

SAFETY DATA SHEET



Opteon™ Sion specialty fluid

Version	Revision Date:	SDS Number:	Date of last issue: 14.04.2023
8.3	12.01.2024	1340521-00046	Date of first issue: 27.02.2017

SECTION 1: Identification of the hazardous chemical and of the supplier

Product identifier

Product name : Opteon™ Sion specialty fluid

SDS-Identcode : 130000120032

Chemical name :

CAS-No. : Not Assigned

Product code :

Recommended use of the chemical and restrictions on use

Recommended use : Cleaning agent

Restrictions on use : For professional and industrial installation and use only.

Manufacturer or supplier's details

Company : The Chemours Malaysia Sdn. Bhd.

Address : Suite 20-01 & 20-02B, Level 20, The Pinnacle, Persiaran Lagoon, Bandar Sunway, Subang Jaya
Selangor Darul Ehsan 47500 Malaysia

Telephone : +60 3 5021 0178

Emergency telephone number : 1-800-815-308

Telefax : +60 3 2178 4719

SECTION 2: Hazards identification

Classification of the hazardous chemical

Serious eye damage/eye irritation : Category 2

Specific target organ toxicity - single exposure : Category 3

Hazardous to the aquatic environment - chronic hazard : Category 3

Label elements

SAFETY DATA SHEET



Opteon™ Sion specialty fluid

Version 8.3 Revision Date: 12.01.2024 SDS Number: 1340521-00046 Date of last issue: 14.04.2023
Date of first issue: 27.02.2017

Hazard pictograms

:



Signal word

: Warning

Hazard statements

: H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.
H412 Harmful to aquatic life with long lasting effects.

Precautionary statements

: **Prevention:**

P264 Wash skin thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
P273 Avoid release to the environment.
P280 Wear eye protection/ face protection.

Response:

P304 + P340 + P312 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/ physician if you feel unwell.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 If eye irritation persists: Get medical advice/ attention.

Storage:

P405 Store locked up.

Other hazards which do not result in classification

Vapours are heavier than air and can cause suffocation by reducing oxygen available for breathing.

Misuse or intentional inhalation abuse may cause death without warning symptoms, due to cardiac effects.

Rapid evaporation of the product may cause frostbite.

In use, may form flammable/explosive vapour-air mixture.

SECTION 3: Composition and information of the ingredients of the hazardous chemical

Substance / Mixture : Mixture

Components

Chemical name	CAS-No.	Concentration (% w/w)
Trans-Dichloroethylene	156-60-5	≥ 60 - ≤ 100
Methoxytridecafluoroheptene isomers	Not Assigned	≥ 3 - < 5

SECTION 4: First aid measures

General advice : In the case of accident or if you feel unwell, seek medical advice immediately.
When symptoms persist or in all cases of doubt seek medical

SAFETY DATA SHEET



Opteon™ Sion specialty fluid

Version	Revision Date:	SDS Number:	Date of last issue: 14.04.2023
8.3	12.01.2024	1340521-00046	Date of first issue: 27.02.2017

	advice.
If inhaled	: If inhaled, remove to fresh air. Get medical attention if symptoms occur.
In case of skin contact	: In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention. Wash clothing before reuse. Thoroughly clean shoes before reuse.
In case of eye contact	: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. If easy to do, remove contact lens, if worn. Get medical attention.
If swallowed	: If swallowed, DO NOT induce vomiting. Get medical attention if symptoms occur. Rinse mouth thoroughly with water.
Most important symptoms and effects, both acute and delayed	: May cause cardiac arrhythmia. Other symptoms potentially related to misuse or inhalation abuse are Cardiac sensitisation Anaesthetic effects Light-headedness Dizziness confusion Lack of coordination Drowsiness Unconsciousness Causes serious eye irritation. May cause drowsiness or dizziness.
Protection of first-aiders	: First Aid responders should pay attention to self-protection, and use the recommended personal protective equipment when the potential for exposure exists (see section 8).
Notes to physician	: Because of possible disturbances of cardiac rhythm, cate- cholamine drugs, such as epinephrine, that may be used in situations of emergency life support should be used with spe- cial caution.

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media	: Water spray Alcohol-resistant foam Carbon dioxide (CO ₂) Dry chemical
------------------------------	--

Unsuitable extinguishing media	: None known.
-----------------------------------	---------------

Opteon™ Sion specialty fluid

Version	Revision Date:	SDS Number:	Date of last issue: 14.04.2023
8.3	12.01.2024	1340521-00046	Date of first issue: 27.02.2017

Physicochemical hazards arising from the chemical

Specific hazards during fire-fighting : Vapours may form explosive mixtures with air.
Exposure to combustion products may be a hazard to health.

Hazardous combustion products : Carbon oxides
Chlorine compounds
Hydrogen fluoride
carbonyl fluoride

Special protective equipment and precautions for fire-fighters

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.
Use personal protective equipment.

Specific extinguishing methods : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Use water spray to cool unopened containers.
Remove undamaged containers from fire area if it is safe to do so.
Evacuate area.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.
Follow safe handling advice (see section 7) and personal protective equipment recommendations (see section 8).

Environmental precautions : Avoid release to the environment.
Prevent further leakage or spillage if safe to do so.
Prevent spreading over a wide area (e.g. by containment or oil barriers).
Retain and dispose of contaminated wash water.
Local authorities should be advised if significant spillages cannot be contained.

Methods and materials for containment and cleaning up : Soak up with inert absorbent material.
For large spills, provide dyking or other appropriate containment to keep material from spreading. If dyked material can be pumped, store recovered material in appropriate container.
Clean up remaining materials from spill with suitable absorbent.
Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which regulations are applicable.
Sections 13 and 15 of this SDS provide information regarding certain local or national requirements.

SECTION 7: Handling and storage**Handling****Precautions for safe handling**

SAFETY DATA SHEET



Opteon™ Sion specialty fluid

Version	Revision Date:	SDS Number:	Date of last issue: 14.04.2023
8.3	12.01.2024	1340521-00046	Date of first issue: 27.02.2017

- Technical measures : See Engineering measures under EXPOSURE CONTROLS/PERSONAL PROTECTION section.
- Local/Total ventilation : If sufficient ventilation is unavailable, use with local exhaust ventilation.
If advised by assessment of the local exposure potential, use only in an area equipped with explosion-proof exhaust ventilation.
- Advice on safe handling : Do not get on skin or clothing.
Avoid breathing mist or vapours.
Do not swallow.
Do not get in eyes.
Wash skin thoroughly after handling.
Handle in accordance with good industrial hygiene and safety practice, based on the results of the workplace exposure assessment
Keep away from heat and sources of ignition.
Take precautionary measures against static discharges.
Take care to prevent spills, waste and minimize release to the environment.

Storage

Conditions for safe storage, including any incompatibilities

- Conditions for safe storage : Do not expose drums to direct heat or temperature above 46°C (115°F) to avoid pressurizing and possibly distorting the drums.
Material should not be dispensed by pouring from pail/drum shipping containers containing 5 gallons or more. The use of a drum pump is recommended for dispensing from pail/drum shipping containers with 5 gallons or more, except for smaller containers where adequate ventilation can be used to manage the exposure.
Keep in properly labelled containers.
Store locked up.
Keep in a cool, well-ventilated place.
Store in accordance with the particular national regulations.
- Materials to avoid : No special restrictions on storage with other products.
- Recommended storage temperature : < 46 °C
- Further information on storage stability : Keep away from direct sunlight.

SECTION 8: Exposure controls and personal protection

Control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
------------	---------	----------------------------------	--	-------

SAFETY DATA SHEET



Opteon™ Sion specialty fluid

Version 8.3 Revision Date: 12.01.2024 SDS Number: 1340521-00046 Date of last issue: 14.04.2023
Date of first issue: 27.02.2017

Trans-Dichloroethylene	156-60-5	TWA	200 ppm	ACGIH
Methoxytridecafluoroheptene isomers	Not Assigned	TWA	200 ppm	WEEL

Appropriate engineering controls : Minimize workplace exposure concentrations.
If sufficient ventilation is unavailable, use with local exhaust ventilation.
If advised by assessment of the local exposure potential, use only in an area equipped with explosion-proof exhaust ventilation.

Individual protection measures, such as personal protective equipment

Eye/face protection : Wear the following personal protective equipment:
Safety goggles

Skin protection : Wear the following personal protective equipment:
If assessment demonstrates that there is a risk of explosive atmospheres or flash fires, use flame retardant antistatic protective clothing.

Hand protection
Material : Neoprene gloves
Break through time : 120 min
Glove thickness : 0.43 mm

Remarks : Choose gloves to protect hands against chemicals depending on the concentration and quantity of the hazardous substance and specific to place of work. For special applications, we recommend clarifying the resistance to chemicals of the aforementioned protective gloves with the glove manufacturer. Wash hands before breaks and at the end of workday.

Respiratory protection : If adequate local exhaust ventilation is not available or exposure assessment demonstrates exposures outside the recommended guidelines, use respiratory protection.

Filter type : Self-contained breathing apparatus

Hygiene measures : If exposure to chemical is likely during typical use, provide eye flushing systems and safety showers close to the working place.
When using do not eat, drink or smoke.
Wash contaminated clothing before re-use.

SECTION 9: Physical and chemical properties

Appearance : liquid

Colour : clear, colourless

SAFETY DATA SHEET



Opteon™ Sion specialty fluid

Version	Revision Date:	SDS Number:	Date of last issue: 14.04.2023
8.3	12.01.2024	1340521-00046	Date of first issue: 27.02.2017

Odour	:	slight
Odour Threshold	:	No data available
pH	:	No data available
Melting point/freezing point	:	-50 °C
Initial boiling point and boiling range	:	47 °C
Flash point	:	Method: ASTM D 56, Tag closed cup does not flash
Evaporation rate	:	8 (Butyl Acetate=1.0)
Flammability (solid, gas)	:	Not applicable
Flammability (liquids)	:	Not applicable
Upper explosion limit / Upper flammability limit	:	Upper flammability limit 15.25 %(V) Method: ASTM E681
Lower explosion limit / Lower flammability limit	:	Lower flammability limit 7.25 %(V) Method: ASTM E681
Vapour pressure	:	447 hPa
Relative vapour density	:	1.81
Relative density	:	1.29
Density	:	1.29 g/cm ³ (25 °C)
Solubility(ies) Water solubility	:	No data available
Partition coefficient: n-octanol/water	:	Not applicable
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity Viscosity, dynamic	:	0.42 mPa.s
Viscosity, kinematic	:	0.42 mm ² /s (25 °C)

SAFETY DATA SHEET



Opteon™ Sion specialty fluid

Version	Revision Date:	SDS Number:	Date of last issue: 14.04.2023
8.3	12.01.2024	1340521-00046	Date of first issue: 27.02.2017

Explosive properties : In use may form flammable/explosive vapour-air mixture.

Oxidizing properties : The substance or mixture is not classified as oxidizing.

Particle size : Not applicable

SECTION 10: Stability and reactivity

Reactivity : Not classified as a reactivity hazard.

Chemical stability : Stable under normal conditions.

Possibility of hazardous reactions : Vapours may form flammable mixture with air
In use may form flammable/explosive vapour-air mixture.

Conditions to avoid : None known.

Incompatible materials : None.

Hazardous decomposition products : No hazardous decomposition products are known.

SECTION 11: Toxicological information

Information on likely routes of exposure : Inhalation
Skin contact
Ingestion
Eye contact

Acute toxicity

Not classified based on available information.

Product:

Acute inhalation toxicity : LC50 (Rat, male and female): 140 mg/l
Exposure time: 4 h
Test atmosphere: vapour
Method: OECD Test Guideline 403

Components:

Trans-Dichloroethylene:

Acute oral toxicity : LD50 (Rat): 7,902 mg/kg
Method: OECD Test Guideline 420

Acute inhalation toxicity : LC50 (Rat): 95.5 mg/l
Exposure time: 4 h
Test atmosphere: vapour
Method: OECD Test Guideline 403

Lowest observed adverse effect concentration (Dog): 250000 ppm

SAFETY DATA SHEET



Opteon™ Sion specialty fluid

Version	Revision Date:	SDS Number:	Date of last issue: 14.04.2023
8.3	12.01.2024	1340521-00046	Date of first issue: 27.02.2017

Test atmosphere: gas

Cardiac sensitisation threshold limit (Dog): 991,309 mg/m3

Test atmosphere: gas

Acute dermal toxicity : LD50 (Rabbit): > 5,000 mg/kg
Method: OECD Test Guideline 402

Methoxytridecafluoroheptene isomers:

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg
Method: OECD Test Guideline 420

Acute inhalation toxicity : LC50 (Rat): > 222.15 mg/l
Exposure time: 4 h
Test atmosphere: vapour
Method: OECD Test Guideline 403

Acute dermal toxicity : LD50 (Rat): > 5,000 mg/kg
Method: OECD Test Guideline 402

Skin corrosion/irritation

Not classified based on available information.

Components:

Trans-Dichloroethylene:

Species : Rabbit
Method : OECD Test Guideline 404
Result : Mild skin irritation

Methoxytridecafluoroheptene isomers:

Species : Rabbit
Method : OECD Test Guideline 404
Result : No skin irritation

Serious eye damage/eye irritation

Causes serious eye irritation.

Components:

Trans-Dichloroethylene:

Species : Rabbit
Result : Irritation to eyes, reversing within 7 days
Method : OECD Test Guideline 405

Methoxytridecafluoroheptene isomers:

Species : Rabbit
Result : No eye irritation
Method : OECD Test Guideline 405

Opteon™ Sion specialty fluid

Version	Revision Date:	SDS Number:	Date of last issue: 14.04.2023
8.3	12.01.2024	1340521-00046	Date of first issue: 27.02.2017

Respiratory or skin sensitisation**Skin sensitisation**

Not classified based on available information.

Respiratory sensitisation

Not classified based on available information.

Components:**Methoxytridecafluoroheptene isomers:**

Test Type	:	Local lymph node assay (LLNA)
Exposure routes	:	Skin contact
Species	:	Mouse
Method	:	OECD Test Guideline 429
Result	:	negative

Germ cell mutagenicity

Not classified based on available information.

Components:**Trans-Dichloroethylene:**

Genotoxicity in vitro	:	Test Type: Bacterial reverse mutation assay (AMES) Method: OECD Test Guideline 471 Result: negative
-----------------------	---	---

	:	Test Type: In vitro mammalian cell gene mutation test Method: OECD Test Guideline 476 Result: negative
--	---	--

	:	Test Type: Chromosome aberration test in vitro Method: OECD Test Guideline 473 Result: negative
--	---	---

Genotoxicity in vivo	:	Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay) Species: Mouse Application Route: Ingestion Method: OECD Test Guideline 474 Result: negative
----------------------	---	---

Germ cell mutagenicity - Assessment	:	Weight of evidence does not support classification as a germ cell mutagen.
-------------------------------------	---	--

Methoxytridecafluoroheptene isomers:

Genotoxicity in vitro	:	Test Type: Bacterial reverse mutation assay (AMES) Method: OECD Test Guideline 471 Result: negative
-----------------------	---	---

	:	Test Type: Chromosome aberration test in vitro Method: OECD Test Guideline 473 Result: negative
--	---	---

	:	Test Type: In vitro mammalian cell gene mutation test
--	---	---

SAFETY DATA SHEET



Opteon™ Sion specialty fluid

Version	Revision Date:	SDS Number:	Date of last issue: 14.04.2023
8.3	12.01.2024	1340521-00046	Date of first issue: 27.02.2017

Method: OECD Test Guideline 476

Result: negative

Genotoxicity in vivo : Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay)
Species: Rat
Application Route: Ingestion
Method: OECD Test Guideline 474
Result: negative

Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay)

Species: Rat

Application Route: Inhalation

Method: OECD Test Guideline 474

Result: negative

Germ cell mutagenicity - Assessment : Weight of evidence does not support classification as a germ cell mutagen.

Carcinogenicity

Not classified based on available information.

Reproductive toxicity

Not classified based on available information.

Components:

Trans-Dichloroethylene:

Effects on foetal development : Test Type: Embryo-foetal development
Species: Rat
Application Route: Inhalation
Method: OECD Test Guideline 414
Result: negative

Methoxytridecafluoroheptene isomers:

Effects on foetal development : Test Type: Prenatal development toxicity study (teratogenicity)
Species: Rat
Application Route: Ingestion
Method: OECD Test Guideline 414
Result: negative

STOT - single exposure

May cause drowsiness or dizziness.

Components:

Trans-Dichloroethylene:

Assessment : May cause drowsiness or dizziness.

Methoxytridecafluoroheptene isomers:

Exposure routes : Ingestion

Assessment : No significant health effects observed in animals at concentra-

Opteon™ Sion specialty fluid

Version	Revision Date:	SDS Number:	Date of last issue: 14.04.2023
8.3	12.01.2024	1340521-00046	Date of first issue: 27.02.2017

tions of 2000 mg/kg bw or less

Exposure routes : Skin contact
 Assessment : No significant health effects observed in animals at concentrations of 2000 mg/kg bw or less

Exposure routes : inhalation (vapour)
 Assessment : No significant health effects observed in animals at concentrations of 20 mg/l/4h or less

STOT - repeated exposure

Not classified based on available information.

Components:**Trans-Dichloroethylene:**

Exposure routes : Inhalation
 Assessment : No significant health effects observed in animals at concentrations of 250 ppmV/6h/d or less.

Exposure routes : Ingestion
 Assessment : No significant health effects observed in animals at concentrations of 100 mg/kg bw or less.

Methoxytridecafluoroheptene isomers:

Exposure routes : Ingestion
 Assessment : No significant health effects observed in animals at concentrations of 100 mg/kg bw or less.

Exposure routes : inhalation (vapour)
 Assessment : No significant health effects observed in animals at concentrations of 1 mg/l/6h/d or less.

Repeated dose toxicity**Components:****Trans-Dichloroethylene:**

Species : Rat, male and female
 NOAEL : 4000 ppm
 LOAEL : > 4000 ppm
 Application Route : Inhalation
 Exposure time : 90 Days
 Method : OECD Test Guideline 413

Species : Rat, male and female
 NOAEL : 3,210 mg/kg
 LOAEL : > 3,210 mg/kg
 Application Route : Ingestion
 Exposure time : 98 Days
 Method : OECD Test Guideline 408

Methoxytridecafluoroheptene isomers:

Opteon™ Sion specialty fluid

Version	Revision Date:	SDS Number:	Date of last issue: 14.04.2023
8.3	12.01.2024	1340521-00046	Date of first issue: 27.02.2017

Species : Rat, male and female
NOAEL : 1,000 mg/kg
LOAEL : > 1,000 mg/kg
Application Route : Ingestion
Exposure time : 90 d
Method : OECD Test Guideline 408

Species : Rat, male and female
NOAEL : 37.025 mg/l
LOAEL : 75.531 mg/l
Application Route : inhalation (vapour)
Exposure time : 28 d
Method : OECD Test Guideline 412

Aspiration toxicity

Not classified based on available information.

Components:**Methoxytridecafluoroheptene isomers:**

No aspiration toxicity classification

SECTION 12: Ecological information**Ecotoxicity****Components:****Trans-Dichloroethylene:**

Toxicity to fish : LC50 (Lepomis macrochirus (Bluegill sunfish)): 135 mg/l
Exposure time: 96 h
Remarks: Based on data from similar materials

Toxicity to daphnia and other : EC50 (Daphnia magna (Water flea)): 220 mg/l
aquatic invertebrates : Exposure time: 48 h
Method: EPA-660/3-75-009

Toxicity to algae/aquatic : EbC50 (Pseudokirchneriella subcapitata (green algae)): 36.36
plants : mg/l
Exposure time: 48 h
Method: OECD Test Guideline 201

Methoxytridecafluoroheptene isomers:

Toxicity to fish : LC50 (Oryzias latipes (Japanese medaka)): > 0.096 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203
Remarks: No toxicity at the limit of solubility

Toxicity to daphnia and other : EC50 (Daphnia magna (Water flea)): > 0.157 mg/l
aquatic invertebrates : Exposure time: 48 h
Method: OECD Test Guideline 202
Remarks: No toxicity at the limit of solubility

SAFETY DATA SHEET



Opteon™ Sion specialty fluid

Version	Revision Date:	SDS Number:	Date of last issue: 14.04.2023
8.3	12.01.2024	1340521-00046	Date of first issue: 27.02.2017

Toxicity to algae/aquatic plants : ErC50 (Pseudokirchneriella subcapitata (green algae)): > 0.000477 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201
Remarks: No toxicity at the limit of solubility

NOEC (Pseudokirchneriella subcapitata (green algae)): 0.000477 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201
Remarks: No toxicity at the limit of solubility

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia magna (Water flea)): 0.107 mg/l
Exposure time: 21 d
Method: OECD Test Guideline 211
Remarks: No toxicity at the limit of solubility

Ecotoxicology Assessment

Chronic aquatic toxicity : May cause long lasting harmful effects to aquatic life.

Persistence and degradability

Components:

Trans-Dichloroethylene:

Biodegradability : Result: not rapidly degradable
Method: OECD Test Guideline 301D

Methoxytridecafluoroheptene isomers:

Biodegradability : Result: Not inherently biodegradable.
Method: OECD Test Guideline 302C

Bioaccumulative potential

Components:

Trans-Dichloroethylene:

Partition coefficient: n-octanol/water : log Pow: 2.06

Methoxytridecafluoroheptene isomers:

Bioaccumulation : Species: Cyprinus carpio (Carp)
Bioconcentration factor (BCF): 1,990
Method: OECD Test Guideline 305

Mobility in soil

Components:

Methoxytridecafluoroheptene isomers:

Distribution among environmental compartments : log Koc: 4.5
Remarks: immobile

SAFETY DATA SHEET



Opteon™ Sion specialty fluid

Version	Revision Date:	SDS Number:	Date of last issue: 14.04.2023
8.3	12.01.2024	1340521-00046	Date of first issue: 27.02.2017

Other adverse effects

No data available

SECTION 13: Disposal information

Disposal methods

- | | | |
|------------------------|---|---|
| Waste from residues | : | Disposal of waste to be in accordance with the Environmental Quality (Scheduled Wastes) Regulations and other guidelines issuance by DOE and/or local authorities.
Do not dispose of waste into sewer. |
| Contaminated packaging | : | Empty containers should be taken to an approved waste handling site for recycling or disposal.
If not otherwise specified: Dispose of as unused product. |

SECTION 14: Transport information

International Regulations

UNRTDG

- | | | |
|----------------------|---|----------------|
| UN number | : | Not applicable |
| Proper shipping name | : | Not applicable |
| Class | : | Not applicable |
| Subsidiary risk | : | Not applicable |
| Packing group | : | Not applicable |
| Labels | : | Not applicable |

IATA-DGR

- | | | |
|--|---|----------------|
| UN/ID No. | : | Not applicable |
| Proper shipping name | : | Not applicable |
| Class | : | Not applicable |
| Subsidiary risk | : | Not applicable |
| Packing group | : | Not applicable |
| Labels | : | Not applicable |
| Packing instruction (cargo aircraft) | : | Not applicable |
| Packing instruction (passenger aircraft) | : | Not applicable |

IMDG-Code

- | | | |
|----------------------|---|----------------|
| UN number | : | Not applicable |
| Proper shipping name | : | Not applicable |
| Class | : | Not applicable |
| Subsidiary risk | : | Not applicable |
| Packing group | : | Not applicable |
| Labels | : | Not applicable |
| EmS Code | : | Not applicable |
| Marine pollutant | : | Not applicable |

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

Not applicable for product as supplied.

SAFETY DATA SHEET



Opteon™ Sion specialty fluid

Version	Revision Date:	SDS Number:	Date of last issue: 14.04.2023
8.3	12.01.2024	1340521-00046	Date of first issue: 27.02.2017

Special precautions for user

Not applicable

SECTION 15: Regulatory information

Safety, health, and environmental regulations specific for the hazardous chemical

Occupational Safety and Health (Classification, Labelling and Safety Data Sheet of Hazardous Chemicals) Regulations 2013.

Occupational Safety and Health (Use and Standards of Exposure of Chemicals Hazardous to Health) Regulations 2000.

Montreal Protocol	: Reaction mass of (3R,4R)-1,1,1,2,2,3,4,5,5,5-decafluoropentane and (3S,4S)-1,1,1,2,2,3,4,5,5,5-decafluoropentane
-------------------	--

SECTION 16: Other information

Revision Date : 12.01.2024

Other information : Opteon™ and any associated logos are trademarks or copyrights of The Chemours Company FC, LLC. Chemours™ and the Chemours Logo are trademarks of The Chemours Company. Before use read Chemours safety information. For further information contact the local Chemours office or nominated distributors.

Further information

Sources of key data used to compile the Safety Data Sheet : Internal technical data, data from raw material SDSs, OECD eChem Portal search results and European Chemicals Agency, <http://echa.europa.eu/>

Date format : dd.mm.yyyy

Full text of other abbreviations

ACGIH	: USA. ACGIH Threshold Limit Values (TLV)
WEEL	: Workplace Environmental Exposure Levels (WEEL)

ACGIH / TWA	: 8-hour, time-weighted average
WEEL / TWA	: 8-hr TWA

AIIC - Australian Inventory of Industrial Chemicals; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); 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; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA

SAFETY DATA SHEET



Opteon™ Sion specialty fluid

Version	Revision Date:	SDS Number:	Date of last issue: 14.04.2023
8.3	12.01.2024	1340521-00046	Date of first issue: 27.02.2017

- 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; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; 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; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; 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; WHMIS - Workplace Hazardous Materials Information System

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 is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and shall not be considered a warranty or quality specification of any type. The information provided relates only to the specific material identified at the top of this SDS and may not be valid when the SDS material is used in combination with any other materials or in any process, unless specified in the text. Material users should review the information and recommendations in the specific context of their intended manner of handling, use, processing and storage, including an assessment of the appropriateness of the SDS material in the user's end product, if applicable.

MY / EN