

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



OD OLIFFAC

Version	Revision Date:	SDS Number:	Date of last issue: 11/12/2025
9.0	01/26/2026	300000468487	Date of first issue: 09/04/2015

SECTION 1. IDENTIFICATION

Product name : OUD OLIFFAC

Sales Number : 9415568

SDS Number : 300000468487

Recommended use of the chemical and restrictions on use

Product Use Description : Fragrance Compound

Manufacturer or supplier's details

Company name of supplier : IFF Inc.

Address : 600 Highway 36
Hazlet NJ 07730

Telephone : (732) 264-4500

Telefax : (732) 335-2551

E-mail address : sds@iff.com

Emergency telephone number : +1 800 424 9300

This telephone number is available 24 hours per day, 7 days per week.

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Hazards for the product as supplied

Skin irritation : Category 2

Skin sensitisation : Category 1

Reproductive toxicity : Category 2

Other hazards

None known.

GHS label elements

Hazard pictograms :



Signal word : Warning

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



OD OLIFAC

Version 9.0 Revision Date: 01/26/2026 SDS Number: 300000468487 Date of last issue: 11/12/2025
Date of first issue: 09/04/2015

Hazard statements : H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H361fd Suspected of damaging fertility. Suspected of damaging the unborn child.

Precautionary statements : **Prevention:**
P261 Avoid breathing mist or vapours.
P264 Wash skin thoroughly after handling.
P280 Wear protective gloves, protective clothing, eye protection and face protection.

Response:
P302 + P352 IF ON SKIN: Wash with plenty of water.
P308 + P313 IF exposed or concerned: Get medical advice/attention.
P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Chemical nature : Fragrance for consumer product

Components

Chemical name	CAS No./Unique ID	Concentration (% w/w)	Trade secret
Octahydro Tetramethyl Naphthalenyl Ethanone	68155-66-8*	>= 7 - <= 13	TSC
DIHYDRO PENTAMETHYLINDANONE	33704-61-9*	>= 5 - <= 10	TSC
3,3,5,5-Tetramethyl-4-ethoxyvinylcyclohexanone	36306-87-3*	>= 3 - <= 7	TSC
Acetic anhydride, reaction products with trimethyl cyclododecatriene	144020-22-4*	>= 1 - <= 5	TSC
ETHYLENE BRASSYLATE	105-95-3*	>= 1 - <= 5	TSC
Cedryl methyl ether	19870-74-7*	>= 1 - <= 5	TSC
8-isopropyl-1,3-dimethyltricyclo[4.4.0.0.2,7]dec-3-ene	3856-25-5*	>= 1 - <= 5	TSC
NEROLIDOL	7212-44-4*	>= 0.5 - <= 1.5	TSC
2-Octanol, 7-methoxy-3,7-dimethyl-	41890-92-0*	>= 0.5 - <= 1.5	TSC

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



ODU OLIFAC

Version 9.0 Revision Date: 01/26/2026 SDS Number: 300000468487 Date of last issue: 11/12/2025
Date of first issue: 09/04/2015

Bicyclo[7.2.0]undec-4-ene, 4,11,11-trimethyl-8-methylene-, (1R,4E,9S)-	87-44-5*	$\geq 0.5 - \leq 1.5$	TSC
5-Azulenemethanol, 1,2,3,3a,4,5,6,7-octahydro- $\alpha,\alpha,3,8$ -tetramethyl-, (3S,3aS,5R)-	22451-73-6*	$\geq 0.1 - \leq 1$	TSC
BUTYLATED HYDROXYTOLUENE	128-37-0*	$\geq 0.1 - \leq 1$	TSC
Phenethyl cinnamate	103-53-7*	$\geq 0.1 - \leq 1$	TSC
Naphthalene, 1,2,3,5,6,7,8,8a-octahydro-1,8a-dimethyl-7-(1-methylethenyl)-, (1R,7R,8aS)-	4630-07-3*	$\geq 0.1 - \leq 1$	TSC
BETA-PINENE	127-91-3*	$\geq 0.1 - \leq 1$	TSC
ALPHA-PINENE	80-56-8*	$\geq 0.1 - \leq 1$	TSC
P-CYMENE	99-87-6*	$\geq 0.1 - \leq 1$	TSC
benzenecarboxaldehyde	100-52-7*	$\geq 0.1 - \leq 1$	TSC
ETHYLENE DODECANEDIOATE	54982-83-1*	$\geq 0.1 - \leq 1$	TSC

* Indicates that the identifier is a CAS No.

TSC- the actual concentration or concentration range is withheld as a trade secret

SECTION 4. FIRST AID MEASURES

- General advice : Take Hazard and Precautionary phrases (section 2) into account.
- If inhaled : Remove from exposure site to fresh air and keep at rest. Obtain medical advice.
- In case of skin contact : Remove contaminated clothes. Wash thoroughly with water (and soap). Contact physician if symptoms persist.
- In case of eye contact : Flush immediately with water for at least 15 minutes. Contact physician if symptoms persist.
- If swallowed : Rinse mouth with water and obtain medical advice.
- Most important symptoms and effects, both acute and delayed : Causes skin irritation.
May cause an allergic skin reaction.
Suspected of damaging fertility. Suspected of damaging the unborn child.

Indication of any immediate medical attention and special treatment needed

- Treatment : Treat symptomatically.

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



OD OLIFFAC

Version	Revision Date:	SDS Number:	Date of last issue: 11/12/2025
9.0	01/26/2026	300000468487	Date of first issue: 09/04/2015

Notes to physician

SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Carbondioxide, dry chemical, foam.
- Unsuitable extinguishing media : Do not use a direct waterjet on burning material.
- Specific hazards during fire-fighting : Water may be ineffective.
- Further information : Standard procedure for chemical fires.
- Special protective equipment for firefighters : Wear NIOSH approved self-contained breathing apparatus and full protective clothing when fighting fires involving chemicals. Use water spray to cool containers exposed to fire.

SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Avoid inhalation and contact with skin and eyes. A self-contained breathing apparatus is recommended in case of a major spill.
- Environmental precautions : Keep away from drains, surface- and groundwater and soil.
- Methods and materials for containment and cleaning up : Clean up spillage promptly. Remove ignition sources. Provide adequate ventilation. Avoid excessive inhalation of vapours. Gross spillages should be contained by use of sand or inert powder and disposed of according to the local regulations.

SECTION 7. HANDLING AND STORAGE

- Advice on protection against fire and explosion : Keep away from ignition sources and naked flame.
- Advice on safe handling : Avoid excessive inhalation of concentrated vapors. Follow good manufacturing practices for housekeeping and personal hygiene. Wash any exposed skin immediately after any chemical contact, before breaks and meals, and at the end of each work period. Contaminated clothing and shoes should be thoroughly cleaned before re-use.
- If appropriate, procedures used during the handling of this material should also be used when cleaning equipment or

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



OD OLIFAC

Version 9.0 Revision Date: 01/26/2026 SDS Number: 300000468487 Date of last issue: 11/12/2025
Date of first issue: 09/04/2015

removing residual chemicals from tanks or other containers, especially when steam or hot water is used, as this may increase vapor concentrations in the workplace air. Where chemicals are openly handled, access should be restricted to properly trained employees.

Keep all heated processes at the lowest necessary temperature in order to minimize emissions of volatile chemicals into the air.

Conditions for safe storage : Store in a cool, dry, ventilated area away from heat sources. Keep containers upright and tightly closed when not in use.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
2,6-di-tert-butyl-p-cresol	128-37-0	TWA (Inhalable fraction and vapor)	2 mg/m ³	ACGIH
		TWA	10 mg/m ³	NIOSH REL
		TWA	10 mg/m ³	OSHA P0
(-)-pin-2(10)-ene	127-91-3	TWA	20 ppm	ACGIH
pin-2(3)-ene	80-56-8	TWA	20 ppm	ACGIH
benzaldehyde	100-52-7	TWA	2 ppm	US WEEL
		STEL	4 ppm	US WEEL

Engineering measures : Where feasible, isolate mixing rooms and other areas where this material is used or openly handled. Maintain these areas under negative air pressure relative to the rest of the plant. Where feasible, use closed systems to transfer and process this material

Personal protective equipment

Respiratory protection : Use local exhaust ventilation around open tanks and other open sources of potential exposures in order to avoid excessive inhalation, including places where this material is openly weighed or measured. In addition, use general dilution ventilation of the work area to eliminate or reduce possible worker exposures.

No respiratory protection is required during normal operations in a workplace where engineering controls such as adequate ventilation, etc. are sufficient.

If engineering controls and safe work practices are not sufficient, an approved, properly fitted respirator with organic vapor cartridges or canisters and particulate filters should be used:

a) while engineering controls and appropriate safe work prac-

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



OD OLIFFAC

Version 9.0	Revision Date: 01/26/2026	SDS Number: 300000468487	Date of last issue: 11/12/2025 Date of first issue: 09/04/2015
----------------	------------------------------	-----------------------------	---

tices and/or procedures are being implemented; or
b)during short term maintenance procedures when engineering controls are not in normal operation or are not sufficient; or
c)if normal operational workplace vapor concentration in the air is increased due to heat ;
d)during emergencies; or
e)if engineering controls and operational practices are not sufficient to reduce airborne concentrations below an established occupational exposure limit.

Hand protection

Remarks : Avoid skin contact. Use chemically resistant gloves.

Eye protection : Use tight-fitting goggles, face shield or safety glasses with side shields if eye contact might occur.

Skin and body protection : Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place.

Protective measures : In December 2003, the National Institute for Occupational Safety and Health ("NIOSH") published an Alert on preventing lung disease in workers who use or make flavorings [NIOSH Publication Number 2004-110].
In August 2004, the United States Flavor and Extract Manufacturers Association (FEMA) issued a report entitled "Respiratory Safety in the Flavor Manufacturing Workplace".
Both of these reports provide recommendations for reducing employee exposure and for medical surveillance in the workplace. The recommendations in these reports are generally applicable to the use of any chemical in the workplace and you are strongly urged to review both of these reports.
The report published by FEMA also contains a list of "high priority" chemicals. If any of these chemicals are present in this product at a concentration $\geq 1.0\%$ due to an intentional addition by IFF, the chemical(s) will be identified in this safety data sheet.

Hygiene measures : To the extent deemed appropriate, implement pre-placement and regularly scheduled ascertainment of symptoms and spirometry testing of lung function for workers who are regularly exposed to this material.
To the extent deemed appropriate, use an experienced air sampling expert to identify and measure volatile chemicals that could be present in the workplace air to determine potential exposures and to ensure the continuing effectiveness of engineering controls and operational practices to minimize exposure.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



OD OLIFFAC

Version 9.0	Revision Date: 01/26/2026	SDS Number: 300000468487	Date of last issue: 11/12/2025 Date of first issue: 09/04/2015
----------------	------------------------------	-----------------------------	---

Appearance	:	liquid
Colour	:	brown
Odour	:	conforms to standard
pH	:	Concentration: 0
Melting point	:	not determined
Boiling point	:	not determined
Flash point	:	> 212.00 °F / > 100.00 °C Method: closed cup
Evaporation rate	:	not determined
Upper explosion limit / Upper flammability limit	:	not determined
Lower explosion limit / Lower flammability limit	:	not determined
Vapour pressure	:	0.05 hPa (68 °F / 20 °C) Calculated
Relative vapour density	:	not determined
Relative density	:	0.9670 - 0.9770
Density	:	not determined
Water solubility	:	not determined
Solubility in other solvents	:	not determined
Partition coefficient: n-octanol/water	:	not determined
Auto-ignition temperature	:	not determined
Decomposition temperature	:	not determined
pH	:	not determined
Viscosity, dynamic	:	not determined
Viscosity, kinematic	:	not determined

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



OD OLIFFAC

Version 9.0	Revision Date: 01/26/2026	SDS Number: 300000468487	Date of last issue: 11/12/2025 Date of first issue: 09/04/2015
----------------	------------------------------	-----------------------------	---

Oxidizing properties	:	not determined
Molecular weight	:	not determined
Assessment	:	not determined
Particle size	:	not determined
Particle Size Distribution	:	not determined
Specific surface area	:	not determined
Surface charge/Zeta potential	:	not determined
Shape	:	not determined
Crystallinity	:	not determined
Surface treatment /Coatings	:	not determined

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	No hazards to be specially mentioned.
Chemical stability	:	Stable under normal conditions.
Possibility of hazardous reactions	:	Presents no significant reactivity hazard, by itself or in contact with water.
Conditions to avoid	:	Direct sources of heat.
Incompatible materials	:	Avoid contact with strong acids, alkali or oxidizing agents.
Hazardous decomposition products	:	Carbon monoxide and unidentified organic compounds may be formed during combustion.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Not classified based on available information.

Product:

Acute oral toxicity	:	Acute toxicity estimate: > 5,000 mg/kg Method: Calculation method
Acute inhalation toxicity	:	Acute toxicity estimate: > 200 mg/l Exposure time: 4 h Test atmosphere: vapour Method: Calculation method
Acute dermal toxicity	:	Acute toxicity estimate: > 5,000 mg/kg Method: Calculation method

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



ODU OLIFAC

Version	Revision Date:	SDS Number:	Date of last issue: 11/12/2025
9.0	01/26/2026	300000468487	Date of first issue: 09/04/2015

Components:

1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one:

Acute oral toxicity	: LD50 (Rat, male and female): > 5,000 mg/kg Method: OECD Test Guideline 401 GLP: no Remarks: REACH data
Acute dermal toxicity	: LD50 (Rat, male and female): > 5,000 mg/kg Method: OECD Test Guideline 402 GLP: no Remarks: REACH data

1,2,3,5,6,7-hexahydro-1,1,2,3,3-pentamethyl-4H-inden-4-one:

Acute oral toxicity	: LD50 (Rat, female): 2,685 mg/kg Method: OECD Test Guideline 401 GLP: yes Remarks: REACH data
Acute inhalation toxicity	: LC50: 17.4 mg/l Method: Calculation method Remarks: not required REACH data

Reaction products of acetic anhydride and 1,5,10-trimethyl-1,5,9-cyclodecatriene:

Acute oral toxicity	: LD50 (Rat, male and female): > 5,000 mg/kg Method: OECD Test Guideline 401 GLP: yes Remarks: REACH data
Acute dermal toxicity	: LD50 (Rat, male and female): > 2,000 mg/kg Method: OECD Test Guideline 402 Test substance: (undiluted) GLP: yes Remarks: REACH data

[3R-(3 α ,3 α ,6 β ,7 β ,8 α)]-octahydro-6-methoxy-3,6,8,8-tetramethyl-1H-3a,7-methanoazulene:

Acute oral toxicity	: LD50 (Rat): > 5,000 mg/kg Method: OECD Test Guideline 401 GLP: no Remarks: REACH data
Acute dermal toxicity	: LD50 (Rabbit): > 5,000 mg/kg Method: OECD Test Guideline 402 GLP: no Remarks: REACH data

3,7,11-trimethyldodeca-1,6,10-trien-3-ol,mixed isomers:

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



ODU OLIFAC

Version	Revision Date:	SDS Number:	Date of last issue: 11/12/2025
9.0	01/26/2026	300000468487	Date of first issue: 09/04/2015

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg

Acute inhalation toxicity : (Rat, male and female): Exposure time: 7 h
Test atmosphere: vapour
Symptoms: No adverse effects
Remarks: Based on data from similar materials
REACH data

Acute dermal toxicity : LD50 (Rabbit): > 5,000 mg/kg
Remarks: REACH data

1-isopropyl-4-methylbenzene:

Acute oral toxicity : LD50 (Rat, male and female): 4,750 mg/kg
GLP: no
Remarks: REACH data

Acute dermal toxicity : LD50 (Rabbit): > 5,000 mg/kg
GLP: no
Remarks: REACH data

benzaldehyde:

Acute oral toxicity : LD50 (Rat, male): 1,430 mg/kg
Method: OECD Test Guideline 401
Remarks: REACH data

Acute inhalation toxicity : Acute toxicity estimate: 1.5 mg/l
Test atmosphere: dust/mist
Method: Expert judgement

Acute dermal toxicity : Acute toxicity estimate: 2,500 mg/kg
Method: Expert judgement

Skin corrosion/irritation

Causes skin irritation.

Components:

1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one:

Species : reconstructed human epidermis (RhE)
Assessment : Causes skin irritation.
Method : OECD Test Guideline 439
Result : irritating
GLP : yes
Test substance : (undiluted)
Remarks : REACH data

1,2,3,5,6,7-hexahydro-1,1,2,3,3-pentamethyl-4H-inden-4-one:

Species : Human
Exposure time : 0.25 h
Assessment : Causes skin irritation.

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



OD OLIFFAC

Version	Revision Date:	SDS Number:	Date of last issue: 11/12/2025
9.0	01/26/2026	300000468487	Date of first issue: 09/04/2015

Method	: OECD Test Guideline 439
Result	: irritating
GLP	: yes
Test substance	: (undiluted)
Remarks	: REACH data

Species	: Human
Exposure time	: 1 h
Method	: OECD Test Guideline 431
Result	: Not corrosive
GLP	: yes
Test substance	: (undiluted)
Remarks	: REACH data

Reaction products of acetic anhydride and 1,5,10-trimethyl-1,5,9-cyclodecatriene:

Species	: Rabbit
Exposure time	: 4 h
Assessment	: No skin irritation
Method	: OECD Test Guideline 404
Result	: No skin irritation
GLP	: yes
Test substance	: (undiluted)
Remarks	: REACH data

[3R-(3 α ,3 β ,6 β ,7 β ,8 α)]-octahydro-6-methoxy-3,6,8,8-tetramethyl-1H-3a,7-methanoazulene:

Species	: reconstructed human epidermis (RhE)
Exposure time	: 1 h
Assessment	: No skin irritation
Method	: OECD Test Guideline 439
Result	: No skin irritation
GLP	: yes
Test substance	: (undiluted)
Remarks	: REACH data

3,7,11-trimethyldodeca-1,6,10-trien-3-ol,mixed isomers:

Species	: Rabbit
Exposure time	: 4 h
Assessment	: No skin irritation
Method	: OECD Test Guideline 404
Result	: No skin irritation
GLP	: no
Test substance	: (undiluted)
Remarks	: Based on data from similar materials REACH data

1-isopropyl-4-methylbenzene:

Species	: reconstructed human epidermis (RhE)
Exposure time	: 1 h
Assessment	: No skin irritation
Method	: OECD Test Guideline 439

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



OD OLIFFAC

Version	Revision Date:	SDS Number:	Date of last issue: 11/12/2025
9.0	01/26/2026	300000468487	Date of first issue: 09/04/2015

Result : No skin irritation
GLP : yes
Test substance : (undiluted)
Remarks : REACH data

Species : Rabbit
Exposure time : 24 h
Result : Skin irritation

benzaldehyde:

Species : Rabbit
Exposure time : 4 h
Assessment : No skin irritation
Method : Directive 67/548/EEC, Annex V, B.4.
Result : No skin irritation
GLP : yes
Remarks : Based on data from similar materials
REACH data

Serious eye damage/eye irritation

Not classified based on available information.

Components:

1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one:

Result : No eye irritation
Assessment : No eye irritation
Method : QSAR
Remarks : REACH data

1,2,3,5,6,7-hexahydro-1,1,2,3,3-pentamethyl-4H-inden-4-one:

Species : Chicken eye
Result : Eye irritation
Assessment : Causes serious eye irritation.
Method : OECD Test Guideline 438
GLP : yes
Remarks : REACH data

Reaction products of acetic anhydride and 1,5,10-trimethyl-1,5,9-cyclodecatriene:

Species : Rabbit
Result : No eye irritation
Exposure time : 4 d
Assessment : No eye irritation
Method : OECD Test Guideline 405
GLP : yes
Test substance : (undiluted)
Remarks : REACH data

[3R-(3 α ,3 β ,6 β ,7 β ,8 α)]-octahydro-6-methoxy-3,6,8,8-tetramethyl-1H-3a,7-methanoazulene:

Species : Chicken eye

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



ODU OLIFFAC

Version	Revision Date:	SDS Number:	Date of last issue: 11/12/2025
9.0	01/26/2026	300000468487	Date of first issue: 09/04/2015

Result	:	No eye irritation
Exposure time	:	10 s
Assessment	:	No eye irritation
Method	:	OECD Test Guideline 438
GLP	:	yes
Test substance	:	(undiluted)
Remarks	:	REACH data

3,7,11-trimethyldodeca-1,6,10-trien-3-ol,mixed isomers:

Species	:	Rabbit
Result	:	Eye irritation
Assessment	:	Causes serious eye irritation.
Method	:	OECD Test Guideline 405
GLP	:	no
Test substance	:	(undiluted)
Remarks	:	Based on data from similar materials REACH data

1-isopropyl-4-methylbenzene:

Species	:	human
Result	:	No eye irritation
Assessment	:	No eye irritation
Method	:	OECD Test Guideline 492
GLP	:	yes
Remarks	:	REACH data

Species	:	Bovine cornea
Result	:	No eye irritation
Assessment	:	No eye irritation
Method	:	OECD Test Guideline 437
GLP	:	yes
Remarks	:	REACH data

benzaldehyde:

Species	:	Rabbit
Result	:	Moderate eye irritation
Assessment	:	Causes serious eye irritation.
Method	:	OECD Test Guideline 405
Remarks	:	REACH data

Respiratory or skin sensitisation

Skin sensitisation

May cause an allergic skin reaction.

Respiratory sensitisation

Not classified based on available information.

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



OD OLIFFAC

Version	Revision Date:	SDS Number:	Date of last issue: 11/12/2025
9.0	01/26/2026	300000468487	Date of first issue: 09/04/2015

Components:

1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one:

Test Type	: Local lymph node assay (LLNA)
Species	: Mouse
Assessment	: The product is a skin sensitiser, sub-category 1B.
Method	: OECD Test Guideline 429
Result	: Causes sensitisation.
GLP	: yes
Remarks	: REACH data

1,2,3,5,6,7-hexahydro-1,1,2,3,3-pentamethyl-4H-inden-4-one:

Test Type	: Local lymph node assay (LLNA)
Species	: Mouse
Assessment	: The product is a skin sensitiser, sub-category 1B.
Method	: OECD Test Guideline 429
Result	: positive
GLP	: yes
Remarks	: REACH data

Test Type	: repeated insult patch test
Species	: Humans
Result	: Does not cause skin sensitisation.
Test substance	: 10.% in ethanol/DEP (75:25)
Remarks	: REACH data

Species	: Not tested on animals
Result	: Does not cause respiratory sensitisation.
Remarks	: REACH data

Reaction products of acetic anhydride and 1,5,10-trimethyl-1,5,9-cyclodecatriene:

Test Type	: Local lymph node assay (LLNA)
Species	: Mouse
Assessment	: The product is a skin sensitiser, sub-category 1B.
Method	: OECD Test Guideline 429
Result	: Causes sensitisation.
GLP	: yes
Remarks	: REACH data

[3R-(3 α ,3 β ,6 β ,7 β ,8 α)]-octahydro-6-methoxy-3,6,8,8-tetramethyl-1H-3a,7-methanoazulene:

Test Type	: Local lymph node assay (LLNA)
Species	: Mouse
Assessment	: The product is a skin sensitiser, sub-category 1B.
Method	: OECD Test Guideline 429
Result	: Causes sensitisation.
GLP	: yes
Test substance	: 8.0% in petrolatum
Remarks	: REACH data

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



ODU OLIFAC

Version	Revision Date:	SDS Number:	Date of last issue: 11/12/2025
9.0	01/26/2026	300000468487	Date of first issue: 09/04/2015

|| 3,7,11-trimethyldodeca-1,6,10-trien-3-ol,mixed isomers:

Test Type	: Local lymph node assay (LLNA)
Species	: Mouse
Assessment	: The product is a skin sensitiser, sub-category 1B.
Method	: OECD Test Guideline 429
Result	: Causes sensitisation.
GLP	: yes
Remarks	: Based on data from similar materials REACH data

|| 1-isopropyl-4-methylbenzene:

Test Type	: maximisation study
Species	: human
Assessment	: Does not cause skin sensitisation.
Method	: Maximisation Test
Result	: Does not cause skin sensitisation.
Test substance	: 4.0% in petrolatum
Remarks	: REACH data

Test Type	: Open epicutaneous test
Species	: Guinea pig
Assessment	: Does not cause skin sensitisation.
Result	: Does not cause skin sensitisation.
GLP	: no
Test substance	: 4.0% in petrolatum
Remarks	: REACH data

|| benzaldehyde:

Test Type	: maximisation study
Species	: Guinea pig
Assessment	: Does not cause skin sensitisation.
Method	: OECD Test Guideline 406
Result	: Does not cause skin sensitisation.
Remarks	: REACH data

Species	: Guinea pig
Assessment	: Does not cause respiratory sensitisation.
Result	: Does not cause respiratory sensitisation.
Remarks	: REACH data

Germ cell mutagenicity

Not classified based on available information.

Components:

|| 1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one:

Genotoxicity in vitro	: Test Type: Microbial mutagenesis assay (Ames test) Test system: Salmonella typhimurium Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 471 Result: negative
-----------------------	---

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



OD OLIFFAC

Version	Revision Date:	SDS Number:	Date of last issue: 11/12/2025
9.0	01/26/2026	300000468487	Date of first issue: 09/04/2015

GLP: yes
Remarks: REACH data

Test Type: Microbial mutagenesis assay (Ames test)
Test system: Salmonella typhimurium
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: negative
GLP: yes
Remarks: REACH data

Test Type: Chromosome aberration test in vitro
Test system: Human lymphocytes
Metabolic activation: with and without metabolic activation
Method: OECD 473
Result: negative
GLP: yes
Remarks: REACH data

Test Type: In vitro mammalian cell gene mutation test
Test system: mouse lymphoma cells
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 476
Result: negative
GLP: yes
Remarks: REACH data

Genotoxicity in vivo : Test Type: In vivo micronucleus test
Species: Mouse (male and female)
Application Route: Dermal
Method: OECD Test Guideline 474
Result: negative
GLP: yes

Test Type: In vivo micronucleus test
Species: Rat (male and female)
Application Route: Dermal
Method: OECD Test Guideline 474
Result: negative
GLP: yes

1,2,3,5,6,7-hexahydro-1,1,2,3,3-pentamethyl-4H-inden-4-one:

Genotoxicity in vitro : Test Type: Ames test
Test system: Salmonella typhimurium
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: negative
GLP: yes
Remarks: REACH data

Test Type: In vitro mammalian cell gene mutation test
Test system: mouse lymphoma cells

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



OD OLIFAC

Version	Revision Date:	SDS Number:	Date of last issue: 11/12/2025
9.0	01/26/2026	300000468487	Date of first issue: 09/04/2015

Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 476
Result: negative
GLP: yes
Remarks: REACH data

Test Type: in vitro mammalian cell micronucleus
Test system: Human lymphocytes
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 473
Result: negative
GLP: No information available.
Remarks: REACH data

|| Reaction products of acetic anhydride and 1,5,10-trimethyl-1,5,9-cyclodecatriene:

Genotoxicity in vitro : Test Type: Microbial mutagenesis assay (Ames test)
Test system: Salmonella typhimurium
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: negative
GLP: yes
Remarks: REACH data

Test Type: Microbial mutagenesis assay (Ames test)
Test system: Escherichia coli
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: negative
GLP: yes
Remarks: REACH data

Test Type: In vitro mammalian cell gene mutation test
Test system: mouse lymphoma cells
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 476
Result: negative
GLP: yes
Remarks: REACH data

Test Type: in vitro mammalian cell micronucleus
Test system: Human lymphocytes
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 487
Result: negative
GLP: yes
Remarks: REACH data

|| [3R-(3 α ,3 β ,6 β ,7 β ,8 α)]-octahydro-6-methoxy-3,6,8,8-tetramethyl-1H-3a,7-methanoazulene:

Genotoxicity in vitro : Test Type: in vitro mammalian cell micronucleus
Test system: Human lymphocytes
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 487

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



ODU OLIFFAC

Version 9.0	Revision Date: 01/26/2026	SDS Number: 300000468487	Date of last issue: 11/12/2025 Date of first issue: 09/04/2015
----------------	------------------------------	-----------------------------	---

Result: negative
GLP: yes
Remarks: REACH data

Test Type: In vitro mammalian cell gene mutation test
Test system: mouse lymphoma cells
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 490
Result: negative
GLP: yes
Remarks: REACH data

Test Type: Microbial mutagenesis assay (Ames test)
Test system: Salmonella typhimurium
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: negative
GLP: yes
Remarks: REACH data

Test Type: Microbial mutagenesis assay (Ames test)
Test system: Escherichia coli
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: negative
GLP: yes
Remarks: REACH data

|| 3,7,11-trimethyldodeca-1,6,10-trien-3-ol, mixed isomers:

Genotoxicity in vitro : Test Type: sister chromatid exchange assay
Test system: Chinese hamster ovary cells
Method: OECD Test Guideline 479
Result: negative
Remarks: Based on data from similar materials
REACH data

Test Type: Chromosome aberration test in vitro
Test system: Chinese hamster ovary cells
Result: negative
Remarks: Based on data from similar materials
REACH data

Test Type: In vitro mammalian cell gene mutation test
Test system: mouse lymphoma cells
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 476
Result: negative
GLP: yes
Remarks: Based on data from similar materials
REACH data

Test Type: Microbial mutagenesis assay (Ames test)

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



OD OLIFFAC

Version	Revision Date:	SDS Number:	Date of last issue: 11/12/2025
9.0	01/26/2026	300000468487	Date of first issue: 09/04/2015

Test system: Escherichia coli
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: negative
GLP: yes
Remarks: REACH data

Test Type: Microbial mutagenesis assay (Ames test)
Test system: Salmonella typhimurium
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: negative
GLP: yes
Remarks: REACH data

Genotoxicity in vivo : Test Type: In vivo micronucleus test
Species: Mouse (male)
Application Route: Oral
Method: OECD Test Guideline 474
Result: negative
GLP: yes
Remarks: REACH data

1-isopropyl-4-methylbenzene:

Genotoxicity in vitro : Test Type: Microbial mutagenesis assay (Ames test)
Test system: Salmonella typhimurium
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: negative
GLP: yes
Remarks: REACH data

Test Type: Microbial mutagenesis assay (Ames test)
Test system: Escherichia coli
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: negative
GLP: yes
Remarks: REACH data

Test Type: Chromosome aberration test in vitro
Test system: Human lymphocytes
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 473
Result: negative
GLP: yes
Remarks: REACH data

Test Type: In vitro mammalian cell gene mutation test
Test system: Chinese hamster lung cells
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 476

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



ODU OLIFAC

Version	Revision Date:	SDS Number:	Date of last issue: 11/12/2025
9.0	01/26/2026	300000468487	Date of first issue: 09/04/2015

Result: negative
GLP: yes
Remarks: REACH data

benzaldehyde:

Genotoxicity in vitro : Test Type: in vitro mammalian cell micronucleus
Test system: Human lymphocytes
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 487
Result: negative
GLP: yes
Remarks: REACH data

Test Type: In vitro mammalian cell gene mutation test
Test system: mouse lymphoma cells
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 490
Result: negative
GLP: yes
Remarks: REACH data

Genotoxicity in vivo : Species: Drosophila melanogaster (vinegar fly) (male)
Application Route: Ingestion
Result: negative
Remarks: REACH data

Carcinogenicity

Not classified based on available information.

Components:

1,2,3,5,6,7-hexahydro-1,1,2,3,3-pentamethyl-4H-inden-4-one:

Species : Rat
Method : see user defined free text
Remarks : not required
REACH data

benzaldehyde:

Species : Mouse, male and female
Application Route : Oral
Activity duration : 2 yr
LOAEL : > 300 mg/kg body weight
Method : OECD Test Guideline 451
GLP : yes
Remarks : REACH data

Species : Rat, male and female
Application Route : Oral
Activity duration : 2 yr
NOAEL : > 400 mg/kg bw/day
Method : OECD Test Guideline 451

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



ODU OLIFFAC

Version	Revision Date:	SDS Number:	Date of last issue: 11/12/2025
9.0	01/26/2026	300000468487	Date of first issue: 09/04/2015

GLP : yes
Remarks : REACH data

IARC No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

NTP No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Reproductive toxicity

Suspected of damaging fertility. Suspected of damaging the unborn child.

Components:

1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one:

Effects on fertility : Test Type: reproductive and developmental toxicity study
Species: Rat, male and female
Strain: wistar
Application Route: Oral
General Toxicity - Parent: NOAEL: $\geq$ 300 mg/kg body weight
Fertility: NOAEL: $\geq$ 300 mg/kg body weight
Method: OECD Test Guideline 443
GLP: yes
Remarks: REACH data

Test Type: reproductive and developmental toxicity study
Species: Rat, male and female
Strain: wistar
Application Route: Oral
General Toxicity - Parent: NOAEL: 120 mg/kg body weight
Fertility: NOAEL: $\geq$ 500 mg/kg body weight
Target Organs: Kidney, Liver, spleen
Method: OECD Test Guideline 421
GLP: yes
Remarks: REACH data

Effects on foetal development : Test Type: Pre-natal
Species: Rat, female
Application Route: Oral
Duration of Single Treatment: 21 d
Frequency of Treatment: 1 daily
General Toxicity Maternal: NOAEL: 240 mg/kg body weight
Developmental Toxicity: NOAEL: $\geq$ 480 mg/kg body weight
Method: OECD Test Guideline 414
GLP: yes
Remarks: REACH data

Test Type: Pre-natal
Species: Rabbit, female
Application Route: Oral

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



ODU OLIFAC

Version	Revision Date:	SDS Number:	Date of last issue: 11/12/2025
9.0	01/26/2026	300000468487	Date of first issue: 09/04/2015

Duration of Single Treatment: 23 d
Frequency of Treatment: 1 daily
General Toxicity Maternal: NOAEL: 200 mg/kg body weight
Developmental Toxicity: NOAEL: >= 500 mg/kg body weight
Method: OECD Test Guideline 414
GLP: yes
Remarks: REACH data

1,2,3,5,6,7-hexahydro-1,1,2,3,3-pentamethyl-4H-inden-4-one:

Effects on fertility : Test Type: reproductive and developmental toxicity study
Species: Rat, male and female
Strain: wistar
Application Route: Ingestion
General Toxicity - Parent: NOAEL: 150 mg/kg food
Fertility: NOAEL: 1.875 mg/kg food
Early Embryonic Development: NOAEL: 1.875 mg/kg food
Symptoms: No effects on fertility, No effects on foetal development
Target Organs: Kidney, Liver
Method: OECD Test Guideline 421
GLP: yes
Remarks: REACH data

Effects on foetal development : Test Type: reproductive and developmental toxicity study
Species: Rat, female
Strain: wistar
Application Route: Ingestion
Developmental Toxicity: NOAEL: 121.83 mg/kg body weight
Symptoms: No effects on newborn
Target Organs: Kidney, Liver
Method: OECD Test Guideline 421
Result: No effects on fertility and early embryonic development were detected.
GLP: yes
Remarks: REACH data

Reaction products of acetic anhydride and 1,5,10-trimethyl-1,5,9-cyclodecatriene:

Effects on fertility : Test Type: reproductive and developmental toxicity study
Species: Rat, male and female
Application Route: Oral
General Toxicity - Parent: NOAEL: 150 mg/kg body weight
Fertility: NOAEL: > 500 mg/kg body weight
Method: OECD Test Guideline 422
GLP: yes
Remarks: REACH data

[3R-(3 α ,3 β ,6 β ,7 β ,8 α)]-octahydro-6-methoxy-3,6,8,8-tetramethyl-1H-3a,7-methanoazulene:

Effects on fertility : Test Type: reproductive and developmental toxicity study
Species: Rat, male
Strain: wistar
Application Route: Ingestion

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



ODU OLIFAC

Version	Revision Date:	SDS Number:	Date of last issue: 11/12/2025
9.0	01/26/2026	300000468487	Date of first issue: 09/04/2015

Fertility: NOAEL: $\geq$ 330 mg/kg body weight
Method: OECD Test Guideline 422
GLP: yes
Remarks: REACH data

Test Type: reproductive and developmental toxicity study
Species: Rat, female
Strain: wistar
Application Route: Ingestion
Fertility: NOAEL: $\geq$ 406 mg/kg body weight
Method: OECD Test Guideline 422
GLP: yes
Remarks: REACH data

Effects on foetal development : Test Type: reproductive and developmental toxicity study
Species: Rat, female
Strain: wistar
Application Route: Ingestion
Developmental Toxicity: NOAEL: $\geq$ 406 mg/kg body weight
Method: OECD Test Guideline 422
GLP: yes
Remarks: REACH data

|| 3,7,11-trimethyldodeca-1,6,10-trien-3-ol,mixed isomers:

Effects on fertility : Test Type: reproductive and developmental toxicity study
Species: Rat, male
Application Route: Ingestion
Duration of Single Treatment: 37 d
General Toxicity - Parent: NOAEL: 270 mg/kg body weight
Fertility: NOAEL: 755 mg/kg body weight
Method: OECD Test Guideline 422
GLP: yes
Remarks: REACH data

Test Type: reproductive and developmental toxicity study
Species: Rat, male
Application Route: Ingestion
Duration of Single Treatment: 58 d
General Toxicity - Parent: NOAEL: 105 mg/kg body weight
Fertility: NOAEL: 705 mg/kg body weight
Method: OECD Test Guideline 422
GLP: yes
Remarks: REACH data

Effects on foetal development : Test Type: reproductive and developmental toxicity study
Species: Rat, female
Application Route: Ingestion
Duration of Single Treatment: 58 d
General Toxicity Maternal: NOAEL: 105 mg/kg body weight
Developmental Toxicity: NOAEL: 340 mg/kg body weight
Method: OECD Test Guideline 422
GLP: yes

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



ODU OLIFAC

Version	Revision Date:	SDS Number:	Date of last issue: 11/12/2025
9.0	01/26/2026	300000468487	Date of first issue: 09/04/2015

Remarks: REACH data

1-isopropyl-4-methylbenzene:

Effects on fertility : Test Type: reproductive and developmental toxicity study
Species: Rat, male
Application Route: Oral
General Toxicity - Parent: NOAEL: 50 mg/kg body weight
General Toxicity F1: NOAEL: 50 mg/kg body weight
Fertility: NOAEL: 50 mg/kg body weight
Method: OECD Test Guideline 422
GLP: yes
Remarks: REACH data

Test Type: reproductive and developmental toxicity study
Species: Rat, female
Application Route: Oral
General Toxicity - Parent: NOAEL: 100 mg/kg body weight
General Toxicity F1: NOAEL: 50 mg/kg body weight
Fertility: NOAEL: 100 mg/kg body weight
Method: OECD Test Guideline 422
GLP: yes
Remarks: REACH data

Reproductive toxicity - Assessment : Suspected of damaging fertility or the unborn child.

benzaldehyde:

Effects on fertility : Test Type: reproductive and developmental toxicity study
Species: Rat, male and female
Application Route: Oral
General Toxicity - Parent: NOAEL: 5 mg/kg body weight
Fertility: NOAEL: 5 mg/kg body weight
Remarks: REACH data

Test Type: Multi-generation study
Species: Rat, male
Application Route: Ingestion
General Toxicity - Parent: NOAEL: 900 mg/kg body weight
General Toxicity F1: NOAEL: 900 mg/kg body weight
General Toxicity F2: NOAEL: 900 mg/kg body weight
Fertility: NOAEL: 900 mg/kg body weight
Method: OECD Test Guideline 416
GLP: no
Remarks: Based on data from similar materials
REACH data

Test Type: Multi-generation study
Species: Rat, female
Application Route: Ingestion
General Toxicity - Parent: NOAEL: 1,176 mg/kg body weight
General Toxicity F1: NOAEL: 1,176 mg/kg body weight
General Toxicity F2: NOAEL: 1,176 mg/kg body weight

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



ODU OLIFAC

Version	Revision Date:	SDS Number:	Date of last issue: 11/12/2025
9.0	01/26/2026	300000468487	Date of first issue: 09/04/2015

Fertility: NOAEL: 1,176 mg/kg body weight
Method: OECD Test Guideline 416
GLP: no
Remarks: Based on data from similar materials
REACH data

Effects on foetal development : Test Type: Pre-natal
Species: Rat, female
Application Route: Oral
Duration of Single Treatment: 15 d
General Toxicity Maternal: NOAEL: 600 mg/kg body weight
Developmental Toxicity: NOAEL: 300 mg/kg body weight
Method: OECD Test Guideline 414
GLP: yes
Remarks: REACH data

Test Type: Pre-natal
Species: Rabbit, female
Application Route: Oral
Duration of Single Treatment: 23 d
General Toxicity Maternal: NOAEL: 225 mg/kg body weight
Developmental Toxicity: NOAEL: 225 mg/kg body weight
Method: OECD Test Guideline 414
GLP: yes
Remarks: REACH data

STOT - single exposure

Not classified based on available information.

Components:

benzaldehyde:

Exposure routes : Inhalation
Target Organs : Lungs
Assessment : May cause respiratory irritation.

STOT - repeated exposure

Not classified based on available information.

Repeated dose toxicity

Components:

1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2-naphthyl)ethan-1-one:

Species : Rat, male and female
NOAEL : 150 mg/kg
Application Route : Oral
Exposure time : 28-day
Number of exposures : 1x /day
Method : OECD Test Guideline 407
GLP : yes
Remarks : REACH data

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



OD OLIFFAC

Version	Revision Date:	SDS Number:	Date of last issue: 11/12/2025
9.0	01/26/2026	300000468487	Date of first issue: 09/04/2015

Species : Rat, male and female
NOAEL : 120 mg/kg
Application Route : Oral
Exposure time : 90-day
Number of exposures : 1x /day
Method : OECD Test Guideline 408
GLP : yes
Target Organs : spleen, Liver, Kidney
Remarks : REACH data

Species : Rat, male and female
NOAEL : 250 mg/kg
Application Route : Dermal
Exposure time : 90-day
Method : OECD Test Guideline 411
GLP : yes
Target Organs : Skin, Liver
Remarks : REACH data

Species : Mouse, male and female
NOAEL : 500 mg/kg
Application Route : Dermal
Exposure time : 90-day
Method : OECD Test Guideline 411
GLP : yes
Target Organs : Skin, Liver
Remarks : REACH data

1,2,3,5,6,7-hexahydro-1,1,2,3,3-pentamethyl-4H-inden-4-one:

Species : Rat, male and female
NOAEL : 10 mg/kg
Application Route : Oral
Exposure time : 90-day
Number of exposures : 1x /day
Method : OECD Test Guideline 408
GLP : yes
Target Organs : Kidney
Assessment : The substance or mixture is not classified as specific target organ toxicant, repeated exposure.
Remarks : REACH data

Reaction products of acetic anhydride and 1,5,10-trimethyl-1,5,9-cyclodecatriene:

Species : Rat, male and female
NOAEL : 150 mg/kg
Application Route : Oral
Exposure time : 28 d
Number of exposures : 1x /day
Method : OECD Test Guideline 407
GLP : yes
Target Organs : Liver, spleen
Remarks : REACH data

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



OD OLIFFAC

Version	Revision Date:	SDS Number:	Date of last issue: 11/12/2025
9.0	01/26/2026	300000468487	Date of first issue: 09/04/2015

Species	: Rat, male and female
NOAEL	: 150 mg/kg
LOAEL	: 500 mg/kg
Application Route	: Oral
Exposure time	: 28 d
Number of exposures	: 1x /day
Method	: OECD Test Guideline 422
GLP	: yes
Target Organs	: Liver
Remarks	: REACH data

[3R-(3 α ,3 α β ,6 β ,7 β ,8 α)]-octahydro-6-methoxy-3,6,8,8-tetramethyl-1H-3a,7-methanoazulene:

Species	: Rat, male
NOAEL	: $\geq$ 330 mg/kg
Application Route	: Ingestion
Method	: OECD Test Guideline 422
GLP	: yes
Remarks	: REACH data

Species	: Rat, female
NOAEL	: $\geq$ 406 mg/kg
Application Route	: Ingestion
Method	: OECD Test Guideline 422
GLP	: yes
Remarks	: REACH data

3,7,11-trimethyldodeca-1,6,10-trien-3-ol,mixed isomers:

Species	: Rat, female
NOAEL	: 105 mg/kg
Application Route	: Ingestion
Exposure time	: 58 d
Method	: OECD Test Guideline 422
GLP	: yes
Remarks	: Based on data from similar materials REACH data

Species	: Rat, male
NOAEL	: 270 mg/kg
Application Route	: Ingestion
Exposure time	: 37 d
Method	: OECD Test Guideline 422
GLP	: yes
Remarks	: Based on data from similar materials REACH data

1-isopropyl-4-methylbenzene:

Species	: Rat, male
NOAEL	: 50 mg/kg
Application Route	: Oral
Exposure time	: 35 d
Method	: OECD Test Guideline 422

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



OD OLIFAC

Version	Revision Date:	SDS Number:	Date of last issue: 11/12/2025
9.0	01/26/2026	300000468487	Date of first issue: 09/04/2015

GLP	: yes
Remarks	: REACH data
Species	: Rat, female
NOAEL	: 100 mg/kg
Application Route	: Oral
Exposure time	: 63 d
Method	: OECD Test Guideline 422
GLP	: yes
Remarks	: REACH data
Species	: Rat, male
NOAEL	: 1.23 mg/l
Application Route	: inhalation (vapour)
Exposure time	: 20 d
Remarks	: REACH data

benzaldehyde:

Species	: Rat, male and female
NOAEL	: 400 mg/kg
Application Route	: Oral
Exposure time	: 515 d
GLP	: yes
Remarks	: REACH data
Species	: Mouse, male and female
NOAEL	: < 300 mg/kg
LOAEL	: 300 mg/kg
Application Route	: Oral
Exposure time	: 520 d
GLP	: yes
Remarks	: REACH data
Species	: Rat, male and female
LOAEL	: 2.2 mg/l
LOAEL	: 2.2 mg/l
Application Route	: inhalation (vapour)
Test atmosphere	: vapour
Exposure time	: 14 d
Method	: OECD Test Guideline 412
Remarks	: REACH data

Aspiration toxicity

Not classified based on available information.

SECTION 12. ECOLOGICAL INFORMATION

Ecological information

Additional ecological information : Avoid contamination of soil, ground and surface water.

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



UD OLIFAC

Version	Revision Date:	SDS Number:	Date of last issue: 11/12/2025
9.0	01/26/2026	300000468487	Date of first issue: 09/04/2015

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

- | | | |
|------------------------|---|---|
| Waste from residues | : | Dispose of according to local regulations. Avoid disposing into drainage systems and into the environment. |
| Contaminated packaging | : | Place material into sealed containers and dispose of in accordance with local, state and federal regulations. |

SECTION 14. TRANSPORT INFORMATION

International Regulations

IATA-DGR

- | | | |
|--|---|--|
| UN/ID No. | : | UN 3082 |
| Proper shipping name | : | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., Environmentally hazardous substance, liquid, n.o.s. (Octahydro Tetramethyl Naphthalenyl Ethanone, Acetic anhydride, reaction products with trimethyl cyclododecatriene) |
| Class | : | 9 |
| Packing group | : | III |
| Labels | : | 9 |
| Packing instruction (cargo aircraft) | : | 964 |
| Packing instruction (passenger aircraft) | : | 964 |
| Environmentally hazardous | : | yes |

IMDG-Code

- | | | |
|----------------------|---|---|
| UN number | : | UN 3082 |
| Proper shipping name | : | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Octahydro Tetramethyl Naphthalenyl Ethanone, Acetic anhydride, reaction products with trimethyl cyclododecatriene) |
| Class | : | 9 |
| Packing group | : | III |
| Labels | : | 9 |
| EmS Code | : | F-A, S-F |
| Marine pollutant | : | yes |

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

National Regulations

49 CFR

Not regulated as a dangerous good

- | | | |
|---------|---|--|
| Remarks | : | Shipment by ground under DOT is non-regulated for non-bulk packaging; however it may be shipped per the applicable hazard classification to facilitate multi-modal transport involving ICAO (IATA) or IMO. |
|---------|---|--|

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



OD OLIFAC

Version	Revision Date:	SDS Number:	Date of last issue: 11/12/2025
9.0	01/26/2026	300000468487	Date of first issue: 09/04/2015

Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

SECTION 15. REGULATORY INFORMATION

CERCLA Reportable Quantity

Listed substances in the product are at low enough levels to not be expected to exceed the RQ

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 Hazards	:	Respiratory or skin sensitisation Reproductive toxicity Skin corrosion or irritation
-----------------------------	---	--

SARA 313	:	This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.
-----------------	---	---

The components of this product are reported in the following inventories:

US TSCA	:	Product contains substance(s) not listed on TSCA inventory.
---------	---	---

TSCA list

No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

SECTION 16. OTHER INFORMATION

Full text of other abbreviations

ACGIH	:	USA. ACGIH Threshold Limit Values (TLV)
NIOSH REL	:	USA. NIOSH Recommended Exposure Limits
OSHA P0	:	USA. Table Z-1-A Limits for Air Contaminants (1989 vacated values)
US WEEL	:	USA. Workplace Environmental Exposure Levels (WEEL)
ACGIH / TWA	:	8-hour, time-weighted average
NIOSH REL / TWA	:	Time-weighted average concentration for up to a 10-hour workday during a 40-hour workweek
OSHA P0 / TWA	:	8-hour time weighted average
US WEEL / TWA	:	8-hr TWA
US WEEL / STEL	:	Short-Term TWA

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



ODU OLIFAC

Version	Revision Date:	SDS Number:	Date of last issue: 11/12/2025
9.0	01/26/2026	300000468487	Date of first issue: 09/04/2015

AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonised System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organisation; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardisation; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organisation for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

Revision Date : 01/26/2026

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

US / EN