

Safety Data Sheet acc. to OSHA HCS

Printing date 02/15/2023

Reviewed on 02/15/2023

1 Identification

- **Product identifier**
- **Trade name:** Beta-Pinene
- **Product Description** *terpene hydrocarbon*
- **Application of the substance / the mixture** *Chemical intermediate*

- **Details of the supplier of the safety data sheet**

- **Manufacturer/Supplier:**

Manufacturer:

DRT America LLC

400 Governor Treutlen Drive

Rincon, GA 31326

Supplier:

Les Dérivés Résiniques & Terpéniques

30 Rue Gambetta, BP 206

40105 Dax Cedex France

Tel: 33-(0)558566200

Fax: 33-(0)558566222

Email: fds@drt.fr

- **Information department:** *Regulatory Affairs*

- **Emergency telephone number:**

NCEC (24/24 - 7/7):

UNITED STATES & CANADA -

FOR INFORMATION OR IN AN EMERGENCY CALL NCEC @ +1 866 928 0789 (TOLL FREE) OR +1 215 207 0061

PARA INFORMACION Y EN CASO DE EMERGENCIA, LLAME NCEC AL +1 215 207 0061

POUR INFORMATION OU DANS UN APPEL D'URGENCE NCEC AU +1 215 207 0061

MEXICO -

+52 555 004 8763 DISPONIBLE 24/7 (NCEC)

OTHER COUNTRIES: SEE SECTION 16

2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS02 Flame

Flammable Liquids 3 H226 Flammable liquid and vapor.



GHS08 Health hazard

Aspiration Hazard 1 H304 May be fatal if swallowed and enters airways.

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GHS09 Environment

Aquatic Acute 1 **H400** Very toxic to aquatic life.

Aquatic Chronic 1 **H410** Very toxic to aquatic life with long lasting effects.



GHS07

Skin Irritation 2 **H315** Causes skin irritation.

Sensitization - Skin 1 **H317** May cause an allergic skin reaction.

• **Label elements**

• **GHS label elements**

The substance is classified and labeled according to the Globally Harmonized System (GHS).

• **Hazard pictograms**



GHS02 GHS07 GHS08 GHS09

• **Signal word** *Danger*

• **Hazard statements**

H226 Flammable liquid and vapor.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H304 May be fatal if swallowed and enters airways.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

• **Precautionary statements**

P202 Do not handle until all safety precautions have been read and understood.

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P233 Keep container tightly closed.

P243 Take precautionary measures against static discharge.

P261 Avoid breathing dust/fume/gas/mist/vapors/spray

P264 Wash thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P271 Use only outdoors or in a well-ventilated area.

P273 Avoid release to the environment.

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

P301+P310 If swallowed: Immediately call a poison center/doctor.

P330 Rinse mouth.

P331 Do NOT induce vomiting.

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.

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

P337+P313 If eye irritation persists: Get medical advice/attention.

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P363 Wash contaminated clothing before reuse.
P403+P235 Store in a well-ventilated place. Keep cool.
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

• **Information pertaining to particular dangers for man and environment:**

May cause eye irritation.
May cause skin irritation.
May be absorbed through the skin.
Inhalation of vapor or mist may cause respiratory tract irritation.
May cause central nervous system depression (dizziness, drowsiness, incoordination).
Effects on human health: If swallowed accidentally, the product may enter the lungs due to its low viscosity and lead to the rapid development of very serious pulmonary lesions (medical surveillance for 48 hours minimum).

POTENTIAL HEALTH EFFECTS

Ingestion may cause nausea, vomiting, and gastrointestinal irritation.
Aspiration may cause lung damage.
Refer to Section 5 for Hazardous Combustion Products and Section 10 for Hazardous Decomposition/Hazardous Polymerization Products.

• **Classification system:**

• **NFPA ratings (scale 0 - 4)**



Health = 3
Fire = 3
Reactivity = 0

• **HMIS-ratings (scale 0 - 4)**



Health = 3
Fire = 3
Reactivity = 0

• **Other hazards**

• **Results of PBT and vPvB assessment**

- **PBT:** Not a PBT.
- **vPvB:** Not a vPvB.

3 Composition/information on ingredients

• **Chemical characterization:**

monoconstituent
beta-pinene (6,6-dimethyl-2-methylenecyclo[3.1.1]heptane) > 92%

• **CAS No.:** 127-91-3

• **CAS No. Description**

127-91-3: beta pinene
(6,6-dimethyl-2-methylenecyclo[3.1.1]heptane)

• **Impurities and stabilising additives:**

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Impurities levels:
beta-phellandrene 7%
dipentene 17%
alpha-pinene 25%

CAS: 123-35-3 EINECS: 204-622-5	myrcene ⚠️ Flammable Liquids 3, H226; ⚠️ Aspiration Hazard 1, H304; ⚠️ Aquatic Acute 1, H400; Aquatic Chronic 1, H410; ⚠️ Skin Irritation 2, H315; Eye Irritation 2A, H319
CAS: 555-10-2 EINECS: 209-081-9	beta-phellandrene ⚠️ Flammable Liquids 3, H226; ⚠️ Aspiration Hazard 1, H304
CAS: 138-86-3 EINECS: 205-341-0	dipentene ⚠️ Flammable Liquids 3, H226; ⚠️ Aspiration Hazard 1, H304; ⚠️ Aquatic Acute 1, H400; Aquatic Chronic 1, H410; ⚠️ Skin Irritation 2, H315; Sensitization - Skin 1, H317
CAS: 99-87-6 EINECS: 202-796-7	para-cymene ⚠️ Flammable Liquids 3, H226; ⚠️ Acute Toxicity - Inhalation 3, H331; ⚠️ Aspiration Hazard 1, H304; ⚠️ Aquatic Chronic 2, H411
CAS: 80-56-8 EINECS: 201-291-9	alpha-pinene ⚠️ Flammable Liquids 3, H226; ⚠️ Aspiration Hazard 1, H304; ⚠️ Aquatic Acute 1, H400; Aquatic Chronic 1, H410; ⚠️ Acute Toxicity - Oral 4, H302; Skin Irritation 2, H315; Sensitization - Skin 1, H317
CAS: 79-92-5 EINECS: 201-234-8	camphene ⚠️ Flammable Solids 1, H228; ⚠️ Aquatic Acute 1, H400; Aquatic Chronic 1, H410
CAS: 13466-78-9 EINECS: 207-856-6	delta-3-Carene ⚠️ Flammable Liquids 3, H226; ⚠️ Aspiration Hazard 1, H304; ⚠️ Aquatic Acute 1, H400; Aquatic Chronic 2, H411; ⚠️ Skin Irritation 2, H315; Sensitization - Skin 1, H317

4 First-aid measures

- Description of first aid measures**

- After inhalation:**

Remove to fresh air. Get medical attention if nasal, throat or lung irritation develops.

- After skin contact:**

Wash thoroughly with soap and water. Remove contaminated clothing. Get medical attention if irritation persists. Thoroughly wash clothing before reuse. See Note to Physician.

- After eye contact:**

Remove contact lenses. Hold eyelids apart. Immediately flush eyes with plenty of low-pressure water for at least 15 minutes. Get immediate medical attention.

- After swallowing:**

Do NOT induce vomiting. Get immediate medical attention. See Note to Physician.

- Information for doctor:**

Aspiration into the lungs will result in chemical pneumonitis and may be fatal. Ingestion may cause damage to the esophageal mucosa which would contraindicate insertion of a nasogastric tube. Measures against circulatory shock and respiratory depression may be necessary.

- Most important symptoms and effects, both acute and delayed**

Pulmonary effects if swallowed accidentally.

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· **Indication of any immediate medical attention and special treatment needed**

Do not induce vomiting. Aspiration may cause lung damage.
If swallowed or in case of vomiting, danger of entering the lungs.
Medical supervision for at least 48 hours.

5 Fire-fighting measures

· **Extinguishing media**

· **Suitable extinguishing agents:**

Dry chemical, carbon dioxide or foam may be used on fires involving this product.

· **For safety reasons unsuitable extinguishing agents:** If water must be used, use as a spray only.

· **Special hazards arising from the substance or mixture**

During combustion, the following substances may be formed:

Carbon monoxide (CO)

Carbon Dioxide (CO₂)

Irritating gases

Aldehydes

Carboxylic acids

· **Advice for firefighters**

· **Protective equipment:**

Wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH approved (or equivalent) and full protective gear when fighting fires involving this product.

Cool containers with water to prevent rupture.

6 Accidental release measures

· **Personal precautions, protective equipment and emergency procedures**

Extinguish all sources of ignition. Ventilate area. Wear protective equipment as required (see SDS Section 8). Evacuate area of all personnel.

Wear protective equipment. Keep unprotected persons away.

· **Environmental precautions:**

Do not allow product to reach soil, waterways, drains and sewers.

Inform the relevant authorities if the product has caused environmental pollution (soil, waterways, drains or sewers).

· **Methods and material for containment and cleaning up:**

For small spills: Add absorbent, sweep up, and dispose properly.

For large spills: Dike to contain and pump into drums for use or disposal.

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

· **Reference to other sections**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

· **Protective Action Criteria for Chemicals**

· **PAC-1:** Substance is not listed.

· **PAC-2:** Substance is not listed.

· **PAC-3:** Substance is not listed.

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7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
Flammable. Bond containers during filling or discharge when performed at temperatures at or above the product flash point.
Keep containers closed when not in use.
- **Information about protection against explosions and fires:**
Keep away from heat, flame, sparks and other ignition sources.
Spontaneous combustion may occur in materials soaked with this product and exposed to air, as well as soaked vessel and piping insulation.
Avoid storing product near incompatible materials. See SDS Section 10.
Keep ignition sources away - Do not smoke.
Use only non-sparking tools.
Protect against electrostatic charges.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
Store in areas designed for flammable liquid storage (see NFPA 30).
Store in a cool, dry, well-ventilated area.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
Keep receptacle tightly sealed.
Recommended materials for storage: stainless steel or aluminum containers with specific inner coating.
Certain plastics and elastomers may not be compatible with the product. Test or get manufacturer's recommendation prior to use.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:**
Eliminate ignition sources and prevent build-up of static electrical charges.
Properly discard any item soaked with material, as spontaneous heating may occur.
Eyewash fountains and safety showers should be easily accessible.
Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.
Discharge from the ventilation system should comply with applicable air pollution control regulations.
Keep area clean. Product will burn.
For good industrial hygiene practice: Completely isolate and thoroughly clean all equipment, piping, or vessels before beginning maintenance or repairs.

- **Control parameters**

- **Components with limit values that require monitoring at the workplace:**

CAS: 127-91-3 beta-pinene

TLV	Long-term value: 112 mg/m ³ , 20 ppm
DSEN	

- **Additional information:** The lists that were valid during the creation were used as basis.

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- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
 Avoid contact with eyes, skin, and clothing.
 Avoid breathing vapor, fumes or mist.
 Handle in areas with adequate ventilation.
 Do not swallow.
 Avoid contamination of food, beverages, or smoking materials.
 Wash thoroughly after handling, and before eating, drinking or smoking.
 Remove contaminated clothing and shoes promptly and clean thoroughly before reuse.
- **Breathing equipment:**
 Appropriate respiratory protection is required when exposure to airborne contaminants may exceed acceptable limits. Respirators should be selected and used in accordance with OSHA, Subpart I (29 CFR 1910.134) and manufacturers recommendations.
- **Protection of hands:** Impervious gloves
- **Eye protection:**
 Safety glasses (standard EN 166)
 For qualifying operations with increased risk (eg: connection/disconnection of hoses, purges, sampling, etc) wear safety glasses (standard EN 166) AND a face shield.
- **Body protection:** Appropriate protective clothing

9 Physical and chemical properties

- **Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**

Form:	Liquid
Color:	Colorless - slightly amber
Odor:	Pine
- **Change in condition**

Melting/freezing point:	-80/-60 °C (-112/-76 °F)
Initial Boiling point or boiling range:	165 °C (329 °F)
- **Flash point:** 39 °C (102.2 °F) (Setaflash)
- **Flammability (solid, gaseous):** Flammable.
- **Ignition temperature:** 255 °C (491 °F)
- **Explosive properties:** Product does not present an explosion hazard.
- **Vapor pressure at 20 °C (68 °F):** 2.82 hPa (2.1 mm Hg)
- **Density:**

Bulk density:	Not determined
Relative density at 20 °C (68 °F)	0.86
- **Solubility in / Miscibility with**

Water at 20 °C (68 °F):	0.00695 g/l
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- **Partition coefficient (n-octanol/water) at 25 °C (77 °F):** 4.4 log KOW

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Trade name: **Beta-Pinene**

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- **Viscosity:**
 - Dynamic at 25 °C (77 °F):** 1.6 mPas
 - Kinematic at 40 °C (104 °F):** < 7 mm²/s
- **Other information** No further relevant information available.

10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used according to specifications.
- **Possibility of hazardous reactions**
HAZARDOUS POLYMERIZATION - Not anticipated under normal or recommended handling and storage conditions.
- **Conditions to avoid**
Prolonged or excessive heat and/or exposure to air may cause non-hazardous decomposition and/or oxidation of the substance. Keep away from heat and sources of ignition.
- **Incompatible materials:** Incompatible with: oxidizing agents, acids and acid catalysts
- **Hazardous decomposition products:** No dangerous decomposition products known.
- **Additional information:** Stable under recommended handling and storage conditions.

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **LD/LC50 values that are relevant for classification:**

Oral	LD50	> 5000 mg/kg (rat)
Dermal	LD50	> 5000 mg/kg (rabbit)

- **Primary irritant effect:**
- **Skin corrosion/irritation:**
An in vitro irritation study on reconstructed human epidermis was conducted with beta-pinene. Classification criteria were met.
- **Serious eye damage/irritation:**
Only slight reversible effects were observed in an eye irritation study in rabbit (OECD 405) conducted with beta-pinene. The classification criteria were not met.
- **Skin Sensitization:**
Skin sensitization effects were observed in the murine Local Lymph Node Assay (LLNA - OECD 429) conducted with beta-pinene.
- **Other information (about experimental toxicology):**
PRODUCT/SIMILAR PRODUCT -
Ingestion causes gastric irritation, pain, nausea, vomiting.
Inhalation may cause chest pain, bronchitis, dizziness, delirium, ataxia or coma. Aspiration into the lungs will cause chemical pneumonia. Inhalation may cause pulmonary edema or pneumonia. May be absorbed through the skin, lungs, and intestinal tract, resulting in kidney damage, painful urination, respiratory or central nervous system effects. Chronic contact may cause benign skin tumors.

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• **Additional toxicological information:**

Mutagenicity/genotoxicity:

Beta-pinene was not mutagenic in a Ames test (OECD 471).

No genotoxic effects were observed with a complex substance containing structurally related substances in an Ames test (OECD 471), in an in vitro Mammalian Chromosome Aberration Test (OECD 473) and in a gene mutation test in mouse lymphoma L5178Y cells (OECD 476).

Carcinogenicity:

Based on a 90-day toxicity study in rat, conducted with a structurally related substance, the substance is not expected to be carcinogenic for humans.

Reproductive toxicity:

No effects observed with a structurally related substance on reproductive organs in a 90-day repeated toxicity study in rat.

A structurally related substance was tested in a prenatal development toxicity study in rat (OECD 414) and did not induce any effects. No effects were found in a teratogenicity/postnatal development study conducted in rat with a complex substance containing structurally related substances.

• **Carcinogenic categories**

• **IARC (International Agency for Research on Cancer)** Substance is not listed.

• **NTP (National Toxicology Program)** 123-35-3

• **OSHA-Ca (Occupational Safety & Health Administration)** Substance is not listed.

12 Ecological information

• **Toxicity**

• **Aquatic toxicity:**

Tests carried out with beta-pinene:

EC₅₀ (48 h), daphnids (*Daphnia magna*): 1.345 mg/L (measured concentration - OECD 202)

NOEC (48 h), daphnids (*Daphnia magna*): 0.750 mg/L (measured concentration - OECD 202)

EC₅₀ (48 h), algae (*Pseudokirchneriella subcapitata*): 0.826 mg/L (measured concentration - OECD 201)

Tests carried out on a structurally related substance:

LC₅₀ (96 h), fish (*Danio rerio*): 0.303 mg/L (measured concentration - OECD 203)

EC₅₀ (48 h), daphnids (*Daphnia magna*): 0.475 mg/L (measured concentration - OECD 202)

LOEC (48 h), algae (*Pseudokirchneriella subcapitata*): 0.494 mg/L (measured concentration - OECD 201)

NOEC (48 h), algae (*Pseudokirchneriella subcapitata*): 2.27 mg/L (measured concentration - OECD 201)

No effects were observed on algae (*Pseudokirchneriella subcapitata*) after 72 h, at the solubility limit of the substance.

Toxicity to aquatic microorganisms

No inhibition effects were observed on activated sludge of a predominantly domestic sewage, in a study conducted according to OECD 209 Guideline, with a structurally related substance tested at the solubility limit.

• **Persistence and degradability**

Beta-pinene is readily biodegradable: biodegradation of 90 - 95% was achieved in 28 days in a study conducted according to OECD 301C Guideline (oxygen consumption). In addition, two structurally related substances were found readily biodegradable in OECD 301D studies.

• **Behavior in environmental systems:**

• **Bioaccumulative potential** No further relevant information available.

• **Mobility in soil** No further relevant information available.

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- **Results of PBT and vPvB assessment**
- **PBT:** Not a PBT.
- **vPvB:** Not vPvB.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods** National and regional regulations have to be adhered to.
- **Recommendation:**
Incineration in accordance with applicable regulations is the recommended disposal method.
Disposal should be in accordance with applicable Federal, State and local regulations.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- | | |
|--|--|
| <ul style="list-style-type: none"> · UN-Number · DOT, ADR, IMDG, IATA | <p style="text-align: center;">UN2319</p> |
| <ul style="list-style-type: none"> · UN proper shipping name · DOT · ADR · IMDG · IATA | <p>Terpene hydrocarbons, n.o.s. (beta-pinene)
2319 TERPENE HYDROCARBONS, N.O.S. (beta-pinene), ENVIRONMENTALLY HAZARDOUS
TERPENE HYDROCARBONS, N.O.S (beta-pinene)., MARINE POLLUTANT
TERPENE HYDROCARBONS, N.O.S. (beta-pinene)</p> |
| <ul style="list-style-type: none"> · Transport hazard class(es) · DOT | <div style="display: flex; align-items: center; justify-content: center;">   </div> <p style="text-align: center;">3 Flammable liquids
3</p> |
| <ul style="list-style-type: none"> · Class · Label | <p style="text-align: center;">3 Flammable liquids
3</p> |
| <ul style="list-style-type: none"> · ADR | <div style="display: flex; align-items: center; justify-content: center;">   </div> |
| <ul style="list-style-type: none"> · Class | <p style="text-align: center;">3 Flammable liquids</p> |

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· Label	3
· IMDG	
 	
· Class	3.3
· Label	3
· IATA	
	
· Class	3 Flammable liquids
· Label	3
· Packing group	
· DOT, ADR, IMDG, IATA	III
· Environmental hazards:	Environmentally hazardous substance, liquid; Marine Pollutant
· Marine pollutant:	Yes (DOT) Symbol (fish and tree)
· Special marking (ADR):	Symbol (fish and tree)
· Special precautions for user	Warning: Flammable liquids
· Hazard identification number (Kemler code):	30
· EMS Number:	F-E,S-D
· Stowage Category	A
· Maritime transport in bulk according to IMO instruments	Not applicable.
· Transport/Additional information:	
· DOT	
· Remarks:	Special marking with the symbol (fish and tree).
· IMDG	
· Limited quantities (LQ)	5L
· UN "Model Regulation":	UN 2319 TERPENE HYDROCARBONS, N.O.S.(beta-pinene), 3, III, ENVIRONMENTALLY HAZARDOUS

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Sara**
- **Section 355 (extremely hazardous substances):** Substance is not listed.

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• **Section 313 (Specific toxic chemical listings):**

This product does not contain any chemicals subject to reporting under Section 313 of Title III of the Superfund Amendments and Reauthorization Act and 40CFR372.

Substance is not listed.

• **SECTIONS 302/304**

This product is not an Extremely Hazardous Substance subject to reporting under 40CFR355.

• **CERCLA**

This product does not contain any chemicals subject to reporting as a CERCLA Hazardous Substance under 40CFR302.4.

• **RCRA**

This product exhibits the following characteristics listed in 40CFR261, Subpart C; ignitability (D-001). Disposal of unused product must comply with the hazardous waste regulations.

• **TSCA (Toxic Substances Control Act):** Substance is listed.

• **Proposition 65**

• **Chemicals known to cause cancer:**

This product can expose you to a chemical [or chemicals] such as **beta-myrcene** which is [are] known to the state of California to cause cancer [and/or birth defects and/or other reproductive harm].

Substance is listed.

• **Chemicals known to cause reproductive toxicity for females:** Substance is not listed.

• **Chemicals known to cause reproductive toxicity for males:** Substance is not listed.

• **Chemicals known to cause developmental toxicity:** Substance is not listed.

• **New Jersey Right-to-Know List:**

This substance contains dipentene. Dipentene is included on the NJ RTK list.

Substance is listed.

• **New Jersey Special Hazardous Substance List:** Substance is not listed.

• **Pennsylvania Right-to-Know List:**

This substance may contain para-cymene and/or alpha-pinene. Both substances are included on the PA RTK list.

Substance is listed.

• **Pennsylvania Special Hazardous Substance List:** Substance is not listed.

• **Carcinogenic categories**

• **EPA (Environmental Protection Agency)** Substance is not listed.

• **TLV (Threshold Limit Value) A4**

• **NIOSH-Ca (National Institute for Occupational Safety and Health)** Substance is not listed.

• **Canadian substance listings:**

• **Canadian Domestic Substances List (DSL)** Substance is listed.

• **GHS label elements**

The substance is classified and labeled according to the Globally Harmonized System (GHS).

• **Hazard pictograms**



GHS02



GHS07



GHS08



GHS09

• **Signal word** Danger

• **Hazard statements**

H226 Flammable liquid and vapor.

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H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H304 May be fatal if swallowed and enters airways.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.

• **Precautionary statements**

P202 Do not handle until all safety precautions have been read and understood.
P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P233 Keep container tightly closed.
P243 Take precautionary measures against static discharge.
P261 Avoid breathing dust/fume/gas/mist/vapors/spray
P264 Wash thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.
P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P301+P310 If swallowed: Immediately call a poison center/doctor.
P330 Rinse mouth.
P331 Do NOT induce vomiting.
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.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P337+P313 If eye irritation persists: Get medical advice/attention.
P363 Wash contaminated clothing before reuse.
P403+P235 Store in a well-ventilated place. Keep cool.
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

• **Chemical safety assessment:** A Chemical Safety Assessment has been carried out.

16 Other information

DISCLAIMER: The information and recommendations contained in this Safety Data Sheet have been compiled from sources believed to be reliable and to represent the most reasonable current opinion on the subject when the SDS was prepared. No warranty, guaranty or representation is made as to the correctness or sufficiency of the information. The user of this product must decide what safety measures are necessary to safely use this product, either alone or in combination with other products, and determine its environmental regulatory compliance obligations under any applicable federal or state laws.

• **Emergency telephone numbers (other countries) :**

NCEC In-Country Numbers (24/24 - 7/7):

Global / English speaking countries : +44 1865 407333

Middle East/Africa : +44 1235 239671* (English, Arabic, French, Portuguese, Farsi)

Americas : +1 215 207 0061* (English, Spanish, French, Portuguese)

East/South East Asia : +65 3158 1074* (English, Bengali, Cantonese, Indonesian, Hindi, Japanese, Korean, Malay, Mandarin, Sinhalese, Urdu, Tagalog, Thai, Vietnamese)

Europe : +44 1235 239670*

*(involves operator intervention to identify language)

(Contd. on page 14)

Safety Data Sheet acc. to OSHA HCS

Printing date 02/15/2023

Reviewed on 02/15/2023

Trade name: Beta-Pinene

(Contd. of page 13)

· **Date of preparation / last revision 02/15/2023**

· **Abbreviations and acronyms:**

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

NOAEL: No Observed Adverse Effect Level

Flammable Liquids 3: Flammable liquids – Category 3

Skin Irritation 2: Skin corrosion/irritation – Category 2

Sensitization - Skin 1: Skin sensitisation – Category 1

Aspiration Hazard 1: Aspiration hazard – Category 1

Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1

Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1

· **Sources Literature and company data**

· *** Data compared to the previous version altered.**

Sections 1 & 16 - Updated emergency contact information.