

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830
Issue date: 5/16/2022

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Mixture
Product name : Hawaiian Salt & Citrus AT 25% in DPG
Type of product : Perfumes, fragrances
Product group : Trade product

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.2.1. Relevant identified uses

Industrial/Professional use spec : Industrial
For professional use only
Use of the substance/mixture : Perfumes, fragrances
Function or use category : Odour agents

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

No additional information available

1.4. Emergency telephone number

No additional information available

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Skin sensitisation, Category 1 H317
Hazardous to the aquatic environment – Chronic Hazard, Category 3 H412

Full text of H- and EUH-statements: see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



GHS07

Signal word (CLP) : Warning
Contains : Orange oil , Hexyl cinnamic aldehyde, Linalool, Aldehyde C-16, Citral, Cyclamen aldehyde, Geranyl acetate, Triplal (Vertocitral), Lime oil distilled
Hazard statements (CLP) : H317 - May cause an allergic skin reaction.
H412 - Harmful to aquatic life with long lasting effects.
Precautionary statements (CLP) : P272 - Contaminated work clothing should not be allowed out of the workplace.
P273 - Avoid release to the environment.

Hawaiian Salt & Citrus AT 25% in DPG

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

P280 - Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.

P302+P352 - IF ON SKIN: Wash with plenty of water.

P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.

P362+P364 - Take off contaminated clothing and wash it before reuse.

2.3. Other hazards

Contains no PBT/vPvB substances $\geq 0.1\%$ assessed in accordance with REACH Annex XIII

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Benzyl benzoate	CAS-No.: 120-51-4 EC-No.: 204-402-9 EC Index-No.: 607-085-00-9 REACH-no: 01-2119976371-33	2.875 – 5.75	Acute Tox. 4 (Oral), H302 Aquatic Acute 1, H400 Aquatic Chronic 2, H411
Orange oil	CAS-No.: 8008-57-9 EC-No.: 232-433-8; 600-006-9; 616-926-9 REACH-no: 01-2119493353-35	1.85 – 3.7	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Skin Sens. 1, H317 Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 2, H411
Hexyl cinnamic aldehyde	CAS-No.: 101-86-0 EC-No.: 202-983-3 REACH-no: 01-2119533092-50	0.8875 – 1.775	Skin Sens. 1, H317 Aquatic Chronic 2, H411
Linalool	CAS-No.: 78-70-6 EC-No.: 201-134-4 EC Index-No.: 603-235-00-2 REACH-no: 01-2119474016-42	0.575 – 1.15	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1B, H317
Benzyl alcohol	CAS-No.: 100-51-6 EC-No.: 202-859-9 EC Index-No.: 603-057-00-5 REACH-no: 01-2119492630-38	0.575 – 1.15	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319
Ethylene brassylate	CAS-No.: 105-95-3 EC-No.: 203-347-8 REACH-no: 01-2119976314-33	0.55625 – 1.1125	Aquatic Chronic 2, H411
Aldehyde C-14	CAS-No.: 104-67-6 EC-No.: 203-225-4 REACH-no: 01-2119959333-34	0.5125 – 1.025	Aquatic Chronic 3, H412
Aldehyde C-16	CAS-No.: 77-83-8 EC-No.: 201-061-8 REACH-no: 01-2119967770-28	0.2625 – 0.525	Skin Sens. 1B, H317 Aquatic Chronic 2, H411

Hawaiian Salt & Citrus AT 25% in DPG

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Citral	CAS-No.: 5392-40-5 EC-No.: 226-394-6 EC Index-No.: 605-019-00-3 REACH-no: 01-2119462829-23	0.1375 – 0.275	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317
Cyclamen aldehyde	CAS-No.: 103-95-7 EC-No.: 203-161-7 REACH-no: 01-2119970582-32	0.0875 – 0.175	Skin Irrit. 2, H315 Skin Sens. 1B, H317 Aquatic Chronic 2, H411
Geranyl acetate	CAS-No.: 105-87-3 EC-No.: 203-341-5 REACH-no: 01-2119973480-35	0.0875 – 0.175	Skin Irrit. 2, H315 Skin Sens. 1, H317 Aquatic Chronic 3, H412
Triplal (Vertocitral)	CAS-No.: 68039-49-6 EC-No.: 268-264-1	0.05625 – 0.1125	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Aquatic Chronic 3, H412
Allyl heptanoate	CAS-No.: 142-19-8 EC-No.: 205-527-1 REACH-no: 01-2119488961-23	0.05625 – 0.1125	Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Inhalation), H331 Aquatic Acute 1, H400 Aquatic Chronic 3, H412
Lime oil distilled	CAS-No.: 8008-26-2 EC-No.: 290-010-3 REACH-no: 01-2120138646-51	0.05 – 0.1	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Skin Sens. 1, H317 Repr. 2, H361 Asp. Tox. 1, H304 Aquatic Chronic 1, H410
Isoamyl acetate substance with a Community workplace exposure limit	CAS-No.: 123-92-2 EC-No.: 204-662-3 EC Index-No.: 607-130-00-2 REACH-no: 01-2119548408-32	0.0375 – 0.075	Flam. Liq. 3, H226
Diphenyl oxide substance with a Community workplace exposure limit	CAS-No.: 101-84-8 EC-No.: 202-981-2 REACH-no: 01-2119472545-33	0.0125 – 0.025	Eye Irrit. 2, H319 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

Full text of H- and EUH-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
First-aid measures after inhalation	: Allow affected person to breathe fresh air. Allow the victim to rest.
First-aid measures after skin contact	: Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.
First-aid measures after eye contact	: Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persists.
First-aid measures after ingestion	: Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

Hawaiian Salt & Citrus AT 25% in DPG

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects : Not expected to present a significant hazard under anticipated conditions of normal use.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.
Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

No additional information available

5.3. Advice for firefighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire fighting water from entering the environment.
Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.
Emergency procedures : Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

6.4. Reference to other sections

See Section 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep only in the original container in a cool, well ventilated place away from : Keep container closed when not in use.
Incompatible products : Strong bases. Strong acids.
Incompatible materials : Sources of ignition. Direct sunlight.

Hawaiian Salt & Citrus AT 25% in DPG

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

Benzyl alcohol (100-51-6)	
Bulgaria - Occupational Exposure Limits	
OEL TWA	5 mg/m ³
Czech Republic - Occupational Exposure Limits	
PEL (OEL TWA)	40 mg/m ³
Finland - Occupational Exposure Limits	
HTP (OEL TWA) [1]	45 mg/m ³
HTP (OEL TWA) [2]	10 ppm
Germany - Occupational Exposure Limits (TRGS 900)	
AGW (OEL TWA) [1]	22 mg/m ³ (the risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed)
AGW (OEL TWA) [2]	5 ppm (the risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed)
Chemical category	Skin notation
Latvia - Occupational Exposure Limits	
OEL TWA	5 mg/m ³
Lithuania - Occupational Exposure Limits	
IPRV (OEL TWA)	5 mg/m ³
OEL chemical category	Skin notation
Poland - Occupational Exposure Limits	
NDS (OEL TWA)	240 mg/m ³
Slovenia - Occupational Exposure Limits	
OEL TWA	22 mg/m ³
OEL TWA [ppm]	5 ppm
OEL STEL	44 mg/m ³
OEL STEL [ppm]	10 ppm
OEL chemical category	Potential for cutaneous absorption
Switzerland - Occupational Exposure Limits	
MAK (OEL TWA) [1]	22 mg/m ³ (aerosol, vapour)
MAK (OEL TWA) [2]	5 ppm (aerosol, vapour)
OEL chemical category	Skin notation
Citral (5392-40-5)	
Belgium - Occupational Exposure Limits	
OEL TWA	32 mg/m ³ (vapor and aerosol)

Hawaiian Salt & Citrus AT 25% in DPG

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Citral (5392-40-5)	
OEL TWA [ppm]	5 ppm (vapor and aerosol)
OEL chemical category	Skin
Ireland - Occupational Exposure Limits	
OEL TWA [2]	5 ppm
OEL STEL [ppm]	15 ppm (calculated)
Poland - Occupational Exposure Limits	
NDS (OEL TWA)	27 mg/m ³
NDSch (OEL STEL)	54 mg/m ³
Portugal - Occupational Exposure Limits	
OEL TWA [ppm]	5 ppm
OEL chemical category	Sensitizer, A4 - Not Classifiable as a Human Carcinogen, skin - potential for cutaneous exposure
Spain - Occupational Exposure Limits	
VLA-ED (OEL TWA) [2]	5 ppm (inhalable fraction and vapor)
OEL chemical category	Sensitizer, skin - potential for cutaneous absorption
USA - ACGIH - Occupational Exposure Limits	
ACGIH OEL TWA [ppm]	5 ppm (inhalable fraction and vapor)
ACGIH chemical category	Not Classifiable as a Human Carcinogen, Skin - potential significant contribution to overall exposure by the cutaneous route, dermal sensitizer
Isoamyl acetate (123-92-2)	
EU - Indicative Occupational Exposure Limit (IOEL)	
IOEL TWA	270 mg/m ³
IOEL TWA [ppm]	50 ppm
IOEL STEL	540 mg/m ³
IOEL STEL [ppm]	100 ppm
Austria - Occupational Exposure Limits	
MAK (OEL TWA)	270 mg/m ³ (Pentyl acetate (all isomers))
MAK (OEL TWA) [ppm]	50 ppm (Pentyl acetate (all isomers))
MAK (OEL STEL)	540 mg/m ³ (Pentylacetate)
MAK (OEL STEL) [ppm]	100 ppm (Pentylacetate)
Belgium - Occupational Exposure Limits	
OEL TWA	270 mg/m ³
OEL TWA [ppm]	50 ppm
OEL STEL	540 mg/m ³
OEL STEL [ppm]	100 ppm
Bulgaria - Occupational Exposure Limits	
OEL TWA	270 mg/m ³
OEL TWA [ppm]	50 ppm
OEL STEL	540 mg/m ³

Hawaiian Salt & Citrus AT 25% in DPG

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Isoamyl acetate (123-92-2)	
OEL STEL [ppm]	100 ppm
Croatia - Occupational Exposure Limits	
GVI (OEL TWA) [1]	270 mg/m ³
GVI (OEL TWA) [2]	50 ppm
KGVI (OEL STEL)	540 mg/m ³
KGVI (OEL STEL) [ppm]	100 ppm
Cyprus - Occupational Exposure Limits	
OEL TWA	270 mg/m ³
OEL TWA [ppm]	50 ppm
OEL STEL	540 mg/m ³
OEL STEL [ppm]	100 ppm
Denmark - Occupational Exposure Limits	
OEL TWA [1]	271 mg/m ³ (Amyl acetate, all isomers)
OEL TWA [2]	50 ppm (Amyl acetate, all isomers)
Estonia - Occupational Exposure Limits	
OEL TWA	270 mg/m ³
OEL TWA [ppm]	50 ppm
OEL STEL	540 mg/m ³
OEL STEL [ppm]	100 ppm
Finland - Occupational Exposure Limits	
HTP (OEL TWA) [1]	270 mg/m ³ (Pentyl acetate)
HTP (OEL TWA) [2]	50 ppm (Pentyl acetate)
HTP (OEL STEL)	540 mg/m ³
HTP (OEL STEL) [ppm]	100 ppm
France - Occupational Exposure Limits	
VME (OEL TWA)	270 mg/m ³ (restrictive limit)
VME (OEL TWA) [ppm]	50 ppm (restrictive limit)
VLE (OEL C/STEL)	540 mg/m ³ (restrictive limit)
VLE (OEL C/STEL) [ppm]	100 ppm (restrictive limit)
Germany - Occupational Exposure Limits (TRGS 900)	
AGW (OEL TWA) [1]	270 mg/m ³
AGW (OEL TWA) [2]	50 ppm
Gibraltar - Occupational Exposure Limits	
OEL TWA	270 mg/m ³
OEL TWA [ppm]	50 ppm
OEL STEL	540 mg/m ³
OEL STEL [ppm]	100 ppm
Greece - Occupational Exposure Limits	
OEL TWA	530 mg/m ³

Hawaiian Salt & Citrus AT 25% in DPG

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Isoamyl acetate (123-92-2)	
OEL TWA [ppm]	100 ppm
OEL STEL	800 mg/m ³
OEL STEL [ppm]	150 ppm
Hungary - Occupational Exposure Limits	
AK (OEL TWA)	270 mg/m ³
CK (OEL STEL)	540 mg/m ³
Ireland - Occupational Exposure Limits	
OEL TWA [1]	260 mg/m ³
OEL TWA [2]	50 ppm
OEL STEL	520 mg/m ³
OEL STEL [ppm]	100 ppm
Italy - Occupational Exposure Limits	
OEL TWA	270 mg/m ³
OEL TWA [ppm]	50 ppm
OEL STEL	540 mg/m ³
OEL STEL [ppm]	100 ppm
Latvia - Occupational Exposure Limits	
OEL TWA	270 mg/m ³
OEL TWA [ppm]	50 ppm
Lithuania - Occupational Exposure Limits	
IPRV (OEL TWA)	270 mg/m ³
IPRV (OEL TWA) [ppm]	50 ppm
TPRV (OEL STEL)	540 mg/m ³
TPRV (OEL STEL) [ppm]	100 ppm
Luxembourg - Occupational Exposure Limits	
OEL TWA	270 mg/m ³
OEL TWA [ppm]	50 ppm
OEL STEL	540 mg/m ³
OEL STEL [ppm]	100 ppm
Malta - Occupational Exposure Limits	
OEL TWA	270 mg/m ³
OEL TWA [ppm]	50 ppm
OEL STEL	540 mg/m ³
OEL STEL [ppm]	100 ppm
Netherlands - Occupational Exposure Limits	
TGG-15min (OEL STEL)	530 mg/m ³
Poland - Occupational Exposure Limits	
NDS (OEL TWA)	250 mg/m ³
NDSCh (OEL STEL)	500 mg/m ³

Hawaiian Salt & Citrus AT 25% in DPG

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Isoamyl acetate (123-92-2)	
Portugal - Occupational Exposure Limits	
OEL TWA	270 mg/m ³ (indicative limit value)
OEL TWA [ppm]	50 ppm (indicative limit value)
OEL STEL	540 mg/m ³ (indicative limit value)
OEL STEL [ppm]	100 ppm (indicative limit value, regulated under Pentyl acetate, all isomers)
Romania - Occupational Exposure Limits	
OEL TWA	270 mg/m ³
OEL TWA [ppm]	50 ppm
OEL STEL	540 mg/m ³
OEL STEL [ppm]	100 ppm
Slovakia - Occupational Exposure Limits	
NPHV (OEL TWA) [1]	270 mg/m ³
NPHV (OEL TWA) [2]	50 ppm
NPHV (OEL C)	540 mg/m ³
Slovenia - Occupational Exposure Limits	
OEL TWA	270 mg/m ³
OEL TWA [ppm]	50 ppm
OEL STEL	540 mg/m ³
OEL STEL [ppm]	100 ppm
Spain - Occupational Exposure Limits	
VLA-ED (OEL TWA) [1]	270 mg/m ³ (indicative limit value)
VLA-ED (OEL TWA) [2]	50 ppm (indicative limit value)
VLA-EC (OEL STEL)	540 mg/m ³
VLA-EC (OEL STEL) [ppm]	100 ppm
Sweden - Occupational Exposure Limits	
NGV (OEL TWA)	270 mg/m ³ (Pentyl acetates)
NGV (OEL TWA) [ppm]	50 ppm (Pentyl acetates)
KTV (OEL STEL)	540 mg/m ³ (Pentyl acetates)
KTV (OEL STEL) [ppm]	100 ppm (Pentyl acetates)
Norway - Occupational Exposure Limits	
Grenseverdi (OEL TWA) [1]	260 mg/m ³
Grenseverdi (OEL TWA) [2]	50 ppm
Korttidsverdi (OEL STEL)	325 mg/m ³ (value calculated)
Korttidsverdi (OEL STEL) [ppm]	75 ppm (value calculated)
USA - ACGIH - Occupational Exposure Limits	
ACGIH OEL TWA [ppm]	50 ppm (Pentyl acetate, all isomers)
ACGIH OEL STEL [ppm]	100 ppm (Pentyl acetate, all isomers)

Hawaiian Salt & Citrus AT 25% in DPG

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Diphenyl oxide (101-84-8)	
EU - Indicative Occupational Exposure Limit (IOEL)	
IOEL TWA	7 mg/m ³
IOEL TWA [ppm]	1 ppm
IOEL STEL	14 mg/m ³
IOEL STEL [ppm]	2 ppm
Austria - Occupational Exposure Limits	
MAK (OEL TWA)	7 mg/m ³
MAK (OEL TWA) [ppm]	1 ppm
MAK (OEL STEL)	14 mg/m ³
MAK (OEL STEL) [ppm]	2 ppm
Belgium - Occupational Exposure Limits	
OEL TWA	7 mg/m ³ (vapor)
OEL TWA [ppm]	1 ppm (vapor)
OEL STEL	14 mg/m ³ (vapor)
OEL STEL [ppm]	2 ppm (vapor)
Bulgaria - Occupational Exposure Limits	
OEL TWA	7 mg/m ³
OEL TWA [ppm]	1 ppm
OEL STEL	14 mg/m ³
OEL STEL [ppm]	2 ppm
Croatia - Occupational Exposure Limits	
GVI (OEL TWA) [1]	7 mg/m ³
GVI (OEL TWA) [2]	1 ppm
KGVI (OEL STEL)	14 mg/m ³
KGVI (OEL STEL) [ppm]	2 ppm
Cyprus - Occupational Exposure Limits	
OEL TWA	7 mg/m ³
OEL TWA [ppm]	1 ppm
OEL STEL	14 mg/m ³
OEL STEL [ppm]	2 ppm
Czech Republic - Occupational Exposure Limits	
PEL (OEL TWA)	5 mg/m ³
Denmark - Occupational Exposure Limits	
OEL TWA [1]	7 mg/m ³
OEL TWA [2]	1 ppm
Estonia - Occupational Exposure Limits	
OEL TWA	7 mg/m ³
OEL TWA [ppm]	1 ppm
OEL STEL	14 mg/m ³

Hawaiian Salt & Citrus AT 25% in DPG

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Diphenyl oxide (101-84-8)	
OEL STEL [ppm]	2 ppm
Finland - Occupational Exposure Limits	
HTP (OEL TWA) [1]	7 mg/m ³
HTP (OEL TWA) [2]	1 ppm
HTP (OEL STEL)	14 mg/m ³
HTP (OEL STEL) [ppm]	2 ppm
France - Occupational Exposure Limits	
VME (OEL TWA)	7 mg/m ³
VME (OEL TWA) [ppm]	1 ppm
OEL chemical category	Risk of cutaneous absorption
Germany - Occupational Exposure Limits (TRGS 900)	
AGW (OEL TWA) [1]	7.1 mg/m ³ (the risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed-vapor)
AGW (OEL TWA) [2]	1 ppm (the risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed-vapor)
Gibraltar - Occupational Exposure Limits	
OEL TWA	7 mg/m ³
OEL TWA [ppm]	1 ppm
OEL STEL	14 mg/m ³
OEL STEL [ppm]	200 ppm
Greece - Occupational Exposure Limits	
OEL TWA	7 mg/m ³
OEL TWA [ppm]	1 ppm
OEL STEL	14 mg/m ³
OEL STEL [ppm]	2 ppm
Hungary - Occupational Exposure Limits	
AK (OEL TWA)	7 mg/m ³
CK (OEL STEL)	14 mg/m ³
Ireland - Occupational Exposure Limits	
OEL TWA [1]	7 mg/m ³ (vapour)
OEL TWA [2]	1 ppm (vapour)
OEL STEL	14 mg/m ³ (vapour)
OEL STEL [ppm]	2 ppm (vapour)
Italy - Occupational Exposure Limits	
OEL TWA	7 mg/m ³
OEL TWA [ppm]	1 ppm
Latvia - Occupational Exposure Limits	
OEL TWA	7 mg/m ³
OEL TWA [ppm]	1 ppm

Hawaiian Salt & Citrus AT 25% in DPG

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Diphenyl oxide (101-84-8)	
Lithuania - Occupational Exposure Limits	
IPRV (OEL TWA)	7 mg/m ³
IPRV (OEL TWA) [ppm]	1 ppm
TPRV (OEL STEL)	14 mg/m ³
TPRV (OEL STEL) [ppm]	2 ppm
Luxembourg - Occupational Exposure Limits	
OEL TWA	7 mg/m ³
OEL TWA [ppm]	1 ppm
OEL STEL	14 mg/m ³
OEL STEL [ppm]	2 ppm
Malta - Occupational Exposure Limits	
OEL TWA	7 mg/m ³
OEL TWA [ppm]	1 ppm
OEL STEL	14 mg/m ³
OEL STEL [ppm]	2 ppm
Netherlands - Occupational Exposure Limits	
TGG-8u (OEL TWA)	7 mg/m ³
TGG-15min (OEL STEL)	14 mg/m ³
Poland - Occupational Exposure Limits	
NDS (OEL TWA)	7 mg/m ³
NDSch (OEL STEL)	14 mg/m ³
Portugal - Occupational Exposure Limits	
OEL TWA	7 mg/m ³
OEL TWA [ppm]	1 ppm (vapor)
OEL STEL	14 mg/m ³ (indicative limit value)
OEL STEL [ppm]	2 ppm (indicative limit value-vapor)
Romania - Occupational Exposure Limits	
OEL TWA	5 mg/m ³
OEL TWA [ppm]	0.7 ppm
OEL STEL	10 mg/m ³
OEL STEL [ppm]	1.4 ppm
Slovakia - Occupational Exposure Limits	
NPHV (OEL TWA) [1]	7 mg/m ³
NPHV (OEL TWA) [2]	1 ppm
NPHV (OEL C)	7.1 mg/m ³
Slovenia - Occupational Exposure Limits	
OEL TWA	7 mg/m ³
OEL TWA [ppm]	1 ppm
OEL STEL	14 mg/m ³

Hawaiian Salt & Citrus AT 25% in DPG

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Diphenyl oxide (101-84-8)	
OEL STEL [ppm]	2 ppm
Spain - Occupational Exposure Limits	
VLA-ED (OEL TWA) [1]	7.1 mg/m ³ (vapor)
VLA-ED (OEL TWA) [2]	1 ppm (vapor)
VLA-EC (OEL STEL)	14.2 mg/m ³ (vapor)
VLA-EC (OEL STEL) [ppm]	2 ppm (vapor)
Sweden - Occupational Exposure Limits	
NGV (OEL TWA)	7 mg/m ³
NGV (OEL TWA) [ppm]	1 ppm
KTV (OEL STEL)	14 mg/m ³
KTV (OEL STEL) [ppm]	2 ppm
United Kingdom - Occupational Exposure Limits	
WEL TWA (OEL TWA) [1]	7.1 mg/m ³ (vapour)
WEL TWA (OEL TWA) [2]	1 ppm (vapour)
WEL STEL (OEL STEL)	21.3 mg/m ³ (calculated-vapour)
WEL STEL (OEL STEL) [ppm]	3 ppm (calculated-vapour)
Norway - Occupational Exposure Limits	
Grenseverdi (OEL TWA) [1]	7 mg/m ³
Grenseverdi (OEL TWA) [2]	1 ppm
Korttidsverdi (OEL STEL)	14 mg/m ³ (value from the regulation)
Korttidsverdi (OEL STEL) [ppm]	2 ppm (value from the regulation)
Switzerland - Occupational Exposure Limits	
MAK (OEL TWA) [1]	7 mg/m ³ (aerosol, vapour)
MAK (OEL TWA) [2]	1 ppm (aerosol, vapour)
KZGW (OEL STEL)	14 mg/m ³ (aerosol, vapour)
KZGW (OEL STEL) [ppm]	2 ppm (aerosol, vapour)
OEL chemical category	Category 2 developmental toxin, Category 2 reproductive toxin
USA - ACGIH - Occupational Exposure Limits	
ACGIH OEL TWA [ppm]	1 ppm (vapor)
ACGIH OEL STEL [ppm]	2 ppm (vapor fraction)

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

No additional information available

8.1.5. Control banding

No additional information available

Hawaiian Salt & Citrus AT 25% in DPG

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

8.2. Exposure controls

8.2.1. Appropriate engineering controls

No additional information available

8.2.2. Personal protection equipment

Personal protective equipment:

Avoid all unnecessary exposure.

Personal protective equipment symbol(s):



8.2.2.1. Eye and face protection

Eye protection:

Chemical goggles or safety glasses

8.2.2.2. Skin protection

Hand protection:

Wear protective gloves.

8.2.2.3. Respiratory protection

Respiratory protection:

Wear appropriate mask

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Other information:

Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Standard.
Odour	: characteristic.
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: > 93 °C
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Non flammable.
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Solubility	: No data available
Partition coefficient n-octanol/water (Log Pow)	: 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	: No data available

Hawaiian Salt & Citrus AT 25% in DPG

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Not established.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Strong acids. Strong bases.

10.6. Hazardous decomposition products

fume. Carbon monoxide. Carbon dioxide.

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

Benzyl benzoate (120-51-4)	
LD50 oral rat	500 mg/kg
LD50 oral	1500 mg/kg bodyweight
LD50 dermal rabbit	4000 mg/kg
LD50 dermal	4000 mg/kg bodyweight
Orange oil (8008-57-9)	
LD50 oral rat	4400 mg/kg
LD50 dermal rabbit	> 5000 mg/kg
Hexyl cinnamic aldehyde (101-86-0)	
LD50 oral rat	3100 mg/kg
LD50 oral	3100 mg/kg bodyweight
LD50 dermal rabbit	> 3000 mg/kg
LC50 Inhalation - Rat	> 5 mg/l/4h
Linalool (78-70-6)	
LD50 oral	2790 mg/kg bodyweight

Hawaiian Salt & Citrus AT 25% in DPG

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Benzyl alcohol (100-51-6)	
LD50 oral rat	1230 mg/kg
LD50 oral	1620 mg/kg bodyweight
LD50 dermal	2500 mg/kg bodyweight
Ethylene brassylate (105-95-3)	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rabbit	> 5000 mg/kg
Aldehyde C-14 (104-67-6)	
LD50 oral rat	18500 mg/kg
LD50 dermal rat	> 2000 mg/kg
Aldehyde C-16 (77-83-8)	
LD50 oral rat	5470 mg/kg
LD50 dermal rat	> 2000 mg/kg
Citral (5392-40-5)	
LD50 oral rat	4960 mg/kg
LD50 dermal rabbit	2250 mg/kg
LD50 dermal	2250 mg/kg bodyweight
Cyclamen aldehyde (103-95-7)	
LD50 oral rat	3810 mg/kg
LD50 oral	3810 mg/kg bodyweight
LD50 dermal rat	> 5000 mg/kg
Geranyl acetate (105-87-3)	
LD50 oral rat	6330 mg/kg
Triplal (Vertocitral) (68039-49-6)	
LD50 oral	3900 mg/kg bodyweight
Allyl heptanoate (142-19-8)	
LD50 oral rat	500 mg/kg
LD50 oral	218 mg/kg bodyweight
LD50 dermal rabbit	810 mg/kg
LD50 dermal	810 mg/kg bodyweight
Lime oil distilled (8008-26-2)	
LD50 oral rat	5600 mg/kg
LD50 dermal rabbit	> 5000 mg/kg
Diphenyl oxide (101-84-8)	
LD50 oral rat	2450 mg/kg
LD50 oral	2830 mg/kg bodyweight
LD50 dermal rabbit	> 7940 mg/kg
LC50 Inhalation - Rat (Dust/Mist)	1.5 mg/l/4h

Hawaiian Salt & Citrus AT 25% in DPG

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Skin corrosion/irritation	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Serious eye damage/irritation	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Respiratory or skin sensitisation	: May cause an allergic skin reaction.
Additional information	: Based on available data, the classification criteria are not met
Germ cell mutagenicity	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Carcinogenicity	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Reproductive toxicity	: Not classified
Additional information	: Based on available data, the classification criteria are not met
STOT-single exposure	: Not classified
Additional information	: Based on available data, the classification criteria are not met
STOT-repeated exposure	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Aspiration hazard	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Potential adverse human health effects and symptoms	: Based on available data, the classification criteria are not met

SECTION 12: Ecological information

12.1. Toxicity

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

Benzyl benzoate (120-51-4)	
LC50 - Fish [1]	2.32 mg/l (Exposure time: 96 h - Species: Danio rerio [semi-static])
NOEC (chronic)	0.168 mg/l
Linalool (78-70-6)	
EC50 96h - Algae [1]	88.3 mg/l (Species: Desmodesmus subspicatus)
Benzyl alcohol (100-51-6)	
LC50 - Fish [1]	460 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])
LC50 - Fish [2]	10 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])
EC50 - Crustacea [1]	23 mg/l (Exposure time: 48 h - Species: water flea)
Aldehyde C-14 (104-67-6)	
LC50 - Fish [1]	569 mg/l 96 h
EC50 - Crustacea [1]	5.85 mg/l 48 h
EC50 - Other aquatic organisms [1]	5.94 mg/l 72 h
Aldehyde C-16 (77-83-8)	
LC50 - Fish [1]	4.2 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [semi-static])
Citral (5392-40-5)	
EC50 - Crustacea [1]	7 mg/l (Exposure time: 48 h - Species: Daphnia magna)
EC50 72h - Algae [1]	16 mg/l (Species: Desmodesmus subspicatus)
EC50 96h - Algae [1]	19 mg/l (Species: Desmodesmus subspicatus)

Hawaiian Salt & Citrus AT 25% in DPG

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

12.2. Persistence and degradability

Hawaiian Salt & Citrus AT 25% in DPG

Persistence and degradability Not established.

Benzyl benzoate (120-51-4)

Persistence and degradability May cause long-term adverse effects in the environment.

12.3. Bioaccumulative potential

Hawaiian Salt & Citrus AT 25% in DPG

Bioaccumulative potential Not established.

Benzyl benzoate (120-51-4)

Partition coefficient n-octanol/water (Log Pow) 4

Bioaccumulative potential Not established.

Benzyl alcohol (100-51-6)

Partition coefficient n-octanol/water (Log Pow) 1.1

Citral (5392-40-5)

Partition coefficient n-octanol/water (Log Pow) 2.76 (at 25 °C)

Diphenyl oxide (101-84-8)

BCF - Fish [1] 470

Partition coefficient n-octanol/water (Log Pow) 4.2

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

Additional information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

14.1 UN number

UN-No. (ADR) : Not applicable

UN-No. (IMDG) : Not applicable

UN-No. (IATA) : Not applicable

UN-No. (ADN) : Not applicable

UN-No. (RID) : Not applicable

Hawaiian Salt & Citrus AT 25% in DPG

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

14.2. UN proper shipping name

Proper Shipping Name (ADR)	: Not applicable
Proper Shipping Name (IMDG)	: Not applicable
Proper Shipping Name (IATA)	: Not applicable
Proper Shipping Name (ADN)	: Not applicable
Proper Shipping Name (RID)	: Not applicable

14.3. Transport hazard class(es)

ADR
Transport hazard class(es) (ADR) : Not applicable

IMDG
Transport hazard class(es) (IMDG) : Not applicable

IATA
Transport hazard class(es) (IATA) : Not applicable

ADN
Transport hazard class(es) (ADN) : Not applicable

RID
Transport hazard class(es) (RID) : Not applicable

14.4. Packing group

Packing group (ADR)	: Not applicable
Packing group (IMDG)	: Not applicable
Packing group (IATA)	: Not applicable
Packing group (ADN)	: Not applicable
Packing group (RID)	: Not applicable

14.5. Environmental hazards

Dangerous for the environment	: No
Marine pollutant	: No
Other information	: No supplementary information available

14.6. Special precautions for user

Overland transport
Not applicable

Transport by sea
Not applicable

Air transport
Not applicable

Inland waterway transport
Not applicable

Rail transport
Not applicable

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

Hawaiian Salt & Citrus AT 25% in DPG

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1. EU-Regulations

EU restriction list (REACH Annex XVII)	
Reference code	Applicable on
3(a)	Orange oil ; Lime oil distilled ; Isoamyl acetate
3(b)	Hawaiian Salt & Citrus AT 25% in DPG ; Benzyl benzoate ; Orange oil ; Hexyl cinnamic aldehyde ; Linalool ; Benzyl alcohol ; Aldehyde C-16 ; Citral ; Cyclamen aldehyde ; Geranyl acetate ; Triplal (Vertocitral) ; Allyl heptanoate ; Lime oil distilled
3(c)	Hawaiian Salt & Citrus AT 25% in DPG ; Benzyl benzoate ; Orange oil ; Hexyl cinnamic aldehyde ; Ethylene brassylate ; Aldehyde C-14 ; Aldehyde C-16 ; Cyclamen aldehyde ; Geranyl acetate ; Triplal (Vertocitral) ; Allyl heptanoate ; Lime oil distilled
40.	Orange oil ; Lime oil distilled ; Isoamyl acetate

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

Contains no substance subject to REGULATION (EU) No 1005/2009 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 September 2009 on substances that deplete the ozone layer.

Contains no substance subject to Regulation (EU) 2019/1148 of the European Parliament and of the Council of 20 June 2019 on the marketing and use of explosives precursors.

Contains no substance subject to Regulation (EC) 273/2004 of the European Parliament and of the Council of 11 February 2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances.

15.1.2. National regulations

Germany

- Employment restrictions : Observe restrictions according Act on the Protection of Working Mothers (MuSchG)
Observe restrictions according Act on the Protection of Young People in Employment (JArbSchG)
- Water hazard class (WGK) : WGK 2, Significantly hazardous to water (Classification according to AwSV, Annex 1)
- Hazardous Incident Ordinance (12. BImSchV) : Is not subject of the Hazardous Incident Ordinance (12. BImSchV)

Netherlands

- SZW-lijst van kankerverwekkende stoffen : Orange oil ,Triplal (Vertocitral) are listed
- SZW-lijst van mutagene stoffen : Orange oil ,Triplal (Vertocitral) are listed
- SZW-lijst van reprotoxische stoffen – Borstvoeding : None of the components are listed
- SZW-lijst van reprotoxische stoffen – Vruchtbaarheid : None of the components are listed
- SZW-lijst van reprotoxische stoffen – Ontwikkeling : None of the components are listed

Denmark

- Classification remarks : Emergency management guidelines for the storage of flammable liquids must be followed
- Danish National Regulations : Young people below the age of 18 years are not allowed to use the product
Pregnant/breastfeeding women working with the product must not be in direct contact with the product

Switzerland

- Storage class (LK) : LK 10/12 - Liquids

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

Hawaiian Salt & Citrus AT 25% in DPG

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

SECTION 16: Other information

Data sources : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Other information : None.

Full text of H- and EUH-statements:	
Acute Tox. 3 (Dermal)	Acute toxicity (dermal), Category 3
Acute Tox. 3 (Inhalation)	Acute toxicity (inhal.), Category 3
Acute Tox. 3 (Oral)	Acute toxicity (oral), Category 3
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Acute 1	Hazardous to the aquatic environment – Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment – Chronic Hazard, Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment – Chronic Hazard, Category 2
Aquatic Chronic 3	Hazardous to the aquatic environment – Chronic Hazard, Category 3
Asp. Tox. 1	Aspiration hazard, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Liq. 3	Flammable liquids, Category 3
H226	Flammable liquid and vapour.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H311	Toxic in contact with skin.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H332	Harmful if inhaled.
H361	Suspected of damaging fertility or the unborn child.
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.
Repr. 2	Reproductive toxicity, Category 2
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
Skin Sens. 1B	Skin sensitisation, category 1B

Safety Data Sheet (SDS), EU

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.