



Freeze spray - Cooling muscle rub

Safety Data Sheet

according to SANS 10234:2019 and SANS 11014:2010
Issue date: 4/28/2023 Revision date: 4/28/2025 Version: 1.0

SECTION 1: Identification

1.1. Product identifier

Product form : Mixture
Trade name : Freeze spray - Cooling muscle rub
Type of product : Cooling muscle rub spray
Product code : 95955
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
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
Hazard statements (GHS ZA) : H222 - Extremely flammable aerosol
H229 - Pressurised container: May burst if heated
H319 - Causes serious eye irritation
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.
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.
P410+P412 - Protect from sunlight. Do not expose to temperatures exceeding 50 °C.

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2.3. Other hazards

Adverse physicochemical, human health and environmental effects : Pressurised container: May burst if heated, Extremely flammable aerosol, Causes serious eye irritation, Harmful 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	70.0 - 80.0	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 EC Index-No.: 601-004-00-0	10.0 - 20.0	Flam. Gas 1, H220 Pyr. Gas Not classified Press. Gas (Liq.), H280 Acute Tox. Not classified (Inhalation:gas)
L Menthol	CAS-No.: 2216-51-5	1.0 - 5.0	STOT RE Not classified Aquatic Acute 3, H402
propane	CAS-No.: 74-98-6 EC Index-No.: 601-003-00-5	5.0 - 10.0	Flam. Gas 1, H220 Pyr. Gas Not classified Press. Gas (Liq.), H280 Acute Tox. Not classified (Inhalation:gas) 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.

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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	1000 ppm

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

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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 explosion limit	: No data available
Upper explosion limit	: 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))
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

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L Menthol (2216-51-5)	
LC50 Inhalation - Rat	≈ 5.289 mg/l air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity)
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
L Menthol (2216-51-5)	
NOAEL (oral, rat, 90 days)	> 375 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies), Remarks on results: not determinable
Aspiration hazard	: Not classified
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Vaporizer	Aerosol
propane (74-98-6)	
Animal studies and expert judgment for classification	False
butane, liquefied, under pressure (106-97-8)	
Animal studies and expert judgment for classification	False
Ethanol (64-17-5)	
Animal studies and expert judgment for classification	False
L Menthol (2216-51-5)	
Animal studies and expert judgment for classification	False

SECTION 12: Ecological information

12.1. Toxicity

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

propane (74-98-6)	
LC50 - Fish [1]	50 mg/l (96 h, Pisces, Fresh water, QSAR, Estimated value)
Partition coefficient n-octanol/water (Log Pow)	1.1 – 2.8 (Experimental value, 20 °C)
butane, liquefied, under pressure (106-97-8)	
LC50 - Fish [1]	1000 mg/l (96 h, Pimephales promelas, QSAR)
Partition coefficient n-octanol/water (Log Pow)	2.8 (Experimental value, 20 °C)
Ethanol (64-17-5)	
LC50 - Fish [1]	11.2 mg/l
EC50 - Crustacea [1]	5012 mg/l
Bioconcentration factor (BCF REACH)	< 10
L Menthol (2216-51-5)	
LC50 - Fish [1]	15.6 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio)

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L Menthol (2216-51-5)	
EC50 - Crustacea [1]	26.6 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	20 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)
EC50 72h - Algae [2]	21.4 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)

12.2. Persistence and degradability

Freeze spray - Cooling muscle rub	
Persistence and degradability	No additional information available
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

Freeze spray - Cooling muscle rub	
Bioaccumulative potential	No additional information available
propane (74-98-6)	
Partition coefficient n-octanol/water (Log Pow)	1.1 – 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)	2.8 (Experimental value, 20 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
Ethanol (64-17-5)	
Bioconcentration factor (BCF REACH)	< 10

12.4. Mobility in soil

Freeze spray - Cooling muscle rub	
Mobility in soil	No additional information available
propane (74-98-6)	
Surface tension	No data available in the literature
Partition coefficient n-octanol/water (Log Pow)	1.1 – 2.8 (Experimental value, 20 °C)
Ecology - soil	Not applicable (gas).
butane, liquefied, under pressure (106-97-8)	
Surface tension	No data available in the literature
Partition coefficient n-octanol/water (Log Pow)	2.8 (Experimental value, 20 °C)
Ecology - soil	Not applicable (gas).

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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.

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
Stowage and handling (IMDG) : SW1, SW22

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Segregation (IMDG) : SG69

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

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
H280	Contains gas under pressure; may explode if heated
H302	Harmful if swallowed
H319	Causes serious eye irritation
H402	Harmful to aquatic life

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.