

# Canada balsam

sc-214661



The Power is Question

## Material Safety Data Sheet

Hazard Alert Code Key:

EXTREME

HIGH

MODERATE

LOW

## Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

### PRODUCT NAME

Canada balsam

### STATEMENT OF HAZARDOUS NATURE

CONSIDERED A HAZARDOUS SUBSTANCE ACCORDING TO OSHA 29 CFR 1910.1200.

### NFPA



### SUPPLIER

Santa Cruz Biotechnology, Inc.  
2145 Delaware Avenue  
Santa Cruz, California 95060  
800.457.3801 or 831.457.3800

### EMERGENCY:

ChemWatch  
Within the US & Canada: 877-715-9305  
Outside the US & Canada: +800 2436 2255  
(1-800-CHEMCALL) or call +613 9573 3112

### SYNONYMS

"Canada Balsam", "Canadian balsam", "Canada turpentine", "Balsam of Fir", "Balm of Gilead (improper usage)", "Fir balsam absolute (Abies alba mill)", "Terebinthina canadensis"

## Section 2 - HAZARDS IDENTIFICATION

### CHEMWATCH HAZARD RATINGS

	Min	Max
Flammability:	2	
Toxicity:	2	
Body Contact:	2	
Reactivity:	2	
Chronic:	2	

Min/Nil=0  
Low=1  
Moderate=2  
High=3  
Extreme=4



### CANADIAN WHMIS SYMBOLS



## EMERGENCY OVERVIEW

### RISK

Explosive when dry.  
Contact with combustible material may cause fire.  
May cause SENSITISATION by skin contact.  
Irritating to eyes, respiratory system and skin.  
Flammable.  
Vapours may cause drowsiness and dizziness.  
Toxic to aquatic organisms.

## POTENTIAL HEALTH EFFECTS

### ACUTE HEALTH EFFECTS

#### SWALLOWED

- Accidental ingestion of the material may be damaging to the health of the individual.
- Terpenes and their oxygen-containing counterparts, the terpenoids, produce a variety of physiological effects. Pine oil monoterpenes, for example, produce a haemorrhagic gastritis characterised by stomach pain and bleeding and vomiting. Systemic effects of pine oils include weakness and central nervous depression, excitement, loss of balance, headache, with hypothermia and respiratory failure.
- Essential oils cause mild irritation of the mouth if taken orally, causing more saliva to be produced and a warm feeling. Large amounts affect the digestive system causing nausea, vomiting and diarrhea.

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#### EYE

- This material can cause eye irritation and damage in some persons.

#### SKIN

- The material may accentuate any pre-existing dermatitis condition.
- Skin contact is not thought to have harmful health effects, however the material may still produce health damage following entry through wounds, lesions or abrasions.
- Essential oils irritate the skin and redden it, causing at first warmth and smarting, followed by some local loss of sensation. They have been used to treat chronic inflammatory conditions and to relieve neuralgia and rheumatic pain.

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- Open cuts, abraded or irritated skin should not be exposed to this material.
- It is likely that older pine oils become irritants from the build up of peroxides of delta-3-carene and limonene etc.
- Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.
- The material may cause moderate inflammation of the skin either following direct contact or after a delay of some time. Repeated exposure can cause contact dermatitis which is characterized by redness, swelling and blistering.

#### INHALED

- The material can cause respiratory irritation in some persons. The body's response to such irritation can cause further lung damage.
- Inhalation of vapours may cause drowsiness and dizziness. This may be accompanied by narcosis, reduced alertness, loss of reflexes, lack of coordination and vertigo.
- Inhalation of high concentrations of gas/vapor causes lung irritation with coughing and nausea, central nervous depression with headache and dizziness, slowing of reflexes, fatigue and inco-ordination.
- Central nervous system (CNS) depression may include general discomfort, symptoms of giddiness, headache, dizziness, nausea, anaesthetic effects, slowed reaction time, slurred speech and may progress to unconsciousness. Serious poisonings may result in respiratory depression and may be fatal.
- Inhalation of essential oil volatiles may cause dizziness, rapid, shallow breathing, increased heart rate, respiratory irritation, loss of consciousness or convulsions. Urination may stop, and there may be swelling and inflammation of the lungs.
- Inhalation of aerosols (mists, fumes), generated by the material during the course of normal handling, may be damaging to the health of the individual.

## CHRONIC HEALTH EFFECTS

- Long-term exposure to respiratory irritants may result in disease of the airways involving difficult breathing and related systemic problems. Skin contact with the material is more likely to cause a sensitization reaction in some persons compared to the general population. Limited evidence suggests that repeated or long-term occupational exposure may produce cumulative health effects involving organs or biochemical systems.

Essential oils and isolates derived from the Pinacea family, including Pinus and Abies genera, should only be used when the level of peroxides is kept to the lowest practicable level, for instance by adding antioxidants at the time of production. Such products should have a peroxide value of less than 10 millimoles peroxide per liter. Based on the published literature mentioning sensitising properties when containing peroxides (Food and Chemical Toxicology 11,1053(1973); 16,843(1978); 16,853(1978).

In the presence of air, a number of common flavour and fragrance chemicals can form peroxides surprisingly fast. Antioxidants can in most cases minimise the oxidation.

Fragrance terpenes are generally easily oxidised in air. Non-oxidised limonene, linalool and caryophyllene turned out to be very weak sensitizers, however after oxidation limonene hydroperoxide and linalool hydroperoxide are strong sensitizers. Of the patients tested 2.6% showed positive reaction to oxidised limonene, 1.3% to oxidised linalool, 1.1% to linalool hydroperoxide, 0.5% to oxidised caryophyllene, while testing with caryophyllene oxide and oxidised myrcene resulted in few positive patch tests. 2/3 of the patients reacting positive to

oxidised terpenes had fragrance related contact allergy and/or positive history for adverse reactions to fragrances.

As well as the hydroperoxides produced by linalol, limonene and delta-3-carene other oxidation and resinification effects progressively causes other fairly major changes in essential oil quality over time. Autoxidation of fragrance terpenes contributes greatly to fragrance allergy, which emphasizes the need of testing with compounds that patients are actually exposed to and not only with the ingredients originally applied in commercial formulations.

Plant balsams and resins may cause skin sensitization; cross-sensitivity is common.

### Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

NAME	CAS RN	%
Canada balsam	8007-47-4	
consists of		
volatiles as		27.5
<a href="#">alpha-pinene</a>	80-56-8	
<a href="#">beta-pinene</a>	19902-08-0	
<a href="#">beta-phellandrene</a>	555-10-2	
resin acids as		44.5
<a href="#">abietic acid</a>	514-10-3	
neoabietic acid		
neutral resinous compounds		27

### Section 4 - FIRST AID MEASURES

#### SWALLOWED

· If swallowed do NOT induce vomiting. · If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration. · Avoid giving milk or oils. · Avoid giving alcohol. · If spontaneous vomiting appears imminent or occurs, hold patient's head down, lower than their hips to help avoid possible aspiration of vomitus.

#### EYE

■ If this product comes in contact with the eyes: · Wash out immediately with fresh running water. · Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.

#### SKIN

■ If skin contact occurs: · Immediately remove all contaminated clothing, including footwear · Flush skin and hair with running water (and soap if available).

#### INHALED

· If fumes or combustion products are inhaled remove from contaminated area. · Lay patient down. Keep warm and rested.

#### NOTES TO PHYSICIAN

■ In acute poisonings by essential oils the stomach should be emptied by aspiration and lavage. Give a saline purgative such as sodium sulfate (30 g in 250 ml water) unless catharsis is already present.

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### Section 5 - FIRE FIGHTING MEASURES

Vapour Pressure (mmHG):	Negligible
Upper Explosive Limit (%):	Not available
Specific Gravity (water=1):	0.987-0.994
Lower Explosive Limit (%):	Not available

#### EXTINGUISHING MEDIA

· Water spray or fog.  
· Alcohol stable foam.  
· Dry chemical powder.  
· Carbon dioxide.

#### FIRE FIGHTING

· Alert Emergency Responders and tell them location and nature of hazard.  
· May be violently or explosively reactive.

When any large container (including road and rail tankers) is involved in a fire, consider evacuation by 500 metres in all directions.

#### GENERAL FIRE HAZARDS/HAZARDOUS COMBUSTIBLE PRODUCTS

· Liquid and vapor are flammable.  
· Moderate fire hazard when exposed to heat or flame.

Combustion products include: carbon monoxide (CO), carbon dioxide (CO<sub>2</sub>), other pyrolysis products typical of burning organic material.

CARE: Water in contact with hot liquid may cause foaming and a steam explosion with wide scattering of hot oil and possible severe burns. Foaming may cause overflow of containers and may result in possible fire.

**FIRE INCOMPATIBILITY**

- Avoid contamination with oxidizing agents i.e. nitrates, oxidizing acids, chlorine bleaches, pool chlorine etc. as ignition may result.

**PERSONAL PROTECTION**

Glasses:

Chemical goggles.

Gloves:

Respirator:

Type A-P Filter of sufficient capacity

**Section 6 - ACCIDENTAL RELEASE MEASURES**

**MINOR SPILLS**

- Remove all ignition sources.
- Clean up all spills immediately.

Slippery when spilt.

**MAJOR SPILLS**

- Slippery when spilt.

CARE: Absorbent material wet with occluded oil must be wet with water as they may auto-oxidize, become self heating and ignite.

Some oils slowly oxidize when spread in a film and oil on cloths, mops, absorbents may auto-oxidize and generate heat, smoulder, ignite and burn. In the workplace oily rags should be collected and immersed in water.

- Clear area of personnel and move upwind.
- Alert Emergency Responders and tell them location and nature of hazard.

**Section 7 - HANDLING AND STORAGE**

**PROCEDURE FOR HANDLING**

- Containers, even those that have been emptied, may contain explosive vapours.
- Do NOT cut, drill, grind, weld or perform similar operations on or near containers.
- DO NOT allow clothing wet with material to stay in contact with skin.
- Electrostatic discharge may be generated during pumping - this may result in fire.
- Ensure electrical continuity by bonding and grounding (earthing) all equipment.
- Restrict line velocity during pumping in order to avoid generation of electrostatic discharge ( $\leq 1$  m/sec until fill pipe submerged to twice its diameter, then  $\leq 7$  m/sec).
- Avoid splash filling.
- Do NOT use compressed air for filling discharging or handling operations.
- Avoid all personal contact, including inhalation.
- Wear protective clothing when risk of overexposure occurs.

**RECOMMENDED STORAGE METHODS**

- Packing as supplied by manufacturer. Plastic containers may only be used if approved for flammable liquid.

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· For low viscosity materials (i): Drums and jerricans must be of the non-removable head type. (ii): Where a can is to be used as an inner package, the can must have a screwed enclosure.

· For materials with a viscosity of at least 2680 cSt. (23 deg. C).

**STORAGE REQUIREMENTS**

- Store in original containers in approved flammable liquid storage area.
- DO NOT store in pits, depressions, basements or areas where vapors may be trapped.

**Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION**

**EXPOSURE CONTROLS**

Source	Material	TWA ppm	TWA mg/m³	STEL ppm	STEL mg/m³	Notes
US ACGIH Threshold Limit Values (TLV)	alpha-pinene (alpha-Pinene)	20				TLV Basis: upper respiratory tract irritation; central nervous system impairment; skin irritation; lung damage
Canada - Prince Edward Island Occupational Exposure Limits	alpha-pinene (alpha-Pinene)	20				TLV Basis: upper respiratory tract irritation; central nervous system

						impairment; skin irritation; lung damage
Canada - Nova Scotia Occupational Exposure Limits	alpha-pinene (alpha-Pinene)	20				TLV Basis: upper respiratory tract irritation; central nervous system impairment; skin irritation; lung damage
Canada - Alberta Occupational Exposure Limits	alpha-pinene (Turpentine and selected monoterpenes)	20	111			
Canada - Saskatchewan Occupational Health and Safety Regulations - Contamination Limits	alpha-pinene (Turpentine and selected monoterpenes)	20		30		SEN
Canada - Ontario Occupational Exposure Limits	alpha-pinene (Turpentine and selected monoterpenes)	20				
Canada - British Columbia Occupational Exposure Limits	alpha-pinene (Turpentine and selected monoterpenes Revised 2003)	20				S
Canada - Alberta Occupational Exposure Limits	alpha-pinene (Kerosene/Jet fuels, as total hydrocarbon vapour)		200			
Canada - Ontario Occupational Exposure Limits	alpha-pinene (Diesel fuel, as total hydrocarbons, vapour and aerosol)		100			Skin
Canada - Saskatchewan Occupational Health and Safety Regulations - Contamination Limits	alpha-pinene (Diesel fuel as total hydrocarbons, (vapour))		100	150		Skin
Canada - Alberta Occupational Exposure Limits	alpha-pinene (Diesel fuel, as total hydrocarbons)		100			
Canada - British Columbia Occupational Exposure Limits	alpha-pinene (Diesel fuel, as total hydrocarbons, Inhalable)		100 (V)			Skin
Canada - British Columbia Occupational Exposure Limits	beta-pinene (Diesel fuel, as total hydrocarbons, Inhalable)		100 (V)			Skin
Canada - Alberta Occupational Exposure Limits	beta-phellandrene (Turpentine and selected monoterpenes)	20	111			
Canada - Saskatchewan Occupational Health and Safety Regulations - Contamination Limits	beta-phellandrene (Turpentine and selected monoterpenes)	20		30		SEN
US - Michigan Exposure Limits for Air Contaminants	beta-phellandrene (Cyclohexane)	300	1050			
Canada - British Columbia Occupational Exposure Limits	beta-phellandrene (Diesel fuel, as total hydrocarbons, Inhalable)		100 (V)			Skin
Canada - Alberta Occupational Exposure Limits	abietic acid (Turpentine and selected monoterpenes)	20	111			
US - Oregon Permissible Exposure Limits (Z-3)	abietic acid (Inert or Nuisance Dust: Total dust)		10			(d)

US OSHA Permissible Exposure Levels (PELs) - Table Z3	abietic acid (Inert or Nuisance Dust: (d) Respirable fraction)	5	
US OSHA Permissible Exposure Levels (PELs) - Table Z3	abietic acid (Inert or Nuisance Dust: (d) Total dust)	15	
US - Hawaii Air Contaminant Limits	abietic acid (Particulates not otherwise regulated - Total dust)	10	
US - Hawaii Air Contaminant Limits	abietic acid (Particulates not otherwise regulated - Respirable fraction)	5	
US - Oregon Permissible Exposure Limits (Z-3)	abietic acid (Inert or Nuisance Dust: Respirable fraction)	5	(d)
US - California Permissible Exposure Limits for Chemical Contaminants	abietic acid (Particulates not otherwise regulated Respirable fraction)	5	(n)
US - Tennessee Occupational Exposure Limits - Limits For Air Contaminants	abietic acid (Particulates not otherwise regulated Respirable fraction)	5	
US - Michigan Exposure Limits for Air Contaminants	abietic acid (Particulates not otherwise regulated, Respirable dust)	5	
US - Wyoming Toxic and Hazardous Substances Table Z1 Limits for Air Contaminants	abietic acid (Particulates not otherwise regulated (PNOR)(f)- Respirable fraction)	5	

**ENDOELTABLE**

The following materials had no OELs on our records

- Canada balsam: CAS:8007-47-4

**PERSONAL PROTECTION**



**RESPIRATOR**

Type A-P Filter of sufficient capacity  
Consult your EHS staff for recommendations

**EYE**

- Safety glasses with side shields.
- Chemical goggles.

**HANDS/FEET**

■ Wear chemical protective gloves, eg. PVC.

NOTE: The material may produce skin sensitization in predisposed individuals. Care must be taken, when removing gloves and other protective equipment, to avoid all possible skin contact.

Suitability and durability of glove type is dependent on usage. Important factors in the selection of gloves include: such as:

- frequency and duration of contact,
- chemical resistance of glove material,
- glove thickness and
- dexterity

Select gloves tested to a relevant standard (e.g. Europe EN 374, US F739).

· When prolonged or frequently repeated contact may occur, a glove with a protection class of 5 or higher (breakthrough time greater than 240 minutes according to EN 374) is recommended.

· When only brief contact is expected, a glove with a protection class of 3 or higher (breakthrough time greater than 60 minutes according to EN 374) is recommended.

· Contaminated gloves should be replaced.

Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturiser is recommended.

## OTHER

- Overalls.
- PVC Apron.
- Some plastic personal protective equipment (PPE) (e.g. gloves, aprons, overshoes) are not recommended as they may produce static electricity.
- For large scale or continuous use wear tight-weave non-static clothing (no metallic fasteners, cuffs or pockets), non sparking safety footwear.

## ENGINEERING CONTROLS

■ Care: Atmospheres in bulk storages and even apparently empty tanks may be hazardous by oxygen depletion. Atmosphere must be checked before entry.

Requirements of State Authorities concerning conditions for tank entry must be met. Particularly with regard to training of crews for tank entry; work permits; sampling of atmosphere; provision of rescue harness and protective gear as needed.

For flammable liquids and flammable gases, local exhaust ventilation or a process enclosure ventilation system may be required. Ventilation equipment should be explosion-resistant.

## Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

### PHYSICAL PROPERTIES

Liquid.

Does not mix with water.

Floats on water.

State	Liquid	Molecular Weight	Not applicable
Melting Range (°F)	Not available	Viscosity	Not Available
Boiling Range (°F)	Not available	Solubility in water (g/L)	Immiscible
Flash Point (°F)	109.4	pH (1% solution)	Not applicable
Decomposition Temp (°F)	Not available.	pH (as supplied)	Not applicable
Autoignition Temp (°F)	Not available	Vapour Pressure (mmHG)	Negligible
Upper Explosive Limit (%)	Not available	Specific Gravity (water=1)	0.987-0.994
Lower Explosive Limit (%)	Not available	Relative Vapor Density (air=1)	>1
Volatile Component (%vol)	Negligible	Evaporation Rate	Not available

### APPEARANCE

Natural product consisting of resins, gums, essential and volatile oils, certain aromatic acids (usually cinnamic and benzoic acids). Yellow/green viscid, transparent, slightly fluorescent liquid with agreeable, aromatic pine-like odour; does not mix with water. Bitter taste. Gradually solidifies on exposure to air to form non-crystalline solid mass. Acid no. 84-87; Sapon No. 89.4-95.7. Soluble in benzene, chloroform, xylene, ethyl acetate, oil of cedar, ether, oil of turpentine; about 90% dissolves in alcohol or pet. ether.

## Section 10 - CHEMICAL STABILITY

### CONDITIONS CONTRIBUTING TO INSTABILITY

- Presence of incompatible materials.
- Product is considered stable.

### STORAGE INCOMPATIBILITY

- The various oxides of nitrogen and peroxyacids may be dangerously reactive in the presence of alkenes. BREITHERICK L.: Handbook of Reactive Chemical Hazards
- Avoid reaction with strong Lewis or mineral acids.
- Reaction with halogens requires carefully controlled conditions.
- Free radical initiators should be avoided.
- Balsams are both air and moisture sensitive.

The interaction of alkenes and alkynes with nitrogen oxides and oxygen may produce explosive addition products; these may form at very low temperatures and explode on heating to higher temperatures (the addition products from 1,3-butadiene and cyclopentadiene form rapidly at -150 C and ignite or explode on warming to -35 to -15 C). These derivatives ("pseudo-nitrosites") were formerly used to characterize terpene hydrocarbons.

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HAZARD: Rags wet / soaked with unsaturated hydrocarbons / drying oils auto oxidize; may generate heat and in-time smoulder and ignite. Oily cleaning rags should be collected regularly and immersed in water.

Avoid reaction with oxidizing agents.

For incompatible materials - refer to Section 7 - Handling and Storage.

## Section 11 - TOXICOLOGICAL INFORMATION

CANADA BALSAM

## TOXICITY AND IRRITATION

■ unless otherwise specified data extracted from RTECS - Register of Toxic Effects of Chemical Substances.

TOXICITY	IRRITATION
Oral (rat) LD50: >5000 mg/kg	Nil Reported
Dermal (rabbit) LD50: >5000 mg/kg	

■ Contact allergies quickly manifest themselves as contact eczema, more rarely as urticaria or Quincke's edema. The pathogenesis of contact eczema involves a cell-mediated (T lymphocytes) immune reaction of the delayed type.

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Asthma-like symptoms may continue for months or even years after exposure to the material ceases. This may be due to a non-allergenic condition known as reactive airways dysfunction syndrome (RADS) which can occur following exposure to high levels of highly irritating compound. Key criteria for the diagnosis of RADS include the absence of preceding respiratory disease, in a non-atopic individual, with abrupt onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant. A reversible airflow pattern, on spirometry, with the presence of moderate to severe bronchial hyperreactivity on methacholine challenge testing and the lack of minimal lymphocytic inflammation, without eosinophilia, have also been included in the criteria for diagnosis of RADS. RADS (or asthma) following an irritating inhalation is an infrequent disorder with rates related to the concentration of and duration of exposure to the irritating substance. Industrial bronchitis, on the other hand, is a disorder that occurs as result of exposure due to high concentrations of irritating substance (often particulate in nature) and is completely reversible after exposure ceases. The disorder is characterised by dyspnea, cough and mucus production.

## SKIN

alpha-pinene	Canada - Alberta Occupational Exposure Limits - Skin	Substance Interaction	1
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## Section 12 - ECOLOGICAL INFORMATION

Toxic to aquatic organisms.

This material and its container must be disposed of as hazardous waste.

### Ecotoxicity

Ingredient	Persistence: Water/Soil	Persistence: Air	Bioaccumulation	Mobility
alpha-pinene	HIGH		LOW	MED
beta-pinene	HIGH		LOW	MED
beta-phellandrene	HIGH		LOW	MED
abietic acid	HIGH		LOW	LOW

## Section 13 - DISPOSAL CONSIDERATIONS

### US EPA Waste Number & Descriptions

A. General Product Information

Ignitability characteristic: use EPA hazardous waste number D001 (waste code I)

### Disposal Instructions

All waste must be handled in accordance with local, state and federal regulations.

! Puncture containers to prevent re-use and bury at an authorized landfill.

Legislation addressing waste disposal requirements may differ by country, state and/ or territory. Each user must refer to laws operating in their area. In some areas, certain wastes must be tracked.

A Hierarchy of Controls seems to be common - the user should investigate:

- Reduction
- Reuse
- Recycling
- Disposal (if all else fails)

This material may be recycled if unused, or if it has not been contaminated so as to make it unsuitable for its intended use. If it has been contaminated, it may be possible to reclaim the product by filtration, distillation or some other means. Shelf life considerations should also be applied in making decisions of this type. Note that properties of a material may change in use, and recycling or reuse may not always be appropriate.

DO NOT allow wash water from cleaning equipment to enter drains. Collect all wash water for treatment before disposal.

- Recycle wherever possible.
- Consult manufacturer for recycling options or consult Waste Management Authority for disposal if no suitable treatment or disposal facility can be identified.

## Section 14 - TRANSPORTATION INFORMATION

DOT:

Symbols: None Hazard class or Division: 3

Identification Numbers: UN2368 PG: III

Label Codes: 3 Special provisions: B1, IB3, T2, TP1

Packaging: Exceptions: 150 Packaging: Non- bulk: 203

Packaging: Exceptions: 150 Quantity limitations: 60 L



Passenger aircraft/rail:

Quantity Limitations: Cargo 220 L Vessel stowage: Location: A  
aircraft only:

Vessel stowage: Other: None

COMBUSTIBLE LIQUID

A flammable liquid with a flash point at or above 38 deg.C (100 deg.F) that does not meet the definition of any other hazard class may be reclassified as a combustible liquid. This provision does not apply to transportation by vessel or aircraft, except where other means of transportation is impracticable. An elevated temperature material that meets the definition of a Class 3 material because it is intentionally heated and offered for transportation or transported at or above its flash point may not be reclassified as a combustible liquid. Refer to 49 CFR 173.120(b)(2)

#### Air Transport IATA:

ICAO/IATA Class: 3 ICAO/IATA Subrisk: None

UN/ID Number: 2368 Packing Group: III

Special provisions: None

Cargo Only

Packing Instructions: 310 Maximum Qty/Pack: 220 L

Passenger and Cargo Passenger and Cargo

Packing Instructions: 309 Maximum Qty/Pack: 60 L

Passenger and Cargo Limited Quantity Passenger and Cargo Limited Quantity

Packing Instructions: Y309 Maximum Qty/Pack: 10 L

Shipping Name: ALPHA-PINENE

#### Maritime Transport IMDG:

IMDG Class: 3 IMDG Subrisk: None

UN Number: 2368 Packing Group: III

EMS Number: F-E , S-E Special provisions: None

Limited Quantities: 5 L

Shipping Name: alpha-PINENE

## Section 15 - REGULATORY INFORMATION



### REGULATIONS

#### ND

Ingredient CAS % de minimus concentration  
abietic acid 514-10-3 (\*)

#### Canada balsam (CAS: 8007-47-4) is found on the following regulatory lists;

"Canada Domestic Substances List (DSL)", "International Fragrance Association (IFRA) Survey: Transparency List", "US Toxic Substances Control Act (TSCA) - Inventory"

Regulations for ingredients

#### alpha-pinene (CAS: 80-56-8,1330-16-1,2437-95-8,7785-70-8,7785-26-4) is found on the following regulatory lists;

"Canada - Nova Scotia Occupational Exposure Limits", "Canada - Prince Edward Island Occupational Exposure Limits", "Canada - Prince Edward Island Occupational Exposure Limits - Carcinogens", "Canada Ingredient Disclosure List (SOR/88-64)", "Canada National Pollutant Release Inventory (NPRI)", "Canada Toxicological Index Service - Workplace Hazardous Materials Information System - WHMIS (English)", "GESAMP/EHS Composite List - GESAMP Hazard Profiles", "IMO IBC Code Chapter 17: Summary of minimum requirements", "International Council of Chemical Associations (ICCA) - High Production Volume List", "International Fragrance Association (IFRA) Survey: Transparency List", "OECD Representative List of High Production Volume (HPV) Chemicals", "OSPAR List of Substances of Possible Concern", "US - Massachusetts Oil & Hazardous Material List", "US - New Jersey Right to Know Hazardous Substances", "US - Pennsylvania - Hazardous Substance List", "US ACGIH Threshold Limit Values (TLV)", "US ACGIH Threshold Limit Values (TLV) - Carcinogens", "US DOE Temporary Emergency Exposure Limits (TEELs)", "US DOT Coast Guard Bulk Hazardous Materials - List of Flammable and Combustible Bulk Liquid Cargoes", "US EPA High Production Volume Program Chemical List", "US EPA Voluntary Children's Chemical Evaluation Program (VCCPEP)", "US Food Additive Database", "US -Texas Air Monitoring Comparison Values for Evaluating Carbonyls", "US Toxic Substances Control Act (TSCA) - Inventory"

#### beta-pinene (CAS: 19902-08-0,18172-67-3,127-91-3) is found on the following regulatory lists;

"IMO IBC Code Chapter 17: Summary of minimum requirements", "US DOT Coast Guard Bulk Hazardous Materials - List of Flammable and Combustible Bulk Liquid Cargoes"

#### beta-phellandrene (CAS: 555-10-2) is found on the following regulatory lists;

"Canada Domestic Substances List (DSL)", "Canada National Pollutant Release Inventory (NPRI)", "International Fragrance Association (IFRA) Survey: Transparency List", "US Toxic Substances Control Act (TSCA) - Inventory"

#### abietic acid (CAS: 514-10-3) is found on the following regulatory lists;

"Canada Ingredient Disclosure List (SOR/88-64)", "Canada Toxicological Index Service - Workplace Hazardous Materials Information System - WHMIS (English)", "US FDA Indirect Food Additives: Adhesives and Components of Coatings - Substances for Use Only as Components of Adhesives - Adhesives", "US Toxic Substances Control Act (TSCA) - Inventory"

## Section 16 - OTHER INFORMATION

### LIMITED EVIDENCE

- Potentially explosive peroxides may form on standing.\*.
  - Inhalation and/or ingestion may produce health damage\*.
  - Cumulative effects may result following exposure\*.
  - Repeated exposure potentially causes skin dryness and cracking\*.
- \* (limited evidence).

### ND

Substance CAS Suggested codes alpha- pinene 80- 56- 8 alpha- pinene 1330- 16- 1 beta- pinene 18172- 67- 3 beta- phellandrene 555- 10- 2 abietic acid 514- 10- 3

### Ingredients with multiple CAS Nos

Ingredient Name CAS alpha-pinene 80-56-8, 1330-16-1, 2437-95-8, 7785-70-8, 7785-26-4 beta-pinene 19902-08-0, 18172-67-3, 127-91-3

*Reasonable care has been taken in the preparation of this information, but the author makes no warranty of merchantability or any other warranty, expressed or implied, with respect to this information. The author makes no representations and assumes no liability for any direct, incidental or consequential damages resulting from its use. For additional technical information please call our toxicology department on +800 CHEMCALL.*

- Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

A list of reference resources used to assist the committee may be found at:  
[www.chemwatch.net/references](http://www.chemwatch.net/references).

- The (M)SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

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