



# Shield disinfecting fogger air conditioner odour treatment

## Safety Data Sheet

According to SANS 10234:2008 and SANS 11014:2010

Issue date:27/05/2020

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Version: 1.0

### 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

No additional information available

#### 1.3. Supplier's details

##### Manufacturer

Shield Chemicals (Pty) Ltd  
9 London Rd  
Apex  
P.O. Box 1939  
1501 Benoni - South Africa  
T (011) 421 7111  
[info@shieldchem.co.za](mailto:info@shieldchem.co.za)

#### 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  
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) :



GHS02

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.  
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.  
P273 - Avoid release to the environment.  
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,Toxic to aquatic life

### SECTION 3: Composition/information on ingredients

#### 3.1. Substances

Not applicable

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### 3.2. Mixtures

Name	Product identifier	%	Classification according to the United Nations GHS
Ethanol		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) 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

Full text of H-statements: see section 16

## 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 eyes with water as a precaution.  
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

No additional information available

### 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.

### 5.2. Special hazards arising from the substance or mixture

- Fire hazard : Extremely flammable aerosol.  
Explosion hazard : Pressurised container: May burst if heated.

### 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.

#### 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. Wear personal protective equipment. 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.  
Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

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### 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 (mg/m <sup>3</sup> )	1800 mg/m <sup>3</sup>
OEL TWA (ppm)	1000 ppm
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 (mg/m <sup>3</sup> )	1430 mg/m <sup>3</sup>
OEL TWA (ppm)	600 ppm
OEL STEL (mg/m <sup>3</sup> )	1780 mg/m <sup>3</sup>
OEL STEL (ppm)	750 ppm
Regulatory reference	Government Notice. R: 1179
South Africa - Occupational Exposure Limits (Airborne Pollutants)	
Local name	n-Butane
OEL TWA (mg/m <sup>3</sup> )	1430 mg/m <sup>3</sup>
OEL TWA (ppm)	600 ppm
OEL STEL (mg/m <sup>3</sup> )	1780 mg/m <sup>3</sup>
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

### 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
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

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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
Log Pow	: No data available
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

<b>propane (74-98-6)</b>	
LC50 inhalation rat (ppm)	> 800000 ppm (15 minutes, Rat, Male / female, Experimental value, Inhalation (gases))
<b>butane, liquefied, under pressure (106-97-8)</b>	
LC50 inhalation rat (mg/l)	1442.738 - 1443 mg/l 15 MIN
LC50 inhalation rat (ppm)	800000 ppm 15 MIN
<b>Ethanol</b>	
LD50 oral rat	10470 mg/kg
LD50 dermal rabbit	> 15800 mg/kg
LC50 inhalation rat (mg/l)	51 mg/l/4h

Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified

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STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified

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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

<b>propane (74-98-6)</b>	
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 Daphnia 1	7 mg/l (48 h, Daphnia magna, Literature study)
BCF fish 1	9 - 25 (Pisces, QSAR)
Log Pow	1.09 - 2.8 (Experimental value, 20 °C)

<b>butane, liquefied, under pressure (106-97-8)</b>	
LC50 fish 1	> 1000 mg/l (96 h, Pimephales promelas, QSAR)
EC50 72h algae (1)	5.3 - 5.5 mg/l (Algae, QSAR)
Log Pow	2.89 (Experimental value)

<b>Ethanol</b>	
LC50 fish 1	11.2 mg/l
EC50 Daphnia 1	5012 mg/l
Bioconcentration factor (BCF REACH)	< 10

#### 12.2. Persistence and degradability

<b>Shield disinfecting fogger air conditioner odour treatment</b>	
Persistence and degradability	No additional information available

<b>propane (74-98-6)</b>	
Persistence and degradability	Readily biodegradable in water.

<b>butane, liquefied, under pressure (106-97-8)</b>	
Persistence and degradability	Readily biodegradable in water.

<b>Ethanol</b>	
Chemical oxygen demand (COD)	2.04 g O <sub>2</sub> /g substance

#### 12.3. Bioaccumulative potential

<b>Shield disinfecting fogger air conditioner odour treatment</b>	
Bioaccumulative potential	No additional information available

<b>propane (74-98-6)</b>	
BCF fish 1	See section 12.1 on ecotoxicology
Log Pow	See section 12.1 on ecotoxicology
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

<b>butane, liquefied, under pressure (106-97-8)</b>	
Log Pow	See section 12.1 on ecotoxicology
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

<b>Ethanol</b>	
Bioconcentration factor (BCF REACH)	See section 12.1 on ecotoxicology

#### 12.4. Mobility in soil

<b>Shield disinfecting fogger air conditioner odour treatment</b>	
Mobility in soil	No additional information available

<b>propane (74-98-6)</b>	
Surface tension	0.016 N/m (-47 °C)
Log Pow	See section 12.1 on ecotoxicology
Ecology - soil	Not applicable (gas).

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<b>butane, liquefied, under pressure (106-97-8)</b>	
Surface tension	< 0.1 N/m (0 °C)
Log Pow	See section 12.1 on ecotoxicology
Ecology - soil	Not applicable (gas).

<b>Ethanol</b>	
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.
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## SECTION 14: Transport information

In accordance with SANS / IMDG / IATA

SANS	IMDG	IATA
<b>14.1. UN number</b>		
1950	1950	1950
<b>14.2. Proper Shipping Name</b>		
AEROSOLS	AEROSOLS	Aerosols, flammable
<b>14.3. Transport hazard class(es)</b>		
2.1	2.1	2.1
		 Not applicable
<b>14.4. Packing group</b>		
Not applicable	Not applicable	Not applicable
<b>14.5. Environmental hazards</b>		
Dangerous for the environment : No	Dangerous for the environment : 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	: P003
Packing instructions (SANS)	
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

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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

## 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.

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.*