

**1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY UNDERTAKING****1.1 Product identifier****Product name: ETERNAL MUSK****1.2 Relevant identified uses of the substance or mixture and uses advised against**

Concentrated fragrance for manufacturing daily chemical products only.

Not for personal use in this form or concentration.

1.3 Details of the supplier of the SDS

NAME:SHANGHAI HERYNN FRAGRANCES & FLAVORS CO.,LTD.

ADD:The 1-3 Floor, Building 7, No 488 Guanghua Road, Songjiang District, Shanghai P.R.C.

TEL:+86 21 57742892

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Email:mc@herynn.com

PC:201614

1.4 Emergency telephone number

Chinese Center for Disease Control and Prevention(China CDC)

+86-10-58900240, 58900216**2. HAZARD IDENTIFICATION****2.1 Classification of the substance or mixture**

Product definition: Fragrances compounding

Classification according to Regulation (EC) No 1272/2008 [CLP/GHS]

Skin Irrit. 2, H315

Skin Sens. 1B, H317

Eye Irrit. 2, H319

Aquatic Chronic 2, H411

See Section 16 for the text of the H statements declared above.**See Section 11 for more information on health effects and symptoms..**



2.2 Label elements

Hazard pictograms:

**Signal words:**Warning**Hazard statements**

- H315 - Causes skin irritation
- H317 - May cause an allergic skin reaction.
- H319 - Causes serious eye irritation.
- H411 - Toxic to aquatic life with long lasting effects

Precautionary statements**Prevention:**

- P261 - Avoid breathing dust/fume/gas/mist/vapours/spray.
- P264 - Clean skin thoroughly after operation.
- P272 - Contaminated work clothing should not be allowed out of the workplace.
- P273 - Avoid release to the environment.

Response:

- P337+P313 - If eye irritation persists: Get medical advice/attention.
- P362+P364 - Take off contaminated clothing and wash it before reuse.
- P391 - Collect spillage. Hazardous to the aquatic environment
- P302+P352 - IF ON SKIN: Wash with plenty of water
- P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P321 - Specific treatment (see ... on this label).
- P332+P313 - If skin irritation occurs: Get medical advice/attention.
- P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.

Storage :

None

Disposal:

- P501 - Dispose of contents/container in accordance with local regulations

Supplemental label elements: Not applicable

Other hazards

Other hazards which do not result in classification: None known.

3. COMPOSITION/INFORMATION ON INGREDIENTS**3.1 Substances : A multi-component mixture of natural and/or synthetic aroma materials.****3.2 Mixture:Fragrances Compounding :**



We certify that the above product is composed of the following ingredients and does not have any other components.

Component	CAS	EC	Concentration limit	CLASSIFICATION ACCORDING Reg. 1272/2008/CE
2-(2-ethoxyethoxy)ethanol	111-90-0	203-919-7	35-40	Not classified.
methyl 3-oxo-2-pentylcyclopentaneacetate	24851-98-7	246-495-9	10-15	Not Classified
1-(1,2,3,5,6,7,8,8a-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one	68155-66-8	268-978-3	7-8	Skin Irrit. 2,H315 Skin Sens. 1B,H317 Aquatic Chronic 2,H411
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one	54464-57-2	259-174-3	7-8	Skin Irrit. 2,H315 Skin Sens. 1B,H317 Aquatic Chronic 1,H410
1-(1,2,3,4,6,7,8,8a-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one	68155-67-9	268-979-9	7-8	Skin Irrit. 2,H315 Skin Sens. 1B,H317 Aquatic Chronic 2,H411
cedarwood oil	8000-27-9	616-769-6	4-5	Asp. Tox. 1,H304 Aquatic Acute 1,H400 Aquatic Chronic 1,H410
3,7-dimethylnona-1,6-dien-3-ol	10339-55-6	233-732-6	3-4	Skin Irrit. 2,H315 Skin Sens. 1B,H317 Eye Irrit. 2,H319
4-methyl-2-(2-methylpropyl)oxan-4-ol	63500-71-0	613-238-0	2-3	Eye Irrit. 2,H319 Har. Classification
1,4-dioxacycloheptadecane-5,17-dione	105-95-3	203-347-8	2-3	Aquatic Chronic 3, H412
3-methyl-4-(2,6,6-trimethyl-2-cyclohexen-1-yl)-3-buten-2-one	127-51-5	204-846-3	2-3	Skin Irrit. 2,H315 Skin Sens. 1B,H317 Eye Irrit. 2,H319 Aquatic Chronic 2,H411
7-hydroxycitronellal	107-75-5	203-518-7	1-2	Skin Sens. 1,H317 Eye Irrit. 2,H319
1-(5,6,7,8-tetrahydro-3,5,5,6,8,8-hexamethyl-2-naphthyl)ethan-1-one	21145-77-7	244-240-6	1-2	Acute Tox. 4,H302 Aquatic Acute 1,H400 Aquatic Chronic 1,H410
lemon oil	8008-56-8	616-925-3	1-2	Flam. Liq. 3,H226 Asp. Tox. 1,H304 Skin Irrit. 2,H315 Skin Sens. 1,H317 Aquatic Acute 1,H400 Aquatic Chronic 1,H410
[3r-(3α,3aβ,7β,8αα)]-1-(2,3,4,7,8,8a-hexahydro-3,6,8,8-tetramethyl-1h-3a,7-methanoazulen-5-yl)et	32388-55-9	251-020-3	1-2	Skin Sens. 1,H317 Aquatic Acute 1,H400 Aquatic Chronic 1,H410
linalool	78-70-6	201-134-4	0.05-0.1	Skin Irrit. 2,H315 Skin Sens. 1B,H317 Har. Classification Eye Irrit. 2,H319
Total:			100	

Occupational exposure limits, if available, are listed in Section 8.

4. FIRST AID MEASURES

4.1 Description of first aid measures

Eye contact:



Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.

Inhalation:

Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Skin contact:

Get medical attention immediately. Call a poison center or physician. Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion:

Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Protection of first-aiders:

No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

**4.2 Most important symptoms and effects, both acute and delayed****Potential acute health effects****Eye contact:**

Causes serious eye damage.

Inhalation:

Not available.

Skin contact:

Causes skin irritation. May cause an allergic skin reaction.

Ingestion:

Not available.

Over-exposure signs/symptoms:

Not available.

4.3 Indication of any immediate medical attention and special treatment**Notes to physician:**

In case of inhalation of decomposition products in a fire, symptoms may be delayed.

The exposed person may need to be kept under medical surveillance for 48 hours.

Specific treatments:

No specific treatment.

5. FIRE-FIGHTING MEASURES**5.1 Extinguishing media**

Suitable extinguishing media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide

Unsuitable extinguishing: High volume water jet

5.2 Special hazards arising from the substance or mixture**Hazards from the substance or mixture:**

In a fire or if heated, a pressure increase will occur and the container may burst.

This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Hazardous thermal decomposition products:

Decomposition products may include the following materials:

carbon dioxide

carbon monoxide

nitrogen oxides

5.3 Advice for firefighters**Special protective actions for fire-fighters:**

Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters



Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

6. ACCIDENTIAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency

For non-emergency personnel:

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders:

If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

6.2 Environmental precautions:

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.

6.3 Methods and materials for containment and cleaning up:

Small spill:

Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill:

Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product.

6.4 Reference to other sections:

See Section 1 for emergency contact information.

See Section 8 for information on appropriate personal protective equipment.



See Section 13 for additional waste treatment information.

7. HANDLING AND STORAGE

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling

Protective measures:

Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Avoid release to the environment. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene:

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in original container avoid direct sunlight in a dry, room temperature and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

7.3 Specific end use(s)

Recommendations

Industrial use only.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

8.1 Control parameter

Occupational exposure limits

Product/ingredient name	Exposure limit values
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2-(2-ethoxyethoxy)ethanol	TRGS 900 OEL (Germany, 6/2017). TWA: 35 mg/m ³ 8 hours.
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PEAK: 70 mg/m³ 15 minutes.
TWA: 6 ppm 8 hours.
PEAK: 12 ppm 15 minutes.
DFG MAC-values list (Germany, 7/2015).
PEAK: 100 mg/m³, 4 times per shift, 15 minutes. Form:
inhalable
fraction
T

DNELs/DNELs

Product/ingredient name	Type	Exposure	Value	Population	Effects
2,6-dimethyloct-7-en-2-ol	DNEL	Long term Inhalation	73.5 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	21.7 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	20.8 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	12.5 mg/kg bw/day	General population	Systemic
	DNEL	Long term Oral	12.5 mg/kg bw/day	General population	Systemic
Benzyl acetate	DNEL	Short term Oral	6.25 mg/kg bw/day	Consumers	Systemic
	DNEL	Long term Oral	3.125 mg/kg bw/day	Consumers	Systemic
	DNEL	Short term Dermal	6.25 mg/kg bw/day	Consumers	Systemic
	DNEL	Long term Dermal	3.125 mg/kg bw/day	Consumers	Systemic
	DNEL	Short term Inhalation	11 mg/m ³	Consumers	Systemic
	DNEL	Long term Inhalation	5.5 mg/m ³	Consumers	
	DNEL	Short term Dermal	12.5 mg/kg bw/day	Workers	
	DNEL	Long term Dermal	6.25 mg/kg bw/day	Workers	
	DNEL	Short term Inhalation	43.8 mg/m ³	Workers	
2-phenylethanol	DNEL	Long term Oral	5.1 mg/kg bw/day	Consumers	Systemic
		Long term Dermal	12.7 mg/kg bw/day	Consumers	Systemic
		Long term Inhalation	17.7 mg/m ³	Consumers	Systemic
		Long term Dermal	21.2 mg/kg bw/day	Workers	Systemic
		Long term Inhalation	59.9 mg/m ³	Workers	Systemic
Linalool	DNEL	Short term Inhalation	16.5 mg/m ³	Workers	Systemic
		Short term Dermal	5 mg/kg bw/day	Consumers	Systemic
		Long term Dermal	15 mg/cm ²	Consumers	Local
		Short term Oral	1.2 mg/kg bw/day	Consumers	Systemic
		Short term Inhalation	4.1 mg/m ³	Consumers	Systemic
		Short term Dermal	2.5 mg/cm ²	Consumers	Sys
		Short term Dermal	15 mg/cm ²	Consumers	
		Long term Oral	0.2 mg/kg bw/day	Consumers	
		Long term Inhalation	0.7 mg/m ³	Consumers	
		Long term Dermal	1.25 mg/kg bw/day	Consumers	
		Short term Dermal	15 mg/cm ²	Workers	
		Long term Dermal		Workers	
		Long term Inhalation		Workers	
Coumarin	DNEL	Long term Dermal	0.79 mg/kg bw/day	Workers	Systemic
		Long term Oral	0.39 mg/kg bw/day	Consumers	Systemic
		Long term Inhalation	1.69 mg/m ³	Consumers	Systemic
		Long term Dermal	0.39 mg/kg bw/day	Consumers	Systemic
		Long term Inhalation	6.78 mg/m ³	Workers	Systemic
[3R-(3α,3aβ,7β,8aα)]-1-(2,3,4,7,8,8a-hexahydro-3,6,8,8-tetramethyl-1H-3a,7-methanoazulen-5-yl)et	DNEL	Long term Oral	0.166 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	0.166 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	0.289 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	0.333 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	1.175 mg/m ³	Workers	Systemic
[3R-(3α,3aβ,7β,8aα)]-1-(2,3,4,7,8,8a-hexahydro-3,6,8,8-tetramethyl-1H-3a,7-methanoazulen-5-yl)et	DNEL	Long term Oral	0.166 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	0.166 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	0.289 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	0.333 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	1.175 mg/m ³	Workers	Systemic



4-methyl-2-(2-methylpropyl)oxan-4-ol	DNEL	Long term Oral	1 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	1.8 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	2.4 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	3.9 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	6.1 mg/m ³	Workers	Systemic
Cedarwood oil	DNEL	Long term Inhalation	110 mg/m ³	Workers	Systemic
		Short term Inhalation	54 mg/m ³	Consumers	Systemic
		Long term Inhalation	54 mg/m ³	Consumers	Systemic
		Long term Dermal	0.1 mg/kg bw/day	Consumers	Systemic
		Long term Oral	0.1 mg/kg bw/day	Consumers	Systemic
		Short term Dermal	0.625 mg/kg bw/day	Consumers	Systemic
		Short term Oral	0.625 mg/kg bw/day	Consumers	Systemic
		Short term Inhalation	110 mg/m ³	Workers	
		Long term Dermal	0.21 mg/kg bw/day	Workers	
		Short term Dermal	1.25	Workers	

PNECs

Product/ingredient name	Compartment Detail	Value	Method Detail
2-phenylethanol	Soil	0.164 mg/kg	-
	Marine water sediment	0.1454 mg/kg	-
	Fresh water sediment	1.454 mg/kg	-
	Sewage Treatment Plant	10 mg/l	-
	Intermittent release	2.15 mg/l	-
	Marine water	0.0215 mg/l	-
	Fresh water	0.215 mg/l	-
Linalool	Fresh water	200 µg/L	-
	Intermittent releases (freshwater)	2 mg/l	-
	Marine water	20 µg/L	-
	Sewage Treatment Plant	10 mg/l	-
	Fresh water sediment	2.22 mg/kg	-
	Marine water sediment	222 µg/kg	-
	Soil	327 µg/kg	-
	Secondary poisoning	7.8 mg/kg food	-
Coumarin	Intermittent release	0.024 mg/l	-
	Soil	0.00371 mg/kg	-
	Marine water sediment	0.00256 mg/l	-
	Fresh water sediment	0.0256 mg/kg	-
	Sewage Treatment Plant	580 mg/l	-
	Marine water	0.00024 mg/l	-
	Fresh water	0.0024 mg/l	-
[3R-(3α,3aβ,7β,8aα)]-1-(2,3,4,7,8,8a-hexahydro-3,6,8,8-tetramethyl-1H-3a,7-methanoazulen-5-yl)et	Fresh water sediment	24.4 mg/kg	-
	Fresh water	1.74 µg/l	-
	Sewage Treatment Plant	10 mg/l	-
	Soil	4.87 mg/kg dwt	-
	Marine water	0.174 µg/l	-
	Marine water sediment	2.44 mg/kg	-
	Secondary Poisoning	8.6 µg/l	-
4-methyl-2-(2-methylpropyl)oxan-4-ol	Fresh water	0.094 mg/l	-
	Fresh water sediment	0.412 mg/kg dwt	-
	Marine water	0.0094 mg/l	-
	Marine water sediment	0.0412 mg/kg dwt	-
	Intermittent release	0.94 mg/l	-
	Sewage Treatment Plant	10 mg/l	-
	Soil	0.0902 mg/kg dwt	-



Methyl 3-oxo-2-pentylcyclopentaneacetate	Freshwater Intermittent releases (freshwater) Marine water Sewage treatment plant (STP) Sediment (freshwater) Sediment (marine water) Soil	37.2 µg/L 186 µg/L 3.72 µg/L 10 mg/L 1.897 mg/kg sediment dw 189.7 µg/kg sediment dw 357.6 µg/kg soil dw	-
2-tert-butylcyclohexyl acetate	Fresh water Marine water Sediment Marine water sediment Sewage Treatment Plant Sol	0.011 mg/l 0.0011 mg/l 1.5 mg/kg dwt 0.15 mg/kg dwt 10 mg/l 0.293 mg/kg dwt	Assessment Factors Assessment Factors Equilibrium Partitioning Equilibrium Partitioning Assessment Factors Equilibrium Partitioning
2,6-dimethyloct-7-en-2-ol	Fresh water Marine water Soil Fresh water sediment Marine water sediment	0.278 mg/l 0.278 mg/l 0.103 mg/kg 0.594 mg/kg 0.0594 mg/kg	- - - - -
Benzyl acetate	Soil Marine water sediment Fresh water sediment Sewage Treatment Plant Intermittent release Marine water Fresh water	0.0205 mg/kg 0.0114 mg/kg 0.114 mg/kg 8.55 mg/l 0.04 mg/l 0.0004 mg/l 0.004 mg/l	- - - - - - -

8.2 Exposure controls

Appropriate engineering controls:

If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

Individual protection measures

Hygiene measures:

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection:

Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn,



unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

Skin protection**Hand protection:**

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection:

Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection:

Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection:

Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Environmental exposure controls:

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Clear liquid
Color:	Colorless to slight yellow clear liquids
Odor:	Consistent to the standard sample
Gravity Density:	0.958~0.978(25/25°C)
Refractive index:	1.4513~1.4713(20°C)
Solubility in water:	Unsoluble
Flash point:	113°C
pH:	Not available.



Melting point/freezing point: Not available.
Initial boiling point and boiling range: Not available.
Evaporation rate: Not available.
Upper/lower flammability or explosive limits: Not available.
Vapor pressure: Not available.
Vapor density: Not available.
Relative density: Not available.
Partition coefficient: n-octanol/water: Not available.
Auto-ignition temperature: Not available.
Decomposition temperature: Not available.
Viscosity: Not available.
Explosive properties: Not available.
Oxidizing properties: Not available.

Further information:

The indicated values do not necessarily correspond to the product specification.
Please refer to the technical information sheet for specification data.

10. STABILITY AND REACTIVITY**10.1 Reactivity No decomposition if used according to specifications.**

No dangerous reaction known under conditions of normal use.

10.2 Chemical stability Stable under recommended storage conditions.

Stable under conditions of normal use.

11. TOXICOLOGICAL INFORMATION**11.1 Information on toxicological effects**

There is no data available on the mixture itself.

Product/ingredient	Result/Species/Dose	Exposure
Methyl 3-oxo-2-pentylcyclopentaneacetate	LD50 Rat oral 5000mg/KG LDLo Rabbit administration onto the skin 5000mg/KG LD50:Rat inhalation -4h >4.93mg/L	-
Linalyl acetate	LD50 Rat oral 13934 mg/kg LD50 Rabbit Dermal >5000 mg/kg	-
2-ethyl-3-hydroxy-4-pyrone	LD50 Rat Oral 1200 mg/kg LD50:Oral - Rat LD50:Rabbit dermal 5000 mg/kg	-
Linalool	LD50 Rabbit Dermal 5610 mg/kg LD50 Rat Dermal 5610 mg/kg LD50 Rat oral 2790 mg/kg LD50:Rabbit dermal 5610 mg/kg	-



Undecan-4-olide	LD50 Rat oral 18,500 mg/kg LC50:Rainbow trout 569mg/L-96h EC50:Water flea 17.0 mg/L-48h	-
2-phenylethanol	LD50 Rat oral 1700mg/kg LD50:Rabbit Dermal 2535 mg/kg LD50:Rat Oral 1609 mg/kg	-
Benzyl acetate	LD50 Rat oral 2490 mg/kg LD50 Oral mouse 830 mg/kg LCLo Inhalation mouse 1300 mg/m3/22H LC50 Inhalation Mammal - cat 245 ppm/8H LDLo Cat administration onto the skin 10mg/kg LD50 Oral rabbit 2200 mg/kg LD50 Rabbit administration onto the skin >5 mg/	-
2,6-dimethyloct-7-en-2-ol	LD50 Rat oral 3600 mg/kg LD50:Dermal rabbit >5 gm/kg	-
Coumarin	LD50 Rat oral 293 mg/kg	-
Piperonal	LD50:Dermal Rat >5000 mg/kg LD50:Oral Rat 2700 mg/kg	-
1-phenylethyl acetate	LD50 Rat oral >5000 mg/kg LD50 Dermal rabbit >5000 mg/kg	-
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one	LD50:Rat Dermal >5000 mg/kg LD50:Rat Oral >5000 mg/kg	-
Cedarwood oil	LD50 Rat oral >5000 mg/kg	-
4-methyl-2-(2-methylpropyl)oxan-4-ol	LD50:Rabbit Dermal >2000 mg/kg LD:Rat Oral >5000 mg/kg	-
3-methyl-4-(2,6,6-trimethyl-2-cyclohexen-1-yl)-3-buten-2-one	LD50:Rabbit Dermal >5000 mg/kg LD50:Rat Oral >5000 mg/kg	-
7-hydroxycitronellal	LD50:Rat oral 5000mg/kg	-
Lemon Oil	LD50:Rat Oral 2840 mg/kg LD50:Rabbit Dermal >5 mg/kg	-
[3R-(3 α ,3 β ,7 β ,8 α)]-1-(2,3,4,7,8,8a-hexahydro-3,6,8,8-tetramethyl-1H-3a,7-methanoazulen-5-yl)et	LD50: Rabbit Dermal >5000 mg/kg LD50: Rat Oral 4500 mg/kg	-
2-tert-butylcyclohexyl acetate	LD50 Rat oral 4,600 mg/kg LD50 Dermal rabbit 5,000 mg/kg	-

Acute toxicity estimates

No data available

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Piperonal	Skin - Irritant	Mammal - species unspecified	-	-	-
2,6-dimethyloct-7-en-2-ol	Eyes - Mild irritant	Rabbit	-	7.5%	-
	Skin - Mild irritant	Rabbit		4 hours 0.5 MI	-
	Skin - Mild irritant	Rabbit		24 hours 500 mg	-



2-phenylethanol	Eyes - Mild irritant	Rabbit	-	10 minutes 12 g	-
	Eyes - Severe irritant	Rabbit	-	24 hours 750 mg	-
Linalool	Eyes - Moderate irritant	Rabbit	-	1 hours 0.1 ml	-
	Eyes - Moderate irritant	Rabbit	-	100 microliters	-
	Skin - Moderate irritant	Guinea pig	-	24 hours 100 mg	-
	Skin - Mild irritant	Human	-	72 hours 32%	-
	Skin - Mild irritant	Man	-	48 hours 16 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Severe irritant	Rabbit	-	24 hours 100 mg	-
Linalyl acetate	Skin - Moderate irritant	Guinea pig	-	24 hours 100 mg	-
	Skin - Severe irritant	Rabbit	-	24 hours 100 mg	-
Coumarin	Eyes - Moderate irritant	Rabbit	-	0.42%	-
	Skin - Severe irritant	Guinea pig	-	24 hours 100 mg	-
	Skin - Moderate irritant	Man	-	24 hours 100 mg	-
	Skin - Moderate irritant	Rabbit	-	4 hours 0.42 mg	-
	Skin - Severe irritant	Rabbit	-	24 hours 100 mg	-
	Skin - Severe irritant	Rabbit	-	4 hours 0.5 mg	-

Sensitization

Product/ingredient na	Route of exposure	Species	Result
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one	skin	Mouse	Sensitising

Mutagenicity

Product/ingredient name	Test	Experiment	Result
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one	-	Experiment: In vivo Subject: Mammalian-Animal	Negative
		Experiment: In vitro Subject: Mammalian-Human	Negative

Potential acute health effects**Eye contact:**

No known significant effects or critical hazards.

Inhalation:

No known significant effects or critical hazards.

Skin contact:

No known significant effects or critical hazards.

Ingestion:

No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics**Eye contact:**

No specific data.

Inhalation:

No specific data.



Skin contact:

No specific data.

Ingestion:

No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects: Not available.

Potential delayed effects: Not available.

Long term exposure Potential immediate effects Potential delayed effects: Not available.

Potential delayed effects: Not available.

Potential chronic health effects

General:

Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Carcinogenicity: No known significant effects or critical hazards.

Mutagenicity: No known significant effects or critical hazards.

Teratogenicity: No known significant effects or critical hazards.

Developmental effects: No known significant effects or critical hazards.

Fertility effects: No known significant effects or critical hazards.

Interactive effects: Not available.

Toxicokinetics: Not available.

Absorption: Not available.

Distribution: Not available.

Metabolism: Not available.

Elimination: Not available.

Other information: Not available.

12. ECOLOGICAL INFORMATION

12.1 Toxicity

We have no quantitative data concerning the ecological effects of this product.

Product/ingredient name	Result	Species	Exposure
Linalool	Acute EC50 141.4 mg/l	Aquatic plants	96 hours
	Acute EC50 59 mg/l	Daphnia	48 hours
	Acute EC50 >100 mg/l	Micro-organism	3 hours
	Acute LC50 27.8 mg/l	Fish	96 hours
2-ethyl-3-hydroxy-4-pyrone	Acute LC50 > 85 mg/L	Fresh water fish	96 hours
Linalyl acetate	Acute EC50 15 mg/l	Daphnia	48 Hours
	Acute LC50 11 mg/l	Fish	96 Hours
Coumarin	Acute EC10 580 mg/l	Micro-organism	30 minutes



[3R-(3 α ,3 β ,7 β ,8 α)]-1-(2,3,4,7,8,8a-hexahydro-3,6,8,8-tetramethyl-1H-3a,7-methanoazulen-5-yl)et	Acute EC50 >4.3 mg/l	Algae	96 hours
	Acute EC50 0.86 mg/l	Daphnia	48 hours
	Acute LC50 2.3 mg/l	Fish	96 hours
3-methyl-4-(2,6,6-trimethyl-2-cyclohexen-1-yl)-3-buten-2-one	Acute EC50 2.65 mg/l	Daphnia	48 hours
4-methyl-2-(2-methylpropyl)oxan-4-ol	Acute EC50 320 mg/l	Daphnia	48 hours
	Acute EC50 1000 mg/l	Micro-organism	3 hours
	Acute LC50 354 mg/l	Fish	96 hours
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one	Acute EC50 2.6 mg/l	Algae	72 hours
	Acute EC50 1.38 mg/l	Daphnia	48 hours
	Acute LC50 1.3 mg/l	Fish	96 hours
	Chronic NOEC 0.028 mg/l	Daphnia	21 days
	Chronic NOEC 0.16 mg/l	Fish 30	days

12.2 Persistence and degradability

Product/ingredient nam	Test	Result	Dose	Inoculum
Linalool	OECD 301D Ready Biodegradability - Closed Bottle Test	64% (BOD) in 28 days	-	-
Linalyl acetate	OECD 301F Ready Biodegradability - Manometric Respirometry Test	75 % - Readily - 28 days	-	-
Coumarin	OECD 301F Ready Biodegradability - Manometric Respirometry Test	90 % - Readily - 28 days	-	-
[3R-(3 α ,3 β ,7 β ,8 α)]-1-(2,3,4,7,8,8a-hexahydro-3,6,8,8-tetramethyl-1H-3a,7-methanoazulen-5-yl)et	OECD 301B Ready Biodegradability -CO ₂ Evolution Test	5.1 % - Not readily - 28 days	-	-
3-methyl-4-(2,6,6-trimethyl-2-cyclohexen-1-yl)-3-buten-2-one	-	77 % - Readily - 28 days	-	-
4-methyl-2-(2-methylpropyl)oxan-4-ol	OECD 301C Ready Biodegradability -Modified MITI Test (I)	<60 % - Not readily - 28 days	-	-
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one	OECD 301C Ready Biodegradability -Modified MITI Test (I)	11 % - Not readily - 28 days	-	-
Product/ingredient nam	Aquatic half-life	Photolysis	Biodegradability	
Linalool	-	-	Readily	
Linalyl acetate	-	-	Readily	
Coumarin	-	-	Readily	



[3R-(3 α ,3 α β ,7 β ,8 α)]-1-(2,3,4,7,8,8a-hexahydro-3,6,8,8-tetramethyl-1H-3a,7-methanoazulen-5-yl)et	-	-	Not readily
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3-methyl-4-(2,6,6-trimethyl-2-cyclohexen-1-yl)-3-buten-2-one	-	-	Readily
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4-methyl-2-(2-methylpropyl)oxan-4-ol	-	-	Not readily
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1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one	-	-	Not readily
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12.3 Bioaccumulative potential

Product/ingredient nam	LogPow	BCF	Potential
Linalool	2.84	-	Low
Linalyl acetate	3.9	173.9	Low
Coumarin	3.41	82.59	Low
[3R-(3 α ,3 α β ,7 β ,8 α)]-1-(2,3,4,7,8,8a-hexahydro-3,6,8,8-tetramethyl-1H-3a,7-methanoazulen-5-yl)et	5.34	3920	High
4-methyl-2-(2-methylpropyl)oxan-4-ol	3.48	-	Low
1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one	5.65	-	High

12.4 Mobility in soil

Soil/water partition coefficient (KOC):Not available.

Mobility: Not available.

12.5 Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

12.6 Other adverse effects:No known significant effects or critical hazards.

13. DISPOSAL CONSIDERATIONS

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste treatment methods

Product

Methods of disposal:

The generation of waste should be avoided or minimized wherever possible.

Disposal of this product, solutions and any by-products should at all times comply



with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

Hazardous waste:

The classification of the product may meet the criteria for a hazardous waste.

European waste catalogue (EWC)

Waste code:16 03 05*

Waste designation:organic wastes containing hazardous substances

Packaging**Methods of disposal:**

The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Special precautions

This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

14. TRANSPORT INFORMATION

49CFR Road 0 – 25 kg	Not classified as dangerous in the meaning of transport regulations.		
49CFR Road 25 – 400 kg	Not classified as dangerous in the meaning of transport regulations.		
49CFR Road > 400 kg	Not classified as dangerous in the meaning of transport regulations.		
	ADR/RID	IMDG	IATA

UN number : 3082

Description of the goods : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,N.O.S.

1-(1,2,3,5,6,7,8,8a-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one;1-(1,2,3,4,6,7,8,8a-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one;1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one;Cedarwood oil

Transport hazard class(es) : 9

Packing group : III

Hazard Identification Number : 90

Labels : 9

Tunnel restriction code : (E)

Environmentally hazardous : yes

IATA/ICAO

UN number : 3082

Proper shipping name : Environmentally hazardous substance, liquid, n.o.s.



1-(1,2,3,5,6,7,8,8a-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one;1-(1,2,3,4,6,7,8,8a-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one;1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one;Cedarwood oil

Class : 9

Packing group : III

Labels : 9

Tunnel restriction code : (E)

Packing instruction (CAO) : 964

Packing instruction (PAX) : 964

Packing instruction (Ltd.Qty.) : Y964

IMDG

UN number : 3082

1-(1,2,3,5,6,7,8,8a-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one;1-(1,2,3,4,6,7,8,8a-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one;1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one;Cedarwood oil

Class : 9

Packing group : III

Labels : 9

EmS Fire : F-A

EmS Spillage : S-F

Marine pollutant : yes

1-(1,2,3,5,6,7,8,8a-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one;1-(1,2,3,4,6,7,8,8a-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one;1-(1,2,3,4,5,6,7,8-octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one;Cedarwood oil

IMDG Code Segregation Group : None

15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorization

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

Annex XVII - Restrictions:Not applicable.

on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

Other EU regulations : No data available

Storage code: 10

Hazard class for water: 2

Technical instruction on airqualitycontrol:TA-Luft Number 5.2.5: 99.1%

TA-LuftClassI-Number5.2.5:0.4%

Registrationstatus



All components are listed

Australia inventory (AICS)

China inventory (IECSC)

Philippines inventory (PICCS)

Taiwan Chemical Substances Inventory (TCSI)

United States inventory (TSCA 8b)

Europe inventory (EINECS/ELINCS/NLP)

Canada inventory: At least one component is not listed in DSL
but all such components are listed in NDSL.

This SDS is not a REACH compliance confirmation. Please order and refer to the official from REACH Statement.

15.2 Chemical Safety Assessment

This product contains substances for which Chemical Safety Assessments are still required.

16. OTHER INFORMATION

Indicates information that has changed from previously issued version.

Abbreviations and acronyms:

ATE = Acute Toxicity Estimate

CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]

DMEL = Derived Minimal Effect Level

DNEL = Derived No Effect Level

EUH statement = CLP-specific Hazard statement

PBT = Persistent, Bioaccumulative and Toxic

PNEC = Predicted No Effect Concentration

RRN = REACH Registration Number

vPvB = Very Persistent and Very Bioaccumulative

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Full text of abbreviated H statements

H302	Harmful if swallowed
H411	Toxic to aquatic life with long lasting effects
H412	Harmful to aquatic life with long lasting effects
H410	Very toxic to aquatic life with long lasting effects.
H400	Very toxic to aquatic life
H319	Causes serious eye irritation.
H317	May cause an allergic skin reaction.
H315	Causes skin irritation
H304	May be fatal if swallowed and enters airways
H226	Flammable liquid and vapour.



Version No: 1.1

Revision Time: 2025-5-15

Notice to reader:

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.