

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



## VIOLIFF TOCO

Version 1.3      Revision Date: 06.05.2022      SDS Number: R00000495475      Date of last issue: 02.03.2021  
Date of first issue: 20.11.2020

---

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1 Product identifier

Trade name : VIOLIFF TOCO

Registration number : 01-2120058008-60-0000

Sales Number : 00220576

Cust. Material : 404653

Substance name : cyclooct-4-en-1-yl methyl carbonate

EC-No. : 401-620-8,

CAS-No. : 87731-18-8

#### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Use of the Sub-stance/Mixture : Ingredient used in Flavour and/or Fragrance preparations

#### 1.3 Details of the supplier of the safety data sheet

Company : IFF (GB) Limited  
DUDDERY HILL  
CB9 8LG HAVERHILL

Telephone : +441440715000

Telefax : +441440762199

E-mail address of person responsible for the SDS : sds@iff.com

#### 1.4 Emergency telephone

+44 1440 7 15000

---

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

##### Classification (REGULATION (EC) No 1272/2008)

Skin sensitization, Category 1      H317: May cause an allergic skin reaction.

#### 2.2 Label elements

##### Labeling (REGULATION (EC) No 1272/2008)

Hazard pictograms :



Signal Word : Warning

---

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



## VIOLIFF TOCO

Version 1.3      Revision Date: 06.05.2022      SDS Number: R00000495475      Date of last issue: 02.03.2021  
Date of first issue: 20.11.2020

Hazard Statements : H317 May cause an allergic skin reaction.

Precautionary Statements : **Prevention:**  
P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.  
P272 Contaminated work clothing should not be allowed out of the workplace.  
P280 Wear protective gloves.  
**Response:**  
P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.  
P362 + P364 Take off contaminated clothing and wash it before reuse.  
**Disposal:**  
P501 Dispose of contents/ container to an approved waste disposal plant.

### Hazardous ingredients which must be listed on the label:

87731-18-8      cyclooct-4-en-1-yl methyl carbonate  
10191-41-0      TOCOPHEROL

### 2.3 Other hazards

None reasonably foreseeable.

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

Substance name : cyclooct-4-en-1-yl methyl carbonate  
Molecular formula : C<sub>10</sub> H<sub>16</sub> O<sub>3</sub>  
Molecular weight : 184,20 g/mol  
REACH No. : 01-2120058008-60-0000

### Components

Chemical name	CAS-No. EC-No.	Concentration (% w/w)	M-Factor, SCL, ATE
cyclooct-4-en-1-yl methyl carbonate	87731-18-8 401-620-8	>= 90 - <= 100	
3,4-dihydro-2,5,7,8-tetramethyl-2-(4,8,12-trimethyltridecyl)-2H-	10191-41-0 233-466-0	>= 0,1 - < 1	

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



## VIOLIFF TOCO

Version 1.3      Revision Date: 06.05.2022      SDS Number: R00000495475      Date of last issue: 02.03.2021  
Date of first issue: 20.11.2020

benzopyran-6-ol			
-----------------	--	--	--

---

### SECTION 4: First aid measures

#### 4.1 Description of 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. If victim is unconscious, remove foreign bodies from the mouth. If victim has stopped breathing, give artificial respiration. 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.

#### 4.2 Most important symptoms and effects, both acute and delayed

- Risks : May cause an allergic skin reaction.

#### 4.3 Indication of any immediate medical attention and special treatment needed

---

### SECTION 5: Firefighting measures

#### 5.1 Extinguishing media

- Suitable extinguishing media : Carbondioxide, dry chemical, foam.
- Unsuitable extinguishing media : Do not use a direct waterjet on burning material.

#### 5.2 Special hazards arising from the substance or mixture

- Specific hazards during fire fighting : Water may be ineffective.

#### 5.3 Advice for firefighters

- Special protective equipment for fire-fighters : Wear self-contained breathing apparatus for firefighting if necessary.
- Further information : Standard procedure for chemical fires.

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



## VIOLIFF TOCO

Version	Revision Date:	SDS Number:	Date of last issue: 02.03.2021
1.3	06.05.2022	R00000495475	Date of first issue: 20.11.2020

---

### SECTION 6: Accidental release measures

#### 6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Avoid inhalation and contact with skin and eyes. A self-contained breathing apparatus is recommended in case of a major spill.  
Prevent spreading over a wide area (e.g., by containment or oil barriers).

#### 6.2 Environmental precautions

Environmental precautions : Keep away from drains, surface- and groundwater and soil.

#### 6.3 Methods and material for containment and cleaning up

Methods for 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.

#### 6.4 Reference to other sections

---

### SECTION 7: Handling and storage

#### 7.1 Precautions for safe handling

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 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.

Advice on protection against fire and explosion : Keep away from ignition sources and naked flame.

#### 7.2 Conditions for safe storage, including any incompatibilities

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

#### 7.3 Specific end use(s)

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



## VIOLIFF TOCO

Version	Revision Date:	SDS Number:	Date of last issue: 02.03.2021
1.3	06.05.2022	R00000495475	Date of first issue: 20.11.2020

Specific use(s) : No information available.

### SECTION 8: Exposure controls/personal protection

#### 8.1 Control parameters

Contains no substances with occupational exposure limit values.

#### 8.2 Exposure controls

##### Engineering measures

Where appropriate, use closed systems to transfer and process this material.  
If appropriate, 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.

##### Personal protective equipment

Eye protection : Use tight-fitting goggles, face shield or safety glasses with side shields if eye contact might occur.  
Equipment should conform to EN 166

Hand protection

Remarks : Avoid skin contact. Use chemically resistant gloves. The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it. Be aware that in daily use the durability of a chemical resistant protective glove can be notably shorter than the break through time measured according to EN 374, due to the numerous outside influences (e.g. temperature). Please observe the instructions regarding permeability and break-through time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other.

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.

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 va-

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



## VIOLIFF TOCO

Version 1.3      Revision Date: 06.05.2022      SDS Number: R00000495475      Date of last issue: 02.03.2021  
Date of first issue: 20.11.2020

---

por cartridges or canisters and particulate filters should be used:

- a) while engineering controls and appropriate safe work practices 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.

Protective 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

### 9.1 Information on basic physical and chemical properties

Physical state : liquid

Color : colorless to pale yellow

Odor : conforms to standard

Odor Threshold : not determined

Melting point : not determined

Boiling point : not determined

Flammability : not determined

Upper explosion limit / Upper flammability limit : not determined

Lower explosion limit / Lower flammability limit : not determined

Flash point : 110 °C  
Method: closed cup

Autoignition temperature : not determined

Decomposition temperature : not determined

pH : not determined

Viscosity, dynamic : not determined

Viscosity, kinematic : not determined

Water solubility : not determined

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



## VIOLIFF TOCO

Version	Revision Date:	SDS Number:	Date of last issue: 02.03.2021
1.3	06.05.2022	R00000495475	Date of first issue: 20.11.2020

---

Solubility in other solvents	:	not determined
Partition coefficient: n-octanol/water	:	log Pow: 2,900
Vapor pressure	:	0,03 hPa Calculated
Relative density	:	1,0560 - 1,0640
Density	:	not determined

### 9.2 Other information

No data available

---

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

No hazards to be specially mentioned.

### 10.2 Chemical stability

Stable under normal conditions.

### 10.3 Possibility of hazardous reactions

Hazardous reactions	:	Presents no significant reactivity hazard, by itself or in contact with water.
---------------------	---	--

### 10.4 Conditions to avoid

Conditions to avoid	:	Direct sources of heat.
---------------------	---	-------------------------

### 10.5 Incompatible materials

### 10.6 Hazardous decomposition products

Carbon monoxide and unidentified organic compounds may be formed during combustion.

---

## SECTION 11: Toxicological information

### 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

#### Acute toxicity

Not classified based on available information.

#### Components:

#### cyclooct-4-en-1-yl methyl carbonate:

Acute oral toxicity	:	LD50 (Rat): 3.100 mg/kg
---------------------	---	-------------------------

Acute dermal toxicity	:	LD50 (Rat): > 2.000 mg/kg
-----------------------	---	---------------------------

#### Skin corrosion/irritation

Not classified based on available information.

---

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



## VIOLIFF TOCO

Version  
1.3

Revision Date:  
06.05.2022

SDS Number:  
R00000495475

Date of last issue: 02.03.2021  
Date of first issue: 20.11.2020

---

### Components:

#### **cyclooct-4-en-1-yl methyl carbonate:**

Species : Rabbit  
Exposure time : 4 h  
Result : No skin irritation

#### **Serious eye damage/eye irritation**

Not classified based on available information.

### Components:

#### **cyclooct-4-en-1-yl methyl carbonate:**

Species : Rabbit  
Result : No eye irritation  
Test substance : (undiluted)

#### **Respiratory or skin sensitization**

##### **Skin sensitization**

May cause an allergic skin reaction.

##### **Respiratory sensitization**

Not classified based on available information.

### Components:

#### **cyclooct-4-en-1-yl methyl carbonate:**

Species : Guinea pig  
Result : Causes sensitization.  
Test substance : 3.0% in ethanol

Species : human  
Result : Does not cause skin sensitization.  
Test substance : 2% in ethanol

#### **Germ cell mutagenicity**

Not classified based on available information.

#### **Carcinogenicity**

Not classified based on available information.

#### **Reproductive toxicity**

Not classified based on available information.

#### **STOT-single exposure**

Not classified based on available information.

#### **STOT-repeated exposure**

Not classified based on available information.

#### **Aspiration toxicity**

Not classified based on available information.



# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



## VIOLIFF TOCO

Version 1.3      Revision Date: 06.05.2022      SDS Number: R00000495475      Date of last issue: 02.03.2021  
Date of first issue: 20.11.2020

---

### 11.2 Information on other hazards

Endocrine disrupting properties

---

## SECTION 12: Ecological information

### 12.1 Toxicity

#### Components:

##### **cyclooct-4-en-1-yl methyl carbonate:**

Toxicity to fish : LC50 : 29 mg/l  
Exposure time: 96 h

Toxicity to daphnia and other : EC50 : 26 mg/l  
aquatic invertebrates Exposure time: 48 h

### 12.2 Persistence and degradability

#### Components:

##### **cyclooct-4-en-1-yl methyl carbonate:**

Biodegradability : Result: Readily biodegradable.  
Biodegradation: 68 %

### 12.3 Bioaccumulative potential

No data available

### 12.4 Mobility in soil

#### Product:

Mobility : Remarks: No data available

### 12.5 Results of PBT and vPvB assessment

#### Product:

Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

### 12.6 Endocrine disrupting properties

#### Product:

Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



## VIOLIFF TOCO

Version 1.3      Revision Date: 06.05.2022      SDS Number: R00000495475      Date of last issue: 02.03.2021  
Date of first issue: 20.11.2020

---

### 12.7 Other adverse effects

**Product:**

Additional ecological information : There is no data available for this product.

---

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

Product : Dispose of according to local regulations. Avoid disposing into drainage systems and into the environment.

Contaminated packaging : Empty containers should be taken to an approved waste handling site for recycling or disposal.

---

## SECTION 14: Transport information

### 14.1 UN number or ID number

Not regulated as a dangerous good

### 14.2 UN proper shipping name

Not regulated as a dangerous good

### 14.3 Transport hazard class(es)

Not regulated as a dangerous good

### 14.4 Packing group

Not regulated as a dangerous good

### 14.5 Environmental hazards

Not regulated as a dangerous good

### 14.6 Special precautions for user

Remarks : Not classified as dangerous in the meaning of transport regulations.

### 14.7 Maritime transport in bulk according to IMO instruments

Not applicable for product as supplied.

---

## SECTION 15: Regulatory information

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

Relevant EU provisions transposed through retained EU law

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII) : Conditions of restriction for the following entries should be considered: Number on list 3

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



## VIOLIFF TOCO

Version	Revision Date:	SDS Number:	Date of last issue: 02.03.2021
1.3	06.05.2022	R00000495475	Date of first issue: 20.11.2020

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII)	:	Conditions of restriction for the following entries should be considered: Number on list 3
REACH - Candidate List of Substances of Very High Concern for Authorization (Article 59).	:	Not applicable
Regulation (EC) No 1005/2009 on substances that deplete the ozone layer	:	Not applicable
Regulation (EU) 2019/1021 on persistent organic pollutants (recast)	:	Not applicable
UK REACH List of substances subject to authorisation (Annex XIV)	:	Not applicable

### 15.2 Chemical Safety Assessment

A Chemical Safety Assessment is not required for this substance.

## SECTION 16: Other information

### Full text of other abbreviations

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; 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; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; 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 Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; 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; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization 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; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet;

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006



## VIOLIFF TOCO

Version	Revision Date:	SDS Number:	Date of last issue: 02.03.2021
1.3	06.05.2022	R00000495475	Date of first issue: 20.11.2020

---

SVHC - substance of very high concern; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

### Further information

Other information : 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.

According to Regulation (EC) No. 1907/2006 the information in this safety data sheet is based on the properties of the material known to IFF at the time the data sheet was issued. The safety data sheet is intended to provide information for a health and safety assessment of the material and the circumstances, under which it is packaged, stored or applied in the workplace. For such a safety assessment International Flavors & Fragrances holds no responsibility. This document is not intended for quality assurance purposes.

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.

GB / EN