

MATERIAL SAFETY DATA SHEET

According to Regulation (EC) 1907/2006

1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product name : . GREEN APPEL
Product code : 1254865 - 100ml
Application : Airfreshener. For industrial or institutional use. Professional use.
Supplier : HIS
G. Jubileumplein 19
B-3582 Koersel, Belgium
E-mail : info@hisbvba.com

EMERGENCY TELEPHONE NUMBER, for DOCTORS/FIRE BRIGADE/POLICE only:
BE - Telephone : +32 78 15 80 81 (During office hours only)

2 HAZARDS IDENTIFICATION

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Classification : Extremely flammable. Dangerous for the environment.
Human health hazards : Low hazard for usual industrial or commercial handling. Exposure to high vapour concentrations may result in a narcotic effect. Use only as directed. Intentional misuse by deliberately concentrating and inhaling contents can be harmful or fatal. May produce an allergic reaction.
Physical/chemical hazards : Extremely flammable. Keep away from sources of ignition — No smoking. Do not spray on a naked flame or any incandescent material. Do not spray near fire, sources of heat or live electrical equipment. Aerosol may explode from internal pressure build-up when exposed to temperatures exceeding 50 °C.
Environmental hazards : Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Other information : Keep out of the reach of children. Caution: Do not breathe spray. Use only in well-ventilated areas. Spray in short intervals for a short period only. Ventilate well after use. Harmful to house pets.

Label elements (99/45/EC):

Hazard symbols :



F+: Extremely flammable

R- and S-phrases :

| | |
|-------------|---|
| R12 | Extremely flammable. |
| R52/53 | Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. |
| S2 | Keep out of the reach of children. |
| S16 | Keep away from sources of ignition — No smoking. |
| S23 Aerosol | Do not breathe spray. |
| S51 | Use only in well-ventilated areas. |

Label elements (1272/2008/EC):

Hazard pictograms :



Signal word : Danger

H- and P-phrases :

| | |
|------|--|
| H222 | Extremely flammable aerosol. |
| H412 | Harmful to aquatic life with long lasting effects. |
| P210 | Keep away from heat/sparks/open flames/hot surfaces. — No smoking. |
| P211 | Do not spray on an open flame or other ignition source. |

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|-----------|--|
| P251 | Pressurized container: Do not pierce or burn, even after use. |
| P410+P412 | Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F. |
| P273 | Avoid release to the environment. |
| P501 | Dispose of contents/container to an official chemical waste depot. |

3 COMPOSITION / INFORMATION ON INGREDIENTS

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Product description : Preparation.

Information on hazardous substances:

| Substance name | Concentration (w/w) (%) | CAS nr. | EC nr. | Symbols | R-phrases |
|--|-------------------------|------------|-----------|---------|-------------------|
| Isobutane | 50 - 75 | 75-28-5 | 200-857-2 | F+ | 12 |
| Ethanol | 10 - 20 | 64-17-5 | 200-578-6 | F | 11 |
| Propan-2-ol | 10 - 15 | 67-63-0 | 200-661-7 | F; Xi | 11-36-67 |
| 2-tert-Butylcyclohexyl acetate | 5 - 10 | 88-41-5 | 201-828-7 | N | 51/53 |
| Propyleneglycol | 1 - 5 | 57-55-6 | 200-338-0 | ----- | ----- |
| Butane | 0,1 - 1 | 106-97-8 | 203-448-7 | F+ | 12 |
| 2,4-Dimethylcyclohex-3-ene-1-carbaldehyde | 0,1 - 1 | 68039-49-6 | 268-264-1 | Xi | 36/38-43-52/53 |
| Undecan-4-olide | 0,1 - 1 | 104-67-6 | 203-225-4 | N | 51/53 |
| 1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno(5,6-c)pyran | 0,1 - 1 | 1222-05-5 | 214-946-9 | N | 50/53 |
| Allyl heptanoate | 0,1 - 1 | 142-19-8 | 205-527-1 | Xn; N | 21/22-48/22-50/53 |
| Propane | 0,1 - 1 | 74-98-6 | 200-827-9 | F+ | 12 |
| Butylphenyl methylpropional | 0,1 - 1 | 80-54-6 | 201-289-8 | Xn; N | 22-38-43-51/53-62 |

Reference is made to chapter 16 for full text of each relevant R phrase. Occupational exposure limit(s), if relevant, are listed in section 8.

| Substance name | Concentration (w/w) (%) | REACH nr. | Hazard Class | Pictograms | H-phrases |
|--|-------------------------|----------------------|---|-----------------------|---------------------|
| Isobutane | 50 - 75 | ----- | Flam. Gas 1; Press. Gas | GHS02-GHS04 | H220 |
| Ethanol | 10 - 20 | 01- 2119457610-43 | Flam. Liq. 2 | GHS02 | H225 |
| Propan-2-ol | 10 - 15 | 01- 2119457558-25 | Flam. Liq. 2; Eye Irrit. 2; STOT SE 3 | GHS02-GHS07 | H225-H319-H336 |
| 2-tert-Butylcyclohexyl acetate | 5 - 10 | ----- | Aquatic Chronic 2 | GHS09 | H411 |
| Propyleneglycol | 1 - 5 | ----- | ----- | ----- | ----- |
| Butane | 0,1 - 1 | ----- | Flam. Gas 1; Press. Gas; Carc. 1A; Muta. 1B | GHS02- GHS04-GHS08 | H220-H350-H340 |
| 2,4-Dimethylcyclohex-3-ene-1-carbaldehyde | 0,1 - 1 | ----- | Eye Irrit. 2; Skin Irrit. 2; Skin Sens. 1; Aquatic Chronic 3 | GHS07 | H319-H315-H317-H412 |
| Undecan-4-olide | 0,1 - 1 | ----- | Aquatic Chronic 2 | GHS09 | H411 |
| 1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno(5,6-c)pyran | 0,1 - 1 | ----- | Aquatic Acute 1; Aquatic Chronic 1 | GHS09 | H400-H410 |

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|-----------------------------|---------|-------|---|---------------------------------|-------------------------------|
| Allyl heptanoate | 0,1 - 1 | ----- | Acute Tox. 4; Acute Tox. 3; STOT RE 2; Aquatic. Acute 1 | GHS06- GHS07- GHS08-GHS09 | H302-H311-H400-H373 |
| Propane | 0,1 - 1 | ----- | Flam. Gas 1; Press. Gas | GHS02-GHS04 | H220 |
| Butylphenyl methylpropional | 0,1 - 1 | ----- | Aquatic Chronic 2; Skin Irrit. 2; Skin Sens. 1; Acute Tox. 4; Repr. 2 | GHS07- GHS08-GHS09 | H302-H315-H317-H411- H361f |

Reference is made to chapter 16 for full text of each relevant H phrase.

4 FIRST-AID MEASURES

Effects and symptoms

- Inhalation : No specific effects and/or symptoms are known.
- Skin contact : May produce an allergic reaction. May cause dry skin and redness.
- Eye contact : May cause stinging of eyes and redness.
- Ingestion : Not applicable.

First aid measures

- Inhalation : Not applicable under normal conditions of use. Consult a doctor if victim feels unwell.
- Skin contact : Take off contaminated clothing. Wash off skin with plenty of water and soap before product dries up. Consult a doctor if irritation occurs.
- Eye contact : Wash out with (lukewarm) water for at least 15 minutes. Remove contact lenses. Consult a doctor if irritation persists.
- Ingestion : Not applicable.

5 FIRE-FIGHTING MEASURES

Extinguishing media

- Suitable : Carbondioxide (CO₂). Alcohol resistant foam. Dry chemical. Water fog.
- Not suitable : Water jet.

Special exposure hazards : Aerosol may explode from internal pressure build-up when exposed to temperatures exceeding 50 °C. Do not expose emergency personnel to overheated aerosol containers. Water may be used to cool container and prevent explosion of the aerosol.

Hazardous thermal decomposition products : Carbon monoxide may be evolved if incomplete combustion occurs.

Special protective equipment for fire-fighters : Fight a fire where aerosols are involved from a protected position. Use adequate respiratory equipment in case of insufficient ventilation.

6 ACCIDENTAL RELEASE MEASURES

- Personal precautions : Danger of slipping. Clean up spills immediately. Wear shoes with non-slip soles. Avoid contact with spilled or released material. See also section 8. Do not breathe vapours and/or spray. Keep away from sources of ignition — No smoking. Build up of highly flammable gasses involves an explosion risk. Vapours are heavier than air. Build up (of gasses) in low areas involves risk of suffocation.
- Environmental precautions : Avoid release of product into sewers, surface water and/or ground water. Waste product should not be allowed to contaminate soil or water.
- Methods for cleaning up : Collect spilled material in containers. Collect cans in an approved container. Do not pierce aerosols. Wash away remainder with plenty of water and soap.
- Other information : Notify authorities if any exposure to the general public or the environment occurs or is likely to occur.

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7 HANDLING AND STORAGE

- Handling : Handle in accordance with good occupational hygiene and safety practices in well-ventilated areas. Important: Pressurized container; protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. Keep away from sources of ignition — No smoking. Do not spray on a naked flame or any incandescent material. Do not spray near fire, sources of heat or live electrical equipment. Electrostatic discharge may cause fire. Ensure electrical continuity by bonding and grounding (earthing) all equipment. Do not breathe spray. Avoid contact with skin and eyes.
- Storage : Keep frost-free, in a cool (< 35°), dry and well-ventilated place. Protect from sunlight and keep away from heat.
- Recommended packaging : Not applicable.
- Use : Use only as directed.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

- Engineering measures : Comply with standard precautionary measures for working with chemicals.
- Hygienic measures : When using do not eat, drink or smoke.
- Occupational exposure limits : Occupational exposure limits have not been established for this product.

Workplace exposure limits (mg/m³):

| Chemical name | Country | TWA 8 hour | STEL 15 min | Comments |
|-----------------|---------|------------|-------------|-------------------------------|
| Ethanol | GB | 1920 | - | - |
| Propan-2-ol | GB | 999 | 1250 | - |
| Propyleneglycol | GB | 474 | - | Total Vapour and Particulates |
| Butane | GB | 1450 | 1810 | - |

Personal protective equipment:

The efficiency of personal protective equipment depends among other things on temperature and degree of ventilation. Always get professional advice for the particular local situation.

- Body protection : Use of specific protective industrial clothing is not required under normal conditions of use. In case of large scale exposure wear suitable protective clothing, overalls or suit, and similar boots. Suitable material: nitril. Indication of permeation breakthrough time: not known.
- Respiratory protection : Take care of sufficient ventilation. Wear suitable respiratory protection in case of large scale exposure. Suitable: gas filter type A (brown), class I or higher on e.g. a facemask in accordance with EN 140.
- Hand protection : Under normal conditions of use specific gloves are not required. Wear special gloves in case of frequent or prolonged use and in case of large scale exposure. Suitable material: nitril. ± 0,5 mm Indication of permeation breakthrough time: not known.
- Eye protection : Wear appropriate safety glasses when there is danger of possible eye contact.

9 PHYSICAL AND CHEMICAL PROPERTIES

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- Appearance : Aerosol.
- Colour : Colourless.
- Odour : Perfumed.
- pH : Not applicable. Almost waterfree product.
- Solubility in water : Soluble.
- Partition coefficient (n-octanol/water) : Not known.
- Flash point : Not applicable. Extremely flammable.
- Auto ignition temperature : > 260 °C
- Boiling point/boiling range : Not applicable.
- Melting point/melting range : Not known.
- Explosion limits (in air) : Not known. Lower explosion limit in air (%): 1,3 (Butane) Upper explosion limit in air (%): 19 (Ethanol)
- Oxidising properties : Not applicable. Does not contain oxidizing substances.

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Decomposition temperature : Not applicable.
Viscosity (20°C) : Not known.
Viscosity (40°C) : Not known.
Vapour pressure (20°C) : Not known.
Vapour density (20°C) : Not known. (air = 1)
Relative density (20°C) : 0,645 g/ml
Evaporation rate : Not applicable. (n-butyl acetate = 1)

10 STABILITY AND REACTIVITY

Stability : Stable under normal conditions.
Conditions to avoid : Keep away from sources of ignition and sources of heat. See section 7.
Materials to avoid : Not applicable.
Hazardous decomposition products : Not known.
Reactivity : No other hazardous reactions known.

11 TOXICOLOGICAL INFORMATION

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No toxicological research has been carried out on this product.

Inhalation

Acute toxicity : Calculated LC50: > 10 mg/l. Ingredients of unknown toxicity: 11 %. ATE: > 5 mg/l.
Corrosion/irritation : May cause irritation to respiratory airways and coughing.
Mutagenicity : Does not contain mutagenic substances. Not classified - based on available data, the classification criteria are not met.

Skin contact

Acute toxicity : Calculated LD50: > 5000 mg/kg.bw. Not classified due to lack of data. Ingredients of unknown toxicity: 57 %.
Corrosion/irritation : Slight irritation possible. Prolonged contact may dry out and defat the skin.
Sensitisation : May produce an allergic reaction.

Eye contact

Corrosion/irritation : Slight irritation possible.

Ingestion

Acute toxicity : Calculated LD50: > 2566 mg/kg.bw. Ingredients of unknown toxicity: 3 %. ATE: > 2000 mg/kg.bw. May cause hampered eyesight.
Corrosion/irritation : May cause a feeling of sickness, vomiting and diarrhoea.
Carcinogenicity : Does not contain carcinogenic substances. Not classified - based on available data, the classification criteria are not met.
Mutagenicity : Does not contain mutagenic substances. Not classified - based on available data, the classification criteria are not met.

Toxicological information:

| Chemical name | Property | | Test animal | Method |
|---|--------------------|----------------|-------------|----------|
| 2,4-Dimethylcyclohex-3-ene-1-carbaldehyde | Skin sensitisation | 5900 (ug/cm2) | ---- | ---- |
| Butylphenyl methylpropional | LD50 (oral) | 1390 mg/kg | Rat | ---- |
| | LD50 (dermal) | > 5000 mg/kg | Rabbit | ---- |
| | Skin irritation | Irritant. | Rabbit | OECD 404 |
| | Eye irritation | Non-irritant | Rabbit | ---- |
| | Skin sensitisation | 2,372 (ug/cm2) | Mouse | OECD 429 |
| | NOAEL (oral) | 25 mg/kg.d | Rat | ---- |

12 ECOLOGICAL INFORMATION

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No ecotoxicological research has been carried out on this product.

Ecotoxicity : Harmful to aquatic organisms.
Mobility : Not applicable.
Persistence – degradability : May cause long-term adverse effects in the aquatic environment.
Bioaccumulative potential : No specific information known.
Other information : Not applicable.

Ecological information:

| Chemical name | Property | | Test animal | Method |
|--|------------------|-------------|---------------------|------------|
| 2-tert-Butylcyclohexyl acetate | LC50 (fish) | 1,7 mg/l | ---- | ---- |
| | EC50 (waterflea) | 17 mg/l | ---- | ---- |
| 2,4-Dimethylcyclohex-3-ene-1-carbaldehyde | Log P(ow) | 2,7 | | |
| | LC50 (fish) | 569 mg/l | Oncorhynchus mykiss | ---- |
| Undecan-4-olide | EC50 (waterflea) | 17 mg/l | Daphnia magna | ---- |
| | LC50 (fish) | 0,49 mg/l | ---- | ---- |
| 1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno(5,6-c)pyran | EC50 (waterflea) | 0,26 mg/l | ---- | ---- |
| | IC50 (algae) | > 0,85 mg/l | ---- | OECD 201 |
| | Log P(ow) | 5,9 | | |
| Allyl heptanoate | LC50 (fish) | 0,655 mg/l | ---- | ---- |
| | EC50 (waterflea) | 0,89 mg/l | Daphnia magna | ---- |
| Butylphenyl methylpropional | LC50 (fish) | 2,2 mg/l | Brachydanio rerio | OECD 203 |
| | EC50 (waterflea) | 10,7 mg/l | Daphnia magna | ---- |
| | Log P(ow) | 4,3 | | |
| | Degradability | 68 | | OECD 301 F |

13 DISPOSAL CONSIDERATIONS

Product residues : Recyclable metal container. Do not puncture or burn even after use. Do not dispose empty pack with regular household waste. Containers may be recycled. Treat product residues and non-empty pack as hazardous waste.
Additional warning : Residues may cause an explosion hazard. Do not puncture, cut or weld uncleaned drums.
European waste catalogue : Dispose hazardous waste in accordance with Directive 91/689/EEC under acknowledgement of a waste code according to Commission Decision 2000/532/EC to an official chemical waste depot.
Local legislation : Disposal should be in accordance with applicable regional, national, and local laws and regulations. Local regulations may be more stringent than regional or national requirements and must be complied with.

14 TRANSPORT INFORMATION

UN nr. : UN 1950
Transport name : AEROSOLS
ADR/RID (road / railway)
Class : 2
Classification code : 5F
Packaging group : -
Danger label : 2,1



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IMDG (sea)
Class : 2
Packaging group : -
EmS (fire / spill) : F - D / S - U
Marine pollutant : No

IATA (air)
Class : 2

Other information : Country specific variations may apply.

15 REGULATORY INFORMATION

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Community regulations : Regulation (EC) No 1907/2006 (REACH), Regulation (EC) No 1272/2008 (CLP), 75/324/EEC (aerosols) and other regulations.

Additional labelling

Other information : Important: Pressurized container; protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. Do not spray on a naked flame or any incandescent material. Keep away from sources of ignition — No smoking. Keep out of the reach of children. The packaging shall carry the text: Contains: 2,4-Dimethylcyclohex-3-ene-1-carbaldehyde Butylphenyl methylpropional May produce an allergic reaction. In the UK it is recommended that all aerosols should be labelled on the back with the warning about the dangers of volatile solvent abuse. The label should contain the badge 'Solvent Abuse Can Kill Instantly' accompanied by the phrase 'Use only as directed'. Advised text according to "Arrêté du 24 mars 1993" (France): Do not spray near fire, sources of heat or live electrical equipment. Spray in short intervals and for short periods only. Ventilate well after use.



16 OTHER INFORMATION

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The information in this safety data sheet is compiled in compliance with Regulation (EC) 1907/2006 dated 18 December 2006 and accurate to the best of our knowledge and experience at the date of issue specified. It is the user's obligation to use this product safely and to comply with all applicable laws and regulations concerning the use of the product. This safety data sheet complements the technical information sheets but does not replace them and offers no warranty with regard to product properties.

Users are also forewarned for any hazards involved when the product is used for other purposes than those for which it is designed.

Changed or new information with regard to the previous release is indicated with an asterisk (*).

Full text of R-phrases mentioned in section 3:

| | |
|--------|--|
| R11 | Highly flammable. |
| R12 | Extremely flammable. |
| R21/22 | Harmful in contact with skin and if swallowed. |
| R22 | Harmful if swallowed. |
| R36 | Irritating to eyes. |
| R36/38 | Irritating to eyes and skin. |
| R38 | Irritating to skin. |
| R43 | May cause sensitisation by skin contact. |
| R50/53 | Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. |
| R51/53 | Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. |
| R52/53 | Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. |
| R62 | Possible risk of impaired fertility. |
| R67 | Vapours may cause drowsiness and dizziness. |

Full text of H-phrases mentioned in section 3:

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H220 Extremely flammable gas.
H225 Highly flammable liquid and vapour.
H302 Harmful if swallowed.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H361 Suspected of damaging fertility or the unborn child.
H411 Toxic to aquatic life with long lasting effects.

Number format : "," used as decimal separator.

History

Date of first issue : ----

Date of second issue : 01-09-2011

Herewith all previous issues are expired.