

# SAFETY DATA SHEET

according to the Globally Harmonized System



## Capstone™ FS-61 Fluorosurfactant

Version	Revision Date:	SDS Number:	Date of last issue: 2024/08/01
15.0	2024/11/26	1336699-00053	Date of first issue: 2017/02/27

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### 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Capstone™ FS-61 Fluorosurfactant

SDS-Identcode : 130000051565

#### Manufacturer or supplier's details

Company : Chemours Hong Kong Holding Limited

Address : Room 2713, 27/F, Tower 6, The Gateway, 9 Canton Road, 9 Canton Road, Tsimshatsui, Kowloon, Hong Kong

Telephone : (852)-3468-7848

Emergency telephone number : 800-969-793

Telefax : (852)-2110-1559

#### Recommended use of the chemical and restrictions on use

Recommended use : Surfactant

Restrictions on use : For industrial use only.  
Do not use this product in consumer spray applications except in water-based coatings where the maximum concentration of active ingredient does not exceed 0.1 wt percent.  
Do not use or resell Chemours™ materials in medical applications involving implantation in the human body or contact with internal body fluids or tissues unless agreed to by Seller in a written agreement covering such use. For further information, please contact your Chemours representative.

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### 2. HAZARDS IDENTIFICATION

#### GHS Classification

Acute toxicity (Inhalation) : Category 1

Skin sensitisation : Category 1

Specific target organ toxicity - repeated exposure : Category 2 (Liver)

Short-term (acute) aquatic hazard : Category 3

Long-term (chronic) aquatic hazard : Category 1

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### GHS label elements

Hazard pictograms	:	  
Signal word	:	Danger
Hazard statements	:	H317 May cause an allergic skin reaction. H330 Fatal if inhaled. H373 May cause damage to organs (Liver) through prolonged or repeated exposure. H402 Harmful to aquatic life. H410 Very toxic to aquatic life with long lasting effects.
Precautionary statements	:	<b>Prevention:</b> P260 Do not breathe vapours. P271 Use only outdoors or with adequate ventilation. P272 Contaminated work clothing should not be allowed out of the workplace. P273 Avoid release to the environment. P280 Wear protective gloves. P284 Wear respiratory protection. <b>Response:</b> P302 + P352 IF ON SKIN: Wash with plenty of water. P304 + P340 + P316 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Get emergency medical help immediately. P319 Get medical help if you feel unwell. P333 + P317 If skin irritation or rash occurs: Get medical help. P362 + P364 Take off contaminated clothing and wash it before reuse. P391 Collect spillage. <b>Storage:</b> P405 Store locked up. <b>Disposal:</b> P501 Dispose of contents/ container to an approved waste disposal plant.

### Other hazards which do not result in classification

Inhalation of decomposition products in high concentration may cause shortness of breath (lung oedema).

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

### Components

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Chemical name	CAS-No.	Concentration (% w/w)
Reaction mass of mixed (3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl) phosphates, ammonium salts	Not Assigned	>= 10 - < 20
2-Methyl-2H-isothiazol-3-one	2682-20-4	>= 0.0025 - < 0.025

### 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 advice.
- If inhaled : If inhaled, remove to fresh air.  
If not breathing, give artificial respiration.  
If breathing is difficult, give oxygen.  
Get medical attention immediately.
- In case of skin contact : In case of contact, immediately flush skin with soap and 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 : Flush eyes with water as a precaution.  
Get medical attention if irritation develops and persists.
- 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 : Inhalation may provoke the following symptoms:  
Irritation  
Shortness of breath  
Lung oedema  
Cough  
Eye contact may provoke the following symptoms  
Lachrymation  
Redness  
Discomfort  
May cause an allergic skin reaction.  
Fatal if inhaled.  
May cause damage to organs through prolonged or repeated exposure.
- 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 : Treat symptomatically and supportively.

### 5. FIREFIGHTING MEASURES

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- Suitable extinguishing media : Water spray  
Alcohol-resistant foam  
Carbon dioxide (CO<sub>2</sub>)  
Dry chemical
- Unsuitable extinguishing media : None known.
- Specific hazards during fire-fighting : Exposure to combustion products may be a hazard to health.
- Hazardous combustion products : Hydrogen fluoride  
carbonyl fluoride  
potentially toxic fluorinated compounds  
aerosolized particulates  
Carbon oxides
- 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.
- Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.  
Use personal protective equipment.

## 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Evacuate personnel to safe areas.  
Only trained personnel should re-enter the area.  
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.

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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.

### 7. HANDLING AND STORAGE

#### Handling

- Technical measures : See Engineering measures under EXPOSURE CONTROLS/PERSONAL PROTECTION section.
- Local/Total ventilation : If sufficient ventilation is unavailable, use with local exhaust ventilation.
- Advice on safe handling : Do not get on skin or clothing.  
Do not breathe vapours.  
Do not swallow.  
Avoid contact with eyes.  
Handle in accordance with good industrial hygiene and safety practice, based on the results of the workplace exposure assessment  
Keep container tightly closed.  
Take care to prevent spills, waste and minimize release to the environment.
- Do not breathe decomposition products.

#### Storage

- Conditions for safe storage : Keep in properly labelled containers.  
Store locked up.  
Keep tightly closed.  
Keep in a cool, well-ventilated place.  
Store in accordance with the particular national regulations.
- Materials to avoid : Do not store with the following product types:  
Explosives
- Recommended storage temperature : 5 - 40 °C
- Further information on storage stability : Perishable if frozen.
- Do not freeze.

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### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Components with workplace control parameters

Contains no substances with occupational exposure limit values.

#### Occupational exposure limits of decomposition products

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
hydrofluoric acid	7664-39-3	OEL-C	3 ppm 2.5 mg/m <sup>3</sup> (Fluorine)	HK OEL
		TWA	0.5 ppm (Fluorine)	ACGIH
		C	2 ppm (Fluorine)	ACGIH
Carbonyl difluoride	353-50-4	TWA	2 ppm	ACGIH
		STEL	5 ppm	ACGIH
Carbon dioxide	124-38-9	OEL-TWA	5,000 ppm 9,000 mg/m <sup>3</sup>	HK OEL
		OEL-STEL	30,000 ppm 54,000 mg/m <sup>3</sup>	HK OEL
		TWA	5,000 ppm	ACGIH
		STEL	30,000 ppm	ACGIH
Carbon monoxide	630-08-0	OEL-TWA	25 ppm 29 mg/m <sup>3</sup>	HK OEL
		TWA	25 ppm	ACGIH

**Engineering measures** : Processing may form hazardous compounds (see section 10).  
Minimize workplace exposure concentrations.  
If sufficient ventilation is unavailable, use with local exhaust ventilation.

#### Personal protective equipment

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

**Filter type** : Combined particulates and acidic gas/vapour type

#### Hand protection

**Material** : butyl-rubber  
**Break through time** : 480 min  
**Glove thickness** : 0.89 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

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	forementioned protective gloves with the glove manufacturer. Wash hands before breaks and at the end of workday.
Eye protection	: Wear the following personal protective equipment: Safety glasses
Skin and body protection	: Select appropriate protective clothing based on chemical resistance data and an assessment of the local exposure potential. Skin contact must be avoided by using impervious protective clothing (gloves, aprons, boots, etc).
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. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before re-use.

Appearance	:	viscous liquid
Colour	:	colourless, yellow
Odour	:	odourless
Odour Threshold	:	No data available
pH	:	7.5 - 9
Melting point/freezing point	:	0 °C
Initial boiling point and boiling range	:	100 °C
Flash point	:	does not flash
Evaporation rate	:	No data available
Flammability (solid, gas)	:	Not applicable
Flammability (liquids)	:	No data available
Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower	:	No data available

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flammability limit

Vapour pressure : No data available

Relative vapour density : No data available

Relative density : 1.1

Solubility(ies)

Water solubility : soluble

Partition coefficient: n-octanol/water : Not applicable

Auto-ignition temperature : No data available

Decomposition temperature : > 200 °C

Viscosity

Viscosity, kinematic : No data available

Explosive properties : Not explosive

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

Particle characteristics

Particle size : Not applicable

### 10. STABILITY AND REACTIVITY

Reactivity : Not classified as a reactivity hazard.

Chemical stability : Stable under normal conditions.

Possibility of hazardous reactions : Hazardous decomposition products will be formed at elevated temperatures.

Conditions to avoid : None known.

Incompatible materials : None.

#### Hazardous decomposition products

Thermal decomposition : hydrofluoric acid  
Carbonyl difluoride  
Carbon dioxide  
Carbon monoxide

### 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure : Inhalation  
Skin contact



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Ingestion  
Eye contact

### Acute toxicity

Fatal if inhaled.

#### Product:

Acute oral toxicity	: LD50(Rat): > 5,000 mg/kg
Acute inhalation toxicity	: Acute toxicity estimate(Rat): 0.005 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: Expert judgement
Acute dermal toxicity	: LD50(Rat): > 5,000 mg/kg

#### Components:

##### Reaction mass of mixed (3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl) phosphates, ammonium salts:

Acute oral toxicity	: LD50 (Rat): > 1,000 mg/kg Method: OECD Test Guideline 425 Assessment: The substance or mixture has no acute oral toxicity
Acute inhalation toxicity	: Approximate Lethal Concentration (Rat): 0.047 mg/l Exposure time: 4 h Test atmosphere: dust/mist
Acute dermal toxicity	: LD50 (Rat): > 1,000 mg/kg Method: OECD Test Guideline 402 Assessment: The substance or mixture has no acute dermal toxicity

##### 2-Methyl-2H-isothiazol-3-one:

Acute oral toxicity	: LD50 (Rat): 120 mg/kg
Acute inhalation toxicity	: LC50 (Rat): 0.11 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: OECD Test Guideline 403 Assessment: Corrosive to the respiratory tract.
Acute dermal toxicity	: LD50 (Rat): 242 mg/kg Method: OECD Test Guideline 402

### Skin corrosion/irritation

Not classified based on available information.

#### Product:

Species	: Rabbit
Result	: No skin irritation

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### Components:

**Reaction mass of mixed (3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl) phosphates, ammonium salts:**

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

### **2-Methyl-2H-isothiazol-3-one:**

Result	: Corrosive after 3 minutes to 1 hour of exposure
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### **Serious eye damage/eye irritation**

Not classified based on available information.

### Product:

Species	: Rabbit
Result	: No eye irritation

### Components:

**Reaction mass of mixed (3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl) phosphates, ammonium salts:**

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

### **2-Methyl-2H-isothiazol-3-one:**

Result	: Irreversible effects on the eye
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### **Respiratory or skin sensitisation**

#### **Skin sensitisation**

May cause an allergic skin reaction.

#### **Respiratory sensitisation**

Not classified based on available information.

### Components:

**Reaction mass of mixed (3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl) phosphates, ammonium salts:**

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

### **2-Methyl-2H-isothiazol-3-one:**

Exposure routes	: Skin contact
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Result : positive

Assessment : Probability or evidence of high skin sensitisation rate in humans

### Germ cell mutagenicity

Not classified based on available information.

### Components:

#### Reaction mass of mixed (3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl) phosphates, ammonium salts:

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

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

### 2-Methyl-2H-isothiazol-3-one:

Genotoxicity in vitro : Test Type: Chromosome aberration test in vitro  
Result: negative

Genotoxicity in vivo : Test Type: Unscheduled DNA synthesis (UDS) test with mammalian liver cells in vivo  
Species: Rat  
Application Route: Ingestion  
Method: OECD Test Guideline 486  
Result: negative

### Carcinogenicity

Not classified based on available information.

### Reproductive toxicity

Not classified based on available information.

### Components:

#### Reaction mass of mixed (3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl) phosphates, ammonium salts:

Effects on fertility : Test Type: Reproduction/Developmental toxicity screening test  
Species: Rat  
Application Route: Ingestion  
Method: OECD Test Guideline 415  
Result: negative  
Remarks: Based on data from similar materials

Effects on foetal develop- : Test Type: Reproduction/Developmental toxicity screening

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ment

test

Species: Rat

Application Route: Ingestion

Method: OECD Test Guideline 414

Result: negative

Remarks: Based on data from similar materials

Reproductive toxicity - Assessment

: Weight of evidence does not support classification for reproductive toxicity

### 2-Methyl-2H-isothiazol-3-one:

Effects on fertility

: Test Type: Two-generation reproduction toxicity study

Species: Rat

Application Route: Ingestion

Method: OECD Test Guideline 416

Result: negative

Effects on foetal development

: Test Type: Embryo-foetal development

Species: Rat

Application Route: Ingestion

Method: OECD Test Guideline 414

Result: negative

### STOT - single exposure

Not classified based on available information.

### STOT - repeated exposure

May cause damage to organs (Liver) through prolonged or repeated exposure.

### Components:

**Reaction mass of mixed (3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl) phosphates, ammonium salts:**

Exposure routes

: Ingestion

Target Organs

: Liver

Assessment

: Shown to produce significant health effects in animals at concentrations of >10 to 100 mg/kg bw.

### Repeated dose toxicity

### Components:

**Reaction mass of mixed (3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl) phosphates, ammonium salts:**

Species

: Rat, male and female

LOAEL

: 3.6 mg/kg

Application Route

: Ingestion

Exposure time

: 90 Days

Method

: OECD Test Guideline 408

Remarks

: Based on data from similar materials

Species

: Rat, male

NOAEL

: 100 mg/kg

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LOAEL	: 1,000 mg/kg
Application Route	: Skin contact
Exposure time	: 28 Days
Method	: OECD Test Guideline 410
Remarks	: Based on data from similar materials

### Aspiration toxicity

Not classified based on available information.

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

#### Product:

Toxicity to soil dwelling organisms	: LC50: > 1,000 mg/kg Exposure time: 14 d Species: Eisenia fetida (earthworms)
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NOEC: 125 mg/kg  
Species: Eisenia fetida (earthworms)

LOEC: 250 mg/kg  
Species: Eisenia fetida (earthworms)

#### Components:

#### Reaction mass of mixed (3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl) phosphates, ammonium salts:

Toxicity to fish	: LC50 (Oncorhynchus mykiss (rainbow trout)): > 36.4 mg/l Exposure time: 96 h Method: OECD Test Guideline 203 Remarks: Based on data from similar materials
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Toxicity to daphnia and other aquatic invertebrates	: EC50 (Daphnia magna (Water flea)): > 3.24 mg/l Exposure time: 48 h Method: OECD Test Guideline 202 Remarks: Based on data from similar materials
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Toxicity to algae/aquatic plants	: ErC50 (Pseudokirchneriella subcapitata (green algae)): > 22.44 mg/l Exposure time: 72 h Method: OECD Test Guideline 201 Remarks: Based on data from similar materials  NOEC (Pseudokirchneriella subcapitata (green algae)): 22.44 mg/l Exposure time: 72 h Method: OECD Test Guideline 201 Remarks: Based on data from similar materials
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Toxicity to fish (Chronic toxicity)	: NOEC: 0.88 mg/l Exposure time: 90 d Species: Oncorhynchus mykiss (rainbow trout)
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	Method: OECD Test Guideline 210
	Remarks: Based on data from similar materials
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	: NOEC: 0.0093 mg/l Exposure time: 21 d Species: Daphnia magna (Water flea) Method: OECD Test Guideline 211 Remarks: Based on data from similar materials
M-Factor (Chronic aquatic toxicity)	: 10

### 2-Methyl-2H-isothiazol-3-one:

Toxicity to fish	: LC50 (Oncorhynchus mykiss (rainbow trout)): 4.77 - 6 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	: EC50 (Daphnia magna (Water flea)): 0.93 - 1.9 mg/l Exposure time: 48 h
Toxicity to algae/aquatic plants	: ErC50 ( Skeletonema costatum (marine diatom)): 0.1 mg/l Exposure time: 72 h  ErC50 ( Skeletonema costatum (marine diatom)): 0.0695 mg/l Exposure time: 24 h  EC10 ( Pseudokirchneriella subcapitata (green algae)): 0.024 mg/l Exposure time: 24 h
M-Factor (Acute aquatic toxicity)	: 10
Toxicity to fish (Chronic toxicity)	: NOEC: 2.1 mg/l Exposure time: 33 d Species: Pimephales promelas (fathead minnow)
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	: NOEC: 0.04 mg/l Exposure time: 21 d Species: Daphnia magna (Water flea)
M-Factor (Chronic aquatic toxicity)	: 1

### Persistence and degradability

#### Components:

#### Reaction mass of mixed (3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl) phosphates, ammonium salts:

Biodegradability	: Result: Not readily biodegradable. Method: OECD Test Guideline 301D Remarks: Based on data from similar materials
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### 2-Methyl-2H-isothiazol-3-one:

Biodegradability : Result: Not readily biodegradable.

### Bioaccumulative potential

#### Components:

**Reaction mass of mixed (3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl) phosphates, ammonium salts:**

Biaccumulation : Species: Oncorhynchus mykiss (rainbow trout)  
Bioconcentration factor (BCF): 4  
Remarks: Based on data from similar materials

### 2-Methyl-2H-isothiazol-3-one:

Partition coefficient: n-octanol/water : log Pow: -0.34

### Mobility in soil

No data available

### Other adverse effects

#### Components:

**Reaction mass of mixed (3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl) phosphates, ammonium salts:**

Results of PBT and vPvB assessment : PBT substance

Additional ecological information : Information given is based on data on the components and the ecotoxicology of similar products.

## 13. DISPOSAL CONSIDERATIONS

### Disposal methods

Waste from residues : Do not dispose of waste into sewer.

Dispose of in accordance with local regulations.

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.

## 14. TRANSPORT INFORMATION

### International Regulations

#### UNRTDG

UN number : UN 3082

Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

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N.O.S.  
(Reaction mass of mixed (3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl) phosphates, ammonium salts)

Class : 9  
Packing group : III  
Labels : 9  
Environmentally hazardous : yes

### IATA-DGR

UN/ID No. : UN 3082  
Proper shipping name : Environmentally hazardous substance, liquid, n.o.s.  
(Reaction mass of mixed (3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl) phosphates, ammonium salts)

Class : 9  
Packing group : III  
Labels : Miscellaneous  
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.  
(Reaction mass of mixed (3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl) phosphates, ammonium salts)

Class : 9  
Packing group : III  
Labels : 9  
EmS Code : F-A, S-F  
Marine pollutant : yes

### Transport in bulk according to IMO instruments

Not applicable for product as supplied.

### 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.

## 15. REGULATORY INFORMATION

### National regulatory information

Waste Disposal (Chemical Waste) (General) Regulation  
Dangerous Goods Ordinance  
Occupational Safety and Health Ordinance  
Factories and Industrial Undertakings (Dangerous Substances) Regulations

## 16. OTHER INFORMATION

Revision Date : 2024/11/26



# SAFETY DATA SHEET

according to the Globally Harmonized System



## Capstone™ FS-61 Fluorosurfactant

Version	Revision Date:	SDS Number:	Date of last issue: 2024/08/01
15.0	2024/11/26	1336699-00053	Date of first issue: 2017/02/27

Other information : Capstone™ 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/>

Items where changes have been made to the previous version are highlighted in the body of this document by two vertical lines.

Date format : yyyy/mm/dd

### Full text of other abbreviations

ACGIH : USA. ACGIH Threshold Limit Values (TLV)  
HK OEL : Code of Practice on Control of Air Impurities (Chemical Substances) in the Workplace

ACGIH / TWA : 8-hour, time-weighted average  
ACGIH / STEL : Short-term exposure limit  
ACGIH / C : Ceiling limit  
HK OEL / OEL-TWA : Time weighted Average  
HK OEL / OEL-STEEL : Short-Term Exposure Limit  
HK OEL / OEL-C : Ceiling

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 - 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

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es; (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.

HK / EN