Safety Data Sheet

acc. to 29 CFR 1910.1200 App D

5-HT3™

Version number: GHS 1.0 Date of compilation: 2021-10-19

SECTION 1: Identification

1.1 Product identifier

Trade name **5-HT3™**

Product number 11-12-9999

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

Relevant identified uses Industrial use

Uses advised against Do not use for squirting or spraying. Do not use for products which come into direct contact with the skin.

1.3 Details of the supplier of the safety data sheet

23 Pa'amei Aviv St P.O. 1074
43905 Givat Hen
Israel
Telephone: +972 507305819
e-mail: lior@eybna.com
Website: http://www.eybna.com/

e-mail (competent person) lior@eybna.com (Lior Chatow)

1.4 Emergency telephone number

+1 4158544820

SECTION 2: Hazard(s) identification

2.1 Classification of the substance or mixture

Classification acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

Section	Hazard class	Category	Hazard class and category	Hazard statement
A.1O	acute toxicity (oral)	4	Acute Tox. 4	H302
A.2	skin corrosion/irritation	1B	Skin Corr. 1B	H314
A.3	serious eye damage/eye irritation	1	Eye Dam. 1	H318
A.4S	skin sensitization	1	Skin Sens. 1	H317
A.8R	specific target organ toxicity - single exposure (respiratory tract irritation)	3	STOT SE 3	H335
B.6	flammable liquid	3	Flam. Liq. 3	H226

For full text of abbreviations: see SECTION 16.

The most important adverse physicochemical, human health and environmental effects

Skin corrosion produces an irreversible damage to the skin; namely, visible necrosis through the epidermis and into the dermis. The product is combustible and can be ignited by potential ignition sources.

2.2 Label elements

Labelling acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

- Signal word danger

- Pictograms

GHS02, GHS05, GHS07 

- Hazard statements

H226	Flammable liquid and vapor.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H335	May cause respiratory irritation.

- Precautionary statements

P210	Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P240	Ground/bond container and receiving equipment.
P241	Use explosion-proof electrical/ventilating/lighting equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P260	Do not breathe dusts or mists.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing must not be allowed out of the workplace.
P280	Wear protective gloves/eye protection/face protection.
P301+P330+P331	If swallowed: Rinse mouth. Do NOT induce vomiting.
P302+P352	If on skin: Wash with plenty of water.
P303+P361+P353	If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.
P304+P340	If inhaled: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a poison center/doctor.
P321	Specific treatment (see on this label).
P363	Wash contaminated clothing before reuse.
P370+P378	In case of fire: Use sand, carbon dioxide or powder extinguisher to extinguish.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P403+P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.
P501	Dispose of contents/container to industrial combustion plant.

2.3 Other hazards

Hazards not otherwise classified

Toxic to aquatic life with long lasting effects (GHS category 2: aquatic toxicity - acute and/or chronic).

SECTION 3: Composition/information on ingredients

3.1 Substances

Not relevant (mixture)

3.2 Mixtures

Description of the mixture

Name of substance	Wt%	Classification acc. to GHS
Proprietary Monoterpenoid Phenol	25 – < 50	Acute Tox. 4 / H302 Skin Corr. 1B / H314 Eye Dam. 1 / H318
Proprietary Monoterpenic Alcohol	10 – < 25	Acute Tox. 4 / H302 Skin Corr. 1B / H314
Proprietary Monoterpenic Alcohol	5 – < 10	Skin Irrit. 2 / H315 Eye Irrit. 2 / H319 Skin Sens. 1B / H317 STOT SE 3 / H335 Flam. Liq. 4 / H227
Proprietary Monoterpenic Alcohol	1 – < 5	Skin Irrit. 2 / H315 Eye Irrit. 2 / H319 STOT SE 3 / H335
Proprietary Monoterpenic Alcohol	1 – < 5	Skin Irrit. 2 / H315 Eye Dam. 1 / H318 Skin Sens. 1 / H317
Proprietary Sesquiterpenic Alcohol	1 – < 5	Skin Irrit. 2 / H315 Eye Irrit. 2 / H319 STOT SE 3 / H335
Proprietary compound	1 – < 5	Eye Irrit. 2 / H319
Proprietary Monoterpene	1 – < 5	Skin Irrit. 2 / H315 Eye Irrit. 2 / H319
Proprietary Aldehyde	1 – < 5	Skin Irrit. 2 / H315 Skin Sens. 1 / H317 Asp. Tox. 1 / H304
Proprietary Monoterpenic Alcohol	1 – < 5	Skin Irrit. 2 / H315 Eye Irrit. 2 / H319 STOT SE 3 / H335
Proprietary Monoterpene	1 – < 5	Acute Tox. 4 / H302 Eye Irrit. 2 / H319 Skin Sens. 1 / H317

For full text of abbreviations: see SECTION 16.

SECTION 4: First-aid measures

4.1 Description of first-aid measures

General notes

Do not leave affected person unattended. Remove victim out of the danger area. Keep affected person warm, still and covered. Take off immediately all contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness place person in the recovery position. Never give anything by mouth.

Following inhalation

If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions. In case of respiratory tract irritation, consult a physician. Provide fresh air.

Following skin contact

Wash with plenty of soap and water.

Following eye contact

Remove contact lenses, if present and easy to do. Continue rinsing. Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart.

Following ingestion

Rinse mouth with water (only if the person is conscious). Do NOT induce vomiting.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms and effects are not known to date.

4.3 Indication of any immediate medical attention and special treatment needed

none

SECTION 5: Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media

Water spray, BC-powder, Carbon dioxide (CO2)

Unsuitable extinguishing media

Water jet

5.2 Special hazards arising from the substance or mixture

In case of insufficient ventilation and/or in use, may form flammable/explosive vapor-air mixture. Solvent vapors are heavier than air and may spread along floors. Places which are not ventilated, e.g. unventilated below ground level areas such as trenches, conduits and shafts, are particularly prone to the presence of flammable substances or mixtures.

Hazardous combustion products

Carbon monoxide (CO), Carbon dioxide (CO2)

5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Coordinate firefighting measures to the fire surroundings. Do not allow firefighting water to enter drains or water courses. Collect contaminated firefighting water separately. Fight fire with normal precautions from a reasonable distance.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Remove persons to safety.

For emergency responders

Wear breathing apparatus if exposed to vapors/dust/aerosols/gases.

6.2 Environmental precautions

Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it. If substance has entered a water course or sewer, inform the responsible authority.

6.3 Methods and material for containment and cleaning up

Advice on how to contain a spill

Covering of drains

Advice on how to clean up a spill

Wipe up with absorbent material (e.g. cloth, fleece). Collect spillage: sawdust, kieselgur (diatomite), sand, universal binder

Appropriate containment techniques

Use of adsorbent materials.

Other information relating to spills and releases

Place in appropriate containers for disposal. Ventilate affected area.

6.4 Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Recommendations

- Measures to prevent fire as well as aerosol and dust generation

Use local and general ventilation. Avoidance of ignition sources. Keep away from sources of ignition - No smoking. Take precautionary measures against static discharge. Use only in well-ventilated areas. Due to danger of explosion, prevent leakage of vapours into cellars, flues and ditches. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting/equipment. Use only non-sparking tools.

- Specific notes/details

Places which are not ventilated, e.g. unventilated below ground level areas such as trenches, conduits and shafts, are particularly prone to the presence of flammable substances or mixtures. Vapors are heavier than air, spread along floors and form explosive mixtures with air. Vapors may form explosive mixtures with air.

Advice on general occupational hygiene

Wash hands after use. Do not eat, drink and smoke in work areas. Remove contaminated clothing and protective equipment before entering eating areas. Never keep food or drink in the vicinity of chemicals. Never place chemicals in containers that are normally used for food or drink. Keep away from food, drink and animal feedingstuffs.

7.2 Conditions for safe storage, including any incompatibilities

Managing of associated risks

- Explosive atmospheres

Keep container tightly closed and in a well-ventilated place. Use local and general ventilation. Keep cool. Protect from sunlight.

- Flammability hazards

Keep away from sources of ignition - No smoking. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharge. Protect from sunlight.

- Ventilation requirements

Use local and general ventilation. Ground/bond container and receiving equipment.

- Packaging compatibilities

Only packagings which are approved (e.g. acc. to the Dangerous Goods Regulations) may be used.

7.3 Specific end use(s)

See section 16 for a general overview.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values (Workplace Exposure Limits)

Country	Name of substance	Identifier	TWA [ppm]	TWA [mg/m³]	STEL [ppm]	STEL [mg/m³]	Ceiling-C [ppm]	Ceiling-C [mg/m³]	Notation	Source
US	Citral	TLV®	5						iv, H	ACGIH® 2021

Notation

Ceiling-C	ceiling value is a limit value above which exposure should not occur
H	absorbed through the skin
iv	inhalable fraction and vapor
STEL	short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute period (unless otherwise specified)
TWA	time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours time-weighted average (unless otherwise specified

Relevant DNELs of components of the mixture

Endpoint	Threshold level	Protection goal, route of exposure	Used in	Exposure time
DNEL	2.8 mg/m³	human, inhalatory	worker (industry)	chronic - systemic effects
DNEL	16.5 mg/m³	human, inhalatory	worker (industry)	acute - systemic effects
DNEL	2.5 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
DNEL	5 mg/kg bw/day	human, dermal	worker (industry)	acute - systemic effects
DNEL	10 mg/m³	human, inhalatory	worker (industry)	chronic - systemic effects
DNEL	2.8 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
DNEL	122.5 µg/cm²	human, dermal	worker (industry)	chronic - local effects
DNEL	161.6 mg/m³	human, inhalatory	worker (industry)	chronic - systemic effects
DNEL	10 mg/m³	human, inhalatory	worker (industry)	chronic - local effects
DNEL	10 mg/m³	human, inhalatory	worker (industry)	acute - local effects
DNEL	327.4 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
DNEL	2,950 µg/cm²	human, dermal	worker (industry)	acute - local effects
DNEL	9 mg/m³	human, inhalatory	worker (industry)	chronic - systemic effects
DNEL	1.7 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
DNEL	140 µg/cm²	human, dermal	worker (industry)	chronic - local effects
DNEL	4.4 mg/m³	human, inhalatory	worker (industry)	chronic - systemic effects
DNEL	1.25 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
DNEL	132 mg/m³	human, inhalatory	worker (industry)	chronic - systemic effects

Relevant DNELs of components of the mixture

Endpoint	Threshold level	Protection goal, route of exposure	Used in	Exposure time
DNEL	10 mg/m³	human, inhalatory	worker (industry)	chronic - local effects
DNEL	10 mg/m³	human, inhalatory	worker (industry)	acute - local effects
DNEL	19 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects

Relevant PNECs of components of the mixture

Other names or synonyms	Endpoint	Threshold level	Organism	Environmental compartment	Exposure time
Proprietary Monoterpenic Alcohol	PNEC	0.2 mg/l	aquatic organisms	freshwater	short-term (single instance)
Proprietary Monoterpenic Alcohol	PNEC	0.02 mg/l	aquatic organisms	marine water	short-term (single instance)
Proprietary Monoterpenic Alcohol	PNEC	10 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
Proprietary Monoterpenic Alcohol	PNEC	2.22 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
Proprietary Monoterpenic Alcohol	PNEC	0.222 mg/kg	aquatic organisms	marine sediment	short-term (single instance)
Proprietary Monoterpenic Alcohol	PNEC	0.327 mg/kg	terrestrial organisms	soil	short-term (single instance)
Proprietary Sesquiterpenic Alcohol	PNEC	0.001 mg/l	aquatic organisms	freshwater	short-term (single instance)
Proprietary Sesquiterpenic Alcohol	PNEC	0 mg/l	aquatic organisms	marine water	short-term (single instance)
Proprietary Sesquiterpenic Alcohol	PNEC	10 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
Proprietary Sesquiterpenic Alcohol	PNEC	0.07 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
Proprietary Sesquiterpenic Alcohol	PNEC	0.007 mg/kg	aquatic organisms	marine sediment	short-term (single instance)
Proprietary Sesquiterpenic Alcohol	PNEC	0.014 mg/kg	terrestrial organisms	soil	short-term (single instance)

Relevant PNECs of components of the mixture

Other names or synonyms	Endpoint	Threshold level	Organism	Environmental compartment	Exposure time
Proprietary Monoterpenic Alcohol	PNEC	0.002 mg/l	aquatic organisms	freshwater	short-term (single instance)
Proprietary Monoterpenic Alcohol	PNEC	0 mg/l	aquatic organisms	marine water	short-term (single instance)
Proprietary Monoterpenic Alcohol	PNEC	580 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
Proprietary Monoterpenic Alcohol	PNEC	0.026 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
Proprietary Monoterpenic Alcohol	PNEC	0.003 mg/kg	aquatic organisms	marine sediment	short-term (single instance)
Proprietary Monoterpenic Alcohol	PNEC	0.004 mg/kg	terrestrial organisms	soil	short-term (single instance)
Proprietary Aldehyde	PNEC	0.007 mg/l	aquatic organisms	freshwater	short-term (single instance)
Proprietary Aldehyde	PNEC	0.001 mg/l	aquatic organisms	marine water	short-term (single instance)
Proprietary Aldehyde	PNEC	1.6 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
Proprietary Aldehyde	PNEC	0.125 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
Proprietary Aldehyde	PNEC	0.013 mg/kg	aquatic organisms	marine sediment	short-term (single instance)
Proprietary Aldehyde	PNEC	0.021 mg/kg	terrestrial organisms	soil	short-term (single instance)
Proprietary Monoterpenic Alcohol	PNEC	7.45 µg/l	aquatic organisms	freshwater	short-term (single instance)
Proprietary Monoterpenic Alcohol	PNEC	0.745 µg/l	aquatic organisms	marine water	short-term (single instance)
Proprietary Monoterpenic Alcohol	PNEC	12.9 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
Proprietary Monoterpenic Alcohol	PNEC	133 µg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
Proprietary Monoterpenic Alcohol	PNEC	13.3 µg/kg	aquatic organisms	marine sediment	short-term (single instance)

Relevant PNECs of components of the mixture

Other names or synonyms	Endpoint	Threshold level	Organism	Environmental compartment	Exposure time
Proprietary Monoterpenic Alcohol	PNEC	22.3 µg/kg	terrestrial organisms	soil	short-term (single instance)
Proprietary Monoterpene	PNEC	15.6 µg/l	aquatic organisms	freshwater	short-term (single instance)
Proprietary Monoterpene	PNEC	1.56 µg/l	aquatic organisms	marine water	short-term (single instance)
Proprietary Monoterpene	PNEC	2.37 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
Proprietary Monoterpene	PNEC	289 µg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
Proprietary Monoterpene	PNEC	28.9 µg/kg	aquatic organisms	marine sediment	short-term (single instance)
Proprietary Monoterpene	PNEC	48.4 µg/kg	terrestrial organisms	soil	short-term (single instance)
Proprietary compound	PNEC	0.118 mg/l	aquatic organisms	freshwater	short-term (single instance)
Proprietary compound	PNEC	0.012 mg/l	aquatic organisms	marine water	short-term (single instance)
Proprietary compound	PNEC	10 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
Proprietary compound	PNEC	58.22 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
Proprietary compound	PNEC	5.822 mg/kg	aquatic organisms	marine sediment	short-term (single instance)
Proprietary compound	PNEC	11.54 mg/kg	terrestrial organisms	soil	short-term (single instance)

8.2 Exposure controls

Appropriate engineering controls

General ventilation.

Individual protection measures (personal protective equipment)

Eye/face protection

Wear eye/face protection.

Skin protection

- Hand protection

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. Check leak-tightness/impermeability prior to use. In the case of wanting to use the gloves again, clean them before taking off and air them well. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

- Other protection measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended. Wash hands thoroughly after handling.

Respiratory protection

In case of inadequate ventilation wear respiratory protection.

Environmental exposure controls

Use appropriate container to avoid environmental contamination. Keep away from drains, surface and ground water.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state	liquid
Color	
Particle	not relevant (liquid)
Odor	characteristic

Other safety parameters

pH (value)	not determined
Melting point/freezing point	not determined
Initial boiling point and boiling range	177 °C at 101.3 kPa
Flash point	52 °C
Evaporation rate	Not determined
Flammability (solid, gas)	not relevant, (fluid)
Vapor pressure	122 Pa at 20 °C
Density	not determined
Vapor density	this information is not available
Relative density	Information on this property is not available
Solubility(ies)	not determined

Partition coefficient

- n-octanol/water (log KOW)	this information is not available

	Auto-ignition temperature	225 °C (auto-ignition temperature (liquids and gases))
	Viscosity	not determined
	Explosive properties	none
	Oxidizing properties	none
9.2	**Other information**	there is no additional information

SECTION 10: Stability and reactivity

10.1 Reactivity

Concerning incompatibility: see below "Conditions to avoid" and "Incompatible materials". The mixture contains reactive substance(s). Risk of ignition.

If heated:

Risk of ignition

10.2 Chemical stability

See below "Conditions to avoid".

10.3 Possibility of hazardous reactions

No known hazardous reactions.

10.4 Conditions to avoid

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Hints to prevent fire or explosion

Use explosion-proof electrical/ventilating/lighting/equipment. Use only non-sparking tools. Take precautionary measures against static discharge.

10.5 Incompatible materials

Oxidizers

10.6 Hazardous decomposition products

Reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known. Hazardous combustion products: see section 5.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Test data are not available for the complete mixture.

Classification procedure

The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

Classification acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

Acute toxicity

Harmful if swallowed.

- Acute toxicity estimate (ATE)

Oral 1,714 $^{mg}/_{kg}$

Acute toxicity estimate (ATE) of components of the mixture		
Other names or synonyms	**Exposure route**	**ATE**
Proprietary Monoterpenoid Phenol	oral	810 $^{mg}/_{kg}$
Proprietary Monoterpenic Alcohol	oral	980 $^{mg}/_{kg}$
Proprietary Monoterpene	oral	1,930 $^{mg}/_{kg}$

Skin corrosion/irritation

Causes severe skin burns and eye damage.

Serious eye damage/eye irritation

Causes serious eye damage.

Respiratory or skin sensitization

May cause an allergic skin reaction.

Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

Carcinogenicity

Shall not be classified as carcinogenic.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans		
Name of substance	**Classification**	**Number**
Proprietary Monoterpene	3	

Legend

3 Not classifiable as to carcinogenicity in humans

Reproductive toxicity

Shall not be classified as a reproductive toxicant.

Specific target organ toxicity - single exposure

May cause respiratory irritation.

Specific target organ toxicity - repeated exposure

Shall not be classified as a specific target organ toxicant (repeated exposure).

Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

SECTION 12: Ecological information

12.1 Toxicity

Toxic to aquatic life with long lasting effects.

Aquatic toxicity (acute) of components of the mixture

Other names or synonyms	Endpoint	Value	Species	Exposure time
Proprietary Monoterpenoid Phenol	LC50	6.96 mg/l	fish	24 h
Proprietary Monoterpenoid Phenol	EC50	8.74 mg/l	aquatic invertebrates	24 h
Proprietary Monoterpenoid Phenol	ErC50	4.05 mg/l	algae	72 h
Proprietary Monoterpenic Alcohol	LC50	3.2 mg/l	fish	96 h
Proprietary Monoterpenic Alcohol	ErC50	14 mg/l	algae	72 h
Proprietary Monoterpenic Alcohol	EC50	7.7 mg/l	algae	72 h
Proprietary Monoterpenic Alcohol	LC50	27.8 mg/l	fish	96 h
Proprietary Monoterpenic Alcohol	EC50	59 mg/l	aquatic invertebrates	48 h
Proprietary Monoterpenic Alcohol	ErC50	156.7 mg/l	algae	96 h
Proprietary Sesquiterpenic Alcohol	LC50	1.43 mg/l	fish	96 h
Proprietary Sesquiterpenic Alcohol	EC50	510.3 µg/l	aquatic invertebrates	48 h
Proprietary Sesquiterpenic Alcohol	ErC50	2 mg/l	algae	72 h
Proprietary Monoterpenic Alcohol	LC50	14.66 mg/l	fish	96 h
Proprietary Monoterpenic Alcohol	EC50	17.48 mg/l	aquatic invertebrates	48 h
Proprietary Aldehyde	LC50	6.78 mg/l	fish	96 h

Aquatic toxicity (acute) of components of the mixture

Other names or synonyms	Endpoint	Value	Species	Exposure time
Proprietary Aldehyde	EC50	6.8 mg/l	aquatic invertebrates	48 h
Proprietary Aldehyde	ErC50	103.8 mg/l	algae	72 h
Proprietary Monoterpenic Alcohol	LC50	20.3 mg/l	fish	96 h
Proprietary Monoterpenic Alcohol	EC50	32.4 mg/l	aquatic invertebrates	48 h
Proprietary Monoterpenic Alcohol	ErC50	9.54 mg/l	algae	72 h
Proprietary Monoterpene	LC50	15.6 mg/l	fish	96 h
Proprietary Monoterpene	EC50	37.7 mg/l	aquatic invertebrates	24 h
Proprietary Monoterpene	ErC50	21.4 mg/l	algae	72 h
Proprietary compound	LC50	57 mg/l	fish	96 h
Proprietary compound	EC50	36.79 mg/l	aquatic invertebrates	48 h
Proprietary compound	ErC50	120 mg/l	algae	72 h

Aquatic toxicity (chronic) of components of the mixture

Other names or synonyms	Endpoint	Value	Species	Exposure time
Proprietary Monoterpenoid Phenol	EC50	75.75 mg/l	microorganisms	3 h
Proprietary Monoterpenic Alcohol	EC50	3.5 mg/l	aquatic invertebrates	21 d
Proprietary Monoterpenic Alcohol	EC50	>100 mg/l	microorganisms	30 min
Proprietary Sesquiterpenic Alcohol	EC50	>1,000 mg/l	microorganisms	30 min
Proprietary Monoterpenic Alcohol	EC50	>10,000 mg/l	microorganisms	30 min

Aquatic toxicity (chronic) of components of the mixture

Other names or synonyms	Endpoint	Value	Species	Exposure time
Proprietary Aldehyde	EC50	160 $^{mg}/_{l}$	microorganisms	30 min
Proprietary Monoterpenic Alcohol	EC50	241 $^{mg}/_{l}$	microorganisms	3 h
Proprietary compound	EC50	24 $^{mg}/_{l}$	aquatic invertebrates	21 d

12.2 Persistence and degradability

Data are not available.

12.3 Bioaccumulative potential

Data are not available.

12.4 Mobility in soil

Data are not available.

12.5 Results of PBT and vPvB assessment

Data are not available.

12.6 Endocrine disrupting properties

Information on this property is not available.

12.7 Other adverse effects

Data are not available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Waste treatment-relevant information

Solvent reclamation/regeneration.

Sewage disposal-relevant information

Do not empty into drains. Avoid release to the environment. Refer to special instructions/safety data sheets.

Waste treatment of containers/packages

Only packagings which are approved (e.g. acc. to DOT) may be used. Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.

Remarks

Please consider the relevant national or regional provisions. Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities.

SECTION 14: Transport information

14.1 UN number

DOT	UN 2920
IMDG-Code	UN 2920
ICAO-TI	UN 2920

14.2 UN proper shipping name

DOT	Corrosive liquid, flammable, n.o.s.
IMDG-Code	CORROSIVE LIQUID, FLAMMABLE, N.O.S.
ICAO-TI	Corrosive liquid, flammable, n.o.s.
Technical name (hazardous ingredients)	Carvacrol, Eucalyptol

14.3 Transport hazard class(es)

DOT	8 (3)
IMDG-Code	8 (3)
ICAO-TI	8 (3)

14.4 Packing group

DOT	II
IMDG-Code	II
ICAO-TI	II

14.5 Environmental hazards

hazardous to the aquatic environment

Environmentally hazardous substance (aquatic environment): Carvacrol

14.6 Special precautions for user

There is no additional information.

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

The cargo is not intended to be carried in bulk.

Information for each of the UN Model Regulations

Transport of dangerous goods by road or rail (49 CFR US DOT) - Additional information

Particulars in the shipper's declaration	UN2920, Corrosive liquid, flammable, n.o.s., (contains: Carvacrol, Eucalyptol), 8 (3), II, environmentally hazardous
Danger label(s)	8+3, fish and tree

Environmental hazards	yes (hazardous to the aquatic environment)
Special provisions (SP)	B2, IB2, T11, TP2, TP27

ERG No	132

International Maritime Dangerous Goods Code (IMDG) - Additional information

Marine pollutant	yes (hazardous to the aquatic environment) (Carvacrol)
Danger label(s)	8+3, fish and tree

Special provisions (SP)	274
Excepted quantities (EQ)	E2
Limited quantities (LQ)	1 L
EmS	F-E, S-C
Stowage category	C

International Civil Aviation Organization (ICAO-IATA/DGR) - Additional information

Environmental hazards	yes (hazardous to the aquatic environment)
Danger label(s)	8+3

Excepted quantities (EQ)	E2
Limited quantities (LQ)	0,5 L

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations specific for the product in question

National regulations (United States)

Toxic Substance Control Act (TSCA) all ingredients are listed

Superfund Amendment and Reauthorization Act (SARA TITLE III)

- The List of Extremely Hazardous Substances and Their Threshold Planning Quantities (EPCRA Section 302, 304)

none of the ingredients are listed

- Specific Toxic Chemical Listings (EPCRA Section 313)

none of the ingredients are listed

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)

- List of Hazardous Substances and Reportable Quantities (CERCLA section 102a) (40 CFR 302.4)

none of the ingredients are listed

Clean Air Act

none of the ingredients are listed

Right to Know Hazardous Substance List

- Hazardous Substance List (NJ-RTK)

none of the ingredients are listed

California Environmental Protection Agency (Cal/EPA): Proposition 65 - Safe Drinking Water and Toxic Enforcement Act of 1987

none of the ingredients are listed

Industry or sector specific available guidance(s)

NPCA-HMIS® III

Hazardous Materials Identification System. American Coatings Association.

Category	Rating	Description
Chronic	/	none
Health	3	major injury likely unless prompt action is taken and medical treatment is given
Flammability	2	material that must be moderately heated or exposed to relatively high ambient temperatures before ignition can occur
Physical hazard	0	material that is normally stable, even under fire conditions, and will not react with water, polymerize, decompose, condense, or self-react. Non-explosive
Personal protection	-	

NFPA® 704

National Fire Protection Association: Standard System for the Identification of the Hazards of Materials for Emergency Response (United States).

Category	Degree of hazard	Description
Flammability	2	material that must be moderately heated or exposed to relatively high ambient temperatures before ignition can occur
Health	3	material that, under emergency conditions, can cause serious or permanent injury
Instability	0	material that is normally stable, even under fire conditions
Special hazard		

National inventories

Country	Inventory	Status
US	TSCA	all ingredients are listed

Legend
TSCA Toxic Substance Control Act

15.2 Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information, including date of preparation or last revision

Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
49 CFR US DOT	49 CFR U.S. Department of Transportation
ACGIH® 2021	From ACGIH®, 2021 TLVs® and BEIs® Book. Copyright 2021. Reprinted with permission. Information on the proper use of the TLVs® and BEIs®: http://www.acgih.org/tlv-bei-guidelines/policies-procedures-presentations/tlv-bei-position-statement
Acute Tox.	Acute toxicity
Asp. Tox.	Aspiration hazard
ATE	Acute Toxicity Estimate
Ceiling-C	Ceiling value
DGR	Dangerous Goods Regulations (see IATA/DGR)
DNEL	Derived No-Effect Level
DOT	Department of Transportation (USA)
EC50	Effective Concentration 50 %. The EC50 corresponds to the concentration of a tested substance causing 50 % changes in response (e.g. on growth) during a specified time interval
EmS	Emergency Schedule
ErC50	≡ EC50: in this method, that concentration of test substance which results in a 50 % reduction in either growth (EbC50) or growth rate (ErC50) relative to the control
ERG No	Emergency Response Guidebook - Number
Eye Dam.	Seriously damaging to the eye
Eye Irrit.	Irritant to the eye
Flam. Liq.	Flammable liquid
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
IATA	International Air Transport Association
IATA/DGR	Dangerous Goods Regulations (DGR) for the air transport (IATA)
ICAO	International Civil Aviation Organization
ICAO-TI	Technical instructions for the safe transport of dangerous goods by air
IMDG	International Maritime Dangerous Goods Code
IMDG-Code	International Maritime Dangerous Goods Code
LC50	Lethal Concentration 50%: the LC50 corresponds to the concentration of a tested substance causing 50 % lethality during a specified time interval
MARPOL	International Convention for the Prevention of Pollution from Ships (abbr. of "Marine Pollutant")
NPCA-HMIS® III	National Paint and Coatings Association: Hazardous Materials Identification System - HMIS® III, Third Edition

Abbr.	Descriptions of used abbreviations
OSHA	Occupational Safety and Health Administration (United States)
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted No-Effect Concentration
ppm	Parts per million
Skin Corr.	Corrosive to skin
Skin Irrit.	Irritant to skin
Skin Sens.	Skin sensitization
STEL	Short-term exposure limit
STOT SE	Specific target organ toxicity - single exposure
TLV®	Threshold Limit Values
TWA	Time-weighted average
vPvB	Very Persistent and very Bioaccumulative

Key literature references and sources for data

OSHA Hazard Communication Standard (HCS), 29 CFR 1910.1200.

Transport of dangerous goods by road or rail (49 CFR US DOT). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

Classification procedure

Physical and chemical properties: The classification is based on tested mixture.
Health hazards, Environmental hazards: The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

List of relevant phrases (code and full text as stated in chapter 2 and 3)

Code	Text
H226	Flammable liquid and vapor.
H227	Combustible liquid.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.

Disclaimer

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.