SAFETY DATA SHEET

FRESH+ SPRAY 100ml

According to Appendix D, OSHA Hazard Communication Standard 29 CFR §1910.1200.

1. Identification

Product identifier

Product name Shoe Deo 100 ml

Recommended use of the chemical and restrictions on use

Application Shoe Deodorant.

Uses advised against No specific uses advised against are identified.

Details of the supplier of the safety data sheet

Supplier

Blue San LLC
3399 Durham Road
Roxboro, North Carolina 27573
Tel: (984) 219--6618
e-mail : help@thebluesan.com
www.thebluesan.com

Emergency telephone number

Phone: (984)219-6618
Monday through Friday 9AM-5PM Eastern Standard Time

Emergency telephone

2. Hazard(s) identification

Classification of the substance or mixture

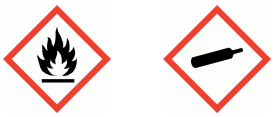
Physical hazards Flam. Aerosol 1 - H222 Press. Gas, Compressed - H280

Health hazards Not Classified

Environmental hazards Not Classified

Label elements

Hazard symbols



Signal word Danger

Hazard statements

H222 Extremely flammable aerosol.
H280 Contains gas under pressure; may explode if heated.

Precautionary statements

P102 Keep out of reach of children.
P210 Keep away from heat, sparks, open flames and hot surfaces. No smoking.
P211 Do not spray on an open flame or other ignition source.
P251 Pressurized container: Do not pierce or burn, even after use
P410+P403 Protect from sunlight. Store in a well-ventilated place.
P412 Do not expose to temperatures exceeding 50°C/122°F.

FRESH+ SPRAY 100ml

According to Appendix D, OSHA Hazard Communication Standard 29 CFR §1910.1200.

Other hazards

This product does not contain any substances classified as PBT or vPvB.

3. Composition/information on ingredients

Mixtures

Ethanol **40-60%**

CAS number: 64-17-5

Lists:REACH ANNEX XVII.(40)

Classification
Flam. Liq. 2 - H225

Petroleum gases, liquefied (Note K) **40-60%**

CAS number: 68476-85-7

Lists:REACH ANNEX XVII.

Classification
Flam. Gas 1 - H220
Press. Gas, Liquefied - H280

Cineole **<1%**

CAS number: 470-82-6

Classification
Flam. Liq. 3 - H226
Eye Irrit. 2A - H319
Skin Sens. 1B - H317

3-(2-ethylhexyloxy)propane-1,2-diol **<1%**

CAS number: 70445-33-9

Classification
Acute Tox. 4 - H332
Eye Dam. 1 - H318
Aquatic Chronic 3 - H412

1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran **<0,1%**

CAS number: 1222-05-5

M factor (Acute) = 1 M factor (Chronic) = 1

Classification
Aquatic Acute 1 - H400
Aquatic Chronic 1 - H410

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Tricyclo[5.2.1.0^{2,6}]dec-3-en-8-yl acetate **<0,1%**

CAS number: 5413-60-5

Classification
Aquatic Chronic 3 - H412

Benzyl acetate **<0,1%**

CAS number: 140-11-4

Classification
Aquatic Chronic 3 - H412

allyl heptanoate **<0,1%**

CAS number: 142-19-8

M factor (Acute) = 1

Classification
Acute Tox. 3 - H301
Acute Tox. 3 - H311
Aquatic Acute 1 - H400
Aquatic Chronic 3 - H412

(1S,5S)-2,6,6-trimethylbicyclo[3.1.1]hept-2-ene **<0,1%**

CAS number: 7785-26-4

M factor (Acute) = 1 M factor (Chronic) = 1

Classification
Flam. Liq. 3 - H226
Acute Tox. 4 - H302
Skin Irrit. 2 - H315
Skin Sens. 1B - H317
Asp. Tox. 1 - H304
Aquatic Acute 1 - H400
Aquatic Chronic 1 - H410

(R)-p-mentha-1,8-diene **<0,1%**

CAS number: 5989-27-5

M factor (Acute) = 1

Classification
Flam. Liq. 3 - H226
Skin Irrit. 2 - H315
Skin Sens. 1B - H317
Asp. Tox. 1 - H304
Aquatic Acute 1 - H400
Aquatic Chronic 3 - H412

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2,6-dimethyl-7-octen-2- ol **<0,1%**

CAS number: 18479-58-8

Classification
Skin Irrit. 2 - H315
Eye Irrit. 2A - H319

P-CYMENE **<0,1%**

CAS number: 99-87-6

Classification
Flam. Liq. 3 - H226
Acute Tox. 3 - H331
Repr. 2 - H361
Asp. Tox. 1 - H304
Aquatic Chronic 2 - H411

(-)-pin-2(10)-ene **<0,1%**

CAS number: 18172-67-3

M factor (Acute) = 1 M factor (Chronic) = 1

Classification
Flam. Liq. 3 - H226
Skin Irrit. 2 - H315
Skin Sens. 1B - H317
Asp. Tox. 1 - H304
Aquatic Acute 1 - H400
Aquatic Chronic 1 - H410

diisobutyl phthalate **<0,01%**

CAS number: 84-69-5

Lists:REACH ANNEX XVII.This substance is in the Candidate List of SVHC for authorisation.

Classification
Repr. 1B - H360Df

1-(5,6,7,8-tetrahydro-3,5,5,6,8,8-hexamethyl-2-naphthyl)ethan-1-one **<0,01%**

CAS number: 1506-02-1

M factor (Acute) = 1 M factor (Chronic) = 1

Classification
Acute Tox. 4 - H302
Aquatic Acute 1 - H400
Aquatic Chronic 1 - H410

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According to Appendix D, OSHA Hazard Communication Standard 29 CFR §1910.1200.

p-mentha-1,4-diene **<0,01%**

CAS number: 99-85-4

Classification
Flam. Liq. 3 - H226
Repr. 2 - H361
Asp. Tox. 1 - H304
Aquatic Chronic 2 - H411

Amyl Cinnamal **<0,01%**

CAS number: 122-40-7

Classification
Skin Sens. 1 - H317
Aquatic Chronic 2 - H411

isopentyl acetate **<0,01%**

CAS number: 123-92-2

Classification
Flam. Liq. 3 - H226

α-hexylcinnamaldehyde **<0,01%**

CAS number: 101-86-0

M factor (Acute) = 1

Classification
Skin Sens. 1B - H317
Aquatic Acute 1 - H400
Aquatic Chronic 2 - H411

2,6-di-tert-butyl-p-cresol **<0,01%**

CAS number: 128-37-0

M factor (Acute) = 1 M factor (Chronic) = 1

Classification
Aquatic Acute 1 - H400
Aquatic Chronic 1 - H410

Hexyl salicylate **<0,01%**

CAS number: 6259-76-3

M factor (Chronic) = 1

Classification
Skin Sens. 1 - H317
Aquatic Chronic 1 - H410

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According to Appendix D, OSHA Hazard Communication Standard 29 CFR §1910.1200.

Linalool	**<0,01%**
CAS number: 78-70-6	
Classification Skin Sens. 1B - H317	

Linalyl acetate	**<0,01%**
CAS number: 115-95-7	
Classification Skin Irrit. 2 - H315 Eye Irrit. 2A - H319 Skin Sens. 1B - H317	

Coumarin	**<0,01%**
CAS number: 91-64-5	
Classification Acute Tox. 4 - H302 Skin Sens. 1 - H317 STOT RE 2 - H373	

Geraniol	**<0,01%**
CAS number: 106-24-1	
Classification Skin Irrit. 2 - H315 Eye Dam. 1 - H318 Skin Sens. 1 - H317	

Alpha-iso-Methylionone	**<0,01%**
CAS number: 127-51-5	
Classification Skin Sens. 1B - H317 Aquatic Chronic 2 - H411	

Citronellol	**<0,01%**
CAS number: 106-22-9	
Classification Skin Irrit. 2 - H315 Eye Irrit. 2A - H319 Skin Sens. 1B - H317	

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Allyl 3-cyclohexylpropionate	**<0,001%**
CAS number: 2705-87-5	
M factor (Acute) = 1	M factor (Chronic) = 1

Classification
Acute Tox. 4 - H302
Acute Tox. 4 - H312
Acute Tox. 4 - H332
Skin Sens. 1 - H317
Aquatic Acute 1 - H400
Aquatic Chronic 1 - H410

Dodecanenitrile	**<0,001%**
CAS number: 2437-25-4	
M factor (Acute) = 10	M factor (Chronic) = 10

Classification
Skin Irrit. 2 - H315
Aquatic Acute 1 - H400
Aquatic Chronic 1 - H410

Acetyl cedrene	**<0,001%**
CAS number: 32388-55-9	
M factor (Acute) = 1	M factor (Chronic) = 1

Classification
Skin Sens. 1B - H317
Aquatic Acute 1 - H400
Aquatic Chronic 1 - H410

The full text for all hazard statements is displayed in Section 16.

4. First-aid measures

Description of first aid measures

Inhalation Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Maintain an open airway. Loosen tight clothing such as collar, tie or belt. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Get medical attention. Place unconscious person on their side in the recovery position and ensure breathing can take place.

Ingestion Rinse mouth thoroughly with water. Stop if the affected person feels sick as vomiting may be dangerous. Never give anything by mouth to an unconscious person. Place unconscious person on their side in the recovery position and ensure breathing can take place. Keep affected person under observation. Get medical attention if symptoms are severe or persist.

Skin Contact Rinse with water. Get medical attention if symptoms are severe or persist.

Eye contact Rinse with water. Do not rub eye. Remove any contact lenses and open eyelids wide apart. Get medical attention if any discomfort continues.

Protection of first aiders First aid personnel should wear appropriate protective equipment during any rescue.

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Most important symptoms and effects, both acute and delayed

General information	The severity of the symptoms described will vary dependent on the concentration and the length of exposure. Not considered to be a significant hazard due to the small quantities used.
Inhalation	A single exposure may cause the following adverse effects: Headache. Nausea, vomiting. Central nervous system depression. Drowsiness, dizziness, disorientation, vertigo. Narcotic effect.
Ingestion	Due to the physical nature of this product, it is unlikely that ingestion will occur.
Skin contact	May cause discomfort.
Eye contact	Irritating to eyes.

Indication of immediate medical attention and special treatment needed

Notes for the doctor	Treat symptomatically.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media	The product is flammable. Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog. Use fire-extinguishing media suitable for the surrounding fire.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.

Special hazards arising from the substance or mixture

Specific hazards	Containers can burst violently or explode when heated, due to excessive pressure build-up. Bursting aerosol containers may be propelled from a fire at high speed. If aerosol cans are ruptured, care should be taken due to the rapid escape of the pressurized contents and propellant. Vapors may form explosive mixtures with air. Not considered to be a significant hazard due to the small quantities used.
Hazardous combustion products	Thermal decomposition or combustion products may include the following substances: Harmful gases or vapors.

Advice for firefighters

Protective actions during firefighting	Avoid breathing fire gases or vapors. Evacuate area. Keep upwind to avoid inhalation of gases, vapors, fumes and smoke. Ventilate closed spaces before entering them. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Cool containers exposed to flames with water until well after the fire is out. If a leak or spill has not ignited, use water spray to disperse vapors and protect men stopping the leak. Control run-off water by containing and keeping it out of sewers and watercourses. If risk of water pollution occurs, notify appropriate authorities.
Special protective equipment for firefighters	Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing. Standard Firefighter's clothing including helmets, protective boots and gloves will provide a basic level of protection for chemical incidents.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions	Evacuate area. Risk of explosion. Provide adequate ventilation. No smoking, sparks, flames or other sources of ignition near spillage. Promptly remove any clothing that becomes contaminated. Avoid contact with eyes and prolonged skin contact.

Environmental precautions

Environmental precautions	Avoid discharge into drains or watercourses or onto the ground.

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According to Appendix D, OSHA Hazard Communication Standard 29 CFR §1910.1200.

Methods and material for containment and cleaning up

Methods for cleaning up Wear protective clothing as described in Section 8 of this safety data sheet. Clear up spills immediately and dispose of waste safely. Eliminate all ignition sources if safe to do so. No smoking, sparks, flames or other sources of ignition near spillage. Under normal conditions of handling and storage, spillages from aerosol containers are unlikely. If aerosol cans are ruptured, care should be taken due to the rapid escape of the pressurized contents and propellant. Small Spillages: Wipe up with an absorbent cloth and dispose of waste safely. Large Spillages: If the product is soluble in water, dilute the spillage with water and mop it up. Alternatively, or if it is not water-soluble, absorb the spillage with an inert, dry material and place it in a suitable waste disposal container. Flush contaminated area with plenty of water. Wash thoroughly after dealing with a spillage. For waste disposal, see Section 13.

Reference to other sections For personal protection, see Section 8. See Section 11 for additional information on health hazards. See Section 12 for additional information on ecological hazards. For waste disposal, see Section 13.

7. Handling and storage

Precautions for safe handling

Usage precautions Keep out of the reach of children. Read and follow manufacturer's recommendations. Wear protective clothing as described in Section 8 of this safety data sheet. Keep away from food, drink and animal feeding stuffs. Avoid exposing aerosol containers to high temperatures or direct sunlight. The product is flammable. 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. Pressurized container: Do not pierce or burn, even after use. Spray will evaporate and cool rapidly and may cause frostbite or cold burns if in contact with skin. Avoid contact with eyes.

Advice on general occupational hygiene Wash promptly if skin becomes contaminated. Take off contaminated clothing and wash before reuse. Wash contaminated clothing before reuse.

Conditions for safe storage, including any incompatibilities

Storage precautions Store away from incompatible materials (see Section 10). Store locked up. Keep away from oxidizing materials, heat and flames. Keep only in the original container. Keep container tightly closed, in a cool, well ventilated place. Keep containers upright. Protect containers from damage. Protect from sunlight. Do not store near heat sources or expose to high temperatures. Do not expose to temperatures exceeding 50°C/122°F.

Storage class Chemical storage.

Specific end uses(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.

8. Exposure controls/Personal protection

Control parameters

Occupational exposure limits

Ethanol

Short-term exposure limit (15-minute): ACGIH 1000 ppm

A3

Long-term exposure limit (8-hour TWA): OSHA 1000 ppm 1900 mg/m³

ACGIH = American Conference of Governmental Industrial Hygienists.
A3 = Confirmed Animal Carcinogen with Unknown Relevance to Humans.
OSHA = Occupational Safety and Health Administration.

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Ethanol (CAS: 64-17-5)

Immediate danger to life and health	3300 ppm

Exposure controls

Protective equipment

Appropriate engineering controls	Provide adequate ventilation.
Eye/face protection	Avoid contact with eyes. Large Spillages: Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible.
Hand protection	No specific requirements are anticipated under normal conditions of use. Prolonged skin contact may cause temporary irritation. For users with sensitive skin, it is recommended that suitable protective gloves are worn.
Hygiene measures	Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product. Wash contaminated clothing before reuse.
Respiratory protection	No specific recommendations. Provide adequate ventilation. Large Spillages: If ventilation is inadequate, suitable respiratory protection must be worn.
Environmental exposure controls	Keep container tightly sealed when not in use. Avoid discharge to the aquatic environment.

9. Physical and chemical properties

Information on basic physical and chemical properties

Appearance	Aerosol.
Color	Neutral.
Odor	Characteristic.
Odor threshold	No information available.
pH	No information available.
Melting point	No information available.
Initial boiling point and range	No information available.
Flash point	No information available.
Evaporation rate	No information available.
Evaporation factor	No information available.
Flammability (solid, gas)	No information available.
Upper/lower flammability or explosive limits	No information available.
Vapor pressure	No information available.
Vapor density	No information available.
Relative density	No information available.
Bulk density	No information available.

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Solubility(ies)	No information available.
Partition coefficient	No information available.
Auto-ignition temperature	No information available.
Decomposition Temperature	No information available.
Viscosity	No information available.
Explosive properties	No information available.
Oxidizing properties	No information available.
Particle characteristics	Not applicable.
Other information	None.

10. Stability and reactivity

Reactivity	See the other subsections of this section for further details.
Stability	Stable at normal ambient temperatures and when used as recommended. Stable under the prescribed storage conditions.
Possibility of hazardous reactions	The following materials may react strongly with the product: Oxidizing agents.
Conditions to avoid	Avoid exposing aerosol containers to high temperatures or direct sunlight.
Materials to avoid	Strong acids. Strong oxidizing agents.
Hazardous decomposition products	Does not decompose when used and stored as recommended. Thermal decomposition or combustion products may include the following substances: Harmful gases or vapors.

11. Toxicological information

Information on toxicological effects

Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity - oral

Notes (oral LD_{50}) Based on available data the classification criteria are not met.

Acute toxicity - dermal

Notes (dermal LD_{50}) Based on available data the classification criteria are not met.

Acute toxicity - inhalation

Notes (inhalation LC_{50}) Based on available data the classification criteria are not met.

Skin corrosion/irritation

Skin corrosion/irritation Based on available data the classification criteria are not met.

Serious eye damage/irritation

Serious eye damage/irritation Based on available data the classification criteria are not met.

Respiratory sensitization

Respiratory sensitization Based on available data the classification criteria are not met.

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Skin sensitization

Skin sensitization Based on available data the classification criteria are not met.

Germ cell mutagenicity

Genotoxicity - in vitro Based on available data the classification criteria are not met.

Carcinogenicity

Carcinogenicity Based on available data the classification criteria are not met.

IARC carcinogenicity Contains a substance/a group of substances which may cause cancer. IARC Group 1 Carcinogenic to humans.

Reproductive toxicity

Reproductive toxicity - fertility Based on available data the classification criteria are not met.

Reproductive toxicity - development Based on available data the classification criteria are not met.

Specific target organ toxicity - single exposure

STOT - single exposure Not classified as a specific target organ toxicant after a single exposure.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure Not classified as a specific target organ toxicant after repeated exposure.

Aspiration hazard

Aspiration hazard Based on available data the classification criteria are not met.

Information on other hazards

Information on other hazards This product does not contain any known or suspected endocrine disruptors.

Toxicological information on ingredients.

Ethanol

Acute toxicity - oral

Notes (oral LD_{50}) LD_{50} 6200 mg/kg, Oral, Rat

Acute toxicity - dermal

Notes (dermal LD_{50}) LD_{50} 7060 mg/kg, Dermal, Rabbit

Acute toxicity - inhalation

Notes (inhalation LC_{50}) LC50 124,7 mg/l, Inhalation, 760 mm Hg, Rat

Carcinogenicity

IARC carcinogenicity IARC Group 1 Carcinogenic to humans.

3-(2-ethylhexyloxy)propane-1,2-diol

Acute toxicity - inhalation

ATE inhalation (vapours mg/l) 11.0

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1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran

Acute toxicity - oral	
Notes (oral LD_{50})	LD_{50} > 3000 mg/kg bw/d, Oral, Rat (OECD Guideline 423)
Acute toxicity - dermal	
Notes (dermal LD_{50})	LD_{50} > 3250 mg/kg bw/d, Dermal, Rat (OECD Test Guideline 402)
Acute toxicity - inhalation	
Notes (inhalation LC_{50})	LC50 > 5.04 mg/l, 4 hour, Inhalation Rat (OECD Test Guideline 403)

Benzyl acetate

Acute toxicity - oral	
Notes (oral LD_{50})	LD_{50} > 2000 mg/kg, Oral, Rat, (OECD 401)
Acute toxicity - dermal	
Notes (dermal LD_{50})	LD_{50} > 5000 mg/kg, Dermal, Rabbit
Acute toxicity - inhalation	
Notes (inhalation LC_{50})	LC50 766 mg/m³, Air, 4 hour, Inhalation Rat, (OECD 403)

allyl heptanoate

Acute toxicity - oral	
ATE oral (mg/kg)	100.0
Acute toxicity - dermal	
ATE dermal (mg/kg)	300.0

(1S,5S)-2,6,6-trimethylbicyclo[3.1.1]hept-2-ene

Acute toxicity - oral	
ATE oral (mg/kg)	500.0

(R)-p-mentha-1,8-diene

Acute toxicity - oral	
Notes (oral LD_{50})	LD_{50} > 2000 mg/kg bw/d, Oral, Rat (OECD Guideline 423)
Acute toxicity - dermal	
Notes (dermal LD_{50})	LD_{50} > 5000 mg/kg bw/d, Dermal, Rabbit Read-across data.
Skin corrosion/irritation	
Skin corrosion/irritation	Causes skin irritation. Rabbit
Animal data	Dose: 0.5 ml, 4 hour, Rabbit, (OECD Test Guideline 404) Not fully reversible in 7 day
Skin sensitization	
Skin sensitization	Local Lymph Node Assay (LLNA) - Mouse: Sensitizing. OECD Guideline 429
Carcinogenicity	
IARC carcinogenicity	IARC Group 3 Not classifiable as to its carcinogenicity to humans.

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According to Appendix D, OSHA Hazard Communication Standard 29 CFR §1910.1200.

2,6-dimethyl-7-octen-2- ol

Acute toxicity - oral	
Notes (oral LD_{50})	LD_{50} 3020 mg/kg, Oral, Rat
Acute toxicity - dermal	
Notes (dermal LD_{50})	LD_{50} > 2000 mg/kg, Dermal, Read-across data.

P-CYMENE

Acute toxicity - inhalation	
ATE inhalation (vapours mg/l)	3.0

1-(5,6,7,8-tetrahydro-3,5,5,6,8,8-hexamethyl-2-naphthyl)ethan-1-one

Acute toxicity - oral	
ATE oral (mg/kg)	500.0

2,6-di-tert-butyl-p-cresol

Acute toxicity - oral	
Notes (oral LD_{50})	LD_{50} >6,000 µg/kg, Oral, Rat (OECD 401)
Acute toxicity - dermal	
Notes (dermal LD_{50})	LD_{50} >2000 mg/kg, Dermal, Rat (OECD 402)
Reproductive toxicity	
Reproductive toxicity - fertility	- LOAEL 25 mg/kg bw/d, , Male, Female F1 - NOAEL 500 mg/kg bw/d, , Male, Female F, P
Specific target organ toxicity - repeated exposure	
STOT - repeated exposure	NOAEL ≥ 61 mg/kg, Oral, Rat 90 day

Hexyl salicylate

Acute toxicity - dermal	
Notes (dermal LD_{50})	LD_{50} > 5000 mg/kg, Oral, Rat, (OECD 401)
Acute toxicity - inhalation	
Notes (inhalation LC_{50})	LD_{50} > 5000 mg/kg, Dermal, Rabbit, (OECD 402)
Skin sensitization	
Skin sensitization	Local Lymph Node Assay (LLNA) - Mouse: Sensitizing.

Linalyl acetate

Acute toxicity - oral	
Notes (oral LD_{50})	LD_{50} > 9000 mg/kg, Oral, Rat BASF
Acute toxicity - dermal	
Notes (dermal LD_{50})	LD_{50} > 5000 mg/kg, Dermal, Rabbit
Skin corrosion/irritation	
Skin corrosion/irritation	Causes skin irritation.
Animal data	Dose: 0.5 ml, 4 hour, Rabbit, (OECD Test Guideline 404) Not fully reversible in 7 days

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According to Appendix D, OSHA Hazard Communication Standard 29 CFR §1910.1200.

Serious eye damage/irritation	
Serious eye damage/irritation	Causes eye irritation. Dose: 50 µl, 8 day, Rabbit, (OECD 405) Fully reversible within 48 hour.
Skin sensitization	
Skin sensitization	Local Lymph Node Assay (LLNA) - Mouse: Sensitizing. OECD Guideline 429

Coumarin

Acute toxicity - oral	
ATE oral (mg/kg)	500.0

Geraniol

Acute toxicity - oral	
Notes (oral LD_{50})	LD_{50} 3600 mg/kg, Oral, Rat
Acute toxicity - dermal	
Notes (dermal LD_{50})	LD_{50} > 5000 mg/kg, Dermal, Rabbit
Skin corrosion/irritation	
Skin corrosion/irritation	Irritating to skin. Rabbit (OECD 404)
Serious eye damage/irritation	
Serious eye damage/irritation	Causes serious eye damage. Irreversible effect. Rabbit (OECD 405)

Alpha-iso-Methylionone

Acute toxicity - oral	
Notes (oral LD_{50})	LD_{50} 5000 mg/kg, Oral, Rat
Acute toxicity - dermal	
Notes (dermal LD_{50})	LD_{50} 5000 mg/kg, Dermal, Rabbit

Citronellol

Acute toxicity - oral	
Notes (oral LD_{50})	LD_{50} 3450 mg/kg, Oral, Rat
Acute toxicity - dermal	
Notes (dermal LD_{50})	LD_{50} 2650 mg/kg, Dermal, Rat
Skin corrosion/irritation	
Animal data	Dose: 0.1 g, 24 hour, Rabbit Primary dermal irritation index: 3
Serious eye damage/irritation	
Serious eye damage/irritation	Dose: 0.1 ml, 8 day, Rabbit Irritating.

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According to Appendix D, OSHA Hazard Communication Standard 29 CFR §1910.1200.

Allyl 3-cyclohexylpropionate

Acute toxicity - oral	
Acute toxicity oral (LD_{50} mg/kg)	480.0
Species	Rat
ATE oral (mg/kg)	480.0
Acute toxicity - dermal	
Acute toxicity dermal (LD_{50} mg/kg)	1,600.0
Species	Rat
ATE dermal (mg/kg)	1,600.0
Acute toxicity - inhalation	
ATE inhalation (vapours mg/l)	11.0

12. Ecological information

Ecotoxicity Not regarded as dangerous for the environment. However, large or frequent spills may have hazardous effects on the environment.

Toxicity Based on available data the classification criteria are not met.

Ecological information on ingredients.

Ethanol

Acute aquatic toxicity	
Acute toxicity - fish	LC_{50}, 24 hours: 11200 mg/l, Oncorhynchus mykiss (Rainbow trout) LC_{50}, 96 hour: 13.000 mg/l, Fish
Acute toxicity - aquatic invertebrates	EC_{50}, 48 hours: 5012 mg/l, Ceriodaphnia dubia EC_{50}, 48 hour: 9.300 mg/l, Daphnia magna
Acute toxicity - aquatic plants	EC_{50}, 72 hours: 275 mg/l, Chlorella pyrenoidosa EC_{50}, 72 hour: 5.000 mg/l, Algae
Acute toxicity - microorganisms	EC_{50}, 4 hours: 5,8 g/l, Paramaecium caudatum
Acute toxicity - terrestrial	LC_{50}, 48 hours: 0,1-1 mg/cm², Eisenia Fetida (Earthworm)

Petroleum gases, liquefied (Note K)

Acute aquatic toxicity	
Acute toxicity - fish	EC_{50}, 78 hour: 4.6-10 mg/l, Algae NOEC, 28 day: 0.13 mg/l, Oncorhynchus mykiss (Rainbow trout) EC_{50}, 96 hour: 10-30 mg/l, Oncorhynchus mykiss (Rainbow trout)
Acute toxicity - aquatic invertebrates	EC_{50}, 48 hour: 10-20 mg/l, Daphnia magna NOEC, 21 day: 0.28 mg/l, Daphnia magna

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According to Appendix D, OSHA Hazard Communication Standard 29 CFR §1910.1200.

1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran

Acute aquatic toxicity

LE(C)$_{50}$	0.1 < L(E)C50 ≤ 1
M factor (Acute)	1
Acute toxicity - fish	LC_{50}, 96 hour: 0.95 mg/l, Oryzias latipes (Red killifish) (OECD 203) NOEC, 32 day: 0.068 mg/l, Pimephales promelas (Fat-head Minnow) (OECD 210)
Acute toxicity - aquatic invertebrates	EC_{50}, 48 hour: 0.194 mg/l, Daphnia magna (OECD 202) LC_{50}, 48 hour: 0.47 mg/l, Acartia tonsa (OECD 202) NOEC, 21 day: 0.111 mg/l, Daphnia magna (OECD 202) EC10, 6 day: 0.044 mg/l, Acartia tonsa
Acute toxicity - aquatic plants	ErC50, 72 hour: > 0.854 mg/l, Pseudokirchneriella subcapitata (OECD 201)
Acute toxicity - microorganisms	NOEC, 5 day: 10 mg/l, (OECD 301D)

Chronic aquatic toxicity

M factor (Chronic)	1

Benzyl acetate

Acute aquatic toxicity

Acute toxicity - fish	LC_{50}, 96 hour: 4 mg/l, Oryzias latipes (Red killifish) NOEC, 28 day: 0.92 mg/l, Oryzias latipes (Red killifish)
Acute toxicity - aquatic invertebrates	EC_{50}, 48 hour: 17 mg/l, Daphnia magna, (OECD 202)
Acute toxicity - aquatic plants	EC_{50}, 72 hour: 92 mg/l, Desmodesmus subspicatus (OECD 201)
Acute toxicity - microorganisms	EC_{50}, 3 hour: 855 mg/l, Activated sludge, (OECD 209)

allyl heptanoate

Acute aquatic toxicity

LE(C)$_{50}$	0.1 < L(E)C50 ≤ 1
M factor (Acute)	1

(1S,5S)-2,6,6-trimethylbicyclo[3.1.1]hept-2-ene

Acute aquatic toxicity

LE(C)$_{50}$	0.1 < L(E)C50 ≤ 1
M factor (Acute)	1

Chronic aquatic toxicity

M factor (Chronic)	1

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(R)-p-mentha-1,8-diene

Acute aquatic toxicity

LE(C)$_{50}$	0.1 < L(E)C50 ≤ 1
M factor (Acute)	1
Acute toxicity - fish	EC10, 8 day: 0.37 mg/l, Pimephales promelas (Fat-head Minnow)
Acute toxicity - aquatic invertebrates	EC_{50}, 48 hour: 0.307 mg/l, Freshwater invertebrates EC10, 21 day: 0.153 mg/l, Freshwater invertebrates
Acute toxicity - aquatic plants	EC_{50}, 72 hour: 0.32 mg/l, Pseudokirchneriella subcapitata EC10, 72 hour: 0.174 mg/l, Pseudokirchneriella subcapitata
Acute toxicity - microorganisms	EC_{50}, 3 hour: 209 mg/l, Activated sludge (OECD 209)

2,6-dimethyl-7-octen-2- ol

Acute aquatic toxicity

Acute toxicity - fish	LC_{50}, 96 : 27.8 mg/l, Oncorhynchus mykiss (Rainbow trout)
Acute toxicity - aquatic invertebrates	EC_{50}, 48 hour: 38 mg/l, Daphnia magna NOEC, 21 day: 9.5 mg/l, Daphnia sp.
Acute toxicity - aquatic plants	EC_{50}, 72 hour: 80 mg/l, Desmodesmus subspicatus
Acute toxicity - microorganisms	EC_{50}, 3 hour: 100 mg/l, Activated sludge

(-)-pin-2(10)-ene

Acute aquatic toxicity

LE(C)$_{50}$	0.1 < L(E)C50 ≤ 1
M factor (Acute)	1

Chronic aquatic toxicity

M factor (Chronic)	1

1-(5,6,7,8-tetrahydro-3,5,5,6,8,8-hexamethyl-2-naphthyl)ethan-1-one

Acute aquatic toxicity

LE(C)$_{50}$	0.1 < L(E)C50 ≤ 1
M factor (Acute)	1

Chronic aquatic toxicity

M factor (Chronic)	1

α-hexylcinnamaldehyde

Acute aquatic toxicity

LE(C)$_{50}$	0.1 < L(E)C50 ≤ 1
M factor (Acute)	1

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According to Appendix D, OSHA Hazard Communication Standard 29 CFR §1910.1200.

2,6-di-tert-butyl-p-cresol

Acute aquatic toxicity

LE(C)$_{50}$	0.1 < L(E)C50 ≤ 1
M factor (Acute)	1
Acute toxicity - fish	LC_{50}, : > 0.57 mg/l, Brachydanio rerio (Zebra Fish)
Acute toxicity - aquatic invertebrates	EC_{50}, : 0,48 mg/l, Daphnia magna
Acute toxicity - aquatic plants	EC_{50}, 72 hour: >0.4 mg/l, Desmodesmus subspicatus

Chronic aquatic toxicity

M factor (Chronic)	1
Chronic toxicity - aquatic invertebrates	LOEC, 21 day: 1 mg/l, Daphnia magna NOEC, 21 day: 0.023 mg/l, Daphnia magna NOEC, 42 day: 0.053 mg/l, Oryzias latipes (Red killifish)

Hexyl salicylate

Acute aquatic toxicity

Acute toxicity - fish	LC_{50}, 96 hour: 1.34 mg/l, Danio rerio (zebra fish) Read-across data.
Acute toxicity - aquatic invertebrates	EC_{50}, 48 hour: 0.357 mg/l, Daphnia magna
Acute toxicity - aquatic plants	EC_{50}, 72 hour: 0.61 mg/l, Pseudokirchneriella subcapitata NOEC, 72 hour: 0.15 mg/l, Desmodesmus subspicatus
Acute toxicity - microorganisms	NOEC, 28 day: 100 mg/l, (OECD 301F)

Chronic aquatic toxicity

M factor (Chronic)	1

Linalyl acetate

Acute aquatic toxicity

Acute toxicity - fish	LC_{50}, 96 hour: 11 mg/l, Weight of evidence. (OECD 203)
Acute toxicity - aquatic invertebrates	EC_{50}, 48 hour: 59 mg/l, Daphnia sp. Read-across data. (OECD 202)
Acute toxicity - aquatic plants	EC_{50}, 72 hour: 68 mg/l, Pseudokirchneriella subcapitata (OECD 201)

Geraniol

Acute aquatic toxicity

Acute toxicity - fish	LC_{50}, 96 hour: 22 mg/l, Brachydanio rerio (Zebra Fish), (OECD 203)

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Acute toxicity - aquatic invertebrates	EC_{50}, 48 hour: 10.8 mg/l, Daphnia sp., (OECD 202)
Acute toxicity - aquatic plants	EC_{50}, 72 hour: 13.9 mg/l, Desmodesmus subspicatus, (OECD 201)
Acute toxicity - microorganisms	EC_{50}, 30 minute: 70 mg/l, Pseudomonas putida, (OECD 209)

Alpha-iso-Methylionone

Acute aquatic toxicity

Acute toxicity - fish	LC_{50}, 96 hour: 1.428 mg/l, Fish
Acute toxicity - aquatic invertebrates	EC_{50}, 48 hour: 4.7 mg/l, Daphnia sp. (OECD 202)
Acute toxicity - aquatic plants	EC_{50}, 72 hour: 20 mg/l, Desmodesmus subspicatus (OECD 201)

Citronellol

Acute aquatic toxicity

Acute toxicity - fish	LC_{50}, 96 hour: 14.66 mg/l, Leuciscus idus (Golden orfe)
Acute toxicity - aquatic invertebrates	EC_{50}, 48 hour: 17.48 mg/l, Daphnia magna
Acute toxicity - aquatic plants	EC_{50}, 72 hour: 2.4 mg/l, Scenedesmus subspicatus
Acute toxicity - microorganisms	EC10, 30 minute: 580 mg/l, Pseudomonas putida

Allyl 3-cyclohexylpropionate

Acute aquatic toxicity

$LE(C)_{50}$	0.1 < L(E)C50 ≤ 1
M factor (Acute)	1

Chronic aquatic toxicity

M factor (Chronic)	1

Dodecanenitrile

Acute aquatic toxicity

$LE(C)_{50}$	0.01 < L(E)C50 ≤ 0.1
M factor (Acute)	10

Chronic aquatic toxicity

M factor (Chronic)	10

Acetyl cedrene

Acute aquatic toxicity

$LE(C)_{50}$	0.1 < L(E)C50 ≤ 1

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M factor (Acute) 1

Chronic aquatic toxicity

M factor (Chronic) 1

Persistence and degradability

Persistence and degradability The degradability of the product is not known.

Ecological information on ingredients.

Ethanol

Persistence and degradability The substance is readily biodegradable.

Benzyl acetate

Persistence and degradability The substance is readily biodegradable.

Biodegradation - 100.9 %: 28 day

(R)-p-mentha-1,8-diene

Persistence and degradability The substance is readily biodegradable. (OECD 301D)

2,6-dimethyl-7-octen-2- ol

Persistence and degradability Expected to be readily biodegradable.

Biodegradation - Degradation 72 %: 28 day

2,6-di-tert-butyl-p-cresol

Phototransformation Half Life: 0.585 day

Biodegradation - ≈ 4.5 %: 28 day

Hexyl salicylate

Stability (hydrolysis) The substance is readily biodegradable.

Biodegradation - Degradation % 91: 28 day
(OECD 301F)

Linalyl acetate

Persistence and degradability Expected to be readily biodegradable. (OECD 301F)

Geraniol

Persistence and degradability The substance is readily biodegradable.

Citronellol

Persistence and degradability The substance is readily biodegradable.

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Biodegradation Water - Degradation 80 - 90 %: 28 day

Bioaccumulative potential

Bio-Accumulative Potential No data available on bioaccumulation.

Partition coefficient No information available.

Ecological information on ingredients.

Ethanol

Partition coefficient log Kow: -0,31

1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran

Bioconcentration factor (BCF) 1584 l/kg (OECD 305)

Benzyl acetate

Bio-Accumulative Potential No potential for bioaccumulation.

Partition coefficient : log Kow <3

(R)-p-mentha-1,8-diene

Bioconcentration factor (BCF) 690.1 l/kg

2,6-dimethyl-7-octen-2- ol

Bio-Accumulative Potential Low potential.

Bioconcentration factor (BCF) 64.8 L/kg ww

2,6-di-tert-butyl-p-cresol

Bioconcentration factor (BCF) 465 l/kg

Hexyl salicylate

Bio-Accumulative Potential The substance is readily biodegradable.

Bioconcentration factor (BCF) 8913 l/kg (QSAR)

Linalyl acetate

Bio-Accumulative Potential log Pow: 3.9,

Bioconcentration factor (BCF) 174 l/kg

Geraniol

Bio-Accumulative Potential No potential for bioaccumulation.

Partition coefficient log Pow: 2.6

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According to Appendix D, OSHA Hazard Communication Standard 29 CFR §1910.1200.

Citronellol

Bio-Accumulative Potential	No potential for bioaccumulation.
Partition coefficient	log Pow: 3.41 Low potential.
Bioconcentration factor (BCF)	82.59 l/kg

Mobility in soil

Mobility The product contains volatile organic compounds (VOCs) which will evaporate easily from all surfaces.

Ecological information on ingredients.

1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylindeno[5,6-c]pyran

Adsorption/desorption coefficient	- Koc: 14300 @ 20°C
Henry's law constant	11.4 Pa m³/mol @ 25°C

(R)-p-mentha-1,8-diene

Adsorption/desorption coefficient	- Koc: 2413 @ 20°C

2,6-dimethyl-7-octen-2- ol

Adsorption/desorption coefficient	- Log Koc: 2.25 @ 35°C OECD 121

Hexyl salicylate

Mobility	Low mobility.
Adsorption/desorption coefficient	Soil - Koc: 2981 @ 20°C

Linalyl acetate

Adsorption/desorption coefficient	- Log Koc: 432.4 l/kg @ 25°C
Henry's law constant	176 Pa m³/mol @ 25°C

Geraniol

Mobility	Adsorption to solid soil phase is not expected.

Alpha-iso-Methylionone

Adsorption/desorption coefficient	- Koc: 3 061.963 @ 20°C

Citronellol

Mobility	Adsorption to solid soil phase is not expected.

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According to Appendix D, OSHA Hazard Communication Standard 29 CFR §1910.1200.

Adsorption/desorption coefficient	- Log Koc: 1.85 @ 20°C SRC PCKOCWIN v1.66
Henry's law constant	5.76 Pa m³/mol @ 20°C SRC HENRYWIN v3.10

Other adverse effects

Other adverse effects None known.

13. Disposal considerations

Waste treatment methods

General information The generation of waste should be minimized or avoided wherever possible. Reuse or recycle products wherever possible. This material and its container must be disposed of in a safe way. When handling waste, the safety precautions applying to handling of the product should be considered. Care should be taken when handling emptied containers that have not been thoroughly cleaned or rinsed out. Empty containers or liners may retain some product residues and hence be potentially hazardous.

Disposal methods Do not empty into drains. Empty containers must not be punctured or incinerated because of the risk of an explosion. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

14. Transport information

UN Number

UN number or ID number

UN No. (TDG)	1950
UN No. (IMDG)	1950
UN No. (ICAO)	1950

UN proper shipping name

Proper shipping name (TDG)	AEROSOLS
Proper shipping name (IMDG)	AEROSOLS
Proper shipping name (ICAO)	AEROSOLS

Transport hazard class(es)

TDG class	2.1
TDG label(s)	2.1
IMDG Class	2.1
ICAO class/division	2.1

Transport labels

Packing group

TDG Packing Group	None
IMDG packing group	None

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According to Appendix D, OSHA Hazard Communication Standard 29 CFR §1910.1200.

ICAO packing group	None

Environmental hazards

Environmentally Hazardous Substance
No.

Special precautions for user

EmS	F-D, S-U
Limited quantities (ADR)	1 L
Maritime transport in bulk according to IMO instruments	Not applicable.

15. Regulatory information

National regulations OSHA Hazard Communication Standard 29 CFR §1910.1200

US Federal Regulations

SARA Section 302 Extremely Hazardous Substances Tier II Threshold Planning Quantities
None of the ingredients are listed or exempt.

CERCLA/Superfund, Hazardous Substances/Reportable Quantities (EPA)
None of the ingredients are listed or exempt.

SARA Extremely Hazardous Substances EPCRA Reportable Quantities
None of the ingredients are listed or exempt.

SARA 313 Emission Reporting
None of the ingredients are listed or exempt.

CAA Accidental Release Prevention
None of the ingredients are listed or exempt.

FDA - Essential Chemical
None of the ingredients are listed or exempt.

FDA - Precursor Chemical
None of the ingredients are listed or exempt.

SARA (311/312) Hazard Categories
None of the ingredients are listed or exempt.

OSHA Highly Hazardous Chemicals
None of the ingredients are listed or exempt.

US State Regulations

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California Proposition 65 Carcinogens and Reproductive Toxins
None of the ingredients are listed or exempt.

California Air Toxics "Hot Spots" (A-I)
None of the ingredients are listed or exempt.

California Air Toxics "Hot Spots" (A-II)
None of the ingredients are listed or exempt.

California Directors List of Hazardous Substances
The following ingredients are listed or exempt:

Ethanol

Massachusetts "Right To Know" List
The following ingredients are listed or exempt:

Ethanol

Rhode Island "Right To Know" List
The following ingredients are listed or exempt:

Ethanol

Minnesota "Right To Know" List
The following ingredients are listed or exempt:

Ethanol

New Jersey "Right To Know" List
The following ingredients are listed or exempt:

Ethanol

Pennsylvania "Right To Know" List
The following ingredients are listed or exempt:

Ethanol

Inventories

US - TSCA
The following ingredients are listed or exempt:

Alpha-iso-Methylionone

(R)-p-mentha-1,8-diene

Ethanol

diisobutyl phthalate

Linalool

US - TSCA 12(b) Export Notification
None of the ingredients are listed or exempt.

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FRESH+ SPRAY 100ml

According to Appendix D, OSHA Hazard Communication Standard 29 CFR §1910.1200.

16. Other information

Abbreviations and acronyms used in the safety data sheet

TDG: The transport of dangerous goods act

IATA: International air transport association.
ICAO: Technical instructions for the safe transport of dangerous goods by air.
IMDG: International maritime dangerous goods.
CAS: Chemical abstracts service.
ATE: Acute toxicity estimate.
LC_{50}: Lethal concentration to 50 % of a test population.
LD_{50}: Lethal dose to 50% of a test population (median lethal dose).
EC_{50}: 50% of maximal effective concentration.
PBT: Persistent, bioaccumulative and toxic substance.
vPvB: Very persistent and very bioaccumulative.

Classification abbreviations and acronyms

Aerosol = Aerosol

Key literature references and sources for data

Source: European Chemicals Agency, http://echa.europa.eu/
This SDS is prepared based on the information and documents received from product owner. CRAD or/and SDS author shall not be responsible for incorrect preapared of SDS and pecuniary loss or intangible damages because of deficient or wrong information and documents which comes from product owner.

Revision comments

This is the first issue.

Issued by

Revision date	6/3/2024
Revision	1.0
Supersedes date	6/3/2024
SDS No.	15036

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According to Appendix D, OSHA Hazard Communication Standard 29 CFR §1910.1200.

Hazard statements in full

H220 Extremely flammable gas.
H222 Extremely flammable aerosol.
H225 Highly flammable liquid and vapor.
H226 Flammable liquid and vapor.
H280 Contains gas under pressure; may explode if heated.
H301 Toxic if swallowed.
H302 Harmful if swallowed.
H304 May be fatal if swallowed and enters airways.
H311 Toxic in contact with skin.
H312 Harmful in contact with skin.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H331 Toxic if inhaled.
H332 Harmful if inhaled.
H360Df May damage the unborn child. Suspected of damaging fertility.
H361 Suspected of damaging fertility or the unborn child.
H361 Suspected of damaging fertility or the unborn child if swallowed.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.
H411 Toxic to aquatic life with long lasting effects.
H412 Harmful to aquatic life with long lasting effects.
H373 May cause damage to organs through prolonged or repeated exposure if swallowed or if inhaled.