



## CERTIFICATE OF ANALYSIS

PRODUCT NAME: **SPRUCE BLACK, ESSENTIAL OIL**

BATCH NUMBER: 4343003

PRODUCT INCI: PICEA MARIANA LEAF

PRODUCT CODE: OESPRUBLAC

CAS NUMBER: 91722-19-9

EINECS NUMBER: 294-420-3

MANUFACTURING METHOD: STEAM DISTILLATION

BEST BEFORE END: NOVEMBER 2021

ANALYTICAL DETAILS	RANGE	RESULTS
APPEARANCE	LIQUID	-
COLOUR	COLOURLESS - YELLOW	-
ODOUR	CHARACTERISTIC	-
SPECIFIC GRAVITY @ 20°C	0.875 – 0.898	0.890
REFRACTIVE INDEX @ 20°C	1.460 – 1.480	1.469
OPTICAL ROTATION (°C)	-60.0 TO -38.0	-44.1

### STORAGE CONDITIONS

STORE IN A COOL DRY PLACE AWAY FROM HEAT & SUNLIGHT

*The attached information is considered to be correct at the time the client received this information. Please be aware that detail can change and we encourage clients to update their records with MADAR regularly. The information is not and should not be considered a guarantee or warranty, or a part of our contractual or other legal obligations. The information is not to be disclosed to others, reproduced or transmitted in whole or in part without permission from MADAR.*



## Allergen Declaration:

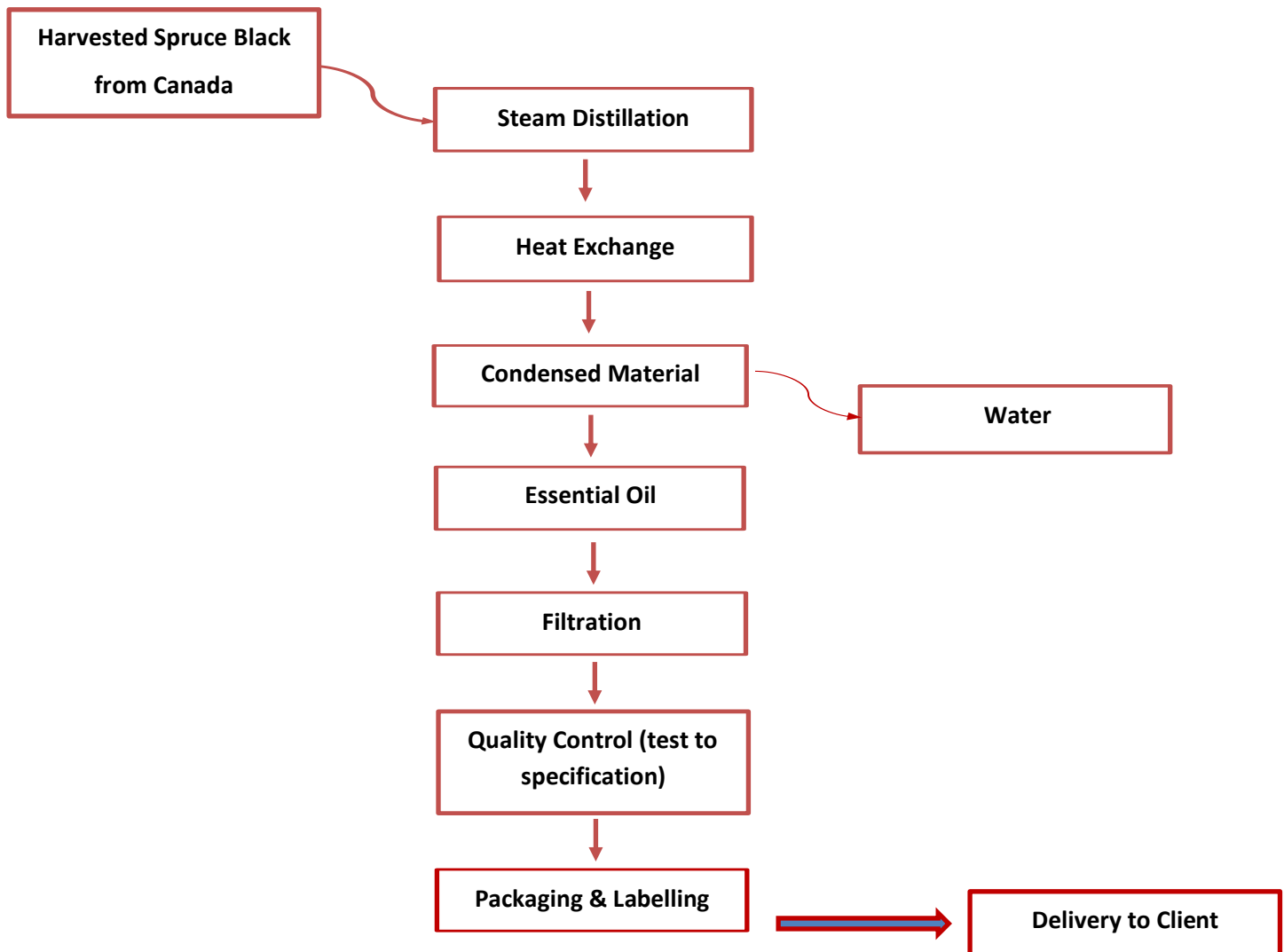
<b>PRODUCT NAME:</b>		Spruce Black, Essential		
<b>INCI:</b>		Picea Mariana Leaf		
<b>COSMETIC ALLERGENS</b>				
<small>The Following is from the 7th amendment of the cosmetic directive of the European Union Annex III.</small>				
<b>Annex IIIa Reference:</b>		<b>CAS NUMBER:</b>	<b>TOTAL ALLERGEN INCLUSION (%):</b>	
67	AMYL CINNAMAL	122-40-7	0.00	
68	BENZYL ALCOHOL	100-51-6	0.00	
69	CINNAMYL ALCOHOL	104-54-1	0.00	
70	CITRAL	5392-40-5	0.00	
71	EUGENOL	97-53-0	0.00	
72	HYDROXY-CITRONELLAL	107-75-5	0.00	
73	ISOEUGENOL	97-54-1	0.00	
74	AMYL CIN-NAMYL ALCOHOL	101-85-9	0.00	
75	BENZYL SALICYLATE	118-58-1	0.00	
76	CINNAMAL	104-55-2	0.00	
77	COUMARIN	91-64-5	0.00	
78	GERANIOL	106-24-1	0.00	
79	HYDROXY- METHYLPENTYL CYCLOHEXENE CARBOXYALDEHYDE	31906-04-4	0.00	
80	ANISE ALCOHOL	105-13-5	0.00	
81	BENZYL CINNAMATE	103-41-3	0.00	
82	FARNESOL	4602-84-0	0.00	
83	BUTYLPHENYL METHYLPROPIONAL	80-54-6	0.00	
84	LINALOOL	78-70-6	0.00	
85	BENZYL BENZOATE	120-51-4	0.00	
86	CITRONELLOL	106-22-9	0.00	
87	HEXYL CINNAM-ALDEHYDE	101-86-0	0.00	
88	LIMONENE	5989-27-5	20.0 - 30.0	
89	METHYL HEPTIN CARBONATE	111-12-6	0.00	
90	ALPHA-ISOMETHYL IONONE	127-51-5	0.00	
91	EVERNIA PRUNASTRI EXTRACT	90028-68-5	0.00	
92	EVERNIA FURFURACEA EXTRACT	90028-67-4	0.00	
<b>FOOD ALLERGENS</b>				
<small>The following is from the commission directive 2007/68/EC of 27th November 2007 amending Annex IIIa to Directive 200/13/EC of the European Parliament &amp; Council with regards to specific food ingredients.</small>				
<b>Annex IIIa Reference:</b>		<b>PRESENT IN PRODUCT:</b>	<b>CONTAMINATION PRESENCE:</b>	<b>FACTORY PRESENCE:</b>
1	CEREALS ( CONTAINING GLUTEN )	NO	NO	YES
2	CRUSTACEANS	NO	NO	NO
3	EGGS	NO	NO	NO
4	FISH	NO	NO	NO
5	PEANUTS	NO	NO	YES
6	SOYA	NO	NO	YES
7	MILK	NO	NO	YES
8	NUTS	NO	NO	YES
9	CELERY & CELERIAC	NO	NO	NO
10	MUSTARD	NO	NO	YES
11	SESAME	NO	NO	YES
12	SULPHUR DIOXIDE & SULPHITES	NO	NO	NO
13	LUPIN	NO	NO	NO
14	MOLLUSC	NO	NO	NO
This product is not food grade				



### Composition Statement & Manufacturing Flow Chart:

#### Spruce Black, Essential Oil

INCI Name	% Inclusion	CAS Number
Picea Mariana Leaf	100	91722-19-9



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## **GMO Statement**

PRODUCT NAME: SPRUCE BLACK

MADAR Corporation Limited can confirm that the above listed product is GMO Free.

06/03/2019



## IFRA STATEMENT

**PRODUCT NAME: SPRUCE BLACK, ESSENTIAL OIL**

PRODUCT INCI: PICEA MARIANA LEAF

PRODUCT CODE: OESPRUBLAC

CAS NUMBER: 91722-19-9

EINECS NUMBER: 294-420-3

MANUFACTURING METHOD: STEAM DISTILLED

MADAR CERTIFY THAT THE ABOVE NAMED MATERIAL CONFORMS TO THE IFRA 48 CODE OF PRACTICE AND CONTAINS THE FOLLOWING RESTRICTED COMPONENTS THAT ARE LISTED IN THE 48<sup>TH</sup> AMENDMENT OF THE IFRA CODE OF PRACTICE:

Restricted Component	Cas No:	% Level in Product	IFRA Standard
Limonene	5989-27-5	20.0 – 30.0	Specification Stds.

IFRA Classes	% Maximum Use Level
Class 1	Not Restricted.
Class 2	Not Restricted.
Class 3A, 3B, 3C, 3D	Not Restricted.
Class 4A, 4B, 4C, 4D	Not Restricted.
Class 5	Not Restricted.
Class 6	Not Restricted.
Class 7A, 7B	Not Restricted.
Class 8A, 8B	Not Restricted.
Class 9A, 9B, 9C	Not Restricted.
Class 10A, 10B	Not Restricted.
Class 11	Not Restricted.

Finished product types	IFRA class
Toys; Lip Products of all types (solid and liquid lipsticks, balms, clear or colored etc...)	Class 1
Deodorant and Antiperspirant products of all types (spray, stick, roll-on, under-arm and body etc...)	Class 2



Hydroalcoholic products applied to recently shaved skin (EdT range)	Class 3.A
Hydroalcoholic products applied to recently shaved skin (fine fragrance range)	Class 3.B
Eye Products of all types (eye shadow, mascara, eyeliner, eye make-up, etc...) including eye cream. Men's Facial Creams and Balms	Class 3.C
Tampons.	Class 3.D
Hydroalcoholic Products applied to unshaved skin (EdT range). Ingredients of Perfume Kits. Scent Strips for Hydroalcoholic Products, "scratch and sniff", other paper products not mentioned elsewhere for which skin exposure is only incidental (e.g. spectacle cleaning tissues).	Class 4.A
Hydroalcoholic Products applied to unshaved skin (Fine Fragrance range).	Class 4.B
Hair Styling Aids and Hair Sprays of all types (pumps, aerosol sprays, etc...); Hair Deodorant. Body Creams, Oils, Lotions of all types (including baby creams, lotions, oils). Fragrance Compounds for Cosmetic Kits, Foot Care Products	Class 4.C
Fragrancing Cream	Class 4.D
Women's Facial Creams/Facial Make-up (excluding eye cream); Facial Masks; Hand Cream Wipes or refreshing tissues for Face, Neck, Hands, Body.	Class 5
Mouthwash, Toothpaste.	Class 6
Intimate Wipes; Baby Wipes.	Class 7 A
Insect Repellent (intended to be applied to the skin).	Class 7 B
Make-up Removers of all types (not including face cleansers). Hair Styling Aids Non-Spray of all types (mousse, gels, leave-in conditioners etc...). Nail Care. All Powders & Talcs (including baby powders and talcs).	Class 8
Liquid Soap, Bar Soap (toilet soap); Depilatory; Conditioner (rinse-off), Shampoos of all types (including baby shampoos).Face Cleansers of all types (washes, gels, scrubs, etc...).Shaving Creams of all types (stick, gels, foams, etc...).Body Washes of all types (including baby washes).Shower Gels of all types; Bath Gels, Foams, Mousses, Salts, Oils and other products added to bathwater	Class 9.A
Feminine hygiene pads / liners.	Class 9.B
'Other' Aerosols (including air fresheners sprays but not including deodorant/antiperspirants, hair styling aids spray).	Class 9.C
Hand wash/Machine wash Laundry Detergents of all types (liquid, powder, tablet, etc...) including Laundry Bleaches. Other Household Cleaning Products (fabric cleaners, soft surface cleaners, carpet cleaners etc...) . Dry Cleaning Kits. Fabric Softeners of all types including fabric softener sheets. Hand Dishwashing Detergent. Hard Surface Cleaners of all types (bathroom and kitchen cleansers, furniture polish etc...). Shampoos for pets	Class 10.A
Diapers. Toilet seat wipes.	Class 10.B
All non-skin contact, including: Air Fresheners and fragrancing of all types (excluding aerosol products): plug-ins, solid substrate, membrane delivery; Toilet blocks; Joss Sticks, Incense; Insecticides (mosquito coil, paper, electrical, etc...excluding aerosols); Plastic articles (excluding toys); Candles; Fuels; Paints; Floor wax; Liquid refills for air fresheners (cartridge system)	Class 11.A
All incidental skin contact, including: Machine Dish wash Detergents and Deodorizers. Machine only Laundry Detergents (e.g. liquid tabs). Deodorizers/Maskers (e.g. fabric drying machine deodorizers, carpet powder). Pot pourri, fragrancing sachets, liquid refills for air fresheners (non-cartridge systems), etc... Shoe polishes; Cat Litter; Animal Sprays (excluding aerosols); Treated Textiles (e.g. starch sprays, fabric treated with fragrances after wash, deodorizers for textiles or fabrics, tights with moisturizers); Odored Distilled Water (that can be added to steam irons).	Class 11.B







## Material Safety Data Sheet

EU Regulation: 1907/2006

### SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

<b>1.1 PRODUCT IDENTIFICATION</b>					
<b>PRODUCT NAME</b>	SPRUCE BLACK, ESSENTIAL OIL				
<b>BIOLOGICAL DEFINITION</b>	PICEA MARIANA LEAF OIL IS AN ESSENTIAL OIL OBTAINED FROM THE LEAVES OF THE SPRUCE, PICEA MARIANA, PINACEAE.				
<b>INCI NAME</b>	PICEA MARIANA LEAF OIL.				
<b>SYNONYMS &amp; TRADE NAMES</b>					
<b>INTERNAL PRODUCT CODE</b>	OESPRUBLAC				
<b>CAS-No</b>	91722-19-9	<b>EC No.</b>	294-420-3	<b>EINECS No.</b>	294-420-3
<b>1.2 DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET</b>					
<b>COMPANY ADDRESS</b>	MADAR CORPORATION LIMITED 19-20 SANDLEHEATH INDUSTRIAL ESTATE, FORDINGBRIDGE, HAMPSHIRE, SP6 1PA				
<b>EMAIL</b>	SALES@MADARCORPORATION.CO.UK				
<b>1.3 DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET</b>					
<b>EMERGENCY CONTACTS</b>	01425 655555				

<b>SECTION 2: HAZARDS IDENTIFICATION</b>	
<b>2.1</b>	
<b>CLASSIFICATION OF THE SUBSTANCE OR MIXTURE</b>	THE FULL TEXT FOR ALL HAZARD STATEMENTS IS DISPLAYED IN SECTION 16.
<b>CLASSIFICATION (67/548/EEC)</b>	NO ADDITIONAL DATA AVAILABLE.
<b>CLASSIFICATION (EU1272/2008)</b>	FLAM. LIQ. 3 (H226) ASP. TOX. 1 (H304) EYE IRRIT. 2 (H319) SKIN SENS. 1 (H317) AQU. CHRON. 1 (H410)
<b>2.2</b>	
<b>LABEL ELEMENTS</b>	LABEL IN ACCORDANCE WITH REGULATION (EC) NO 1272/2008.
<b>GHS LABEL</b>	    GHS02                      GHS07                      GHS08                      GHS09
<b>SIGNAL WORD</b>	DANGER.
<b>CONTAINS</b>	DELTA-3-CARENE, ALPHA-PINENE, BETA-PINENE, LIMONENE, CAMPHENE.
<b>HAZARDS STATEMENT</b>	H226                      FLAMMABLE LIQUID AND VAPOUR. H304                      MAY BE FATAL IF SWALLOWED AND ENTERS AIRWAYS. H319                      CAUSES SERIOUS EYE IRRITATION. H317                      MAY CAUSE AN ALLERGIC SKIN REACTION. H410                      VERY TOXIC TO AQUATIC LIFE WITH LONG LASTING EFFECTS.
<b>PRECAUTIONARY STATEMENTS</b>	P210                      KEEP AWAY FROM HEAT/SPARKS/OPEN FLAMES/HOT SURFACES. - NO SMOKING. P241                      USE EXPLOSION-PROOF ELECTRICAL/VENTILATING/LIGHTING/EQUIPMENT. P301+P310              IF SWALLOWED: IMMEDIATELY CALL A POISON CENTER/ DOCTOR. P303+P361+P353 IF ON SKIN (OR HAIR): REMOVE/TAKE OFF IMMEDIATELY ALL CONTAMINATED CLOTHING. RINSE SKIN WITH WATER/SHOWER. P405                      STORE LOCKED UP. P501                      DISPOSE OF CONTENTS/CONTAINER IN ACCORDANCE WITH LOCAL/REGIONAL/NATIONAL/INTERNATIONAL REGULATIONS.
<b>SUPPLEMENTARY PRECAUTIONARY STATEMENTS</b>	-
SECTION 16 (OTHER INFORMATION): RISK & SAFETY PHRASES IN FULL.	
<b>2.3</b>	
<b>OTHER HAZARDS</b>	
<b>ADVERSE PHYSIO-CHEMICAL PROPERTIES</b>	NO DATA
<b>ADVERSE EFFECTS ON HUMAN HEALTH</b>	NO DATA
<b>PBT OR VPVB ACCORDING TO ANNEX XIII</b>	NO DATA
<b>SECTION 3: COMPOSITION OF INGREDIENTS</b>	






3.2 MIXTURES	<p><b>20-30% LIMONENE</b> CAS-No.: 5989-27-5 EC No.: 227-813-5 CLASSIFICATION (EC 1272/2008) FLAM. LIQ. 3 – H226, SKIN IRRIT 2 – H315 ASP TOX. 1 – H304, SKIN SENS. 1 – H317 AQUATIC ACUTE 1 – H400, AQUATIC CHRONIC 1 – H410</p> <p><b>20-25% CAMPHENE</b> CAS-No 79-92-5, EC 201-234-8 CLASSIFICATION (EC 1272/2008); FLAM. SOL. 1 – H228, EYE IRRIT 2 – H319, AQUATIC ACUTE 1 – H400</p> <p><b>10-20% ALPHA-PINENE</b> CAS-No.: 80-56-8 EC No.: 201-291-9 CLASSIFICATION (EC 1272/2008) FLAM. LIQ. 3 - H226, SKIN IRRIT. 2 - H315, SKIN SENS. 1 - H317, ASP. TOX. 1 - H304</p> <p><b>2-4% BETA-PINENE</b> CAS. NO: 127-91-3 EC No: 204-872-5 CLASSIFICATION (EC 1272/2008); DANGER, FLAM. LIQ. 3 – H226, SKIN SENS. 1 – H317 , ASP TOX. 1 – H304, AQUATIC CHRONIC 1 – H410</p> <p><b>1-4% DELTA-3-CARENE</b> CAS-No.: 13466-78-9 EC No.: 236-719-3 CLASSIFICATION (EC 1272/2008) DANGER FLAM. LIQ. 3, H226; ASP. TOX. 1, H304; AQUATIC CHRONIC 2, H411; SKIN SENS. 1, H317</p>
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SECTION 4: FIRST AID MEASURES	
<b>4.1</b>	
<b>DESCRIPTION OF FIRST AID MEASURES</b>	
<b>GENERAL INFORMATION</b>	ALWAYS REMOVE CONTAMINATED CLOTHING IMMEDIATELY.
<b>INHALATION</b>	GET MEDICAL ATTENTION IMMEDIATELY. REMOVE FROM EXPOSURE SITE TO FRESH AIR, KEEP AT REST, AND OBTAIN MEDICAL ATTENTION.
<b>INGESTION</b>	GET MEDICAL ATTENTION IMMEDIATELY. RINSE MOUTH WITH WATER AND OBTAIN MEDICAL ATTENTION.
<b>SKIN CONTACT</b>	REMOVE CONTAMINATED CLOTHES. WASH THOROUGHLY WITH SOAP AND WATER. CONTACT PHYSICIAN IF IRRITATION PERSISTS.
<b>EYE CONTACT</b>	FLUSH IMMEDIATELY WITH WATER FOR AT LEAST 15 MINUTES. CONTACT PHYSICIAN IF SYMPTOMS PERSIST.
<b>4.2</b> MOST IMPORTANT SYMPTOMS & EFFECTS (ACUTE & DELAYED)	INHALATION MAY CAUSE COUGHING AND DIFFICULTIES IN BREATHING. INGESTION IRRITATING TO THE RESPIRATORY TRACT AND MAY CAUSE DAMAGE TO THE CENTRAL NERVOUS SYSTEM. SKIN CONTACT TOXIC IN CONTACT WITH SKIN. EYE CONTACT MAY CAUSE EYE IRRITATION.
<b>4.3</b> INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION OR SPECIAL TREATMENT REQUIRED	NONE EXPECTED, SEE SECTION 4.1 FOR FURTHER INFORMATION.

SECTION 5: FIRE FIGHTING MEASURES	
<b>5.1</b> EXTINGUISHING MATERIAL	FOAM, CO2, DRY CHEMICAL POWDER.
<b>5.2</b> SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE	BURNING PRODUCES IRRITATING, TOXIC AND OBNOXIOUS FUMES
<b>5.3</b> ADVICE FOR FIRE-FIGHTERS	SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS: WEAR POSITIVE-PRESSURE SELF-CONTAINED BREATHING APPARATUS (SCBA) AND APPROPRIATE PROTECTIVE CLOTHING.

SECTION 6: ACCIDENTAL RELEASE MEASURES	
<b>6.1</b> PERSONAL PRECAUTIONS	ENSURE ADEQUATE VENTILATION OF THE WORKING AREA, EVACUATE PERSONNEL TO SAFE AREA, WEAR SUITABLE PROTECTIVE EQUIPMENT. NO SMOKING, SPARKS, FLAMES OR OTHER SOURCES OF IGNITION NEAR SPILLAGE. AVOID CONTACT WITH SKIN, EYES AND CLOTHING.
<b>6.2</b> ENVIRONMENTAL PRECAUTIONS	DO NOT DISCHARGE INTO DRAINS, WATER COURSES OR ONTO THE GROUND. DISPOSE OF IN LINE WITH LOCAL AUTHORITY GUIDELINES.
<b>6.3</b> METHODS & MATERIAL FOR CONTAINMENT AND CLEANING UP	REMOVE IGNITION SOURCES. PROVIDE ADEQUATE VENTILATION. AVOID EXCESSIVE INHALATION OF VAPOURS. CONTAIN SPILLAGE IMMEDIATELY BY USE OF SAND OR INERT POWDER. DISPOSE OF ACCORDING TO LOCAL REGULATIONS.
<b>6.4</b> REFERENCES TO OTHER SECTIONS	REFER & CONSIDER SECTION 8. REFER & CONSIDER SECTION 13.



<b>SECTION 7: HANDLING &amp; STORAGE</b>	
<b>7.1</b> PRECAUTIONS FOR SAFE-HANDLING	HANDLE IN ACCORDANCE WITH GOOD HYGIENE AND SAFETY PRACTICE. KEEP AWAY FROM HEAT, SPARKS, OPEN FLAMES AND HOT SURFACES. - NO SMOKING. USE PERSONAL PROTECTIVE EQUIPMENT AS REQUIRED. USE IN ACCORDANCE WITH GOOD MANUFACTURING AND INDUSTRIAL HYGIENE PRACTICES. USE IN AREAS WITH ADEQUATE VENTILATION DO NOT EAT, DRINK OR SMOKE WHEN USING THIS PRODUCT.
<b>7.2</b> CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES	KEEP THE PRODUCT CONTAINER TIGHTLY CLOSED, IN A DRY, VENTILATED AREA. KEEP AWAY FROM POTENTIAL SOURCES OF IGNITION AND PROTECTED FROM LIGHT. MAINTAIN LIMITED CONTACT WITH OXYGEN.
<b>7.3</b> SPECIFIC END USE(S)	NO DATA.
<b>SECTION 8: EXPOSURE CONTROLS &amp; PERSONAL PROTECTION</b>	
<b>8.1</b> CONTROL PARAMETERS	NO DATA.
<b>8.2</b> EXPOSURE CONTROLS	
	
<b>EYE PROTECTION</b>	WEAR PROTECTIVE GLOVES/EYE PROTECTION/FACE PROTECTION.
<b>HAND PROTECTION</b>	WEAR PROTECTIVE GLOVES/EYE PROTECTION/FACE PROTECTION.
<b>RESPIRATORY EQUIPMENT</b>	UNDER NORMAL CONDITIONS OF USE AND WHERE ADEQUATE VENTILATION IS AVAILABLE TO PREVENT BUILD UP OF EXCESSIVE VAPOUR, THIS MATERIAL SHOULD NOT REQUIRE SPECIAL ENGINEERING CONTROLS. HOWEVER, IN CONDITIONS OF HIGH OR PROLONGED USE, OR HIGH TEMPERATURE OR OTHER CONDITIONS WHICH INCREASE EXPOSURE, THE FOLLOWING ENGINEERING CONTROLS CAN BE USED TO MINIMISE EXPOSURE TO PERSONNEL: A) INCREASE VENTILATION OF THE AREA WITH LOCAL EXHAUST VENTILATION. B) PERSONNEL CAN USE AN APPROVED, APPROPRIATELY FITTED RESPIRATOR WITH ORGANIC VAPOUR CARTRIDGE OR CANISTERS AND PARTICULATE FILTERS. C) USE CLOSED SYSTEMS FOR TRANSFERRING AND PROCESSING THIS MATERIAL. ALSO REFER TO SECTIONS 2 AND 7.
<b>HYGIENE MEASURES</b>	GOOD PERSONAL HYGIENE PRACTICES ARE ALWAYS ADVISABLE, ESPECIALLY WHEN WORKING WITH CHEMICALS / OILS.
<b>ENGINEERING MEASURES</b>	NONE.
<b>SKIN PROTECTION</b>	WEAR PROTECTIVE CLOTHING TO REDUCE THE RISK OF SKIN AND EYE CONTACT.
<b>PERSONAL PROTECTION</b>	AVOID INHALATION OF THE PRODUCT. AVOID CONTACT WITH SKIN AND EYES.
<b>OTHER PROTECTION</b>	WEAR SUITABLE PROTECTION TO AVOID CONTACT WITH SKIN AND EYES. DO NOT INHALE VAPOURS.
<b>PROCESS CONDITIONS</b>	ENSURE AREA IS WELL VENTILATED. AVOID VAPOUR INHALATION. SAFETY SHOWER & EYE BATH.
<b>ENVIROMENTAL EXPOSURE CONTROLS</b>	AVOID DISCHARGING INTO DRAINAGE WATER.
<b>SECTION 9: PHYSICAL &amp; CHEMICAL PROPERTIES</b>	
<b>9.1</b> PHYSICAL & CHEMICAL PROPERTIES	
<b>APPEARANCE</b>	LIQUID
<b>COLOUR</b>	YELLOW – RED BROWN
<b>ODOUR</b>	CHARACTERISTIC
<b>RELATIVE DENSITY</b>	APPROX 0.886 @ 20°C



<b>FLASH POINT (°C)</b>	42°C
<b>REFRACTIVE INDEX @ 20 °C</b>	APPROX. 1.470 @ 20°C
<b>SOLUBILITY IN WATER @ 20 °C</b>	INSOLUBLE IN WATER.
<b>9.2 OTHER INFORMATION</b>	NO DATA.
<b>SECTION 10: STABILITY &amp; REACTIVITY</b>	
<b>10.1 REACTIVITY</b>	PRESENTS NO SIGNIFICANT REACTIVITY HAZARDS, BY ITSELF OR IN CONTACT WITH WATER. STABLE UNDER NORMAL TEMPERATURE AND STORAGE CONDITIONS AND RECOMMENDED USE.
<b>10.2 CHEMICAL STABILITY</b>	STABLE UNDER SUGGESTED STORAGE CONDITIONS (<15°C).
<b>10.3 POSSIBILITY OF HAZARDOUS REACTIONS</b>	NO.
<b>10.4 CONDITIONS TO AVOID</b>	STORAGE AT HIGH TEMPERATURES. DO NOT STORE ABOVE 15°C.
<b>10.5 INCOMPATIBLE MATERIALS</b>	P.V.C
<b>10.6 HAZARDOUS DECOMPOSITION PRODUCTS</b>	THIS PRODUCT DOES NOT DECOMPOSE UNDER NORMAL CONDITIONS. UNDER FIRE CONDITIONS THE PRODUCT WILL PRODUCE A MIXTURE OF IRRITATING FUMES & SMOKE & CARBON MONOXIDE.

<b>SECTION 11: TOXICOLOGICAL INFORMATION</b>	
<b>11.1 TOXICOLOGICAL EFFECTS</b>	
<b>ACUTE TOXICITY</b>	ACUTE TOXICITY LD50 (ORAL) IN MG/KG: > 5000 LD50 (DERMAL) IN MG/KG: > 5000
<b>SKIN IRRITATION</b>	MAY CAUSE AN ALLERGIC SKIN REACTION.
<b>EYE DAMAGE OR IRRITATION</b>	NOT CLASSIFIED AS IRRITATING TO THE EYE (SOURCE CSR)
<b>RESPIRATORY OR SKIN SENSITIVITY</b>	NO DATA.
<b>GERM CELL MUTAGENICITY</b>	NEGATIVE. (SOURCE CSR).
<b>CARCINOGENICITY</b>	NOT APPLICABLE.
<b>REPRODUCTIVE TOXICITY</b>	NOT APPLICABLE.
<b>STOT – SINGLE EXPOSURE</b>	NOT APPLICABLE.
<b>STOT – REPEATED EXPOSURE</b>	NOT APPLICABLE.
<b>ASPIRATION HAZARD</b>	NO DATA.
<b>OTHER INFORMATION</b>	NO DATA.
<b>SECTION 12: ECOLOGICAL INFORMATION</b>	
<b>12.1 TOXICITY</b>	ADOPT GOOD WORKING PRACTICES, SO THAT THE PRODUCT IS NOT RELEASED INTO THE ENVIRONMENT. VERY TOXIC TO AQUATIC LIFE WITH LONG LASTING EFFECTS.
<b>12.2 PERSISTENCE &amp; DEGRADABILITY</b>	TO BE CONSIDERED AS READILY BIODEGRADABLE BASED ON ITS READY BIODEGRADABILITY. OIL DOES NOT FULFIL THE CRITERIA FOR PERSISTENCE.
<b>12.3 BIO- ACCUMULATIVE POTENTIAL</b>	BIO-ACCUMULATION POTENTIAL
<b>12.4 MOBILITY IN SOIL</b>	CONSIDERED AS A READILY BIODEGRADABLE NCS. BASED ON THE READY BIODEGRADABILITY OF THE NCS, SIMULATION TESTS IN SURFACE WATER, SEDIMENT AND SOIL ARE NOT REQUIRED IN ACCORDANCE WITH EFFECTS.
<b>12.5 RESULTS OF PBT &amp; VPVB ASSESSMENT</b>	LIST OF SUBSTANCES DANGEROUS FOR THE ENVIRONMENT AND CORRESPONDING CLASSIFICATION: 1% - 6% ALPHA PINENE CAS: 7785-26-4 EC: 232-077-3

	<p>H410 VERY TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT.</p> <p>1% - 5% LIMONENE CAS: 5989-27-5 EC: 227-813-5  H410 VERY TOXIC TO AQUATIC ORGANISMS, MAY CAUSE LONG-TERM ADVERSE EFFECTS IN THE AQUATIC ENVIRONMENT.  FISH (P.PROMELAS): LC50 33MG/L - 96H  DAPHIA MAGNA: EC50 69.6 MG/L - 48H  VPVB SUBSTANCES: - PBT SUBSTANCES: NONE</p>
<b>12.6 OTHER ADVERSE EFFECTS</b>	DO NOT ALLOW PRODUCT TO ENTER STREAMS, SEWERS OR OTHER WATERWAYS.
<b>SECTION 13: DISPOSAL INFORMATION</b>	
<b>13.1 WASTE TREATMENT METHODS</b>	ALWAYS RECOVER SPILLED PRODUCT. DISCARD WASTE MATERIAL WITH AUTHORIZED WASTE MANAGEMENT SERVICES. ACT IN ACCORDANCE WITH LOCAL & NATIONAL WASTE REGULATIONS.

<b>SECTION 14: TRANSPORT INFORMATION</b>	
<b>14.1 TRANSPORT INFORMATION</b>	
	<p><b>UN NUMBER</b></p> <p><b>ROAD: 1272</b>  <b>RAIL: 1272</b>  <b>AIR: 1272</b></p>
<b>14.2 UN SHIPPING NAME</b>	PINE OIL
<b>14.3 TRANSPORT HAZARD CLASS(ES)</b>	<p>ADR/RID/ADN CLASS: 3: (F1) FLAMMABLE LIQUIDS  ADR HI NO: 30  IMDG CLASS: 3: FLAMMABLE LIQUIDS  ICAO CLASS/DIVISION: 3: FLAMMABLE LIQUIDS</p> <p>TRANSPORT LABELS</p>  <p>EAC - 3Y  HIN - 30</p>
<b>14.4 PACKING GROUP</b>	<p>ADR/RID/ADN PACKING GROUP III  IMDG PACKING GROUP III  ICAO PACKING GROUP III</p>
<b>14.5 ENVIROMENTAL HAZARDS</b>	<p>ENVIRONMENTALLY HAZARDOUS SUBSTANCE/MARINE POLLUTANT</p> 
<b>14.6 SPECIAL PRECAUTIONS FOR USER</b>	NONE.



<b>14.7</b> TRANSPORT IN BULK ACCORDING TO ANNEX II OF MARPOL73/78 & THE IBC CODE.	No ADDITIONAL DATA.
<b>SECTION 15: REGULATORY INFORMATION</b>	
<b>15.1</b> PRODUCT SPECIFIC SAFETY, HEALTH & ENVIRONMENTAL REGULATIONS & LEGISLATION	
<b>EU DIRECTIVES</b>	REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL OF 18 <sup>TH</sup> DECEMBER 2006. CONCERNING THE REGISTRATION, EVALUATION, AUTHORIZATION & RESTRICTION OF CHEMICALS (REACH), ESTABLISHING A EUROPEAN CHEMICALS AGENCY, AMENDING DIRECTIVE 1999/45/EC AND REPEALING COUNCIL REGULATION (EEC) No793/93 & COMMISSION REGULATION (EC) No1488/94 AS WELL AS COUNCIL DIRECTIVE 76/769/EEC & COMMISSION DIRECTIVE 91/155/ECC, 93/67/ECC, 93/105/EEC & 2000/21/EC (INCLUDING AMENDMENTS).
<b>STATUTORY INSTRUMENTS</b>	THE CHEMICALS (HAZARD INFORMATION & PACKAGING FOR SUPPLY REGULATIONS 2009 (S.I.2009 No 716).
<b>APPROVED CODE OF PRACTICE</b>	CLASSIFICATION & LABELLING OF SUBSTANCES & PREPARATIONS DANGEROUS FOR SUPPLY. SAFETY DATA SHEETS FOR SUBSTANCES & PREPARATIONS.
<b>GUIDANCE NOTES</b>	WORKPLACE EXPOSURE LIMITS EH40. CHIP FOR EVERYONE HSG 108.
<b>15.2</b> CHEMICAL SAFETY ASSESSMENT	-

<b>SECTION 16: OTHER INFORMATION</b>																	
HAZARD AND/ OR PRECAUTIONARY STATEMENTS IN FULL	<table border="0"> <tr> <td>H226</td> <td>FLAMMABLE LIQUID AND VAPOUR.</td> </tr> <tr> <td>H228</td> <td>FLAMMABLE SOLID.</td> </tr> <tr> <td>H304</td> <td>MAY BE FATAL IF SWALLOWED AND ENTERS AIRWAYS.</td> </tr> <tr> <td>H315</td> <td>CAUSES SKIN IRRITATION.</td> </tr> <tr> <td>H317</td> <td>MAY CAUSE AN ALLERGIC SKIN REACTION.</td> </tr> <tr> <td>H319</td> <td>CAUSES SERIOUS EYE IRRITATION.</td> </tr> <tr> <td>H410</td> <td>VERY TOXIC TO AQUATIC LIFE WITH LONG LASTING EFFECTS.</td> </tr> <tr> <td>H411</td> <td>TOXIC TO AQUATIC LIFE WITH LONG LASTING EFFECTS.</td> </tr> </table>	H226	FLAMMABLE LIQUID AND VAPOUR.	H228	FLAMMABLE SOLID.	H304	MAY BE FATAL IF SWALLOWED AND ENTERS AIRWAYS.	H315	CAUSES SKIN IRRITATION.	H317	MAY CAUSE AN ALLERGIC SKIN REACTION.	H319	CAUSES SERIOUS EYE IRRITATION.	H410	VERY TOXIC TO AQUATIC LIFE WITH LONG LASTING EFFECTS.	H411	TOXIC TO AQUATIC LIFE WITH LONG LASTING EFFECTS.
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H410	VERY TOXIC TO AQUATIC LIFE WITH LONG LASTING EFFECTS.																
H411	TOXIC TO AQUATIC LIFE WITH LONG LASTING EFFECTS.																
<b>TRAINING INSTRUCTIONS: REFER TO POSSIBLE HAZARD BEFORE USE OF THIS PRODUCT.</b>																	
<b>ABBREVIATIONS &amp; ACRONYMS:</b>																	
<b>MSDS</b>	MATERIAL SAFETY DATA SHEET.																
<b>INCI</b>	INTERNATIONAL NOMENCLATURE OF COSMETIC INGREDIENTS.																
<b>CAS</b>	CHEMICAL ABSTRACT SERVICE.																
<b>IMDG</b>	INTERNATIONAL MARITIME CODE FOR DANGEROUS GOODS.																
<b>ADR</b>	ACCORD EUROPEAN SUR LE TRANSPORT DES MARCHANDISES DANGEREUSES PAR ROUTE (EUROPEAN AGREEMENT CONCERNING THE INTERNATIONAL CARRIAGE OF DANGEROUS GOODS BY ROAD).																
<b>RID</b>	INTERNATIONAL CARRIAGE OF DANGEROUS GOODS BY RAIL.																
<b>ICAO</b>	INTERNATIONAL CIVIL AVIATION ORGANIZATION.																
<b>ADN</b>	INTERNATIONAL CARRIAGE OF DANGEROUS GOODS BY INLAND WATERWAYS.																
<b>GHS</b>	GLOBALLY HARMONIZED SYSTEM OF CLASSIFICATION & LABELLING OF CHEMICALS.																
<b>TREM CARD</b>	TRANSPORT EMERGENCY CARD.																
<b>STOT</b>	SPECIFIC TARGET ORGAN TOXICITY.																



DOCUMENTATION REVISION	
<b>DATE</b>	<b>CHANGE DESCRIPTION</b>
10 <sup>TH</sup> APRIL 2018	DATA LAUNCH

*The attached information is considered to be correct at the time the client received this information. Please be aware that detail can change and we encourage clients to update their records with MADAR regularly. The information is not and should not be considered a guarantee or warranty, or a part of our contractual or other legal obligations. The information is not to be disclosed to others, reproduced or transmitted in whole or in part without permission from MADAR.*



## SPECIFICATION SHEET

**PRODUCT NAME:** SPRUCE BLACK, ESSENTIAL OIL

PRODUCT INCI: PICEA MARIANA LEAF

PRODUCT CODE: OESPRUBLAC

CAS NUMBER: 91722-19-9

EINECS NUMBER: 294-420-3

MANUFACTURING METHOD: STEAM DISTILLATION

SHELF LIFE / BEST BEFORE: 24 MONTHS

ANALYTICAL DETAILS	RANGE
APPEARANCE	LIQUID
COLOUR	COLOURLESS - YELLOW
ODOUR	CHARACTERISTIC
SPECIFIC GRAVITY @ 20°C	0.875 – 0.898
REFRACTIVE INDEX @ 20°C	1.460 – 1.480
OPTICAL ROTATION (°C)	-60.0 TO -38.0

### STORAGE CONDITIONS

STORE IN A COOL DRY PLACE AWAY FROM HEAT & SUNLIGHT

### DOCUMENTATION REVIEW DATE:

24<sup>TH</sup> MAY 2018

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## **Vegetarian & Vegan Suitability Statement**

PRODUCT NAME: SPRUCE BLACK

MADAR Corporation Limited can confirm that the above listed product has not been tested in animals and does not contain dairy or any other animal product, by product or derivative and is therefore suitable for vegetarian and vegan use.

November 2018