



# Sandals air freshener - Island coconut

## Safety Data Sheet

According to SANS 10234:2008 and SANS 11014:2010

Issue date:01/12/2020

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Version: 1.0

### SECTION 1: Identification

#### 1.1. Product identifier

Product form : Mixture  
Trade name : Sandals air freshener - Island coconut  
Type of product : Air freshener  
Product code : SH178

#### 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

Skin corrosion/irritation, Category 3 H316  
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

Signal word (GHS-ZA) : Warning  
Hazardous ingredients : 4-tert-butylcyclohexyl acetate; Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl-acetate; 2-tert-butylcyclohexanol acetate; cis-2-tert-butylcyclohexyl acetate; diethyl malonate; Ethyl heptanoate; benzyl acetate; 2-methyl-4-oxo-4H-pyran-3-yl isobutyrate  
Hazard statements (GHS-ZA) : H316 - Causes mild skin irritation  
H401 - Toxic to aquatic life  
Precautionary statements (GHS-ZA) : P273 - Avoid release to the environment.  
P332+P313 - If skin irritation occurs: Get medical advice.  
P501 - Dispose of contents and container to an approved waste disposal plant.

#### 2.3. Other hazards

Adverse physicochemical, human health and environmental effects : Causes mild skin irritation, Toxic 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
4-tert-butylcyclohexyl acetate	(CAS-No.) 32210-23-4	5.0 - 10.0	Flam. Liq. Not classified Acute Tox. 5 (Oral), H303 Aquatic Acute 2, H401
Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl-acetate		1.0 - 5.0	Flam. Liq. Not classified Acute Tox. Not classified (Oral) Acute Tox. Not classified (Dermal) Aquatic Acute Not classified
diethyl malonate	(CAS-No.) 105-53-3	1.0 - 5.0	Flam. Liq. 4, H227 Acute Tox. Not classified (Oral) Aquatic Acute Not classified
Ethyl heptanoate		1.0 - 5.0	Flam. Liq. 3, H226 Aquatic Acute 1, H400 Aquatic Chronic 3, H412

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Name	Product identifier	%	Classification according to the United Nations GHS
benzyl acetate	(CAS-No.) 140-11-4	1.0 - 5.0	Flam. Liq. Not classified Acute Tox. 5 (Oral), H303 Acute Tox. Not classified (Dermal) Aquatic Acute 2, H401
cis-2-tert-butylcyclohexyl acetate	(CAS-No.) 20298-69-5	1.0 - 5.0	Acute Tox. 5 (Oral), H303 Acute Tox. Not classified (Dermal) Aquatic Acute 2, H401
2-tert-butylcyclohexanol acetate	(CAS-No.) 88-41-5	1.0 - 5.0	Flam. Liq. 4, H227 Acute Tox. 5 (Oral), H303 Acute Tox. Not classified (Dermal)
2-methyl-4-oxo-4H-pyran-3-yl isobutyrate		1.0 - 5.0	Flam. Liq. Not classified Acute Tox. Not classified (Oral) Acute Tox. Not classified (Dermal) Skin Irrit. 2, H315 Aquatic Acute Not classified Aquatic Chronic 3, H412

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. Take off contaminated clothing. If skin irritation occurs: Get medical advice/attention.
- 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

- 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.

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

No additional information available

#### 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.

##### 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.
- Hygiene measures : Wash contaminated clothing before reuse. 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 : Store in a well-ventilated place. Keep cool.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

No additional information available

### 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 : Solid

Appearance : Solid.

Colour : red.

Odour : Tropical. Coconut.

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 : Not applicable

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

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 : 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

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### 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) : Not classified

Acute toxicity (dermal) : Not classified

Acute toxicity (inhalation) : Not classified

<b>4-tert-butylcyclohexyl acetate (32210-23-4)</b>	
LD50 oral rat	3370 mg/kg bodyweight (Equivalent or similar to OECD 401, Rat, Male / female, Experimental value, Oral, 14 day(s))
<b>Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl-acetate</b>	
LD50 oral rat	≈ 10000 mg/kg
LD50 dermal rabbit	≈ 20000 mg/kg
<b>2-tert-butylcyclohexanol acetate (88-41-5)</b>	
LD50 oral rat	4600 mg/kg (Equivalent or similar to OECD 401, Rat, Experimental value, Oral, 14 day(s))
LD50 dermal rabbit	> 5000 mg/kg (Equivalent or similar to OECD 402, Rabbit, Experimental value, Dermal)
<b>cis-2-tert-butylcyclohexyl acetate (20298-69-5)</b>	
LD50 oral rat	4600 mg/kg bodyweight (Equivalent or similar to OECD 401, Rat, Experimental value, Oral)
LD50 dermal rabbit	> 5000 mg/kg bodyweight (Equivalent or similar to OECD 402, Rabbit, Experimental value, Dermal)
<b>diethyl malonate (105-53-3)</b>	
LD50 oral rat	15794 mg/kg bodyweight Animal: rat, Guideline: other:as described by Smyth et al., Amer. Ind. Hyg. Assoc. J. 23, 95-107
<b>benzyl acetate (140-11-4)</b>	
LD50 oral rat	> 2000 mg/kg bodyweight (Equivalent or similar to OECD 401, Rat, Male / female, Experimental value, Oral, 15 day(s))
LD50 dermal rabbit	> 5000 mg/kg bodyweight (Rabbit, Experimental value, Dermal, 14 day(s))
<b>2-methyl-4-oxo-4H-pyran-3-yl isobutyrate</b>	
LD50 oral rat	≈ 5000 mg/kg
LD50 dermal rabbit	≈ 5000 mg/kg

Skin corrosion/irritation : Causes mild skin irritation.

Serious eye damage/irritation : Not classified

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

Aspiration hazard : Not classified

### SECTION 12: Ecological information

#### 12.1. Toxicity

Ecology - general : Toxic to aquatic life.

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Hazardous to the aquatic environment, short-term (acute) : Toxic to aquatic life.

Hazardous to the aquatic environment, long-term (chronic) : Not classified

<b>4-tert-butylcyclohexyl acetate (32210-23-4)</b>	
LC50 fish 1	8.6 mg/l (EU Method C.1, 96 h, Cyprinus carpio, Semi-static system, Fresh water, Experimental value, Nominal concentration)
EC50 Daphnia 1	5.3 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Locomotor effect)
ErC50 (algae)	22 mg/l (EU Method C.3, 72 h, Desmodesmus subspicatus, Static system, Fresh water, Experimental value, GLP)
BCF fish 1	234 - 334.6 l/kg (BCFBAF v3.01, QSAR, Fresh weight)
Log Pow	4.8 (Experimental value, OECD 117: Partition Coefficient (n-octanol/water), HPLC method, 25 °C)
Log Koc	3.51 - 3.66 (log Koc, OECD 121: Estimation of the Adsorption Coefficient (Koc) on Soil and on Sewage Sludge using High Performance Liquid Chromatography (HPLC), Experimental value, GLP)

<b>Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl-acetate</b>	
LC50 fish 1	10 - 18 mg/l
EC50 72h algae (1)	1.31 - 1.45 mg/l

<b>2-tert-butylcyclohexanol acetate (88-41-5)</b>	
BCF fish 1	384.6 l/kg (BCFBAF v3.01, Calculated value, Fresh weight)
Log Pow	4.42 (Estimated value, KOWWIN)
Log Koc	2.644 (log Koc, SRC PCKOCWIN v2.0, Calculated value)

<b>cis-2-tert-butylcyclohexyl acetate (20298-69-5)</b>	
LC50 fish 1	5.6 mg/l (EU Method C.1, 96 h, Brachydanio rerio, Semi-static system, Fresh water, Experimental value, GLP)
EC50 Daphnia 1	17 mg/l (EU Method C.2, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, GLP)
ErC50 (algae)	4.2 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Desmodesmus subspicatus, Static system, Fresh water, Experimental value, GLP)
BCF fish 1	179 - 203 (OECD 305: Bioconcentration: Flow-Through Fish Test, 33 day(s), Oncorhynchus mykiss, Flow-through system, Fresh water, Experimental value, GLP)
Log Pow	4.8 (Experimental value, OECD 117: Partition Coefficient (n-octanol/water), HPLC method, 25 °C)
Log Koc	3.12 (log Koc, OECD 121: Estimation of the Adsorption Coefficient (Koc) on Soil and on Sewage Sludge using High Performance Liquid Chromatography (HPLC), Experimental value, GLP)

<b>diethyl malonate (105-53-3)</b>	
EC50 Daphnia 1	202.3 mg/l Test organisms (species): Daphnia magna
EC50 72h algae (1)	508.2 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)
EC50 72h algae (2)	> 800 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)

<b>Ethyl heptanoate</b>	
LC50 fish 1	≈ 1.01 mg/l

<b>benzyl acetate (140-11-4)</b>	
LC50 fish 1	4 mg/l (ASTM E729-80, 96 h, Oryzias latipes, Flow-through system, Fresh water, Experimental value)
EC50 Daphnia 1	17 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Semi-static system, Fresh water, Experimental value, GLP)
BCF fish 1	8 (Pisces, Flow-through system, Calculated value)
Log Pow	1.96 (Experimental value, 25 °C)
Log Koc	2.4 (log Koc, OECD 121: Estimation of the Adsorption Coefficient (Koc) on Soil and on Sewage Sludge using High Performance Liquid Chromatography (HPLC), Experimental value, GLP)

<b>2-methyl-4-oxo-4H-pyran-3-yl isobutyrate</b>	
EC50 72h algae (1)	13.06 - 77.816 mg/l

### 12.2. Persistence and degradability

<b>Sandals air freshener - Island coconut</b>	
Persistence and degradability	No additional information available

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<b>4-tert-butylcyclohexyl acetate (32210-23-4)</b>	
Persistence and degradability	Readily biodegradable in water.
<b>2-tert-butylcyclohexanol acetate (88-41-5)</b>	
Persistence and degradability	Not readily biodegradable in water.
<b>cis-2-tert-butylcyclohexyl acetate (20298-69-5)</b>	
Persistence and degradability	Not readily biodegradable in water.
<b>benzyl acetate (140-11-4)</b>	
Persistence and degradability	Readily biodegradable in water.
<b>12.3. Bioaccumulative potential</b>	
<b>Sandals air freshener - Island coconut</b>	
Bioaccumulative potential	No additional information available
<b>4-tert-butylcyclohexyl acetate (32210-23-4)</b>	
BCF fish 1	See section 12.1 on ecotoxicology
Log Pow	See section 12.1 on ecotoxicology
Log Koc	See section 12.1 on ecotoxicology
Bioaccumulative potential	Potential for bioaccumulation ( $4 \geq \text{Log Kow} \leq 5$ ).
<b>2-tert-butylcyclohexanol acetate (88-41-5)</b>	
BCF fish 1	See section 12.1 on ecotoxicology
Log Pow	See section 12.1 on ecotoxicology
Log Koc	See section 12.1 on ecotoxicology
Bioaccumulative potential	Low potential for bioaccumulation ( $\text{BCF} < 500$ ).
<b>cis-2-tert-butylcyclohexyl acetate (20298-69-5)</b>	
BCF fish 1	See section 12.1 on ecotoxicology
Log Pow	See section 12.1 on ecotoxicology
Log Koc	See section 12.1 on ecotoxicology
Bioaccumulative potential	Low potential for bioaccumulation ( $\text{BCF} < 500$ ).
<b>benzyl acetate (140-11-4)</b>	
BCF fish 1	See section 12.1 on ecotoxicology
Log Pow	See section 12.1 on ecotoxicology
Log Koc	See section 12.1 on ecotoxicology
Bioaccumulative potential	Low potential for bioaccumulation ( $\text{Log Kow} < 4$ ).
<b>12.4. Mobility in soil</b>	
<b>Sandals air freshener - Island coconut</b>	
Mobility in soil	No additional information available
<b>4-tert-butylcyclohexyl acetate (32210-23-4)</b>	
Log Pow	See section 12.1 on ecotoxicology
Log Koc	See section 12.1 on ecotoxicology
Ecology - soil	Low potential for mobility in soil.
<b>2-tert-butylcyclohexanol acetate (88-41-5)</b>	
Log Pow	See section 12.1 on ecotoxicology
Log Koc	See section 12.1 on ecotoxicology
Ecology - soil	Low potential for adsorption in soil.
<b>cis-2-tert-butylcyclohexyl acetate (20298-69-5)</b>	
Surface tension	Data waiving
Log Pow	See section 12.1 on ecotoxicology
Log Koc	See section 12.1 on ecotoxicology
Ecology - soil	Low potential for mobility in soil.
<b>benzyl acetate (140-11-4)</b>	
Log Pow	See section 12.1 on ecotoxicology
Log Koc	See section 12.1 on ecotoxicology
Ecology - soil	Low potential for adsorption in soil.
<b>12.5. Other adverse effects</b>	
Ozone	: Not classified
Other adverse effects	: No additional information available

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## Safety Data Sheet

According to SANS 10234:2008 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
<b>14.1. UN number</b>		
Not regulated for transport		
<b>14.2. Proper Shipping Name</b>		
Not applicable	Not applicable	Not applicable
<b>14.3. Transport hazard class(es)</b>		
Not applicable	Not applicable	Not applicable
Not applicable	Not applicable	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

No data available

##### - IMDG

No data available

##### - IATA

No data available

#### 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 : 01/12/2020

Revision date : 01/12/2022

Full text of H-statements:

H226	Flammable liquid and vapour.
H227	Combustible liquid
H301	Toxic if swallowed.
H303	May be harmful if swallowed
H311	Toxic in contact with skin.
H313	May be harmful in contact with skin
H315	Causes skin irritation.
H316	Causes mild skin irritation
H400	Very toxic to aquatic life.
H401	Toxic to aquatic life
H402	Harmful to aquatic life
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.*