



Shield disinfecting fogger air conditioner odour treatment

Safety Data Sheet

according to SANS 10234:2019 and SANS 11014:2010
Issue date: 5/30/2022 Revision date: 5/30/2024 Version: 1.1

SECTION 1: Identification

1.1. Product identifier

Product form : Mixture
Trade name : Shield disinfecting fogger air conditioner odour treatment
Type of product : Automotive airconditioning system cleaner and disinfectant
Product code : SH755
Product group : Trade product

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

Use of the substance/mixture :

1.3. Supplier's details

Manufacturer

Shield Chemicals (Pty) Ltd
9 London Rd Apex
P.O. Box 1939
1501 Benoni – Gauteng
South Africa
T (011) 421 7111
Contact: Jayson Clark

1.4. Emergency telephone number

Emergency number : (011) 421 7111

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to the United Nations GHS

Aerosol, Category 1	H222;H229
Serious eye damage/eye irritation, Category 2A	H319
Hazardous to the aquatic environment – Acute Hazard, Category 2	H401

Full text of H-statements: see section 16

2.2. Label elements

Labelling according to the United Nations GHS

Hazard pictograms (GHS ZA) :



Signal word (GHS-ZA) : Danger

Hazardous ingredients : propane, butane, liquefied, under pressure, Ethanol

Hazard statements (GHS ZA) : H222 - Extremely flammable aerosol.
H229 - Pressurised container: May burst if heated.
H319 - Causes serious eye irritation.
H401 - Toxic to aquatic life

Precautionary statements (GHS ZA) : P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.
No smoking.
P211 - Do not spray on an open flame or other ignition source.
P251 - Do not pierce or burn, even after use.
P264 - Wash hands, forearms and face thoroughly after handling.
P273 - Avoid release to the environment.

Shield disinfecting fogger air conditioner odour treatment

Safety Data Sheet

according to SANS 10234:2019 and SANS 11014:2010

P280 - Wear eye protection, protective clothing, protective gloves.
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.
P410+P412 - Protect from sunlight. Do not expose to temperatures exceeding 50 °C.
P501 - Dispose of contents and container to an approved waste disposal plant.

2.3. Other hazards

Adverse physicochemical, human health and environmental effects : Pressurised container: May burst if heated, Extremely flammable aerosol, Causes serious eye irritation, Toxic to aquatic life

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to the United Nations GHS
Ethanol	CAS-No.: 64-17-5	50.0 - 60.0	Flam. Liq. 2, H225 Acute Tox. Not classified (Oral) Acute Tox. Not classified (Dermal) Acute Tox. Not classified (Inhalation:dust,mist) Eye Irrit. 2A, H319 Aquatic Acute Not classified
butane, liquefied, under pressure	CAS-No.: 106-97-8	20.0 - 30.0	Pyr. Gas Not classified Flam. Gas 1, H220 Aquatic Acute 2, H401
propane	CAS-No.: 74-98-6	10.0 - 20.0	Pyr. Gas Not classified Flam. Gas 1, H220 Aquatic Acute Not classified

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact : Wash skin with plenty of water.
First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion : Call a poison center or a doctor if you feel unwell.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects after eye contact : 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 : Water spray. Dry powder. Foam. Carbon dioxide.

Shield disinfecting fogger air conditioner odour treatment

Safety Data Sheet

according to SANS 10234:2019 and SANS 11014:2010

5.2. Special hazards arising from the substance or mixture

- Fire hazard : Extremely flammable aerosol.
Explosion hazard : Pressurised container: May burst if heated.
Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Advice for firefighters

- Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

No additional information available

6.1.1. For non-emergency personnel

- Emergency procedures : Ventilate spillage area. No open flames, no sparks, and no smoking. Avoid contact with skin and eyes.

6.1.2. For emergency responders

- Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

- For containment : Collect spillage.
Methods for cleaning up : Mechanically recover the product.
Other information : Dispose of materials or solid residues at an authorized site.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Ensure good ventilation of the work station. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use. Avoid contact with skin and eyes. Wear personal protective equipment.
Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122 °F. Store in a well-ventilated place. Keep cool.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

propane (74-98-6)	
South Africa - Occupational Exposure Limits (Airborne Pollutants)	
Local name	Propane
OEL TWA	1800 mg/m ³
OEL TWA [ppm]	1000 ppm

Shield disinfecting fogger air conditioner odour treatment

Safety Data Sheet

according to SANS 10234:2019 and SANS 11014:2010

propane (74-98-6)	
Regulatory reference	Government Notice No. R 904
butane, liquefied, under pressure (106-97-8)	
South Africa - Occupational Exposure Limits (Recommended Limits)	
Local name	Butane
OEL TWA	1430 mg/m ³
OEL TWA [ppm]	600 ppm
OEL STEL	1780 mg/m ³
OEL STEL [ppm]	750 ppm
Regulatory reference	Government Notice. R: 1179
South Africa - Occupational Exposure Limits (Airborne Pollutants)	
Local name	n-Butane
OEL TWA	1430 mg/m ³
OEL TWA [ppm]	600 ppm
OEL STEL	1780 mg/m ³
OEL STEL [ppm]	750 ppm
Regulatory reference	Government Notice No. R 904

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.
Environmental exposure controls : Avoid release to the environment.

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

Hand protection : Protective gloves
Eye protection : Safety glasses
Skin and body protection : Wear suitable protective clothing
Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment

Personal protective equipment symbol(s):



8.4. Exposure limit values for the other components

No additional information available

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid
Appearance : Liquid.
Colour : clear.
Odour : characteristic.
Odour threshold : No data available
pH : No data available
pH solution : No data available
Relative evaporation rate (butylacetate=1) : No data available
Relative evaporation rate (ether=1) : No data available
Melting point : Not applicable

Shield disinfecting fogger air conditioner odour treatment

Safety Data Sheet

according to SANS 10234:2019 and SANS 11014:2010

Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Extremely flammable aerosol.
Vapour pressure	: No data available
Vapour pressure at 50 °C	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Relative density of saturated gas/air mixture	: No data available
Density	: No data available
Relative gas density	: No data available
Solubility	: No data available
Partition coefficient n-octanol/water (Log Pow)	: No data available
Partition coefficient n-octanol/water (Log Kow)	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: Pressurised container: May burst if heated.
Oxidising properties	: No data available
Explosive limits	: No data available
Lower explosive limit (LEL)	: No data available
Upper explosive limit (UEL)	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Extremely flammable aerosol. Pressurised container: May burst if heated.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

propane (74-98-6)	
LC50 Inhalation - Rat [ppm]	> 800000 ppm (15 minutes, Rat, Male / female, Experimental value, Inhalation (gases))

Shield disinfecting fogger air conditioner odour treatment

Safety Data Sheet

according to SANS 10234:2019 and SANS 11014:2010

butane, liquefied, under pressure (106-97-8)	
LC50 Inhalation - Rat	1442.738 – 1443 mg/l 15 MIN
LC50 Inhalation - Rat [ppm]	800000 ppm 15 MIN
Ethanol (64-17-5)	
LD50 oral rat	10470 mg/kg
LD50 dermal rabbit	> 15800 mg/kg
LC50 Inhalation - Rat	51 mg/l/4h
Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Causes serious eye irritation.
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified
Shield disinfecting fogger air conditioner odour treatment	
Vaporizer	Aerosol

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: Toxic to aquatic life.
Hazardous to the aquatic environment, short-term (acute)	: Toxic to aquatic life.
Hazardous to the aquatic environment, long-term (chronic)	: Not classified

propane (74-98-6)	
LC50 - Fish [1]	24 mg/l (96 h, Pisces, Literature study)
LC50 - Fish [2]	49.9 mg/l (96 h, Pisces, Fresh water, QSAR)
EC50 - Crustacea [1]	7 mg/l (48 h, Daphnia magna, Literature study)
BCF - Fish [1]	9 – 25 (Pisces, QSAR)
Partition coefficient n-octanol/water (Log Pow)	1.09 – 2.8 (Experimental value, 20 °C)
butane, liquefied, under pressure (106-97-8)	
LC50 - Fish [1]	> 1000 mg/l (96 h, Pimephales promelas, QSAR)
EC50 72h - Algae [1]	5.3 – 5.5 mg/l (Algae, QSAR)
Partition coefficient n-octanol/water (Log Pow)	2.89 (Experimental value)
Ethanol (64-17-5)	
LC50 - Fish [1]	11.2 mg/l
EC50 - Crustacea [1]	5012 mg/l
Bioconcentration factor (BCF REACH)	< 10

12.2. Persistence and degradability

Shield disinfecting fogger air conditioner odour treatment	
Persistence and degradability	No additional information available

Shield disinfecting fogger air conditioner odour treatment

Safety Data Sheet

according to SANS 10234:2019 and SANS 11014:2010

propane (74-98-6)	
Persistence and degradability	Readily biodegradable in water.
butane, liquefied, under pressure (106-97-8)	
Persistence and degradability	Readily biodegradable in water.
Ethanol (64-17-5)	
Chemical oxygen demand (COD)	2.04 g O ₂ /g substance

12.3. Bioaccumulative potential

Shield disinfecting fogger air conditioner odour treatment	
Bioaccumulative potential	No additional information available
propane (74-98-6)	
BCF - Fish [1]	9 – 25 (Pisces, QSAR)
Partition coefficient n-octanol/water (Log Pow)	1.09 – 2.8 (Experimental value, 20 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
butane, liquefied, under pressure (106-97-8)	
Partition coefficient n-octanol/water (Log Pow)	2.89 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
Ethanol (64-17-5)	
Bioconcentration factor (BCF REACH)	< 10

12.4. Mobility in soil

Shield disinfecting fogger air conditioner odour treatment	
Mobility in soil	No additional information available
propane (74-98-6)	
Surface tension	0.016 N/m (-47 °C)
Partition coefficient n-octanol/water (Log Pow)	1.09 – 2.8 (Experimental value, 20 °C)
Ecology - soil	Not applicable (gas).
butane, liquefied, under pressure (106-97-8)	
Surface tension	< 0.1 N/m (0 °C)
Partition coefficient n-octanol/water (Log Pow)	2.89 (Experimental value)
Ecology - soil	Not applicable (gas).
Ethanol (64-17-5)	
Mobility in soil	1

12.5. Other adverse effects

Ozone : Not classified
Other adverse effects : No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.




Shield disinfecting fogger air conditioner odour treatment

Safety Data Sheet

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SECTION 14: Transport information

In accordance with SANS / IMDG / IATA

SANS	IMDG	IATA
14.1. UN number		
1950	1950	1950
14.2. Proper Shipping Name		
AEROSOLS	AEROSOLS	Aerosols, flammable
14.3. Transport hazard class(es)		
2.1	2.1	2.1
		
14.4. Packing group		
Not applicable	Not applicable	Not applicable
14.5. Environmental hazards		
Dangerous for the environment : No	Dangerous for the environment : No Marine pollutant : No	Dangerous for the environment : No
No supplementary information available		

14.6. Special precautions for user

SANS

Special provisions (SANS) : 63, 190
Limited quantities (SANS) : See SP277
Limited quantities (SANS) : See SP277
Packagings, large packagings and IBCs Packing instructions (SANS) : P003
Packagings, large packagings and IBCs Special packing instructions (SANS) : PP17, PP87

IMDG

Special provisions (IMDG) : 63, 190, 277, 327, 344, 381, 959
Packing instructions (IMDG) : P207, LP200
Special packing provisions (IMDG) : PP87, L2
EmS-No. (Fire) : F-D - FIRE SCHEDULE Delta - FLAMMABLE GASES
EmS-No. (Spillage) : S-U - SPILLAGE SCHEDULE Uniform - GASES (FLAMMABLE, TOXIC OR CORROSIVE)
Stowage category (IMDG) : None

IATA

PCA Excepted quantities (IATA) : E0
PCA Limited quantities (IATA) : Y203
PCA limited quantity max net quantity (IATA) : 30kgG
PCA packing instructions (IATA) : 203
PCA max net quantity (IATA) : 75kg
CAO packing instructions (IATA) : 203
CAO max net quantity (IATA) : 150kg
Special provisions (IATA) : A145, A167, A802
ERG code (IATA) : 10L

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

Not applicable

Shield disinfecting fogger air conditioner odour treatment

Safety Data Sheet

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SECTION 15: Regulatory information

15.1. Safety, health, and environmental national regulations specific for the product

No additional information available

SECTION 16: Other information

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Full text of H-statements	
H220	Extremely flammable gas.
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H227	Combustible liquid
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H303	May be harmful if swallowed
H305	May be harmful if swallowed and enters airways
H311	Toxic in contact with skin.
H313	May be harmful in contact with skin
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H351	Suspected of causing cancer.
H371	May cause damage to organs.
H400	Very toxic to aquatic life.
H401	Toxic to aquatic life
H402	Harmful to aquatic life
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Safety Data Sheet (SDS), South Africa

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.