Revision Date 09-2015

SAFETY DATA SHEET
GOLDSHIELD 24

According to Regulation (EU) No 453/2010

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product Identifier

Product Name: GOLDSHIELD 24
Product No: GS24

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

Identified Uses: Antimicrobial and Antiseptic Hand Sanitiser.
Uses advised against For external use only.

1.3 Details of the supplier of the data sheet

Supplier:

Goldshield Technologies Ltd
Unit C
Lincoln Lodge Farm
Castlethorpe
MK19 7HJ
UK
T: +44 (0) 1908 745 539
Web: www.goldshieldtech.co.uk
E: info@goldshieldtech.co.uk

1.4 Emergency telephone number

+44 (0) 1908 745 539
Monday – Friday 08:00 – 17:00

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification (EC 1272/2008)	Physical and Chemical Hazards	Not Classified
	Human Health	Not Classified
	Environment	Not Classified
Classification (1999/45/EEC)		Not Classified

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

Human health: May cause temporary eye irritation.

2.2 Label Elements

Label in Accordance with (EC) No. 1272/2008
No pictogram required.

Precautionary Statements	P102	Keep out of the reach of children.
	P103	Read label before use.

2.3 Other Hazards

PBT/vPvB Assessment: Not determined.

SECTION 3: COMPOSITION AND INFORMATION ON INGREDIENTS

3.1 Mixtures

DIDECYLDIMETHYLAMMONIUM CHLORIDE (DDAC (C8-10)) CAS No:68424-95-3	<1%
Classification (EC 1272/2008) Not Classified.	Classification (67/548/EEC) Not Classified.

BENZALKONIUM CHLORIDE CAS No:8001-54-5	<0.2%
Classification (EC 1272/2008) Acute Tox 4 – H302 Acute Tox 4 – H312 Skin Corr 1B – H314 Aquatic Acute 1 – H400	Classification (67/548/EEC) Xn;R21/22 C;R34 N;R50

The full text for all R-Phrases and Hazard Statements are displayed in section 16.

SECTION 4: FIRST AID MEASURES

4.1 Description of First Aid Measures

Inhalation
In case of inhalation of spray mist: Move person into fresh air and keep at rest. Get medical attention if any discomfort continues.

Ingestion
Immediately rinse mouth and drink plenty of water (200-300 ml). Do not induce vomiting. If vomiting occurs, the head should be kept low so that stomach vomit doesn't enter the lungs. Get medical attention. Do not give victim anything to drink if he is unconscious. Place unconscious person on the side in the recovery position and ensure breathing can take place. Get medical attention immediately!

Skin contact
Remove contaminated clothes and rinse skin thoroughly with water. Get medical attention if irritation persists after washing.

Eye contact
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Hold eyelids apart. Continue to rinse for at least 15 minutes. Get medical attention.

4.2 Most important symptoms and effects, both acute and delayed

Inhalation:
Spray mists may cause respiratory tract irritation.
Ingestion:
May cause discomfort if swallowed. May cause stomach pain or vomiting.
Skin contact:
Prolonged skin contact may cause redness and irritation.
Eye contact:
May cause temporary eye irritation.

4.3 Indication of any immediate medical attention and special treatment needed

The severity of the symptoms described will vary dependant of the concentration and the length of exposure.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Extinguishing media
This product is not flammable. Use fire-extinguishing media appropriate for surrounding materials.
Do not use water jet as an extinguisher, as this will spread the fire.

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products:
In case of fire, toxic gases may be formed. Fire creates: Carbon monoxide (CO). Carbon dioxide (CO_2). Nitrous gases (NOx). Hydrogen chloride (HCl). Silicon oxides.

Unusual Fire & Explosion Hazards:
No unusual fire or explosion hazards noted.

Specific hazards:
In case of fire, toxic gases may be formed. Fire creates: Carbon monoxide (CO). Carbon dioxide (CO_2). Nitrous gases (NOx). Hydrogen chloride (HCl). Silicon oxides.

5.3 Advice for firefighters

Special firefighting procedures:
Avoid breathing fire vapours. Move container from fire area if it can be done without risk.
Use appropriate containment to avoid environmental contamination.

Protective equipment for fire-fighters:
Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Wear protective clothing as described in Section 8 of this safety data sheet.

6.2. Environmental precautions

Avoid discharge to the aquatic environment.

6.3 Methods and material for containment and cleaning up

Wear necessary protective equipment. Stop leak if possible without risk. DO NOT touch spilled material! Smaller quantities of residue maybe collected by an absorbent. Flush area clean with lots of water. Be aware of potential for surfaces to become slippery. Prevent discharge of larger quantity to drain. Absorb with inert, damp, non-combustible material, then flush area with water. Transfer to a container for disposal. Containers with collected spillage must be properly labelled with correct contents and hazard symbol. Wash thoroughly after dealing with a spillage. For waste disposal, see section 13.

6.4 Reference to other sections

Wear protective clothing as described in Section 8 of this safety data sheet. See section 11 for additional information on health hazards.
For waste disposal, see section 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Read and follow manufacturer's recommendations. Avoid inhalation of vapours/spray and contact with skin and eyes. Dilute before use.
Following dilution: Product can be applied directly to surface to mitigate the spread of moulds, mildew and bacteria. Allow to dry thoroughly before re-using the cleaned/ treated object (refer to manufacturer's instructions/ recommendations).

7.2 Conditions for safe storage, including any incompatibilities

Store in tightly closed original container in a dry, cool and well-ventilated place. Keep above the chemical's freezing point. Keep out of the reach of children. Keep away from food, drink and animal feeding stuffs.

7.3 Specific end use(s)

The identified uses for this product are detailed in Section 1.2.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control Parameters

Ingredient Comments:
No exposure limits noted for ingredient(s).

8.2 Exposure controls

Engineering measures:
Provide adequate ventilation. When using in large quantities, local exhaust ventilation may be required to minimise exposure.

Respiratory equipment:
Respiratory protection must be used if air contamination exceeds acceptable level.

Hand protection:
Protective gloves should be used if there is a risk of direct contact or splash. The most suitable glove must be chosen in consultation with the gloves supplier, who can inform about the breakthrough time of the glove material.

Eye protection:
Avoid contact with eyes. Wear approved chemical safety goggles where eye exposure is reasonably probable.

Hygiene measures:
Wash hands after handling. When using do not eat, drink or smoke. Wash contaminated clothing before re-use.

Environmental Exposure Controls:
Keep container tightly sealed when not in use. Avoid release to the environment.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance:	Clear liquid.
Colour:	Colourless.
Odour:	Slight odour.
Solubility:	Miscible with water
Initial boiling point and boiling range:	100°C @ 760 mm Hg
Melting point:	0°C
Relative density:	Comparable to water
Vapour density (air=1):	Not determined.
Vapour pressure:	Not determined.
Evaporation rate:	Not determined.
pH-Value, Conc Solution:	5.0 – 7.0
Viscosity:	Not determined.
Decomposition temperature (°C):	Not relevant.
Odour Threshold, Lower:	Not determined.
Odour Threshold, Upper:	Not determined.
Flash point (°C):	Not relevant.
Auto Ignition Temperature (°C):	Not relevant.
Flammability Limit - Lower(%):	Not relevant.
Flammability Limit - Upper(%):	Not relevant.
Partition Coefficient (N-Octanol/Water):	Not determined.
Explosive properties:	Not considered to be explosive.
Oxidising properties:	Not determined.

9.2 Other information

None

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity
Reaction with: Acids. Alkalis. Strong oxidising agents. anionic surfactants.

10.2 Chemical stability
Stable under normal temperature conditions and recommended use. Stable under the prescribed storage conditions.

10.3 Possibility of hazardous reactions
Not known.

Hazardous Polymerisation:
Will not polymerise.

10.4 Conditions to avoid
There are no known conditions that are likely to result in a hazardous situation.

10.5. Incompatible materials

Materials To Avoid:
Acids. Alkalis. Strong oxidising agents. anionic surfactants

10.6. Hazardous decomposition products

Fire creates: Carbon monoxide (CO). Carbon dioxide (CO2). Nitrous gases (NOx). Hydrogen chloride (HCl). Silicon oxides.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity:

Acute Toxicity (Oral LD50):
No information available.
Based on available data the classification criteria are not met.

Acute Toxicity (Dermal LD50):
No information available.
Based on available data the classification criteria are not met.

Acute Toxicity (Inhalation LC50):
No information available.
Based on available data the classification criteria are not met.

Skin Corrosion/Irritation:
Slightly irritating. Based on available data the classification criteria are not met.

Serious eye damage/irritation:
Slightly Irritating. Based on available data the classification criteria are not met.

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

Germ cell mutagenicity:
Genotoxicity - In Vitro
No information available.
Based on available data the classification criteria are not met.

Carcinogenicity:
No information available.
Based on available data the classification criteria are not met.

Reproductive Toxicity – Fertility:
No information available.
Based on available data the classification criteria are not met.

Not classified as a specific target organ toxicant after repeated exposure.

Toxicological information on ingredients:

BENZALKONIUM CHLORIDE (CAS No. 8001-54-5)

Acute toxicity:

Acute Toxicity (Oral LD50)
150 mg/kg Mouse
Supplier Safety Data Sheet

Acute Toxicity (Dermal LD50)
1420 mg/kg Rabbit
Supplier Safety Data Sheet

Acute Toxicity (Inhalation LC50)
No information available
Based on available data the classification criteria are not met.

Skin Corrosion/Irritation:
Supplier Safety Data Sheet
Corrosive

Serious eye damage/irritation:
Skin corrosive; corrosivity to eyes is assumed. No testing is needed.

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

Germ cell mutagenicity:
Genotoxicity - In Vitro
No information available.
Based on available data the classification criteria are not met.

Carcinogenicity:
No information available.
Based on available data the classification criteria are not met.

Reproductive Toxicity – Fertility:
No information available.
Based on available data the classification criteria are not met.

Notes (STOT-RE))
Not classified as a specific target organ toxicant after repeated exposure.

DIDECYLDIMETHYLAMMONIUM CHLORIDE (DDAC (C8-10)) (CAS No. 68424-95-3)

Toxicological information:
No data on possible toxicological effects have been found. However, a structurally-related chemical shows irritant properties towards the eye.

SECTION 12: ECOLOGICAL INFORMATION

Ecological information on ingredients

DIDECYLDIMETHYLAMMONIUM CHLORIDE (DDAC (C8-10)) (CAS No. 68424-95-3)

Eco toxicity:
No data on possible environmental effects have been found. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

12.1 Toxicity

Ecological information on ingredients:

BENZALKONIUM CHLORIDE (CAS: 8001-54-5)

Acute Toxicity – Fish:
LOEC 72 hours 17.8 mg/l Oncorhynchus kisutch
Supplier Safety Data Sheet
LC50 96 hours 0.31 mg/l Lepomis macrochirus (Bluegill)
Supplier Safety Data Sheet

Acute Toxicity - Aquatic Invertebrates:
EC50 48 hours 0.016 mg/l Daphnia magna
Miscellaneous Supplier's Data.

Acute Toxicity - Aquatic Plants:
EC50 72 hours 0.049 mg/l Pseudokirchnerella subcapitata (Raphidocelis subcapitata)
Miscellaneous Supplier's Data.

Acute Toxicity – Terrestrial:
LC50 14 days 7070 mg/kg Eisenia Fetida (Earthworm)
Miscellaneous Supplier's Data.

DIDECYLDIMETHYLAMMONIUM CHLORIDE (DDAC (C8-10)) (CAS No. 68424-95-3)

Acute Fish Toxicity:
No data available.

12.2 Persistence and degradability

Degradability:

There is no data on the degradability of this product.

Ecological information on ingredients:

BENZALKONIUM CHLORIDE (CAS: 8001-54-5)

Degradability:

There is no data on the degradability of this product.

12.3 Bioaccumulative potential

Bioaccumulative potential:
No data available on bioaccumulation.

Partition coefficient:
Not determined.

Ecological information on ingredients:

BENZALKONIUM CHLORIDE (CAS: 8001-54-5)

Bioaccumulative potential:
No data available on bioaccumulation.

DIDECYLDIMETHYLAMMONIUM CHLORIDE (DDAC (C8-10)) (CAS No. 68424-95-3)

Bioaccumulative potential:
No data available on bioaccumulation.

12.4 Mobility in soil

Mobility:
The product is water soluble and may spread in water systems.

Ecological information on ingredients:

BENZALKONIUM CHLORIDE (CAS: 8001-54-5)

Mobility:
Soluble in water.

DIDECYLDIMETHYLAMMONIUM CHLORIDE (DDAC (C8-10)) (CAS No. 68424-95-3)

Mobility:
Soluble in water.

12.5 Results of PBT and vPvB assessment

No data available.

Ecological information on ingredients:

BENZALKONIUM CHLORIDE (CAS: 8001-54-5)

Not Classified as PBT/vPvB by current EU criteria.

DIDECYLDIMETHYLAMMONIUM CHLORIDE (DDAC (C8-10)) (CAS No. 68424-95-3)

Not determined.

12.6 Other adverse effects

None known.

Ecological information on ingredients:

DIDECYLDIMETHYLAMMONIUM CHLORIDE (DDAC (C8-10)) (CAS No. 68424-95-3)

None known.

BENZALKONIUM CHLORIDE (CAS: 8001-54-5)

None known.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product should be completely used up, and container should be empty before disposal. Dispose of waste and residues in accordance with local authority requirements.

SECTION 14: TRANSPORT INFORMATION

General:
The product is not covered by international regulation on the transport of dangerous goods (IMDG, IATA, ADR/RID).

14.1 UN number

Not applicable.

14.2 UN proper shipping name

Not applicable.

14.3. Transport hazard class(es)

Not applicable.

Transport Labels:
No transport warning sign required.

14.4. Packing group

Not applicable.

14.5. Environmental hazards

Environmentally Hazardous Substance/Marine Pollutant N/A

14.6. Special precautions for user

Not applicable.

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable.

SECTION 15: REGLATORY INFORMATION

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

Approved Code Of Practice:
Classification and Labelling of Substances and Preparations Dangerous for Supply.

Guidance Notes:
Workplace Exposure Limits EH40.

EU Legislation:
Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and
packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC)
No 1907/2006 with amendments. Regulation (EC) No 648/2004 of the European Parliament and of the Council of 31 March 2004 on
detergents (as amended).

15.2 Chemical Safety Assessment

No chemical safety assessment has been carried out.

SECTION 16: OTHER INFORMATION

General information:
This classification has been derived in accordance with (EC)1272/2008 (CLP) Annex VII.

Revision Comments: This is the first issue.

Revision Date: 09-2015.

Risk Phrases in full:

R34	Causes burns.
R21/22	Harmful in contact with skin and if swallowed.
NC	Not classified.
R50	Very toxic to aquatic organisms.

Hazard Statements In full:

H314	Causes severe skin burns and eye damage.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H400	Very toxic to aquatic life.