



MATERIAL SAFETY DATA SHEET

SECTION 1. PRODUCT IDENTIFIER

1.1 Product Identifier	Blue Spruce - INCI: Fragrance
Harmonization Codes HS:	330129 Other Essential Oils 330290 Other Mixtures of Odoriferous Substances 330300 Perfumes and Toilet Waters 330730 Perfumed Bath Salts and Other Bath Preparations 330741 Agarbatti and Other Odoriferous Preparations Which Operate By Burning 330749 Other Preparations for Perfuming or Deodorizing Rooms 330790 Depilatories, Other Perfumery, Cosmetic or Toilet Preparations
1.2 Product Uses and Uses Advised Against:	Use in Fragrance Products. Do Not Use: in Food Products.
1.3 Emergency Telephone Number:	In case of emergency phone +1 (718) 858-7422 outside office hours, your local Emergency Room. IF SWALLOWED CALL YOUR POISON CONTROL CENTER AT 1-800-222-1222.

SECTION 2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture in accordance with paragraph (d) of §1910.1200;	This mixture has not been tested as a whole. The effects, listed below, are based on evaluation of individual components in accordance with the provisions of the regulations(s) noted below and account for extreme concentration.	
Classification under (EC) Regulation No. 1272/2008	Flammable Liquids, Category 3 Acute Toxicity Oral, Category 5 Aspiration Hazard, Category 1 Acute Toxicity Dermal, Category 5 Skin Corrosion/Irritation, Category 2 Skin Sensitization Category 1B Eye Damage/Irritation, Category 1 Acute Toxicity Inhalation, Category 5 Acute Chronic Toxicity, Category 1 Hazardous to the Aquatic Environment (Acute): Hazard Category 1 Hazardous to the Aquatic Environment (Long-term): Hazard Category 2	H226: Flammable liquid and vapor. H303: May be harmful if swallowed. H304: May be fatal if swallowed and enters airways. H313: May be harmful in contact with skin. H315: Causes skin irritation. H317: May cause an allergic reaction. H318: Causes serious eye damage. H333: May be harmful if inhaled. H410: Very toxic to aquatic life with long lasting effects.

<p>Pictograms:</p>		
<p>Classification under (EC) Directive 1999/45/EC</p>	<p>Irritating to skin and eyes. May cause sensitization. <u>See Section 15.</u></p>	
	<p>Hazard Symbols: Xn, Harmful Xi, Irritant N, Dangerous for the environment.</p>  <p>Risk Phrases: 10 Flammable.(flashpoints < 200 degrees Fahrenheit) 22 Harmful if swallowed. 36 Irritating to eyes. 38 Irritating to the skin. 41 Risk of serious damage to eyes. 43 May cause sensitisation by skin contact. 51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. 65 Harmful: May cause lung damage if swallowed.</p>	
<p>2.2 Label Elements and Information Concerning Particular Hazards For Human And Environment:</p>	<p><u>See Section 15.</u></p>	
<p>2.3 Classification system:</p>	<p>Directives 67/548/EEC or 1999/45/EC.</p>	
<p>2.4 Other Hazards:</p>	<p>None.</p>	

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Chemical Characterization Description: A mixture of fragrance chemicals and/or essentials oils and isolates.
3.2 Dangerous Components:

<u>Level</u>	<u>CAS Nr</u>	<u>EC Nr</u>	<u>Substance</u>	<u>R Phrase:</u> <u>Classification</u> <u>for</u> <u>(DSD)</u> <u>67/548/EEC</u>	<u>Classification for</u> <u>(CLP) 1272/2008</u>	<u>LD50/ATE</u> <u>Oral</u>	<u>LD50/ATE</u> <u>Dermal</u>	<u>LC50/ATE</u> <u>Inhalation</u>	<u>LC50</u> <u>Route</u>
See <u>Section 16</u> for components:									
Substances with Community workplace exposure limits, not listed above: Not Applicable									
Substances that are persistent, bioaccumulative and toxic or very persistent and very bioaccumulative, greater than 0.1%: Not Applicable									
Additional information: For the wording of the listed risk phrases refer to <u>Section 15</u> .									
The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret is required.									

SECTION 4. FIRST AID MEASURES

4.1 Description Of First Aid Measures	
Inhalation:	This material does not present a hazard if inhaled. Remove individual to fresh air and keep at rest in a position comfortable for breathing; as a precautionary measure. Consult a doctor in case of complaints.
Skin Contact:	Immediately wash with soap and water and rinse thoroughly. Remove soiled clothing. Then consult a doctor.
Eye Contact:	Immediately rinse opened eye for several minutes under running water. Rinse cautiously for several minutes, retracting eyelids often. Tilt the head to prevent chemical from transferring to the uncontaminated eye. Remove contact lenses, if present and easy to do. Continue rinsing. Then consult a doctor.
Swallowing:	Rinse mouth, then make victim drink plenty of water; avoid vomiting (risk of perforation!). Immediately call a doctor. Do not attempt to neutralize.
4.2 Most Important Symptoms And Effects (Acute or Delayed)	
Causes skin irritation. May cause an allergic reaction. Causes serious eye damage.	
4.3 Indication Of Any Immediate Medical Attention And Special Treatment Needed	
None expected, see <u>Section 4.1</u> for further information.	

SECTION 5. FIRE FIGHTING MEASURES

5.1 Suitable Extinguishing Agents:	Combustible at elevated temperatures. Use alcohol resistant foam, carbon dioxide, dry chemical, or water spray when fighting first - CO ₂ , powder or water spray. Fight larger fires with water spray or alcohol resistant foam. Use fire-extinguishing methods suitable to surrounding conditions. Water or foam may cause frothing if liquid is burning
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	but it still may be a useful extinguishing agent if carefully applied to the fire. Do not direct a water stream directly into the hot burning liquid.
5.2 Special Hazards Caused By The Substance, Its Products Of Combustion Or Resulting Gases:	Material may be ignited if preheated to temperatures above the flash point in the presence of a source of ignition. In case of fire, the following can be released: Hazardous vapors, Carbon Dioxide, Carbon Monoxide
5.3 Protective Methods And Equipment For Firefighting:	Do not enter fire area without proper protection including self-contained breathing apparatus, respiratory protective equipment and full protective suit/equipment. Fight fire from a safe distance and a protected location due to the potential of hazardous vapors and decomposition products.
5.4 Additional Information:	N/A

SECTION 6. ACCIDENTAL RELEASE MEASURES

6.1 Person-Related Safety Precautions:	Isolate spillage and clean up immediately. Avoid inhalation. Avoid contact with skin and eyes. Refer to <u>Section 7</u> & <u>Section 8</u> for protective measures when handling the spillage.
6.2 Measures For Environmental Protection:	Do not allow liquid to enter drains, surface and ground water, and soil.
6.3 Measures For Cleaning/Collecting:	Remove ignition sources. Provide adequate ventilation. Avoid excessive inhalation of vapours. Contain spillage immediately by use of sand or inert powder. Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Dispose of according to local regulations and according to <u>Section 13</u> . Rinse off area with water.
6.4 Reference To Other Sections:	Also refer to <u>Section 8</u> and <u>Section 13</u> .

SECTION 7. HANDLING AND STORAGE

7.1 Precautions For Safe Handling:	Observe the general safety regulations when handling chemicals. Use personal protective equipment as required. Use in accordance with good manufacturing and industrial hygiene practices. Use in areas with adequate ventilation. Avoid inhalation. Keep away from heat, sparks, open flames and hot surfaces. - No smoking. Do not eat, drink or smoke when using this product. Avoid contact with the eyes, skin and mucous membranes.
7.2 Storage:	Store in original container at or below 25°C. Store in a well ventilated place. Keep container tightly closed. Keep cool. Ground/bond container and receiving equipment. Use explosion -proof electrical, ventilating and lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge.
7.3 Requirements To Be Met By Storerooms And Receptacles:	Ground/bond container and receiving equipment. Use only non-sparking tools. Take precautionary measures against static discharge.

7.4 Specific End Use(s):	Use in accordance with good manufacturing and industrial hygiene practices.
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SECTION 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

8.1 Control Parameters	
Ingredients With Limit Values That Require Monitoring In The Workplace:	None.
Additional Information:	N/A
8.2 Exposure Controls	
Personal Protective Equipment:	Wear protective gloves/eye protection/face protection.
Respiratory Protection:	Under normal conditions of use and where adequate ventilation is available to prevent build up of excessive vapor, 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 minimize exposure to personnel: a) Increase ventilation of the area with local exhaust ventilation. b) Personnel can use an approved, appropriately fitted respirator with organic vapor cartridge or canisters and particulate filters. c) Use closed systems for transferring and processing this material. Also refer to <u>Sections 2 and Section 7</u> .
General Protective And Hygienic Measures:	Follow Good Laboratory and Manufacturing Practices (GLP/GMP). Wash hands before breaks and at the end of work.
Protection Of Hands:	Disposable gloves Material of gloves: Latex/Natural rubber (NR)/Nitrile Penetration time of glove material: Gloves providing minimal protection are sufficient when the product is handled in accordance with the instructions for use.
Eye Protection:	Safety glasses
Body Protection:	Lab Coat
Respiratory Protection:	NIOSH-approved organic vapor respiration or equivalent.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

General Information

Appearance/Form:	Liquid
Color:	Clear to Brown
Odor:	To match standard. Scent character: A Mobile Liquid with odor. Our interpretation of this masculine woody scent.
Change In Condition	

Melting Point/Melting Range:	Not determined
Boiling Point/Boiling Range:	Not determined
Flashpoint (°F):	149° F
Self-Igniting:	Will not self-ignite.
Danger Of Explosion:	Does not present an explosion hazard.
Vapor Pressure:	>0.0009 mm Hg @ 20°C
Density at 25°C:	0.975-1.2 g/cc
Solubility In/Miscibility With Water:	No
pH-value At 20°C:	Not determined
Octanol/Water Partition Coefficient:	4.1 - 9.3 at 25°C 4.7
Volatiles, % By Weight:	5.1-6.7
Bulk Density:	321.8 - 410.1
Other Information:	None.

SECTION 10. STABILITY AND REACTIVITY

Reactivity:	Presents no significant reactivity hazard, by itself, or in contact with water.
Stability:	Stable when stored in accordance with the recommended storage conditions.
Materials To Be Avoided:	Avoid contact with strong acids, alkalis or oxidizing agents.
Hazardous Reactions:	No dangerous reactions known. Not expected under normal conditions of use.
Conditions To Avoid:	Avoid extreme heat.
Hazardous Decomposition Products:	CO ₂ , CO

SECTION 11. TOXICOLOGICAL INFORMATION

11.1 Information On Toxicological Effects

This mixture has not been tested as a whole for health effects. The health effects have been calculated using the conventional method outlined in Article 6(1)(a) of Directive 1999/45/EC, in accordance with Regulation (EC) No 1907/2006 (REACH). In addition, toxicity information for the mixture, if available, is provided below in accordance with methods given in Regulation (EC) No 1272/2008.

Acute Toxicity (LD/LC50) Values Relevant For Classification::	Calculated LD50: 1.2 - 1.7 g/kg
Assumed Toxicity Value (LD50 or ATE) for Acute Oral Toxicity:	3471.45 - 4209.26
Assumed Toxicity Value (LD50 or ATE) for Acute Dermal Toxicity:	9398.1 - 14159.34
Assumed Toxicity Value (LC50 or ATE) for Acute Inhalation Toxicity:	Not available
Inhalation Route:	Not available
Primary Effects:	After skin contact: Irritation. Chronic exposure may cause damage to skin and kidneys. After eye contact: Irritation After ingestion: Nausea Sensitization: May occur on skin contact.
Information about hazardous ingredients in the mixture:	
CAS Nr EC Nr Substance	<u>LD50/ATE Oral</u> <u>LD50/ATE Dermal</u> <u>LC50/ATE Inhalation</u> <u>LC50 Route</u>
See <u>Section 16</u> for components:	

SECTION 12. ECOLOGICAL INFORMATION

12.1 Toxicity:	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. See <u>Section 15</u> .
12.2 Persistence And Degradability:	Not determined.
12.3 Bioaccumulative Potential:	Not determined.
12.4 Mobility In Soil:	Not determined.
12.5 Results of PBT and vPvB Assessment:	This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.
12.6 Other Adverse Effects:	Not determined.

SECTION 13. DISPOSAL CONSIDERATIONS

13.1 Product:	Chemical residues and remains should be routinely handled as special waste. This must be disposed of in compliance with anti-pollution and other laws of the country concerned. To ensure compliance we recommend that you contact the relevant (local) authorities and/or an approved waste-disposal company for information.
13.2 European Waste Catalogue:	07 07 04 other organic solvents, washing liquids and mother liquors
13.3 Packaging:	Disposal must be made in accordance with local waste management regulations. Contaminated packaging must be disposed of in the same manner as the product. Non-contaminated packaging materials may be recycled. Contact your local service providers for further information.
13.4 Disposal Methods:	DO NOT DUMP INTO ANY SEWERS, ON THE GROUND, OR INTO ANY BODY OF WATER. All disposal practices must be in compliance with all Federal, State, Provincial, and local laws and regulations. Regulations vary in different locations. Waste characterizations and compliance with applicable laws are the sole responsibility of the waste generator. As your supplier, we have no control over the management practices or manufacturing processes of parties handling or using this material. The information presented here pertains only to the product when used as intended, according to this Safety Data Sheet. For unused and uncontaminated product, the preferred options include sending to a licensed and permitted incinerator or other thermal destruction device. Various federal, state or provincial agencies may have specific regulations concerning the transportation, handling, storage, use or disposal of this product which may not be covered in the Safety Data Sheet. The user shall have to review these regulations to ensure full compliance with all applicable regulations.

SECTION 14. TRANSPORTATION INFORMATION

14.1 UN number:	UN3082
14.2 UN Proper Shipping Name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
Flashpoint (°F):	149°F.
14.3 Transport Hazard Class(es):	9: 100-140°F (Flammable), 3A: 140-200°F (Combustible). 3B: >200°F (Not Regulated)
	Road/Rail (CDGRR ADR, RID): Not Restricted Air (ICAO/IATA): Not Restricted: Flashpoints > 200°F (International), Not Restricted: Flashpoints > 140°F (in United States) Sea (IMDG): Not Restricted
Sub Risk:	-
14.4. Packing Group:	III
14.5 Environmental Hazards:	This is an environmentally hazardous substance.
14.6 Special precautions for user:	None additional
14.7 Transport In Bulk According To Annex II Of	Not applicable

MARPOL73/78 And The IBC Code:	
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SECTION 15. REGULATORY INFORMATION

15.1 TSCA Status & Safety, Health And Environmental Regulations/Legislation Specific For The Substance Or Mixture:	All components in this product are on the TSCA Inventory. None Additional.
15.2 Chemical Safety Assessment	A Chemical Safety Assessment has not been carried out for this product.
15.3 Labeling According To EU Guidelines:	Code letter and hazard designation of product: Xi, Irritant Xn, Harmful N, Dangerous for the environment
15.4 Hazard-Determining Components Of Labeling:	See <u>Section 3</u>
15.5 Risk Phrases(R):	10 Flammable. 22 Harmful if swallowed. 36 Irritating to eyes. 38 Irritating to the skin. 41 Risk of serious damage to eyes. 43 May cause sensitization by skin contact. 51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. 65 Harmful: may cause lung damage if swallowed.
15.6 Safety Phrases(S):	02 Keep out of reach of children. 24 Avoid contact with skin. 25 Avoid contact with eyes. 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. 36 Wear suitable protective clothing. 39 Wear eye/face protection. 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). 61 Avoid release to the environment. Refer to special instructions/safety data sheets.
15.7 Class And Category Of Danger:	Flammable Liquid: Hazard Category 3 Skin Corrosion: Category 1 Skin Irritation: Category 1 Eye Damage: Category 1 Eye Irritation: Category 1 Skin Sensitization: Category 1 Hazardous to the Aquatic Environment (Acute): Hazard Category 1 Hazardous to the Aquatic Environment (Long-term): Hazard Category 2
15.8 Signal Word:	Warning, Danger
15.9 Hazard Phrases(H):	226 Flammable liquid and vapour. 303 May be harmful if swallowed. 304 May be fatal if swallowed and enters airways. 313 Maybe be harmful in contact with skin. 315 Causes skin irritation.

	<p>317 May cause an allergic skin reaction.</p> <p>318 Causes serious eye damage.</p> <p>333 May be harmful if inhaled.</p> <p>410 Very toxic to aquatic life with long lasting effects.</p> <p>412 Harmful to aquatic life with long lasting effects.</p>
Supplemental Information:	No Animal testing. No animal products or byproducts are used in this fragrance. May produce an allergic reaction.
Precautionary Statements(P):	<p>210 Keep away from heat, sparks, open flames and hot surfaces. - No smoking.</p> <p>233 Keep container tightly closed.</p> <p>240 Ground/bond container and receiving equipment.</p> <p>241 Use explosion-proof electrical ventilating and lighting equipment.</p> <p>242 Use only non-sparking tools.</p> <p>243 Take precautionary measures against static discharge.</p> <p>261 Do not breathe vapour or dust.</p> <p>264 Wash hands and other contacted skin thoroughly after handling.</p> <p>272 Contaminated work clothing should not be allowed out of the workplace.</p> <p>273 Avoid release to the environment.</p> <p>280 Wear protective gloves/eye protection/face protection.</p> <p>301/330/331 IF SWALLOWED: Rinse mouth. Do not induce vomiting.</p> <p>302/352 IF ON SKIN: Wash with plenty of soap and water.</p> <p>302/303/361/353 IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.</p> <p>304/340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.</p> <p>305/351/338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>310 Immediately call a POISON CENTER or doctor/physician.</p> <p>333/313 If skin irritation or rash occurs: Get medical advice/attention.</p> <p>362 Take off contaminated clothing and wash before reuse.</p> <p>363 Wash contaminated clothing before reuse.</p> <p>370/378 In case of fire: Use carbon dioxide, dry chemical, foam for extinction.</p> <p>391 Collect Spillage.</p> <p>403/235 Store in a well-ventilated place. Keep cool.</p> <p>405 Store locked up.</p> <p>501 Dispose of contents/container to approved disposal site, in accordance with local regulations.</p>
Pictograms:	
Other Hazards:	None
Concentration % Limits	EH A1= 90.20% EH C1=90.20% EH C2=9.02% EH C3=0.92% EH C4=10% SCI 1A=90.02% SCI 2=47.50% SS 1=4.74%

Total Fractional Values	EH A1= 1.16 EH C1=1.16 EH C2=11.52 EH C3=115.47 EH C4=10.90 SCI 1A=4.93 SCI 2=2.60 SS 1=26.00
Key To Revisions:	Not applicable.
Key To Abbreviations:	<p>AH 1 Aspiration - Hazard Category 1 ATI 4 Acute Toxicity - Inhalation Category 4 ATD 1 Acute Toxicity - Dermal Category 1 ATD 4 Acute Toxicity - Dermal Category 4 ATO 4 Acute Toxicity - Oral Category 4 EDI 1 Eye Damage / Irritation Category 1 EDI 2 Eye Damage / Irritation Category 2 EH A1 Hazardous to the Aquatic Environment (Acute) Hazard Category 1 EH C1 Hazardous to the Aquatic Environment (Long-term) Hazard Category 1 EH C2 Hazardous to the Aquatic Environment (Long-term) Hazard Category 2 ETO C1 Very toxic to Aquatic Life (Long Lasting Effects) Chronic 1 ETO C2 Very toxic to Aquatic Life (Long Lasting Effects) Chronic 2 ETO C3 Very toxic to Aquatic Life (Long Lasting Effects) Chronic 3 FG 1 Flammable Gas, Hazard Category 1 FL 3 Flammable Liquid, Hazard Category 3 FS 2 Flammable Solid, Hazard Category 2 H220 Extremely flammable gas. H224 Extremely flammable liquid and vapour. H226 Flammable liquid and vapour. H280 Contains gas under pressure; may explode if heated. H302 Harmful if swallowed. 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. H332 Harmful if inhaled. H335 May cause respiratory irritation. H400 Very toxic to aquatic life. H410 Very toxic to aquatic life with long lasting effects. H411 Toxic to aquatic life with long lasting effects. H412 Harmful to aquatic life with long lasting effects. P202 Do not handle until all safety precautions have been read and understood. P210 Keep away from heat, sparks, open flames and hot surfaces. - No smoking. P233 Keep container tightly closed. P240 Ground/bond container and receiving equipment. P241 Use explosion-proof electrical, ventilating and lighting equipment. P242 Use only non-sparking tools. P243 Take precautionary measures against static discharge. P260 Do not breathe vapour or dust. P261 Avoid breathing vapour or dust. P264 Wash hands and other contacted skin thoroughly after handling. P270 Do not eat, drink or smoke when using this product. P272 Contaminated work clothing should not be allowed out of the workplace. P273 Avoid release to the environment. P280 Wear protective gloves/eye protection/face protection. P301/310/312 IF SWALLOWED: call a POISON CENTER or doctor/physician if you feel unwell. P301/330/331 IF SWALLOWED: Rinse mouth. Do not induce vomiting. P302/352 IF ON SKIN: Wash with plenty of soap and water. P302/303/361/353 IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/show er. P304/340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. P305/351/338 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 or doctor/physician. P330 Rinse mouth.</p>

	<p>P331 Do not induce vomiting.</p> <p>P332/313 If skin irritation occurs. Get medical advice/attention.</p> <p>P333/313 If skin irritation or rash occurs: Get medical advice/attention.</p> <p>P337/313 If eye irritation occurs. Get medical advice/attention.</p> <p>P362 Take off contaminated clothing and wash before reuse.</p> <p>P363 Wash contaminated clothing before reuse.</p> <p>P370/378 In case of fire: Use carbon dioxide, dry chemical, foam for extinction.</p> <p>P391 Collect spillage.</p> <p>P403/235 Store in a well-ventilated place. Keep cool.</p> <p>P405 Store locked up.</p> <p>P501 Dispose of contents/container to approved disposal site, in accordance with local regulations.</p> <p>REP 2 Toxic to reproduction Category 2</p> <p>RES 1 Respiratory Sensitization Category 1</p> <p>SCI 1 Skin Corrosion / Irritation Category 1</p> <p>SCI 1A Skin Corrosion / Irritation Category 1A</p> <p>SCI 2 Skin Corrosion / Irritation Category 2</p> <p>SS 1 Skin Sensitization Category 1</p> <p>SS 1A Skin Sensitization Category 1A</p> <p>SS 1B Skin Sensitization Category 1B</p> <p>STOT SE1 Specific Organ Toxicity Category 1</p> <p>STOT SE2 Specific Organ Toxicity Category 2</p> <p>STOT SE3 Specific Organ Toxicity Category 3</p>
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SECTION 16. OTHER INFORMATION

This information is based on use of product neat, and not use of product in project bases, but on use as a fragrance concentrate. For detailed information on the categories below, please refer to the IFRA QRA Information Booklet.

Table 1: SAF and Product Type Consumer Exposure Levels that Drive the IFRA QRA Category

IFRA QRA Category	SAF	Category Consumer Exposure* mg/cm²/day	Product Type That Drives the Category Consumer Exposure Level	Minimum Pragmatic Level
Category 1 (C1)	300	11.7	Lip Products	Not Necessary Acceptable Exposure Level derived from IFRA QRA
Category 2 (C2)	300	9.1	Deodorants/Antiperspirants	Not Necessary Acceptable Exposure Level derived from IFRA QRA
Category 3 (C3)	300	2.2	Hydroalcoholics for Shaved Skin	Not Necessary Acceptable Exposure Level derived from IFRA QRA
Category 4 (C4)	100	2.2	Hydroalcoholics for Unshaved Skin	Not Necessary Acceptable Exposure Level derived from IFRA QRA

Category 5 (C5)	100	4.2	Hand Cream	Not Necessary Acceptable Exposure Level derived from IFRA QRA
Category 6 (C6)	100	1.4	Mouthwash	Not Necessary Acceptable Exposure Level derived from IFRA QRA
Category 7 (C7)	300	4.4	Intimate Wipes	Not Necessary Acceptable Exposure Level derived from IFRA QRA
Category 8 (C8)	100	1.0	Hair Styling Aids	2% The maximum concentration will not exceed 2% and may be lower if determined by the IFRA QRA
Category 9 (C9)	100	0.2	Rinse-off Hair Conditioners	5% The maximum concentration will not exceed 5% and may be lower if determined by the IFRA QRA
Category 10 (C10)	100	0.1	Hard Surface Cleaners	2.5% The maximum concentration will not exceed 2.5% and may be lower if determined by the IFRA QRA
Category 11 (C11)	10	0.00033	Candles	Due to the expected negligible skin exposure from such products the risk of induction of dermal sensitization through the normal formulation and use of such products is considered to be negligible. As such, the concentration of fragrance ingredient is not restricted in the finished product.

* The Category Consumer Exposure Level (mg/cm²/day) is driven by the product type in that category with the combined highest consumer exposure level and highest Sensitization Assessment Factor (SAF). In order to identify the product type consumer exposure that drives the category consumer exposure, please refer to the Technical Dossier, Table 9 in the IFRA QRA Information Booklet.

Table 2: Components-Allergens***

<u>Level</u>	<u>CAS Nr EC Nr</u>	<u>Substance</u>	<u>R Phrase: Classification for (DSD) 67/548/EEC</u>	<u>Classification for (CLP) 1272/2008</u>	<u>LD50/ATE Oral</u>	<u>LD50/ATE Dermal</u>	<u>LC50/ATE Inhalation</u>	<u>LC50 Route</u>
0-0.5%	122-40-7 204-541-5	alpha-Amyl Cinnamic Aldehyde	Xi; R21/41 R38 R43	SS 1B EH C2; H317 H411	3730	Not determined	Not determined	Not determined
C1=0.02% C2=0.02% C3=0.05% C4=0.05% C5=0.05% C6=0.4% C7=.04% C8=.05% C9=.05% C10=.05% C11=Not Restricted								

(type floral, medium strength described as sweet, floral, oily, fruity, herbal, jasmine, tropical, green, powdery, waxy)								
0-2.5%	100-51-6 202-859-9	Benzyl Alcohol	Xn, R20/R22	ATO 4 EDI 2 ATI 4; H302 H319 H332	1040	2000	1000	Not determined
C1=0.2% C2=0.2% C3=0.9% C4=2.7% C5=1.4% C6=4.3% C7=0.4% C8=.2.0% C9=5.0% C10=2.5% C11=Not Restricted (type floral, medium strength described as floral, rose, balsamic, sweet, fruity, chemical)								
0-0.4%	104-54-1 203-212-3	Cinnamic Alcohol	None	SCI 2 EDI 2; H315 H319	2000	>5000	Not determined	Not determined
C1=0.09% C2=0.1% C3=0.4% C4=0.4% C5=0.4% C6=2.2% C7=0.2% C8=.0.2% C9=0.4% C10=0.4% C11=Not Restricted (type balsamic, medium strength described as sweet, balsam, hyacinth, spicy, green, powdery, cinnamic, floral, yeasty)								
0-5%	5392-40-5 226-394-6	Citral	Xi; R38 R43	SCI 2 SS 1B EDI 2; H315 H317 H319	4960	2250	Not determined	Not determined
C1=0.04% C2=0.05% C3=0.2% C4=0.6% C5=0.3% C6=1% C7=0.1% C8=.1.4% C9=5% C10=2.5% C11=Not Restricted (type citrus, medium strength described as sharp, lemon, sweet, tangy, green, citrus, juicy, lime, woody, herbal)								
0-.4.3%	97-53-0 202-589-1	Eugenol	Xn Xi; R36 R43	SS 1B EDI 2; H317 H319	1930	5000	2580	Not determined
C1=0.2% C2=0.2% C3=0.5% C4=0.5% C5=0.5% C6=4.3% C7=0.4% C8=.0.5% C9=0.5% C10=0.5% C11=Not Restricted (type spicy, medium strength described as sweet, spicy, close, woody, allspice)								
0-3.6%	107-75-5 203-518-7	7-Hydroxy-Citronellal	Xi; R36, R43	SS 1B EDI 2; H317 H319	5000	2000	Not determined	Not determined
C1=0.1% C2=0.2% C3=0.8% C4=1.0% C5=1.0% C6=3.6% C7=0.4% C8=1% C9=1% C10=1% C11=Not Restricted (type floral, medium strength described as floral, lily, sweet, green, waxy, tropical, melon)								
0-0.2%	97-54-1 202-590-7	Isoeugenol	Xi; R21/41 R38 R43	SS 1B EDI 2; H317 H319	1560	Not Determined	Not determined	Not determined

C1=0.01% C2=0.01% C3=0.02% C4=0.02% C5=0.02% C6=0.2% C7=0.02% C8=0.02% C9=0.02% C10=0.02% C11=Not Restricted (type spicy, medium strength described as sweet, spicy, clove, woody, carnation, floral)								
0-3.5%	101-85-9 202-982-8	<i>alpha</i> -Amyl Cinnamic Alcohol	Xi; R21/41 R38 R43	SS 1B EDI 2; H317 H319	4000	>5000	Not determined	Not determined
C1=0.02% C2=0.03% C3=0.11% C4=0.32% C5=0.17% C6=0.51% C7=0.05% C8=0.07% C9=3.5% C10=2.5% C11=Not Restricted (type spicy, medium strength, floral, jasmine, rosy, waxy, sweet spicy, woody, cinnamon nuance)								
0-12.8%	118-58-1 204-262-9	Benzyl Salicylate	Xi N; R43 R51/53	SS 1B EDI 2 ETO C3; H317 H319 H412	2227	Not determined	Not determined	Not determined
C1=0.5% C2=0.7% C3=2.7% C4=8% C5=4.2% C6=12.8% C7=1.3% C8=2% C9=5% C10=2.5% C11=Not Restricted (type balsamic, low strength, described as balsam, clean, herbal, oily, sweet)								
0-.4%	104-55-2 203-213-9	Cinnamic Aldehyde	None	ATD 4 SS 1 SCI 2 EDI 2; H312 H315 H317 H319	2220	.59	.Not determined	Not determined
C1=0.02% C2=0.02% C3=0.05% C4=0.05% C5=0.05% C6=0.4% C7=0.04% C8=0.05% C9=0.05% C10=0.05% C11=Not Restricted (type spicy, high strength, described as sweet, spice, cinnamon, red hots, warm)								
0-5%	91-64-5 202-086-7	Coumarin	Xn N; R20/21/22 R43 R51/53	ATO 4 SS 1 ETO C3; H302 H317 H412	293	242	Not determined	Not determined
C1=0.1% C2=0.13% C3=0.5% C4=1.6% C5=0.8% C6=2.5% C7=0.3% C8=2% C9=5% C10=2.5% C11=Not Restricted (type tonka, medium strength, described as sweet, hay, tonka, new mown hay)								
0-8.6%	106-24-1 203-377-1	Geraniol	Xi; R38 R41 R43	SCI 2 SS 1 EDI 1; H315 H317 H318	3600	5000	Not determined	Not determined
C1=0.3% C2=0.4% C3=1.8% C4=5.3% C5=2.8% C6=8.6% C7=0.9% C8=2% C9=5% C10=2.5% C11=Not Restricted (type floral, medium strength, described as sweet, floral, fruity, rose, waxy, peach, citrus)								
0-0.2%	31906-04-4 250-863-4	HMPCC (Lyrall)	Xi; R43	SS 1B; H317	3250	11300	Not determined	Not determined

C1=0.02.% C2=0.02% C3=0.2% C4=0.2% C5=0.2% C6=0.2% C7=0.02% C8=0.2% C9=0.2% C10=0.2% C11=Not Restricted (type floral, medium strength, described as floral, muguet, cyclamen, rhubarb, woody)								
0-5%	105-13-5 203-273-6	(4-Methoxybenzyl) Anysil Alcohol	None	SCI 1B EDI 1; H315 H318	1340	3000	Not determined	Not determined
C1=0.04.% C2=0.1% C3=0.2% C4=0.7% C5=0.4% C6=1.1% C7=0.1% C8=1.5% C9=5% C10=2.5% C11=Not Restricted (type powdery, medium strength, described as sweet, powdery, hawthorn, lilac, rose, floral, hyacinth, creamy, balsamic, coumarin, cherry, vanilla, licorice, anise)								
0-5%	103-41-3 203-109-3	Benzyl Cinnamate	None	SCI 1B EDI 1; H315 H318	5530	>3000	Not determined	Not determined
C1=0.1.% C2=0.2% C3=0.7% C4=2.1% C5=1.1% C6=3.4% C7=0.4% C8=2% C9=5% C10=2.5% C11=Not Restricted (type balsamic low strength, described as sweet, balsamic, floral, fruity, cherry, spicy, powdery)								
0-5%	4602-84-0 225-004-1	Farnesol	None	EDI 2 EH A1 ETO C1; H319 H400 H410	6000	>5000	Not determined	Not determined
C1=0.08.% C2=0.11% C3=0.4% C4=1.2% C5=0.6% C6=2% C7=0.2% C8=2% C9=5% C10=2.5% C11=Not Restricted (type floral low strength, described as mild, fresh, sweet, linden, floral, angelica)								
0-3%	80-54-6 201-289-8	2-(4-tert-Butylbenzyl) Propionaldehyde (Lilyall/BMHCA)	Xn Xi N; R22 R38 R43 R51/53 R61 R62	ATO 4 SS 1B SCI 2 REP 2 ETO C2; H302 H315 H317 H361 H411	1390	>5000	Not determined	Not determined
C1=0.1.% C2=0.2% C3=0.6% C4=1.9% C5=1% C6=3% C7=0.3% C8=2% C9=2.5% C10=2.5% C11=Not Restricted (type floral medium strength, described as floral, muguet, watery, green, powdery, cumin)								
0-12%	78-70-6 201-134-4	Linalool	Xi; R38	SCI 2 EDI 2; H315 H319	2200	5610	Not determined	Not determined
C1=1% C2=2% C3=2% C4=1% C5=5% C6=2% C7=1% C8=2% C9=12% C10=5% C11=Not Restricted (type floral medium strength, described as citrus, floral, sweet, bois de rose, woody, green, blueberry)								
0-42.8%	120-51-4 204-402-9	Benzyl Benzoate	Xn N; R22 R51/53	ATO 4 EH C1 ETO C3; H302 H400 H411 H412	1700	4000	Not determined	Not determined

C1=1.7% C2=2.2% C3=8.9% C4=26.7% C5=14% C6=42.8% C7=4.5% C8=2% C9=5% C10=2.5% C11=Not Restricted (type balsamic low strength, described as faint, sweet, balsam, oily, herbal, fruity)								
0-13.3%	106-22-9 203-375-0	Citronellol	Xi N; R36/38 R43 R51/53	SCI 2 EDI 2 SS 1B; H315 H317 H319	3450	2650	Not determined	Not determined
C1=0.8% C2=1.1% C3=4.4% C4=13.3% C5=7% C6=21.4% C7=2.2% C8=2% C9=5% C10=2.5% C11=Not Restricted (type citrus, medium strength described as sweet, green, citrus, rose, woody, herbal)								
0-17.1%	101-86-0 202-983-3	<i>alpha</i> -Hexyl Cinnamic Aldehyde	Xi N; R38 R43 R50/53	SS 1; H317	3100	Not determined	Not determined	Not determined
C1=0.7% C2=0.9% C3=3.6% C4=10.7% C5=5.6% C6=17.1% C7=1.8% C8=2% C9=5% C10=2.5% C11=Not Restricted (type floral, medium strength described as fresh, floral, green, jasmin, herbal, waxy, citrus, fruity)								
0-20%	5989-27-5 227-813-5	dextro-Limonene (R)-p-Mentha-1,8-diene	Xi N; R10 R38 R43 R50/53 R65	FL 3 AH 1 SCI 2 SS 1B EH A1 ETO C1; H226 H304 H315 H317 H400 H410	>5000	>5000	Not determined	Not determined
C1=1.4% C2=1.9% C3=4.6% C4=12.7% C5=6% C6=20% C7=2.8% C8=3% C9=7% C10=3.5% C11=Not Restricted (type citrus, medium strength described as citrus, orange fresh sweet)								
0-0.08%	111-12-6 203-836-6	Methyl Heptene Carbonite	Xi; R21/41 R38 R43	SS 1B EDI 2; H317 H319	1530	3300	Not determined	Not determined
C1=0.003% C2=0.004% C3=0.01% C4=0.01% C5=0.01% C6=0.08% C7=0.008% C8=0.01% C9=0.01% C10=0.01% C11=Not Restricted (type green, high strength described as green, leafy, waxy, violet, cucumber)								
0-50.7%	127-51-5 204-846-3	<i>alpha</i> -Isomethyl Ionone	Xi N; R36/38 R51/53	SCI 2 EDI 2 ETO C2; H315 H319 H411	>5000	>5000	Not determined	Not determined
C1=2% C2=2.6% C3=10.6% C4=31.7% C5=16.7% C6=50.7% C7=5.3% C8=2% C9=5% C10=2.5% C11=Not Restricted (type floral, medium strength described as woody, violet, floral)								
0-0.5%	90028-67-4 289-860-8	Treemoss Extract	Xi; R21/41 R38 R43	SS 1B EDI 2; H317 H319	4330	>5000	Not determined	Not determined

C1=0.02% C2=0.03% C3=0.1% C4=0.1% C5=0.1% C6=0.5% C7=0.1% C8=0.1% C9=0.1% C10=0.1% C11=Not Restricted (type woody, medium strength described as woody, tar)								
0-0.5%	90028-68-5 289-861-3	Oakmoss Extract	Xi; R21/41 R38 R43	SS 1B EDI 2; H317 H319	4330	>5000	Not determined	Not determined
C1=0.02% C2=0.03% C3=0.1% C4=0.1% C5=0.1% C6=0.5% C7=0.1% C8=0.1% C9=0.1% C10=0.1% C11=Not Restricted (type mossy, medium strength described as oakmoss)								

*** These ingredients appear on the list of substances in Annex III of Regulation (EC) No. 1223/2009 on cosmetic products and Annex III Part 1 of Council Directive 76/768/ECC with amendments of Cosmetic Directive 2008/42/EC of 3 April 2008 as referred to by Regulation (EC) No. 648/2004 on detergents.

Table 3: Components-Common

<u>Level</u>	<u>CAS Nr</u> <u>EC Nr</u>	<u>Substance</u>	<u>R Phrase:</u> <u>Classification</u> <u>for</u> <u>(DSD)</u> <u>67/548/EEC</u>	<u>Classification</u> <u>for</u> <u>(CLP)</u> <u>1272/2008</u>	<u>LD50/ATE</u> <u>Oral</u>	<u>LD50/ATE</u> <u>Dermal</u>	<u>LC50/ATE</u> <u>Inhalation</u>	<u>LC50</u> <u>Route</u>
0-25.7%	2050-08-0 218-080-2	Hexyl (Amyl) Salicylate	Xi Xn N; R22 R38 R43 R50/53 R51/53	H315 H317 H410	2000	Not determined	Not determined	Not determined
C1=1% C2=1.3% C3=5.3% C4=16% C5=8.4% C6=25.7% C7=2.7% C8=2% C9=5% C10=2.5% C11=Not Restricted (type floral, medium strength described as herbal, floral, clover, azalea, sweet, chocolate)								
0-10%	107-31-3 203-481-7	Methyl Formate	F+ Xn Xi; R12 R20/22 R36/37	FL 1 ATO 4 ATD 3 EDI 2 EDI 2A SCI 2 ATI 4 STOT SE3 STOT SE1; H224 H301 H302 H311 H319 H331 H332 H335 H370	1500	4000	Not determined	Not determined
C1=0.03% C2=0.04% C3=0.1% C4=0.1% C5=0.1% C6=0.8% C7=0.08% C8=0.1% C9=0.1% C10=0.1% C11=Not Restricted (type fruity, medium strength described as fruity, plum)								
0-5%	79-20-9 201-185-2	Methyl Acetate	F Xi Xn T; R11 R20/21/22 R36	FL 2 ATO 4 ATD 4 EDI 2 STOT SE3 STOT SE1;	5000	5000	Not determined	Not determined

			R39/23/24/25 R66 R67	H225 H302 H312 H319 H332 H336 H370				
C1=0.07% C2=0.08% C3=0.35% C4=1.04% C5=0.55% C6=1.67% C7=0.17% C8=2% C9=5% C10=2.5% C11=Not Restricted (type ethereal, medium strength described as ether, sweet, fruity, solvent-like, green, fresh, rum, cognac, whiskey)								
0-2%	623-42-7 210-792-1	Methyl Butyrate (Methyl Butanoate)	F Xn Xi; R11 R20 R36/37/38	FL 2	5000	3560	18000	Not determined
(type fruity, medium strength described as fruity, apple, sweet, pineapple, banana)								
0-10%	141-78-6 205-500-4	Ethyl Ethanoate (Ethyl Acetate)	F Xi Xn T; R10 R11 R20/21/22 R36 R39/23/24/25 R66 R67 R68/20/21/22	FL 2 EDI 2 STOT SE3; H225 H319 H336	5620	5000	200000	Not determined
(type ethereal, high strength described as ethereal, fruity, sweet, weedy, green, rum-like, cherry)								
0-8%	105-54-4 203-306-4	Ethyl Butyrate (Ethyl Butanoate)	Xi; R10 R36/37/38	FL 3 SCI 2 EDI 2A STOT SE3; H226 H315 H319 H335 H373	13000	2000	Not determined	Not determined
(type fruity, high strength described as fruity, juicy, sweet, pineapply, cognac, tutti frutti, apple ethereal)								
0-25%	123-92-2 204-662-3	Isoamyl Acetate (Isopentyl Acetate)	Xi; R10 R66	FL 3 STOT SE3 EH A1; H226 H335 H402	16600	5000	Not determined	Not determined
(type fruity, high strength described as sweet, banana, fruity, estry)								
0-8%	540-18-1 208-739-2	Amyl Butyrate Pentyl Butanoate	Xi; R36/37/38	None	12200	Not Determined	Not determined	Not determined
(type fruity, medium strength described as sweet, banana, fruity, cherry, pineapple, tropical)								
0-3%	2173-56-0 218-528-7	Amyl Valerate (Pentyl Pentanoate)	None	None	35420	Not determined	Not determined	Not determined
(type fruity, medium strength described as ripe, fruity, apple)								

0-8%	112-14-1 203-939-6	Acetic Acid Octyl Ester (Octyl Acetate)	Xi; R36/37/38	FL 3 ATO 5; H226 H303	3000	5000	Not determined	Not determined
(type floral, medium strength described as ripe, green, mushroom, herbal, waxy)								
0-4%	123-35-3 204-622-5	Myrcene	Xi; R10 R36/37/38 R65	FL 3 ATOT 1 SCI 2 SS 1 EDI 2 EH C2; H226 H304 H315 H317 H319 H412	5000	5000	Not determined	Not determined
(type spicy, high strength described as peppery, terpene, spicy, balsamic, plastic, rosy, celery, carrot)								
0-20%	106-25-2 203-378-7	Nerol	Xi; R36/38 R43	SCI 2 SS 1B EDI 2A STOT SE3; H315 H317 H318 H319 H335	4500	5000	Not determined	Not determined
(type floral, medium strength described as sweet, natural, neroli, citrus, magnolia, lemon, butter, green, fruity, terpy nuance)								
0-15%	7212-44-4 230-597-5	Nerolidol	Xi N; R36/38 R50/53	EDI 2 EH A1 EH C1; H319 H400 H410	5000	5000	Not determined	Not determined
(type fruity, medium strength described as sweet, fruity, banana, pineapple, cherry, tropical)								
0-4%	76-22-2 200-945-0	Camphor (Bornan-2-1-one)	F Xi Xn; R11 R20/21/22 R36/37/38 R40 R68/20	FS 2 ATO 4 ATI 4 STOT SE2; H228 H302 H332 H371	1310	70	Not determined	Not determined
(type camphorous, medium strength described as camphorous)								
0-30%	98-55-5 202-680-6	<i>alpha</i> -Terpineol	Xi; R36/38	SCI 2 EDI 2A STOT SE3; H315 H319 H335	4300	Not determined	Not determined	Not determined
(type floral, medium strength described as pine, terpene, lilac, citrus, woody, floral)								
0-.02%	23696-85-7 245-833-2	<i>beta</i> -Damascenones	Xi; R36/37/38	None	Not Determined	Not Determined	Not determined	Not determined
C1=-0.003% C2=0.004% C3=0.02% C4=0.02% C5=0.02% C6=0.07% C7=0.008% C8=0.02% C9=0.02% C10=0.02% C11=Not Restricted (type floral, high strength described as natural, sweet, fruity, rose, plum, grape, violet, raspberry, sugar, earthy with green notes)								

0-.02%	23726-93-4 245-844-2	trans- <i>beta</i> -Damasconones	Xi; R36/37/38	None	Not Determined	Not Determined	Not determined	Not determined
C1=-0.003% C2=0.004% C3=0.02% C4=0.02% C5=0.02% C6=0.07% C7=0.008% C8=0.02% C9=0.02% C10=0.02% C11=Not Restricted (type fruity, high strength described as apple, rose, honey, tobacco, sweet)								
0-.02%	23726-91-2 245-842-1	trans- <i>beta</i> -Damascones	Xi; R43	None	2920	Not Determined	Not determined	Not determined
C1=-0.003% C2=0.004% C3=0.02% C4=0.02% C5=0.02% C6=0.07% C7=0.008% C8=0.02% C9=0.02% C10=0.02% C11=Not Restricted (type fruity, high strength described as fruity, floral, berry, plum, black currant, honey, rose, tobacco, green, woody, minty, herbal, floral)								
0-10%	127-41-3 204-841-6	<i>alpha</i> -Ionone	Xi; R36/38 R42/43	RES 1 EH C2; H334 H411	4590	2270	Not determined	Not determined
C1=-2% C2=2.6% C3=10.6% C4=31.7% C5=16.7% C6=50.7% C7=5.3% C8=2% C9=5% C10=2.5% C11=Not Restricted (type floral, medium strength described as sweet, woody, floral, violet, orris, tropical, fruity)								
0-.2%	546-80-5 208-912-2	<i>alpha</i> -Thujone	Xi; R22 R36/37/38	FL 1 ATO 2 ATD 1; H227 H302 H313	500	362	Not determined	Not determined
(type thujonic, medium strength described as cedarleaf)								
0-8%	100-52-7 202-860-4	Benzaldehyde	Xn; R22	FL 4 ATO 4 SCI 2 EH A2 SS 1 ATI 4 SR 1; H227 H302/332 H315 H317 H334 H401	1300	5000	500	Not determined
C1=-0.02% C2=0.02% C3=0.09% C4=0.27% C5=0.14% C6=0.43% C7=0.05% C8=0.6% C9=3% C10=2.5% C11=Not Restricted (type fruity, medium strength described as strong, sharp, sweet, bitter, almond, fruity, powder, nutty, cherry)								
0-4%	4940-11-8 225-582-5	Ethyl Maltol	Xn; R22	ATO 4; H302	1150	5000	Not determined	Not determined
(type caramelic, high strength described as sweet, caramel, jam, strawberry, cotton candy)								
0-8%	121-33-5 204-465-2	Vanillin	Xi Xn; R22 R36	EDI 2A EH A3 EH C3; H319 H402 H412	1580	5010	41700	Not determined

(type vanilla, medium strength described as sweet, vanilla, creamy, chocolate, phenolic, milky, spicy)								
0-.6%	100-66-3 202-876-1	Anisole	Xi; R10 R38	FL 3 STOT SE3; H226 H336	3700	Not determined	5000	Not determined
(type phenolic, high strength described as phenolic, gasoline, ethereal, anise)								
0-1%	104-46-1 203-205-5	Anethol	Xi; R10 R38	None	2090	5000	Not determined	Not determined
(type licorice, medium strength described as sweet, anise, licorice)								
0-.2%	140-67-0 205-427-8	Estragole (Turpentine Oil)	Xi Xn N; R10 R36/37/38 R40/22 R43 R51/53 R65	FL 3 ATO 4 AH 1 ATD 4 SCI 2 SS 1B EDI 2 ATI 4 EH C2; H226 H302 H304 H312 H315 H317 H319 H332 H411	1230	5000	Not determined	Not determined
(type anisic, medium strength described as sweet, sassafrass, anise, spice, green, herbal, minty, weedy, celery)								
0-.1%	89-83-8 201-944-8	Thymol	C N; R20/21/22 R34 R51/53	ATO 4 EDI 2 EH A2 EH C2; H302 H314 H318 H401 H411	980	243	Not determined	Not determined
(type anisic, medium strength described as sweet, sassafrass, anise, spice, green, herbal, minty, weedy, celery)								
0-0.01%	75-50-3 200-875-0	Trimethyl Amine	F+ Xn C Xi; R12 R20/22 R34 R36/37/38 R41	FG 1 FL 1 ATO 4 SCI 1B SS 2 EDI 1 EDI 2 ATI 4 STOT SE3; H220 H224 H280 H302 H314 H315 H318 H319 H332 H335	500	800	Not determined	Not determined
(type fishy, very high strength described as fishy, oily, rancid, sweaty, fruity)								
0.01%	110-86-1 203-809-9	Pyridine	F Xn Xi; R11 R20/21/22 R36/38	FL 2 ATO 4 ATD 4 SCI 2 EDI 2 ATI 4; H225 H302 H312 H315 H319 H320 H332	891	866	28500	Not determined

(type fishy, very high strength described as sickening, sour, putrid, fishy, amine)								
0-2%	120-72-9 204-420-7	Indole	: Xn N; R21/22 R37/38 R41 R50/53	ATO 4 ATD 4 SCI 2 EDI 1 STOT SE3 EH A1 EH C1; H302 H312 H315 H318 H335 H400 H410	1000	790	Not determined	Not determined
(type animal, high strength described as animal, fecal, floral, moth ball, naphthelene, pungent, musty)								
0-1%	111-27-3 203-852-3	1-Hexanol (Hexan-1-ol)	Xi; R22	FL 2 FL 3 ATO 4 ATD 4 EDI 1 EDI 2 EH A1 EH C1; H225 H226 H302 H312 H318 H319 H400 H410	720	3100	1060	Not determined
(type herbal, medium strength described as ethereal, fusel oil, fruity, alcoholic, sweet, green, pungent)								
0-8%	928-96-1 213-192-8	<i>cis</i> -3-Hex-3-en-1-ol	Xi; R10 R36	FL 3 EDI 2; H226 H319	4700	5000	Not determined	Not determined
(type green, high strength described as fresh, green, cut grass, foliage, vegetable, herbal, oily, melon rind-like)								
0-8%	89-78-1 201-939-0	Dextro, Laevo(DL)-Menthol	Xi; R37/38 R41	SCI 2 EDI 1 EDI 2 STOT SE3; H315 H318 H319 H335	3180	Not determined	Not determined	Not determined
(type mentholic, medium strength described as peppermint, cool, woody)								
0-1%	75-07-0 200-836-8	Acetaldehyde	F+ Xi; R12 R36/37 R40	FL 1 EDI 2 STOT SE3 CAR 2; H224 H319 H335 H351	661	640	Not determined	Not determined
(type ethereal, high strength described as pungent, ethereal, aldehydic, fruity, fresh, green)								
0-.5%	6789-80-6 229-854-4	<i>cis</i> -3-Hexenal (<i>cis</i> Hex-3-enal)	Xi; R10 R22	FL 3; H226	1560	3700	Not determined	Not determined
(type green, high strength described as green, fatty, grassy, weedy, fruity, apple)								

0-.01%	98-01-1 202-627-7	Furfural (2-Furaldehyde)	Xn T Xi C; R21 R23/25 R36/37/38 R40	FL 3 ATO 3 ATD 3 SCI 2 EDI 2 ATI 2 STOT SE3 CAR 2 EH C3; H226 H301 H312 H315 H319 H330 H335 H351 H412	65	148	175	Not determined
(type bready, medium strength described as sweet, woody, almond, fragrant baked bread, brown, caramelic, nutty, burnt)								
0-30%	6413-10-1 229-114-0	Fructose (Apple Ketal) Methyl Dioxolan	None	None	5000	5000	Not determined	Not determined
(type fruity, medium strength described as sweet, fruity, apple, green, tropical, plum, woody)								
0-5%	142-92-7	Hexyl acetate	Xi; R10 R36/38		41500	5000	Not determined	Not determined
0-15%	77-83-8	Ethyl Methylphenylglycidate	Xi N; R36 R52/53		5000	Not determined	Not determined	Not determined
0-5%	1128-08-1	Dihydrojasnone	None		2500	5000	Not determined	Not determined
0-.5%	4312-99-6	Oct-1-en-3-one	Xi; R10 R22 R36/38		175	3300	Not determined	Not determined
0-10%	85213-22-5	2-Acetyl-1-Pyrroline	None		Not determined	Not determined	Not determined	Not determined
0-1%	27300-27-2	2-Acetyl-3,4,5,6-Tetrahydropyridine	None		Not determined	Not determined	Not determined	Not determined
0-1%	25343-57-1	6-Acetyl-2,3,4,5-tetrahydropyridine	None		Not determined	Not determined	Not determined	Not determined
0-12%	107797-26-2	<i>gamma</i> -Decalactone	Xi; R36/38		5000	5000	Not determined	Not determined
0-15%	63357-97-1	<i>gamma</i> -Nonalactone	None		Not determined	Not determined	Not determined	Not determined
0-12%	698-76-0	<i>delta</i> -Octalactone	Xi; R36/38		5000	5000	Not determined	Not determined
0-3%	34686-71-0	Jasmine Lactone	Xi; R36/38		Not determined	Not determined	Not determined	Not determined
0-0.01%	51154-96-2	Massoia Lactone	Xi		1890	Not determined	Not determined	Not determined

0-.5%	182699-77-0	Wine Lactone	Xi; R36/38		Not determined	Not determined	Not determined	Not determined
0-.5%	698-10-2	Maple Furanone	Xi; R22 R36/37/38		Not determined	Not determined	Not determined	Not determined
0-.5%	28664-35-9	Caramel Furanone	Xi; R20/22 R36/37		Not determined	Not determined	Not determined	Not determined
0-.1%	75-08-1	Ethanethiol, Ethyl Mercaptan	Xn; R12 R20 R50/53		682	Not determined	Not determined	Not determined
0-.1%	71159-90-5	Grapefruit Mercaptan	Xi; R36/38		6000	Not determined	Not determined	Not determined
0-.5%	74-93-1	Methanethiol	T N; R12 R23 R50/53		Not determined	Not determined	Not determined	Not determined
0-.1%	75-66-1	Tert-butyl Mercaptan	Xi; R12 R36/37 R41		8400	Not determined	Not determined	Not determined
0-2%	2173-57-1	Nerolin	Xi; R36/38		5000	5000	Not determined	Not determined
0-1%	110-01-0	Tetrahydrothiophene	Xn N; R11 R20/21/22 R36/38 R52/53		1200	Not determined	Not determined	Not determined
0-0.01%	87-40-1	2,4,6-Trichloroanisole	Xi		1890	Not determined	Not determined	Not determined

DISCLAIMER

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

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The information on this safety data sheet complies with Annex II of EU REACH Regulation EC 1907/2006, EU REACH Regulation EC 1272/2008.