



Heart air freshener - Fireworx

Safety Data Sheet

according to SANS 10234:2019 and SANS 11014:2010
Issue date: 6/14/2022 Revision date: 6/14/2024 Version: 1.1

SECTION 1: Identification

1.1. Product identifier

Product form : Mixture
Trade name : Heart air freshener - Fireworx
Type of product : Air freshener
Product code : SH1098
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

Acute toxicity (oral), Category 5	H303
Skin corrosion/irritation, Category 3	H316
Skin sensitisation, Category 1	H317
Hazardous to the aquatic environment – Acute Hazard, Category 2	H401
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) :

Warning

Hazardous ingredients :

Dipropylene glycol methyl ether, diethyl phthalate, 2,6-dimethyl-7-octen-2-ol, Oxacyclohexadecanone mixture, 2-(4-tert-butylbenzyl)propionaldehyde, linalyl acetate

Hazard statements (GHS ZA) :

H303 - May be harmful if swallowed
H316 - Causes mild skin irritation
H317 - May cause an allergic skin reaction.
H411 - Toxic to aquatic life with long lasting effects.

Precautionary statements (GHS ZA) :

P261 - Avoid breathing vapours.
P272 - Contaminated work clothing should not be allowed out of the workplace.
P273 - Avoid release to the environment.
P280 - Wear eye protection, protective clothing, protective gloves.
P302+P352 - IF ON SKIN: Wash with plenty of water.

Heart air freshener - Fireworx

Safety Data Sheet

according to SANS 10234:2019 and SANS 11014:2010

P312 - Call a doctor if you feel unwell.
P321 - Specific treatment (see supplemental first aid instruction on this label).
P332+P313 - If skin irritation occurs: Get medical advice.
P333+P313 - If skin irritation or rash occurs: Get medical advice.
P362+P364 - Take off contaminated clothing and wash it before reuse.
P391 - Collect spillage.
P501 - Dispose of contents and container to an approved waste disposal plant.

2.3. Other hazards

Adverse physicochemical, human health and environmental effects : Harmful if swallowed, Causes mild skin irritation, May cause an allergic skin reaction, 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
Dipropylene glycol methyl ether	CAS-No.: 34590-94-8	60.0 - 70.0	Flam. Liq. 4, H227 Acute Tox. Not classified (Oral) Acute Tox. Not classified (Dermal) STOT RE Not classified Aquatic Acute Not classified
diethyl phthalate	CAS-No.: 84-66-2	10.0 - 20.0	Flam. Liq. Not classified STOT RE Not classified Aquatic Acute 3, H402 Aquatic Chronic Not classified
2,6-dimethyl-7-octen-2-ol	CAS-No.: 18479-58-8	5.0 - 10.0	Flam. Liq. 4, H227
Oxacyclohexade cenone mixture	-	5.0- 10.0	Aquatic Acute 1, H400 Aquatic Chronic 1, H410
2-(4-tert-butylbenzyl)propionaldehyde	CAS-No.: 80-54-6	1.0 - 5.0	Flam. Liq. 4, H227 Acute Tox. 4 (Oral), H302 Acute Tox. 5 (Dermal), H313 Aquatic Acute 2, H401 Aquatic Chronic 2, H411
linalyl acetate	CAS-No.: 115-95-7	1.0 - 5.0	Flam. Liq. 4, H227 Acute Tox. Not classified (Oral) Acute Tox. Not classified (Dermal) Aquatic Acute 3, H402

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Call a poison center or a doctor if you feel unwell.
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. Take off contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention.
First-aid measures after eye contact : Rinse eyes with water as a precaution.
First-aid measures after ingestion : Rinse mouth. 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. May cause an allergic skin reaction.

Heart air freshener - Fireworx

Safety Data Sheet

according to SANS 10234:2019 and SANS 11014:2010

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.

5.2. Special hazards arising from the substance or mixture

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. Avoid contact with skin and eyes. Avoid breathing vapours.

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. Avoid contact with skin and eyes. Wear personal protective equipment. Avoid breathing vapours.
Hygiene measures : Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace. 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 : Store in a well-ventilated place. Keep cool.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Heart air freshener - Fireworx

Safety Data Sheet

according to SANS 10234:2019 and SANS 11014:2010

diethyl phthalate (84-66-2)	
South Africa - Occupational Exposure Limits (Recommended Limits)	
Local name	Diethyl phthalate
OEL TWA	5 mg/m ³
OEL STEL	10 mg/m ³
Regulatory reference	Government Notice. R: 1179
South Africa - Occupational Exposure Limits (Airborne Pollutants)	
Local name	Diethyl phthalate
OEL TWA	5 mg/m ³
OEL STEL	10 mg/m ³
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 : Solid
Appearance : Solid.
Colour : Black.
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 : No data available
Freezing point : Not applicable
Boiling point : No data available
Flash point : ≈ 96 °C
Auto-ignition temperature : Not applicable
Decomposition temperature : No data available
Flammability (solid, gas) : Non flammable.
Vapour pressure : No data available
Vapour pressure at 50 °C : No data available
Relative vapour density at 20 °C : No data available

Heart air freshener - Fireworx

Safety Data Sheet

according to SANS 10234:2019 and SANS 11014:2010

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	: Not applicable
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: Not applicable
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

The product is non-reactive under normal conditions of use, storage and transport.

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

None under recommended storage and handling conditions (see section 7).

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)	: May be harmful if swallowed.
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

Heart air freshener - Fireworx	
ATE ZA (oral)	2500 mg/kg bodyweight
Dipropylene glycol methyl ether (34590-94-8)	
LD50 oral rat	> 5000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity)
LD50 dermal rat	> 19020 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
LD50 dermal rabbit	9510 mg/kg bodyweight Animal: rabbit, Animal sex: male, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)

Heart air freshener - Fireworx

Safety Data Sheet

according to SANS 10234:2019 and SANS 11014:2010

2-(4-tert-butylbenzyl)propionaldehyde (80-54-6)	
LD50 oral rat	1390 mg/kg (Equivalent or similar to OECD 401, Rat, Male / female, Experimental value, Oral, 14 day(s))
LD50 dermal rat	> 2000 mg/kg (Equivalent or similar to OECD 402, Rat, Male / female, Experimental value, Dermal, 14 day(s))
LC50 Inhalation - Rat	> 0.18 mg/l (IRT (inhalation risk test), 7 h, Rat, Male / female, Experimental value, Inhalation (vapours), 14 day(s))

linalyl acetate (115-95-7)	
LD50 oral rat	> 9000 mg/kg bodyweight (BASF test, Rat, Male / female, Experimental value, Oral, 7 day(s))
LD50 dermal rabbit	> 5000 mg/kg bodyweight (Rabbit, Experimental value, Dermal, 14 day(s))

Skin corrosion/irritation	: Causes mild skin irritation.
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitisation	: May cause an allergic skin reaction.
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified

Dipropylene glycol methyl ether (34590-94-8)	
NOAEL (oral, rat, 90 days)	1000 mg/kg bodyweight Animal: rat, Guideline: other:KANPOGYO No.700, YAKUHATSU No. 1039.61, and KIKYKU No. 1014.
NOAEL (dermal, rat/rabbit, 90 days)	2850 mg/kg bodyweight Animal: rabbit, Animal sex: male, Guideline: OECD Guideline 411 (Subchronic Dermal Toxicity: 90-Day Study)

diethyl phthalate (84-66-2)	
NOAEL (oral, rat, 90 days)	150 mg/kg bodyweight Animal: rat
Aspiration hazard	: Not classified

Heart air freshener - Fireworx	
Viscosity, kinematic	Not applicable

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: Toxic to aquatic life. Toxic to aquatic life with long lasting effects.
Hazardous to the aquatic environment, short-term (acute)	: Toxic to aquatic life.
Hazardous to the aquatic environment, long-term (chronic)	: Toxic to aquatic life with long lasting effects.

Dipropylene glycol methyl ether (34590-94-8)	
LC50 - Fish [1]	> 1000 mg/l Test organisms (species): Poecilia reticulata
EC50 - Other aquatic organisms [1]	1930 mg/l Test organisms (species): other aquatic crustacea:Acartia tonsa
EC50 72h - Algae [1]	> 969 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
LOEC (chronic)	0.5 mg/l Test organisms (species): Daphnia magna Duration: '22 d'
NOEC (chronic)	≥ 0.5 mg/l Test organisms (species): Daphnia magna Duration: '22 d'

diethyl phthalate (84-66-2)	
LC50 - Fish [1]	29 mg/l Test organisms (species): Cyprinodon variegatus

Heart air freshener - Fireworx

Safety Data Sheet

according to SANS 10234:2019 and SANS 11014:2010

diethyl phthalate (84-66-2)	
LC50 - Fish [2]	12 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri)
EC50 72h - Algae [1]	23 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)
EC50 72h - Algae [2]	45 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)
NOEC (chronic)	25 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC chronic fish	5 mg/l Test organisms (species): Cyprinus carpio Duration: '28 d'

2,6-dimethyl-7-octen-2-ol (18479-58-8)	
Partition coefficient n-octanol/water (Log Pow)	3.47 (Estimated value)

2-(4-tert-butylbenzyl)propionaldehyde (80-54-6)	
LC50 - Fish [1]	2.04 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Danio rerio, Flow-through system, Fresh water, Experimental value, GLP)
EC50 - Crustacea [1]	10.7 mg/l (Other, 48 h, Daphnia magna, Static system, Fresh water, Experimental value)
EC50 72h - Algae [1]	29.155 mg/l (DIN 38412-9, Desmodesmus subspicatus, Static system, Fresh water, Experimental value, Growth rate)
Partition coefficient n-octanol/water (Log Pow)	4.2 (Experimental value, OECD 117: Partition Coefficient (n-octanol/water), HPLC method, 24 °C)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	3.11 (log Koc, PCKOCWIN v1.66, Calculated value)

linalyl acetate (115-95-7)	
LC50 - Fish [1]	11 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Cyprinus carpio, Flow-through system, Fresh water, Experimental value, GLP)
EC50 - Crustacea [1]	59 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Locomotor effect)
ErC50 algae	156.7 mg/l (DIN 38412-9, 96 h, Desmodesmus subspicatus, Static system, Fresh water, Experimental value, Nominal concentration)
BCF - Fish [1]	173.9 l/kg (BCFBAF v3.00, Calculated value, Fresh weight)
Partition coefficient n-octanol/water (Log Pow)	3.9 (Experimental value, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 25 °C)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	2.71 (log Koc, PCKOCWIN v1.66, Calculated value)

12.2. Persistence and degradability

Heart air freshener - Fireworx	
Persistence and degradability	No additional information available

2,6-dimethyl-7-octen-2-ol (18479-58-8)	
Persistence and degradability	Biodegradability in water: no data available.

2-(4-tert-butylbenzyl)propionaldehyde (80-54-6)	
Persistence and degradability	Readily biodegradable in water.

linalyl acetate (115-95-7)	
Persistence and degradability	Readily biodegradable in water.

Heart air freshener - Fireworx

Safety Data Sheet

according to SANS 10234:2019 and SANS 11014:2010

12.3. Bioaccumulative potential

Heart air freshener - Fireworx	
Bioaccumulative potential	No additional information available
2,6-dimethyl-7-octen-2-ol (18479-58-8)	
Partition coefficient n-octanol/water (Log Pow)	3.47 (Estimated value)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
2-(4-tert-butylbenzyl)propionaldehyde (80-54-6)	
Partition coefficient n-octanol/water (Log Pow)	4.2 (Experimental value, OECD 117: Partition Coefficient (n-octanol/water), HPLC method, 24 °C)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	3.11 (log Koc, PCKOCWIN v1.66, Calculated value)
Bioaccumulative potential	Potential for bioaccumulation ($4 \geq \text{Log Kow} \leq 5$).
linalyl acetate (115-95-7)	
BCF - Fish [1]	173.9 l/kg (BCFBAF v3.00, Calculated value, Fresh weight)
Partition coefficient n-octanol/water (Log Pow)	3.9 (Experimental value, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 25 °C)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	2.71 (log Koc, PCKOCWIN v1.66, Calculated value)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

12.4. Mobility in soil

Heart air freshener - Fireworx	
Mobility in soil	No additional information available
2,6-dimethyl-7-octen-2-ol (18479-58-8)	
Partition coefficient n-octanol/water (Log Pow)	3.47 (Estimated value)
Ecology - soil	No (test)data on mobility of the substance available.
2-(4-tert-butylbenzyl)propionaldehyde (80-54-6)	
Partition coefficient n-octanol/water (Log Pow)	4.2 (Experimental value, OECD 117: Partition Coefficient (n-octanol/water), HPLC method, 24 °C)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	3.11 (log Koc, PCKOCWIN v1.66, Calculated value)
Ecology - soil	Low potential for mobility in soil.
linalyl acetate (115-95-7)	
Partition coefficient n-octanol/water (Log Pow)	3.9 (Experimental value, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 25 °C)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	2.71 (log Koc, PCKOCWIN v1.66, Calculated value)
Ecology - soil	Low potential for adsorption in soil.

12.5. Other adverse effects

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

Heart air freshener - Fireworx

Safety Data Sheet

according to SANS 10234:2019 and SANS 11014:2010

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		
3082	3082	3082
14.2. Proper Shipping Name		
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.	Environmentally hazardous substance, liquid, n.o.s.
14.3. Transport hazard class(es)		
9	9	9
14.4. Packing group		
III	III	III
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) : 179, 274, 331, 335
Limited quantities (SANS) : 5 L
Limited quantities (SANS) : 5 L
Packagings, large packagings and IBCs Packing instructions (SANS) : P001, IBC03, LP01
Packagings, large packagings and IBCs Special packing instructions (SANS) : PP1
Portable tank and bulk containers instructions (SANS) : T4
Portable tank and bulk container special provisions (SANS) : TP1, TP29

IMDG

Special provisions (IMDG) : 274, 335, 969
Limited quantities (IMDG) : 5 L
Excepted quantities (IMDG) : E1
Packing instructions (IMDG) : LP01, P001
Special packing provisions (IMDG) : PP1
IBC packing instructions (IMDG) : IBC03
Tank instructions (IMDG) : T4
Tank special provisions (IMDG) : TP2, TP29
EmS-No. (Fire) : F-A - FIRE SCHEDULE Alfa - GENERAL FIRE SCHEDULE
EmS-No. (Spillage) : S-F - SPILLAGE SCHEDULE Foxtrot - WATER-SOLUBLE MARINE POLLUTANTS
Stowage category (IMDG) : A

Heart air freshener - Fireworx

Safety Data Sheet

according to SANS 10234:2019 and SANS 11014:2010

IATA

PCA Excepted quantities (IATA)	: E1
PCA Limited quantities (IATA)	: Y964
PCA limited quantity max net quantity (IATA)	: 30kgG
PCA packing instructions (IATA)	: 964
PCA max net quantity (IATA)	: 450L
CAO packing instructions (IATA)	: 964
CAO max net quantity (IATA)	: 450L
Special provisions (IATA)	: A97, A158, A197
ERG code (IATA)	: 9L

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

Issue date	: 14/06/2022
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Full text of H-statements

H227	Combustible liquid
H302	Harmful if swallowed.
H303	May be harmful if swallowed
H313	May be harmful in contact with skin
H316	Causes mild skin irritation
H317	May cause an allergic skin reaction.
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.