active ingredient: Benzalkonium Chloride 6%

Colour: **YELLOW**
Appearance: **Liquid**
pH: **8-10**

Density: **1.00Kg/Lt**
Packaging: **1Lt; 5Lt; 25Lt; 210Lt**
Smell: **None**

STORAGE AND HANDLING

1. Store in closed bottles in a dry place at a temperature not exceeding 30 C, protected from intense light and apart from flammable material, food products and packaging material.
2. Contact of the undiluted disinfectant or detergent and its fumes with eyes should be avoided.
3. Where necessary goggles should be worn when the disinfectant or detergent is being handled.
4. Unless recommended, the disinfectant or detergent should not be mixed with other incompatible substances (such as soap and other anionic detergents) where relevant.

HEALTH & SAFETY

- If ingested, seek medical attention.
- Eyes: Rinse with water. Seek medical care.
- Ingestion: Drink water. Seek medical care.
- Skin: Wash contact area with soap and water.
- Inhalation: Remove patient to fresh air.

Important: Always keep product out of children's reach. Ensure that the product lid remains closed and tightened at all times. Keep away from extreme heat and naked flame.

Disclaimer:

We do not accept liability for claims of any kind for any loss including, without limitation, consequential loss, injury or damage arising from the use of the products which are the subject matter hereof.

LOG 5 REDUCTION

Conforms to EN1276 (Bacterial activity of chemical disinfectant for use in industrial, domestic and institutional areas). Unless recommended, the disinfectant or detergent should not be mixed with other incompatible substances (such as soap and other anionic detergents) where relevant.

EN1276-2 - KITCHENSHEILD

SECTION 1: CHEMICAL PRODUCT AND COMPANY INFORMATION

GHS Product identifier: EN1276-2 - KITCHENSHEILD

Other means of identification:

Recommended use of the chemical and restrictions on use:

Relevant uses (Consumer use):

- Product for the food industry

Relevant uses (Professional users):

- Product for the food industry

Relevant uses (Industrial user):

- Product for the food industry

Uses advised against:

- All uses not specified in this section or in section 7.3

Supplier's details:

Chemzone

Rivvett-Carnet Street

1450 Alberton - Gauteng - South Africa

Phone: +27110231035

sales@chemzone.co.za

www.chemzone.co.za

Refer to technical data sheet for further addresses

Emergency phone number: 0823485716

SECTION 2: HAZARDS IDENTIFICATION

Classification of the substance or mixture:

SANS 10234:

Classification of this product has been carried out in accordance with SANS 10234:2008 Edition 1.1.

Aquatic Acute 2: Hazardous to the aquatic environment, acute hazard, Category 2, H401

Eye Dam. 1: Serious eye damage, Category 1, H318

Skin Irrit. 2: Skin irritation, Category 2, H315

GHS label elements, including precautionary statements:

SANS 10234:

Danger



Hazard statements:

Aquatic Acute 2: H401 - Toxic to aquatic life.

Eye Dam. 1: H318 - Causes severe eye damage.

Skin Irrit. 2: H315 - Causes skin irritation.

Precautionary statements:

P101: If medical advice is needed, have product container or label at hand.

P102: Keep out of reach of children.

P264: Wash thoroughly after use.

P280: Wear protective gloves/protective clothing/eye protection/protective footwear.

P302+P352: IF ON SKIN: Wash with plenty of soap and 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.

P310: Immediately call a POISON CENTRE or doctor/physician.

P501: Dispose of contents and / or their container according to the separated collection system used in your municipality.

Substances that contribute to the classification

Benzalkonium chloride

Other hazards which do not result in classification:

Not relevant

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SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Substances:


Not relevant

Mixtures:

Chemical description: Mixture of substances

Components:

In accordance with SANS 11014:2010, the product contains:

Identification	Chemical name/Classification	Concentration
CAS: 8001-54-5	Benzalkonium chloride Acute Tox. 4: H302+H312; Aquatic Acute 1: H400; Skin Corr. 1B: H314 - Danger 	2.5 - <10%

To obtain more information on the hazards of the substances consult sections 11, 12 and 16.

SECTION 4: FIRST AID MEASURES

Description of necessary first-aid measures:

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

By inhalation:

This product does not contain substances classified as hazardous for inhalation, however, in case of symptoms of intoxication remove the person affected from the exposure area and provide with fresh air. Seek medical attention if the symptoms get worse or persist.

By skin contact:

Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact:

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:

Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

Most important symptoms/effects, acute and delayed:

Acute and delayed effects are indicated in sections 2 and 11.

Indication of immediate medical attention and special treatment needed, if necessary:

Not relevant

SECTION 5: FIRE-FIGHTING MEASURES

Suitable extinguishing media:**Suitable extinguishing media:**

Product is non-flammable under normal conditions of storage, handling and use. In the case of combustion as a result of improper handling, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems.

Unsuitable extinguishing media:

Non-applicable

Specific hazards arising from the chemical:

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

Special protective actions for fire-fighters:

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SECTION 5: FIRE-FIGHTING MEASURES (continued)

Depending on the magnitude of the fire it may be necessary to use full protective clothing and Self Contained Breathing Apparatus. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

Additional provisions:

Act in accordance with the Internal Emergency Plan and the Information Sheets on actions to take after an accident or other emergencies. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation, explosion or BLEVE as a result of high temperatures. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:

For non-emergency personnel:

Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

For emergency responders:

Wear protective equipment. Keep unprotected persons away. See section 8.

Environmental precautions:

Avoid at all cost any type of spillage into an aqueous medium. Contain the product absorbed appropriately in hermetically sealed containers. Notify the relevant authority in case of exposure to the general public or the environment.

Methods and materials for containment and cleaning up:

It is recommended:

Prevent the entrance of product in drains, sewers or watercourses. Absorb the spill using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. Collect the product in appropriate containers and manage it according to current legislation.

Spillages in water or sea:

Small spillages:

Contain spillage using barriers or similar equipment. Use suitable absorbents for collection and treat the waste in accordance with current regulations.

Large spillages:

If possible, contain spillage in open water using barriers or similar equipment. If this is not possible, try to control its spread and collect the product with suitable mechanical means. Always consult experts before using dispersants and make sure you have the necessary approvals if they are to be used. Treat the waste according to current regulations.

Reference to other sections:

See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling:

A.- General precautions for safe use

Comply with the current legislation concerning the prevention of industrial risks with regards manually handling weights. Maintain order, cleanliness and dispose of using safe methods (section 6).

B.- Technical recommendations for the prevention of fires and explosions

Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C.- Technical recommendations on general occupational hygiene

Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks

Due to the danger of this product for the environment it is recommended to use it within an area containing contamination control barriers in case of spillage, as well as having absorbent material in close proximity.

Conditions for safe storage, including any incompatibilities:

A.- Specific storage requirements

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SECTION 7: HANDLING AND STORAGE (continued)

Minimum Temp.: 5 °C
Maximum Temp.: 30 °C
Maximum time: 6 Months

B.- General conditions for storage

Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

Specific end use(s):

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

Control parameters:

Substances whose occupational exposure limits have to be assessed in the workplace:

There are no applicable occupational exposure limits for the substances contained in the product

Appropriate engineering controls:

A.- Individual protection measures, such as personal protective equipment (PPE)

If product is used at the concentration dosing conditions specified in the relevant instructions for use (section 15), personal protective equipment described in section 8.2 for UNDILUTED products will not be required.

Safe handling recommendations for undiluted product:

As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,...) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1.

All information contained herein is a recommendation which needs some specification from the labour risk prevention services as it is not known whether the company has additional measures at its disposal.

B.- Respiratory protection

If the working conditions and/or safety measures adopted do not allow keeping the airborne concentration of the product below the exposure limits (if any) or at acceptable levels (if no exposure limits exist), suitable respiratory protection equipment chosen by a qualified professional should be used.

C.- Specific protection for the hands

Not relevant

D.- Eye and face protection

Not relevant

E.- Bodily protection

Not relevant

F.- Additional emergency measures

It is advised to implement additional emergency equipments in workplaces that are particularly exposed to the product or in situations where risk assessments highlight the necessity of such equipments.

It is not necessary to take additional emergency measures.

Environmental exposure controls:

To comply with environmental protection regulations, it is recommended to prevent any spillage of the product and its container. For more detailed information, please refer to subsection 7.1.D.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties:

For complete information see the product datasheet.

Appearance:


Physical state at 20 °C: Liquid

*Not relevant due to the nature of the product, not providing information property of its hazards.

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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

Appearance:	Characteristic
Color:	 Yellow
Odor:	Characteristic
Odour threshold:	Not relevant *
Volatility:	
Boiling point at atmospheric pressure:	100 °C
Vapour pressure at 20 °C:	2350 Pa
Vapour pressure at 50 °C:	12381.01 Pa (12.38 kPa)
Evaporation rate at 20 °C:	Not relevant *
Product description:	
Density at 20 °C:	1032.2 kg/m ³
Relative density at 20 °C:	1.032
Dynamic viscosity at 20 °C:	Not relevant *
Kinematic viscosity at 20 °C:	Not relevant *
Kinematic viscosity at 40 °C:	Not relevant *
Concentration:	Not relevant *
pH:	>9
Vapour density at 20 °C:	Not relevant *
Partition coefficient n-octanol/water 20 °C:	Not relevant *
Solubility in water at 20 °C:	Not relevant *
Solubility properties:	Not relevant *
Decomposition temperature:	Not relevant *
Melting point/freezing point:	Not relevant *
Flammability:	
Flash Point:	Non Flammable (>93 °C)
Flammability (solid, gas):	Not relevant *
Autoignition temperature:	460 °C
Lower flammability limit:	Not relevant *
Upper flammability limit:	Not relevant *
Particle characteristics:	
Median equivalent diameter:	Not relevant *

Other information:

Information with regard to physical hazard classes:

Explosive properties:	Not relevant *
Oxidising properties:	Not relevant *
Corrosive to metals:	Not relevant *
Heat of combustion:	Not relevant *
Aerosols-total percentage (by mass) of flammable components:	Not relevant *

Other safety characteristics:

Surface tension at 20 °C:	Not relevant *
Refraction index:	Not relevant *

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

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SECTION 10: STABILITY AND REACTIVITY (continued)

Reactivity:

No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7 from Safety Data Sheet.

Chemical stability:

Chemically stable under the indicated conditions of storage, handling and use.

Possibility of hazardous reactions:

Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

Conditions to avoid:

Applicable for handling and storage at room temperature:

Shock and friction	Contact with air	Increase in temperature	Sunlight	Humidity
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable

Incompatible materials:

Acids	Water	Oxidising materials	Combustible materials	Others
Avoid strong acids	Not applicable	Precaution	Not applicable	Avoid alkalis or strong bases

Hazardous decomposition products:

See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO₂), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

Information on toxicological effects:

The experimental information related to the toxicological properties of the product itself is not available

Dangerous health implications:

In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A- Ingestion (acute effect):

- Acute toxicity: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.

B- Inhalation (acute effect):

- Acute toxicity : Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met. However, it does contain substances classified as hazardous for this effect. For more information see section 3.

C- Contact with the skin and the eyes (acute effect):

- Contact with the skin: Produces skin inflammation.
- Contact with the eyes: Produces serious eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for the effects mentioned. For more information see section 3.
IARC: Not relevant
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

E- Sensitizing effects:

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SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous with sensitising effects. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:

Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

H- Aspiration hazard:

Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

Other information:

Not relevant

SECTION 12: ECOLOGICAL INFORMATION

Toxic to aquatic life.

Toxicity:

Not relevant

Persistence and degradability:

Product-specific information:

Degradability		Biodegradability	
BOD5	Not relevant	Concentration	Not relevant
COD	Not relevant	Period	28 days
BOD5/COD	Not relevant	% Biodegradable	85 % (OECD TG 301A)

Substance-specific information:

Not relevant

Bioaccumulative potential:

Not relevant

Mobility in soil:

Identification	Absorption/desorption		Volatility	
	Benzalkonium chloride CAS: 8001-54-5	Koc	650000	Henry
Conclusion		Immobile	Dry soil	Not relevant
Surface tension		Not relevant	Moist soil	Not relevant

Results of PBT and vPvB assessment:

Not relevant

Other adverse effects:

Not described

SECTION 13: DISPOSAL CONSIDERATIONS

Disposal methods:

Waste management (disposal and evaluation):

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SECTION 13: DISPOSAL CONSIDERATIONS (continued)

Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-hazardous residue. Waste should not be disposed of to drains. See epigraph 6.2.

Regulations related to waste management:

Legislation related to waste management:

National Environmental Management: Waste act, 2008

National Environmental Management: Waste amendment act, 2014

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:

With regard to SANS 10228:

UN number: Not relevant

UN proper shipping name: Not relevant

Transport hazard class(es): Not relevant

Labels: Not relevant

Packing group, if applicable: Not relevant

Environmental hazard: No

Special precautions for user

Physico-Chemical properties: see section 9

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: Not relevant

Transport of dangerous goods by sea:

With regard to IMDG 41-22:

UN number: Not relevant

UN proper shipping name: Not relevant

Transport hazard class(es): Not relevant

Labels: Not relevant

Packing group, if applicable: Not relevant

Marine pollutant: No

Special precautions for user

Special regulations: Not relevant

EmS Codes:

Physico-Chemical properties: see section 9

Limited quantities: Not relevant

Segregation group: Not relevant

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: Not relevant

Transport of dangerous goods by air:

With regard to IATA/ICAO 2025:

UN number: Not relevant

UN proper shipping name: Not relevant

Transport hazard class(es): Not relevant

Labels: Not relevant

Packing group, if applicable: Not relevant

Environmental hazard: No

Special precautions for user

Physico-Chemical properties: see section 9

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

Safety, health and environmental regulations specific for the product in question:

- Prohibited hazardous chemical agents: Not relevant

Specific provisions in terms of protecting people or the environment:

It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

Relevant instructions for use:

Use as specified on the label.

Other legislation:

Hazardous Substances Act 15 of 1973 and Amendments.
Occupational Health and Safety Act 85 of 1993 and Amendments.
National Environmental Management Act 107 of 1998 and Amendments.
National Environmental Management: Waste Act, 2008 and Amendments.
National Environment Management: Air Quality Act 39 of 2004 and Amendments.
National Water Act 36, 1998 and Amendments.
Basic Conditions of Employment Act 75 of 1997 and Amendments.
HACCP: Hazard analysis and critical control points, ISO: 22000

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:

This safety data sheet has been designed in accordance with SANS 11014:2010 - Safety data sheet for chemical products — Content and order of sections

Texts of the legislative phrases mentioned in section 2:

H315: Causes skin irritation.

H318: Causes severe eye damage.

H401: Toxic to aquatic life.

Texts of the legislative phrases mentioned in section 3:

The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

SANS 10234:

Acute Tox. 4: H302+H312 - Harmful if swallowed or in contact with skin.

Aquatic Acute 1: H400 - Very toxic to aquatic life.

Skin Corr. 1B: H314 - Causes severe skin burns and eye damage.

Advice related to training:

Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:

<https://www.sabs.co.za/>

<https://www.gov.za/documents>

Abbreviations and acronyms:

IMDG: International maritime dangerous goods code

IATA: International Air Transport Association

ICAO: International Civil Aviation Organisation

COD: Chemical Oxygen Demand

BOD5: 5-day biochemical oxygen demand

BCF: Bioconcentration factor

LD50: Lethal Dose 50

CL50: Lethal Concentration 50

EC50: Effective concentration 50

Log-POW: Octanol-water partition coefficient

Koc: Partition coefficient of organic carbon

IARC: International Agency for Research on Cancer

The information contained in this safety data sheet is based on sources, technical knowledge and current legislation, without being able to guarantee its accuracy. This information cannot be considered a guarantee of the properties of the product, it is simply a description of the security requirements. The occupational methodology and conditions for users of this product are not within our awareness or control, and it is ultimately the responsibility of the user to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information on this safety data sheet only refers to this product, which should not be used for needs other than those specified.

END OF SAFETY DATA SHEET