

Safety Data Sheet

according to SANS 10234:2019 and SANS 11014:2010 Issue date: 1/31/2022 Revision date: 1/31/2024 Version: 1.1

SECTION 1: Identification

1.1. Product identifier

Product form Trade name Type of product Product code Product group MixtureShield Engine Cleaner AerosolEngine cleaner

: SH611

: 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
Skin corrosion/irritation, Category 2	H315
Germ cell mutagenicity, Category 1B	H340
Carcinogenicity, Category 1B	H350
Specific target organ toxicity — Single exposure, Category 3, Narcosis	H336
Specific target organ toxicity — Repeated exposure, Category 1	H372
Hazardous to the aquatic environment — Acute Hazard, Category 1	H400
Hazardous to the aquatic environment — Chronic Hazard, Category 2 H411	
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	: Naphtha (petroleum), hydrodesulfurized heavy / Naphtha (petroleum), hydrodesulfurized heavy, Kerosine (petroleum), heptane, octane, methylcyclohexane, propane, butane, liquefied, under pressure
Hazard statements (GHS ZA)	 H222 - Extremely flammable aerosol. H229 - Pressurised container: May burst if heated. H315 - Causes skin irritation. H336 - May cause drowsiness or dizziness.

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Precautionary statements (GHS ZA)	 H340 - May cause genetic defects. H352 - Causes damage to organs through prolonged or repeated exposure. H400 - Very toxic to aquatic life. H411 - Toxic to aquatic life with long lasting effects. P201 - Obtain special instructions before use. P202 - Do not handle until all safety precautions have been read and understood. 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. P260 - Do not breathe spray. P261 - Avoid breathing spray. P264 - Wash hands, forearms and face thoroughly after handling. P270 - Do not eat, drink or smoke when using this product. P271 - Use only outdoors or in a well-ventilated area. P273 - Avoid release to the environment. P280 - Wear eye protection, protective clothing, protective gloves. P308+P313 - IF exposed or concerned: Get medical attention. P312 - Call a POISON CENTER, a doctor if you feel unwell. P314 - Get medical attention if you feel unwell. P321 - Specific treatment (see supplemental first aid instruction on this label). P322+P333 - If skin irritation occurs: Get medical advice. P362+P313 - If skin irritation occurs: Get medical advice. P362+P33 - Store in a well-ventilated place. Keep container tightly closed. P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
	P403+P233 - Store in a well-ventilated place. Keep container tightly closed. P405 - Store locked up. 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	: Highly flammable liquid and vapour, Causes skin irritation, Toxic to aquatic life, Toxic to aquatic life with long lasting effects.

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to the United Nations GHS
Naphtha (petroleum), hydrodesulfurized heavy / Naphtha (petroleum), hydrodesulfurized heavy	CAS-No.: 64742-82-1	50.0 - 60.0	Flam. Liq. 2, H225 Acute Tox. Not classified (Oral) Muta. 1B, H340 Carc. 1B, H350 STOT RE 1, H372 Asp. Tox. 1, H304
Kerosine (petroleum)	CAS-No.: 8008-20-6	15.0 - 20.0	Flam. Liq. 3, H226 Acute Tox. Not classified (Oral) Acute Tox. 5 (Dermal), H313 STOT RE Not classified Asp. Tox. 1, H304

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Name	Product identifier	%	Classification according to the United Nations GHS
heptane	CAS-No.: 142-82-5	4.0 - 10.0	Flam. Liq. 2, H225 Acute Tox. Not classified (Oral) Acute Tox. 5 (Dermal), H313 Skin Irrit. 2, H315 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
octane	CAS-No.: 111-65-9	5.0 - 10.0	Flam. Liq. 2, H225 Acute Tox. Not classified (Oral) Acute Tox. 5 (Dermal), H313 Skin Irrit. 2, H315 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
methylcyclohexane	CAS-No.: 108-87-2	4.0- 10.0	Flam. Liq. 2, H225 Skin Irrit. 2, H315 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Chronic 2, H411
butane, liquefied, under pressure	CAS-No.: 106-97-8	4.0 - 10.0	Pyr. Gas Not classified Flam. Gas 1, H220 Aquatic Acute 2, H401
propane	CAS-No.: 74-98-6	4.0 - 10.0	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 First-aid measures after skin contact	 Remove person to fresh air and keep comfortable for breathing. Rinse skin with water/shower. Take off immediately all contaminated clothing. If skin irritation occurs: Get medical advice/attention. 	
First-aid measures after eye contact First-aid measures after ingestion	Rinse eyes with water as a precaution.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 skin contact	: 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.
5.2. Special hazards arising from the substance or mixture	
Fire hazard Hazardous decomposition products in case of fire	Highly flammable liquid and vapour.Toxic fumes may be released.

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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 equ	ipment 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	: Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters.	
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 Hygiene measures	 Ensure good ventilation of the work station. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground/bond container and receiving equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Flammable vapours may accumulate in the container. Use explosion-proof equipment. Wear personal protective equipment. Avoid contact with skin and eyes. Wash contaminated clothing before reuse. 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		
Technical measures	: Ground/bond container and receiving equipment.	

Storage conditions : Store in a well-ventilated place. Keep cool. Keep container tightly closed.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

methylcyclohexane (108-87-2)	
South Africa - Occupational Exposure Limits (Recommended Limits)	
Local name	Methylcyclohexane
OEL TWA	1600 mg/m ³
OEL TWA [ppm]	400 ppm
OEL STEL	2000 mg/m ³
OEL STEL [ppm]	500 ppm

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methylcyclohexane (108-87-2)		
Regulatory reference	Government Notice. R: 1179	
South Africa - Occupational Exposure Limits (Airborne Pollutants)		
Local name	Methylcyclohexane	
OEL TWA	1600 mg/m ³	
OEL TWA [ppm]	400 ppm	
OEL STEL	2000 mg/m ³	
OEL STEL [ppm]	500 ppm	
Regulatory reference	Government Notice No. R 904	
propane (74-98-6)	<u>.</u>	
South Africa - Occupational Exposure Limits (Airbo	prne Pollutants)	
Local name	Propane	
OEL TWA	1800 mg/m ³	
OEL TWA [ppm]	1000 ppm	
Regulatory reference	Government Notice No. R 904	
butane, liquefied, under pressure (106-97-8)		
South Africa - Occupational Exposure Limits (Reco	mmended 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 (Airbo	orne 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	

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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.
Odour threshold	: No data available
рН	: 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
Flammability (solid, gas)	: Not applicable
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	: No data available
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

Highly flammable liquid and vapour.

10.2. Chemical stability

Stable under normal conditions.

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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.

11.1. Information on toxicological effects		
Acute toxicity (oral) Acute toxicity (dermal) Acute toxicity (inhalation)	 Not classified Not classified Not classified 	
Naphtha (petroleum), hydrodesul	furized heavy / Naphtha (petroleum), hydrodesulfurized heavy (64742-82-1)	
LD50 oral rat	> 5000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity)	
Kerosine (petroleum) (8008-20-6)		
LD50 oral rat	> 5000 mg/kg bodyweight Animal: rat, Guideline: EPA OTS 798.1175 (Acute Oral Toxicity), Guideline: OECD Guideline 420 (Acute Oral Toxicity - Fixed Dose Method)	
LD50 dermal rabbit	> 2000 mg/kg bodyweight Animal: rabbit, Guideline: EPA OTS 798.1100 (Acute Dermal Toxicity), Guideline: OECD Guideline 402 (Acute Dermal Toxicity)	
LC50 Inhalation - Rat	> 5.28 mg/l air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity), 95% CL: 0,42 -	
heptane (142-82-5)		
LD50 oral rat	> 5000 mg/kg bodyweight (Equivalent or similar to OECD 401, Rat, Male / female, Read- across, Oral)	
LD50 dermal rabbit	> 2000 mg/kg bodyweight (Equivalent or similar to OECD 402, 24 h, Rabbit, Male / female, Read-across, Dermal)	
LC50 Inhalation - Rat	> 29.29 mg/l air (Equivalent or similar to OECD 403, 4 h, Rat, Male / female, Experimenta value, Inhalation (vapours))	
octane (111-65-9)		
LD50 oral rat	> 5000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity), Guideline: EPA OPPTS 870.1100 (Acute Oral Toxicity)	
LD50 dermal rabbit	> 2000 mg/kg bodyweight Animal: rabbit, Guideline: OECD Guideline 402 (Acute Dermal Toxicity), Guideline: EPA OPPTS 870.1200 (Acute Dermal Toxicity)	
LC50 Inhalation - Rat	> 24.88 mg/l air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity)	
propane (74-98-6)		
LC50 Inhalation - Rat [ppm]	> 800000 ppm (15 minutes, Rat, Male / female, Experimental value, Inhalation (gases))	
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	

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Serious eye damage/irritation	: Not classified	
Respiratory or skin sensitisation	: Not classified	
Germ cell mutagenicity	: May cause genetic defects.	
Carcinogenicity	nogenicity : May cause cancer.	
Reproductive toxicity	: Not classified	
STOT-single exposure	: May cause drowsiness or dizziness.	
heptane (142-82-5)		
STOT-single exposure	May cause drowsiness or dizziness.	
methylcyclohexane (108-87-2)		
STOT-single exposure	May cause drowsiness or dizziness.	
octane (111-65-9)		
STOT-single exposure	May cause drowsiness or dizziness.	
STOT-repeated exposure	: Causes damage to organs through prolonged or repeated exposure.	
Naphtha (petroleum), hydrodesulfuri	zed heavy / Naphtha (petroleum), hydrodesulfurized heavy (64742-82-1)	
	Causes damage to organs through prolonged or repeated exposure.	
Kerosine (petroleum) (8008-20-6)		
NOAEL (oral, rat, 90 days)	750 mg/kg bodyweight Animal: rat, Animal sex: female	
NOAEC (inhalation, rat, vapour, 90 days) ≥ 0.024 mg/l air Animal: rat, Guideline: OECD Guideline 412 (Subacute Inhalati 28-Day Study)		
octane (111-65-9)		
IOAEC (inhalation, rat, vapour, 90 days) 24.3 mg/l air Animal: rat, Guideline: OECD Guideline 413 (Subchronic Inhalation 90-Day Study)		
Aspiration hazard	: Not classified	
Shield Engine Cleaner Aerosol		
Vaporizer	aerosol	

SECTION 12: Ecological information

12.1. Toxicity : Toxic to aquatic life. Toxic to aquatic life with long lasting effects. Ecology - general Hazardous to the aquatic environment, short-term : Very toxic to aquatic life. (acute) Hazardous to the aquatic environment, long-term : Toxic to aquatic life with long lasting effects. (chronic) heptane (142-82-5) BCF - Other aquatic organisms [1] 552 (BCFBAF v3.00, Calculated value) Partition coefficient n-octanol/water (Log Pow) 4.66 (Experimental value) Organic Carbon Normalized Adsorption Coefficient 2.38 (log Koc, SRC PCKOCWIN v2.0, Calculated value) (Log Koc) octane (111-65-9) 0.3 mg/l Test organisms (species): Daphnia magna EC50 - Crustacea [1] LOEC (chronic) 0.32 mg/l Test organisms (species): Daphnia magna Duration: '21 d' NOEC (chronic) 0.17 mg/l Test organisms (species): Daphnia magna Duration: '21 d' propane (74-98-6) LC50 - Fish [1] 24 mg/l (96 h, Pisces, Literature study)

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propane (74-98-6)	
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)
12.2. Persistence and degradability	
Shield Engine Cleaner Aerosol	
Persistence and degradability	No additional information available
heptane (142-82-5)	
Persistence and degradability	Biodegradable in the soil. Readily biodegradable in water.
Biochemical oxygen demand (BOD)	1.92 g O ₂ /g substance
Chemical oxygen demand (COD)	0.06 g O ₂ /g substance
ThOD	3.52 g O ₂ /g substance
BOD (% of ThOD)	> 0.5 (5 day(s), Literature study)
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.
12.3. Bioaccumulative potential	
Shield Engine Cleaner Aerosol	
Discourse lating and the later	
Bioaccumulative potential	No additional information available
Bioaccumulative potential heptane (142-82-5)	No additional information available
	No additional information available 552 (BCFBAF v3.00, Calculated value)
heptane (142-82-5)	
heptane (142-82-5) BCF - Other aquatic organisms [1]	552 (BCFBAF v3.00, Calculated value)
heptane (142-82-5) BCF - Other aquatic organisms [1] Partition coefficient n-octanol/water (Log Pow) Organic Carbon Normalized Adsorption Coefficient	552 (BCFBAF v3.00, Calculated value) 4.66 (Experimental value)
heptane (142-82-5) BCF - Other aquatic organisms [1] Partition coefficient n-octanol/water (Log Pow) Organic Carbon Normalized Adsorption Coefficient (Log Koc)	552 (BCFBAF v3.00, Calculated value) 4.66 (Experimental value) 2.38 (log Koc, SRC PCKOCWIN v2.0, Calculated value)
heptane (142-82-5) BCF - Other aquatic organisms [1] Partition coefficient n-octanol/water (Log Pow) Organic Carbon Normalized Adsorption Coefficient (Log Koc) Bioaccumulative potential	552 (BCFBAF v3.00, Calculated value) 4.66 (Experimental value) 2.38 (log Koc, SRC PCKOCWIN v2.0, Calculated value)
heptane (142-82-5) BCF - Other aquatic organisms [1] Partition coefficient n-octanol/water (Log Pow) Organic Carbon Normalized Adsorption Coefficient (Log Koc) Bioaccumulative potential propane (74-98-6)	552 (BCFBAF v3.00, Calculated value) 4.66 (Experimental value) 2.38 (log Koc, SRC PCKOCWIN v2.0, Calculated value) Potential for bioaccumulation (4 ≥ Log Kow ≤ 5).
heptane (142-82-5) BCF - Other aquatic organisms [1] Partition coefficient n-octanol/water (Log Pow) Organic Carbon Normalized Adsorption Coefficient (Log Koc) Bioaccumulative potential propane (74-98-6) BCF - Fish [1]	552 (BCFBAF v3.00, Calculated value) 4.66 (Experimental value) 2.38 (log Koc, SRC PCKOCWIN v2.0, Calculated value) Potential for bioaccumulation ($4 \ge Log$ Kow ≤ 5). 9 – 25 (Pisces, QSAR)
heptane (142-82-5) BCF - Other aquatic organisms [1] Partition coefficient n-octanol/water (Log Pow) Organic Carbon Normalized Adsorption Coefficient (Log Koc) Bioaccumulative potential propane (74-98-6) BCF - Fish [1] Partition coefficient n-octanol/water (Log Pow)	552 (BCFBAF v3.00, Calculated value) 4.66 (Experimental value) 2.38 (log Koc, SRC PCKOCWIN v2.0, Calculated value) Potential for bioaccumulation (4 ≥ Log Kow ≤ 5). 9 - 25 (Pisces, QSAR) 1.09 - 2.8 (Experimental value, 20 °C) Low potential for bioaccumulation (Log Kow < 4).
heptane (142-82-5) BCF - Other aquatic organisms [1] Partition coefficient n-octanol/water (Log Pow) Organic Carbon Normalized Adsorption Coefficient (Log Koc) Bioaccumulative potential propane (74-98-6) BCF - Fish [1] Partition coefficient n-octanol/water (Log Pow) Bioaccumulative potential	552 (BCFBAF v3.00, Calculated value) 4.66 (Experimental value) 2.38 (log Koc, SRC PCKOCWIN v2.0, Calculated value) Potential for bioaccumulation ($4 \ge Log \text{ Kow } \le 5$). 9 - 25 (Pisces, QSAR) 1.09 - 2.8 (Experimental value, 20 °C) Low potential for bioaccumulation (Log Kow < 4).

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12.4. Mobility in soil		
Shield Engine Cleaner Aerosol		
Mobility in soil No additional information available		
heptane (142-82-5)		
Surface tension	19.66 mN/m (25 °C)	
Partition coefficient n-octanol/water (Log Pow)	4.66 (Experimental value)	
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	2.38 (log Koc, SRC PCKOCWIN v2.0, Calculated value)	
Ecology - soil	Low potential for adsorption in soil.	
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).	
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 Additional information

- : Dispose of contents/container in accordance with licensed collector's sorting instructions.
- : Flammable vapours may accumulate in the container.

SECTION 14: Transport information

In accordance with SANS / IMDG / IATA SANS IMDG ΙΑΤΑ 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 н, ð Ö 14.4. Packing group Not applicable Not applicable Not applicable

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SANS	IMDG	IATA
14.5. Environmental hazards		
Dangerous for the environment : Yes	Dangerous for the environment : Yes Marine pollutant : Yes	Dangerous for the environment : Yes
No supplementary information available		
14.6. Special precautions for user		
SANS Special provisions (SANS) Limited quantities (SANS) Limited quantities (SANS) Packagings, large packagings and IBCs Packing instructions (SANS) Packagings, large packagings and IBCs Special packing instructions (SANS)	 : 63, 190 : See SP277 : See SP277 : P003 : PP17, PP87 	
IMDG Special provisions (IMDG) Packing instructions (IMDG) Special packing provisions (IMDG) EmS-No. (Fire) EmS-No. (Spillage) Stowage category (IMDG)	 63, 190, 277, 327, 344, 381, 959 P207, LP200 PP87, L2 F-D - FIRE SCHEDULE Delta - FLAMMABLE GASES S-U - SPILLAGE SCHEDULE Uniform - GASES (FLAMMABLE, TOXIC OR CORROSIVE) None 	
IATA PCA Excepted quantities (IATA) PCA Limited quantities (IATA) PCA limited quantity max net quantity (IATA) PCA packing instructions (IATA) PCA max net quantity (IATA) CAO packing instructions (IATA) CAO max net quantity (IATA) Special provisions (IATA) ERG code (IATA)	: E0 : Y203 : 30kgG : 203 : 75kg : 203 : 150kg : A145, A167, A802 : 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	on	
Issue date	: 31/01/2022	
Revision date	: 31/01/2024	

Full text of H-statements	
H220	Extremely flammable gas.
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H303	May be harmful if swallowed

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Full text of	f H-statements
H304	May be fatal if swallowed and enters airways.
H312	Harmful in contact with skin.
H313	May be harmful in contact with skin
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H336	May cause drowsiness or dizziness.
H340	May cause genetic defects.
H350	May cause cancer.
H372	Causes damage to organs through prolonged or repeated exposure.
H373	May cause damage to organs through prolonged or repeated exposure.
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.

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.