

SAFETY DATA SHEET

Section 1 – Chemical Product and Company Identification

Product Identity

Trade name BioFOG Disinfectant Aerosol Fogger

Chemical name Ethanol, Butane, Propane, Dialkyl didecylmethyl ammonium chloride, Alkyl dimethyl benzyl ammonium Chloride

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

Intended Use: Chemical disinfectants and antiseptics — Quantitative suspension test for the evaluation of bactericidal activity of chemical disinfectants and antiseptics used in food, industrial, domestic and institutional areas.

Method of Use: Aerosol Fogger

Details of the supplier of the safety data sheet:

Company: Hygiene and Sanitise Africa (Pty) Ltd, 114 17th Avenue, Springfield, Port Elizabeth, 6070

e-mail address: gavin@nduna.co.za

Emergency telephone number: Cell: +27 82 554 8459

Section 2 – Hazard(s) Identification

Classification of the substance or mixture

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

OSHA/GHS Flammable liquids Category 2

Hazards Serious eye damage Category 1

GHS Label elements, including precautionary statements

Hazard Pictogram(s):



Signal word: Danger

Hazard statements:

- H225 Highly flammable liquid and vapour.
- H280 Contains gas under pressure; may explode if heated.
- H302 Harmful if swallowed.
- H319 Causes serious eye irritation.
- H333 May be harmful if inhaled
- H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements Prevention :

- P210 Keep away from heat/sparks/open flames/hot surfaces – No smoking
- P211 Do not spray onto an open flame or other ignition source
- P241 Use explosion-proof electrical/ ventilating/ lighting equipment.
- P251 Pressurized container: Do not pierce or burn, even after use
- P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.

P273 Avoid release to the environment.
 P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
 P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
 P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
 P305+351+338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P370+P378 In case of fire, use water, carbon dioxide or dry chemical for extinction
 P410+ P412 Protect from sunlight and do not expose to temperatures exceeding 50 °C
 P501: Dispose of contents to a container and dispose in accordance with applicable local, state and federal regulations.

General

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

Hazards not otherwise classified (HNOC) or not covered by GHS –

In use, may form flammable / explosive vapour-air mixture.

Response:

P303 + P361 + P353 IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.
 P370 + P378 In case of fire: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide for extinction.
 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 CENTER/doctor.
 P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
 P312 Call a POISON CENTER/doctor if you feel unwell.

Storage: P403 + P405 + P235 Store locked up in a well-ventilated place. Keep cool.

Section 3 – Composition/information on ingredients

Substances

No ingredients are hazardous according to 2012 OSHA Regulation 29 CFR 1910.1200 criteria

Mixtures – Composition

Hazardous ingredients:

Components	CAS-No.	Weight %
Ethanol	64-17-6	40 - 60 %
Hydrocarbon Aerosol Propellant (HAP) blend		40 - 60 %
n-Butane	106-97-8	
Isobutane	75-28-5	
Propane	74-98-6	
Dialkyl dimethyl ammonium chloride	7173-51-5	0.5 - 3 %

Non Hazardous ingredients:

INCI Name	CAS No.	Weight %
Alkyl dimethyl benzyl ammonium Chloride	68989-004	0.5-2 %

Section 4 – First Aid Measures

Description of first aid measures

Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
Skin contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. When symptoms persist or in all cases of doubt seek medical advice. Wash contaminated clothing before re-use.
Inhalation	Remove to fresh air. If breathing is irregular or stopped, administer artificial respiration. In case of shortness of breath, give oxygen. Call a physician immediately.
Ingestion	If swallowed, call a poison control centre or doctor immediately. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed

Eye contact	There may be irritation and redness. Prolonged contact may lead to corneal damage. Spraying directly into the eye may cause freeze damage
Skin contact:	There may be mild irritation at the site of contact.
Ingestion:	There may be irritation of the throat. Gastrointestinal symptoms, including upset stomach. May cause nausea, headache, dizziness and intoxication. Narcotic effect. Chronic intoxication may damage the optic nerve, kidneys, liver, heart muscle and brain, and may lead to death.
Inhalation:	Irritating to respiratory system. Vapour may affect central nervous system and cause headache, discomfort, vomiting or intoxication. Prolonged inhalation of high concentrations vapour may induce drowsiness, headache, loss of coordination and narcosis. Repeated inhalation may cause allergy or asthma symptoms or breathing difficulties.

Delayed / immediate effects: No data available.

No recommendation given, but first aid may still be required in case of accidental exposure, inhalation or ingestion of this product. If in doubt, GET MEDICAL ATTENTION PROMPTLY.

Section 5 – Fire Fighting Measures

Extinguishing media

Suitable extinguishing media Suitable - Carbon dioxide, dry powder, alcohol resistant foam. Fight larger fires with alcohol resistant foam. Use water spray only to cool containers in the event of fire. DO NOT use - Water jet, as burning product will float and spread.

Special hazards arising from the substance or mixture

During fire-fighting In case of fire hazardous decomposition products may be produced such as: Carbon oxides
Cool surroundings with water spray. DO NOT use a solid water stream as it may scatter and spread fire.

Advice for fire fighters Avoid inhalation of vapour and flue gases – seek fresh air. Wear Self-Contained Breathing Apparatus (SCBA) with chemical resistant gloves.

Further information Allow the fire to burn under controlled conditions. Fire should not be extinguished unless flow of gas can be immediately stopped. Stop leak if you can.

Section 6 – Accidental Release Measures

Personal precautions, protective equipment and emergency procedures:

Refer to section 8 of SDS for personal protection details. Turn leaking containers leak side up to prevent the escape of liquid. Eliminate all sources of ignition.

Environmental precautions:

Do not allow to enter drains, sewers or watercourses. Spillages or uncontrolled discharges into watercourses must be alerted to the appropriate regulatory body. Contain the spillage using bunding.

Methods and material for containment and cleaning up:

Absorb into dry earth or sand. Transfer to a closable, labelled salvage container for disposal by an appropriate method. Do not use equipment in clean-up procedure which may produce sparks.

Reference to other sections:

See Section 3 for Hazardous Ingredients; Section 8 for Exposure Controls; and Section 13 for Disposal.

Section 7 – Handling and storage

Precautions for safe handling:

Keep away from heat/sparks/open flames/hot surfaces – No smoking
 Do not spray onto an open flame or other ignition source
 Use explosion-proof electrical/ ventilating/ lighting equipment.
 Pressurized container: Do not pierce or burn, even after use
 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
 Avoid release to the environment.
 Wear protective gloves/ protective clothing/ eye protection/ face protection

Conditions for safe storage, including any incompatibilities:

Keep away from flame, sparks, excessive temperatures and open flame.
 Use approved containers suitable for this product, temperature and pressure.
 Keep containers closed and clearly labelled.
 Empty or partially full product containers or vessels may contain explosive vapours.
 Do not pressurize, cut, heat, weld or expose containers to sources of ignition.
 Store in a well-ventilated area.
 Incompatible with oxidizing agents.

Specific end use(s):

- For external use only. Wash Hands after use.
- Avoid contact with eyes
- Shake before use
- Store in a cool place below 30 °C with adequate ventilation.
- Keep away from fire, sparks and heated surfaces.
- KEEP OUT OF REACH OF CHILDREN

Section 8 – Exposure controls and personal protection

Control parameters

AGENT	CAS NUMBER	FORMULA	RHCA-OEL	RHCA-OEL	RHCA - STEL/ C	RHCA - STEL/C	NOTATIONS
			ppm	mg/m	ppm	mg/m	
Ethanol [Ethyl]	64-17-5	CH ₃ CH ₂ OH			2000	-	

Exposure Guidelines

List	Components	CAS-No	Type	Value
OSHA Z1	Propane	74-98-6	PEL	1,000 ppm 1,800 mg/m ³
ACGIH	Butane	106-97-8	TWA	1,000 ppm
	Isobutane	75-28-5	TWA	1,000 ppm
	Propane	74-98-6	TWA	1,000 ppm

Exposure controls

Engineering measures: Ensure there is sufficient ventilation of the area. Ensure lighting and electrical equipment are not a source of ignition.

Respiratory protection: Self-contained breathing apparatus must be available in case of emergency.

Hand protection: Protective gloves.

Eye protection: Safety glasses. Ensure eye bath is to hand.

Skin protection: Protective clothing.

Environmental: Wash hands at the end of each work shift and before eating, smoking and using the toilet. When using do not eat, drink or smoke.

Other: Evaluate the need of protection based on the application of the product.

Section 9 – Physical and chemical properties

Physical State:	Specification
Appearance	Opaque liquid
Odour:	Alcoholic
Colour:	Opaque solution
pH Level :	6.5 to 7.5 (this is for concentrate before addition to the propellant)
Chemical Formula	Not applicable
Specific Gravity.	0.75 g/cm ³ @ 20 °C
Flashpoint	Not Known
Solubility	Completely miscible in water.
Melting/freezing point	Butane -138°C; Propane -188°C
Boiling point,	Butane -0.5°C; Propane -42.1°C at 101.3 kPa
Upper/lower flammability or explosive limits	Propellant : Upper 1.8 % Vol / Lower 9.5 % Vol
Vapour pressure	Butane 2.1 bar; Propane 8.1 bar at 25°C
Vapour density, density/relative density	Butane 2.1; Propane 1.5 (Air = 1.0)
n-octanol/water partition coefficient,	Butane 2.89 log _{pow} ; Propane 2.36 log _{pow}
Auto-ignition temperature	Butane 365°C; Propane 470°C
Decomposition temperature	Heating may cause a fire or explosion. Material does not decompose at ambient temperatures. Carbon monoxide, carbon dioxide and non-combusted hydrocarbons (smoke) are possible hazardous decomposition products.

Section 10 – Stability and reactivity

Reactivity:	Stable under recommended transport or storage conditions.
Chemical stability:	These products are stable at room temperature in closed containers under normal storage and handling conditions.
Possibility of hazardous reactions: :	Flammable Gas. Vapours are heavier than air and may travel long distances to a point of ignition and flash back. Exposure to fire may cause containers to rupture
Conditions to avoid:	Heat. Hot surfaces. Sources of ignition. Flames.
Incompatible materials:	Strong oxidising agents. Strong acids.
Hazardous decomposition products:	In combustion emits toxic fumes.

Section 11 – Toxicological information

Information on toxicological effects:	
Acute dermal toxicity	No data available
Acute inhalation toxicity	No data available
Acute oral toxicity	No data available
Skin corrosion/irritation (Rabbit):	No data available
Serious eye damage/eye irritation	No data available
Respiratory or skin sensitisation	No data available
Germ cell mutagenicity	No data available
Genotoxicity in vitro:	No data available
Genotoxicity in vivo:	No data available
Mutagenicity:	No data available
Reproductive toxicity	No data available
Assessment Reproductive toxicity:	No data available
Teratogenicity:	No data available
Assessment teratogenicity:	No data available
STOT - single exposure	No data available Aspiration toxicity No data available
Carcinogenicity Assessment carcinogenicity:	Contains no ingredient listed as a carcinogen

Section 12 – Ecological information

Toxicity	No data available
Persistence and degradability	There is no data available on the preparation itself.
Bioaccumulative potential	Not Measured
Mobility in soil	No data available.

Results of PBT and vPvB assessment . This product contains no PBT/vPvB chemicals.
Other adverse effects No data available.

Section 13 – Disposal considerations

Waste treatment methods

Disposal operations: Dispose of waste and residues in accordance with local authority requirements. Do not puncture or incinerate even when empty. When handling waste, consideration should be made to the safety precautions applying to handling of the product.

Recovery operations: Not applicable.

Disposal of packaging: Empty containers retain product residue (liquid and/or vapor) and can be dangerous. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION; THEY MAY EXPLODE AND CAUSE INJURY OR DEATH. Empty drums should be completely drained, triple-rinsed, properly bunged and promptly returned to a drum reconditioner, or properly disposed.

Section 14 – Transport information

For finished packaged product transported by ground (DOT): Non hazardous
For finished packaged product transported by sea (IMDG): Non hazardous
For finished packaged product transported by air (IATA): Non hazardous

UN number: N/A

UN proper shipping name: N/A

Transport hazard class(es): 3

Packing group: III

Environmental hazards: none known

Special precautions for user: This Product, unopened and in original packaging is classified as Limited Quantity for the purpose of transport and does not require a UN number on the packaging. Limited Quantity for this product is 5 L.

Tunnel code: D/E

Transport category: 2

Section 15 – Regulatory information

Regulatory information

Covered by:

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

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

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

Chemical Safety Assessment: Chemical safety assessment has not been performed.

Section 16 – Other information

This is the first version in the GHS SDS format. Listings of changes from previous versions in other formats are not applicable.

The information in this Safety Data Sheet is based on data provided by chemical Suppliers/Manufacturers and the use of Lycos SDS-generating program. This information is based on our current level of knowledge and relates to the product in the state in which it is delivered. It is intended to describe our product in the view of safety requirements and does not guarantee any particular properties

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