

SAFETY DATA SHEET

according to GB/T 16483 and GB/T 17519



Capstone™ FS-65 Fluorosurfactant

Version	Revision Date:	SDS Number:	Date of last issue: 2024/04/26
10.0	2024/11/07	1337492-00047	Date of first issue: 2017/02/27

1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Capstone™ FS-65 Fluorosurfactant

SDS-Identcode : 130000052194

Manufacturer or supplier's details

Company : The Chemours Chemical (Shanghai) Co., Ltd.

Address : 9F, SCG Parkside, 868 Yinghua Road, Pudong New District
201204, Shanghai, China

Telephone : 86 400 8056 528

Emergency telephone number : 86 532 8388 9090

E-mail address : SDS.ChinaPSR@chemours.com

Telefax : 86 21 2612 0862

Recommended use of the chemical and restrictions on use

Recommended use : Surfactant

Restrictions on use : For industrial use only.
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.

2. HAZARDS IDENTIFICATION

Emergency Overview

Appearance	: liquid
Colour	: colourless, yellow
Odour	: odourless

May cause an allergic skin reaction. Fatal if inhaled. Causes damage to organs (Lungs, larynx) if inhaled. Harmful to aquatic life.

GHS Classification

Acute toxicity (Inhalation) : Category 2

Skin sensitisation : Category 1

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Specific target organ toxicity - single exposure (Inhalation) : Category 1 (Lungs, larynx)

Short-term (acute) aquatic hazard : Category 3

GHS label elements

Hazard pictograms :  

Signal word : Danger

Hazard statements : H317 May cause an allergic skin reaction.
H330 Fatal if inhaled.
H370 Causes damage to organs (Lungs, larynx) if inhaled.
H402 Harmful to aquatic life.

Precautionary statements : **Prevention:**
P260 Do not breathe mist or vapours.
P264 Wash skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.
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.

Response:
P302 + P352 IF ON SKIN: Wash with plenty of water.
P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor.
P308 + P311 IF exposed or concerned: Call a POISON CENTER/ doctor.
P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.
P362 + P364 Take off contaminated clothing and wash it before reuse.

Storage:

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
P405 Store locked up.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

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Physical and chemical hazards

Not classified based on available information.

Health hazards

Fatal if inhaled. May cause an allergic skin reaction. Causes damage to organs if inhaled.

Environmental hazards

Harmful to aquatic life.

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

Chemical name	CAS-No.	Concentration (% w/w)
Ammonium salts of mono- and bis[3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl and/or poly (substituted alkene)] phosphate	1224429-82-6	≥ 20 -< 25
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.

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- | | |
|---|--|
| Most important symptoms and effects, both acute and delayed | : Inhalation may provoke the following symptoms:
Irritation
Shortness of breath
Symptoms may be delayed.
Eye contact may provoke the following symptoms
Discomfort
Lachrymation
Redness
May cause an allergic skin reaction.
Fatal if inhaled.
Causes damage to organs if inhaled. |
| 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

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

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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.
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 mist or vapours.
Do not swallow.
Avoid contact with 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 container tightly closed.
Do not eat, drink or smoke when using this product.

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Take care to prevent spills, waste and minimize release to the environment.

Do not breathe decomposition products.

Avoidance of contact : None.

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 : Do not freeze.

Freezing will affect the physical condition but will not damage the material. Thaw and mix before using.

Packaging material : Unsuitable material: None known.

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	MAC	2 mg/m3 (Fluorine)	CN OEL
		TWA	0.5 ppm (Fluorine)	ACGIH
		C	2 ppm (Fluorine)	ACGIH
Carbonyl difluoride	353-50-4	PC-TWA	5 mg/m3	CN OEL
		PC-STEL	10 mg/m3	CN OEL
		TWA	2 ppm	ACGIH
		STEL	5 ppm	ACGIH
Carbon dioxide	124-38-9	PC-TWA	9,000 mg/m3	CN OEL

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		PC-STEL	18,000 mg/m3	CN OEL
		TWA	5,000 ppm	ACGIH
		STEL	30,000 ppm	ACGIH
Carbon monoxide	630-08-0	PC-TWA	20 mg/m3	CN OEL
		PC-STEL	30 mg/m3	CN OEL
		MAC	20 mg/m3	CN OEL
		MAC	15 mg/m3	CN 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

Eye/face 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).

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 aforementioned protective gloves with the glove manufacturer. Wash hands before breaks and at the end of workday.

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

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workplace.
Wash contaminated clothing before re-use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: liquid
Colour	: colourless, yellow
Odour	: odourless
Odour Threshold	: No data available
pH	: 7.5 - 9
Melting point/freezing point	: No data available
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 flammability limit	: No data available
Vapour pressure	: No data available
Relative vapour density	: No data available
Relative density	: 1.1
Bulk density	: 1,078 kg/m ³
Solubility(ies) Water solubility	: soluble
Partition coefficient: n-	: Not applicable

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octanol/water

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

Exposure routes : Inhalation
Skin contact
Ingestion
Eye contact

Acute toxicity

Fatal if inhaled.

Product:

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

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Acute inhalation toxicity : Acute toxicity estimate (Rat): 0.5 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: Expert judgement

Components:

Ammonium salts of mono- and bis[3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl and/or poly (substituted alkene)] phosphate:

Acute oral toxicity : LD50 (Mouse): > 2,000 mg/kg
Assessment: The substance or mixture has no acute oral toxicity

Acute inhalation toxicity : Acute toxicity estimate (Rat): 0.12 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: Expert judgement

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
Method : OECD Test Guideline 404
Result : No skin irritation

Components:

Ammonium salts of mono- and bis[3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl and/or poly (substituted alkene)] phosphate:

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
Method	:	OECD Test Guideline 405

Components:

Ammonium salts of mono- and bis[3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl and/or poly (substituted alkene)] phosphate:

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

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:

Ammonium salts of mono- and bis[3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl and/or poly (substituted alkene)] phosphate:

Exposure routes	:	Skin contact
Species	:	Mouse
Result	:	negative

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

Exposure routes	:	Skin contact
Result	:	positive

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

Not classified based on available information.

Product:

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

Components:

Ammonium salts of mono- and bis[3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl and/or poly (substituted alkene)] phosphate:

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.

Product:

Reproductive toxicity - Assessment : Weight of evidence does not support classification for reproductive toxicity

Components:

Ammonium salts of mono- and bis[3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl and/or poly (substituted alkene)] phosphate:

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

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Result: negative

STOT - single exposure

Causes damage to organs (Lungs, larynx) if inhaled.

Product:

Exposure routes	: inhalation (dust/mist/fume)
Target Organs	: Lungs, larynx
Assessment	: Shown to produce significant health effects in animals at concentrations of 1.0 mg/l/4h or less.
Remarks	: Based on data from similar materials

Components:

Ammonium salts of mono- and bis[3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl and/or poly (substituted alkene)] phosphate:

Exposure routes	: inhalation (dust/mist/fume)
Target Organs	: Lungs, larynx
Assessment	: Shown to produce significant health effects in animals at concentrations of 1.0 mg/l/4h or less.
Remarks	: Based on data from similar materials

STOT - repeated exposure

Not classified based on available information.

Product:

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

Ammonium salts of mono- and bis[3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl and/or poly (substituted alkene)] phosphate:

Assessment	: No significant health effects observed in animals at concentrations of 100 mg/kg bw or less.
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Repeated dose toxicity

Product:

Species	: Mouse
NOAEL	: 300 mg/kg
LOAEL	: > 300 mg/kg
Application Route	: Ingestion
Exposure time	: 28 d
Remarks	: No significant adverse effects were reported

Aspiration toxicity

Not classified based on available information.

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12. ECOLOGICAL INFORMATION

Ecotoxicity

Product:

Toxicity to fish	:	LC50 (Oncorhynchus mykiss (rainbow trout)): > 485 mg/l Exposure time: 96 h Method: OECD Test Guideline 203
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): > 113 mg/l Exposure time: 48 h Method: OECD Test Guideline 202
Toxicity to algae/aquatic plants	:	ErC50 (Pseudokirchneriella subcapitata (green algae)): 94 mg/l Exposure time: 72 h Method: OECD Test Guideline 201
		NOEC (Pseudokirchneriella subcapitata (green algae)): 19.8 mg/l Exposure time: 72 h Method: OECD Test Guideline 201

Components:

Ammonium salts of mono- and bis[3,3,4,4,5,5,6,7,7,8,8,8-tridecafluorooctyl and/or poly (substituted alkene)] phosphate:

Toxicity to fish	:	LC50 (Oncorhynchus mykiss (rainbow trout)): > 117 mg/l Exposure time: 96 h Method: OECD Test Guideline 203
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): > 22.6 mg/l Exposure time: 48 h Method: OECD Test Guideline 202
Toxicity to algae/aquatic plants	:	ErC50 (Pseudokirchneriella subcapitata (green algae)): 18.8 mg/l Exposure time: 72 h Method: OECD Test Guideline 201
		NOEC (Pseudokirchneriella subcapitata (green algae)): 3.9 mg/l Exposure time: 72 h Method: OECD Test Guideline 201

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

Toxicity to fish	:	LC50 (Oncorhynchus mykiss (rainbow trout)): 4.77 - 6 mg/l Exposure time: 96 h
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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 (Pimephales promelas (fathead minnow)): 2.1 mg/l Exposure time: 33 d
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC (Daphnia magna (Water flea)): 0.04 mg/l Exposure time: 21 d
M-Factor (Chronic aquatic toxicity)	:	1

Persistence and degradability

Product:

Biodegradability : Result: Not readily biodegradable.

Components:

Ammonium salts of mono- and bis[3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl and/or poly (substituted alkene)] phosphate:

Biodegradability : Result: Not readily biodegradable.

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

Biodegradability : Result: Not readily biodegradable.

Bioaccumulative potential

Components:

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

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

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Mobility in soil

No data available

Other adverse effects

No data available

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	:	Not applicable
Proper shipping name	:	Not applicable
Class	:	Not applicable
Subsidiary risk	:	Not applicable
Packing group	:	Not applicable
Labels	:	Not applicable
Environmentally hazardous	:	no

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	:	no

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

Not applicable for product as supplied.

National Regulations

GB 6944/12268

UN number	:	Not applicable
Proper shipping name	:	Not applicable
Class	:	Not applicable
Subsidiary risk	:	Not applicable
Packing group	:	Not applicable
Labels	:	Not applicable
Marine pollutant	:	no

Special precautions for user

Not applicable

15. REGULATORY INFORMATION

National regulatory information

Regulations on Safety Management of Hazardous Chemicals

Catalogue of Hazardous Chemicals : Listed

Identification of Major Hazard Installations for Hazardous Chemicals (GB 18218)

No. / Code	Chemical name / Category	Threshold quantity
J5	Acute toxic	500 t

Hazardous Chemicals for Priority Management under SAWS : Listed

Regulations on Labour Protection in Workplaces where Toxic Substances are Used

Catalogue of Highly Toxic Chemicals : Not listed

Regulation of Environmental Management on the First Import of Chemicals and the Import and Export of Toxic Chemicals

China Severely Restricted Toxic Chemicals for Import and Export : Not listed

Regulation on the Administration of Precursor Chemicals

Catalogue and Classification of Precursor Chemicals : Not listed

Yangtze River Protection Law

This product does not contain any dangerous chemicals prohibited for inland river transport.

16. OTHER INFORMATION

Revision Date : 2024/11/07

SAFETY DATA SHEET

according to GB/T 16483 and GB/T 17519



Capstone™ FS-65 Fluorosurfactant

Version	Revision Date:	SDS Number:	Date of last issue: 2024/04/26
10.0	2024/11/07	1337492-00047	Date of first issue: 2017/02/27

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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)
CN OEL : Occupational exposure limits for hazardous agents in the workplace - Chemical hazardous agents.

ACGIH / TWA : 8-hour, time-weighted average
ACGIH / STEL : Short-term exposure limit
ACGIH / C : Ceiling limit
CN OEL / PC-TWA : Permissible concentration - time weighted average
CN OEL / PC-STEEL : Permissible concentration - short term exposure limit
CN OEL / MAC : Maximum allowable concentration

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 Develop-

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ment; 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; TECL - 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

Disclaimer

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