

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006, as amended by
Commission Regulation (EU) 2020/878



Capstone™ FS-3000

Version	Revision Date:	SDS Number:	Date of last issue: 09.05.2024
2.1	17.10.2024	11261451-00003	Date of first issue: 28.08.2023

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

1.1 Product identifier

Trade name	:	Capstone™ FS-3000
SDS-Identcode	:	130000143937
Substance name	:	Polyethylene oxide, mono(3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl) ethers
CAS-No.	:	52550-44-4

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

Use of the Sub- stance/Mixture	:	Intermediate
Recommended 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.

1.3 Details of the supplier of the safety data sheet

Company	:	Chemours Netherlands B.V. Baanhoekweg 22 3313 LA Dordrecht Netherlands
Telephone	:	+31-(0)-78-630-1011
Telefax	:	+31-78-6163737
E-mail address of person responsible for the SDS	:	sds-support@chemours.com

1.4 Emergency telephone number

+(353)-19014670 (CHEMTREC - Recommended) ; +353-(01) 809 2166 (Poison Information Center of Ireland)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Acute toxicity, Category 4

H302: Harmful if swallowed.

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006, as amended by
Commission Regulation (EU) 2020/878



Capstone™ FS-3000

Version	Revision Date:	SDS Number:	Date of last issue: 09.05.2024
2.1	17.10.2024	11261451-00003	Date of first issue: 28.08.2023

Specific target organ toxicity - repeated exposure, Category 2, spleen

H373: May cause damage to organs through prolonged or repeated exposure.

Long-term (chronic) aquatic hazard, Category 3

H412: Harmful to aquatic life with long lasting effects.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :



Signal word : Warning

Hazard statements	:	H302	Harmful if swallowed.
		H373	May cause damage to organs (spleen) through prolonged or repeated exposure.
		H412	Harmful to aquatic life with long lasting effects.

Precautionary statements	:	Prevention:	
		P264	Wash skin thoroughly after handling.
		P270	Do not eat, drink or smoke when using this product.
		P273	Avoid release to the environment.
		Response:	
		P301 + P312 + P330	IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell. Rinse mouth.
		P314	Get medical advice/ attention if you feel unwell.

2.3 Other hazards

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.

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

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006, as amended by
Commission Regulation (EU) 2020/878



Capstone™ FS-3000

Version 2.1 Revision Date: 17.10.2024 SDS Number: 11261451-00003 Date of last issue: 09.05.2024
Date of first issue: 28.08.2023

SECTION 3: Composition/information on ingredients

3.1 Substances

Substance name : Polyethylene oxide, mono(3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl) ethers

CAS-No. : 52550-44-4

Components

Chemical name	CAS-No. EC-No.	Concentration (% w/w)	M-Factor, SCL, ATE
Polyethylene oxide, mono(3,3,4,4,5,5,6,6,7,7,8, 8,8-tridecafluorooctyl) ethers	52550-44-4	$\geq 90 - \leq 100$	Acute toxicity estimate Acute oral toxicity: 1,030 mg/kg
3,3,4,4,5,5,6,6,7,7,8,8,8- Tridecafluorooctan-1-ol	647-42-7 211-477-1	$\geq 0.25 - < 1$	M-Factor (Chronic aquatic toxicity): 1 Acute toxicity estimate Acute oral toxicity: 1,750 mg/kg

SECTION 4: First aid measures

4.1 Description of 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.

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).

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 soap and plenty of water.
Get medical attention if symptoms occur.

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 unless directed to do so by medical personnel.
Get medical attention.

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006, as amended by
Commission Regulation (EU) 2020/878



Capstone™ FS-3000

Version	Revision Date:	SDS Number:	Date of last issue: 09.05.2024
2.1	17.10.2024	11261451-00003	Date of first issue: 28.08.2023

Rinse mouth thoroughly with water.
Never give anything by mouth to an unconscious person.

4.2 Most important symptoms and effects, both acute and delayed

Risks : Harmful if swallowed.
May cause damage to organs through prolonged or repeated exposure.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment : Treat symptomatically and supportively.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Water spray
Alcohol-resistant foam
Carbon dioxide (CO₂)
Dry chemical

Unsuitable extinguishing media : None known.

5.2 Special hazards arising from the substance or mixture

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
Iodine compounds

5.3 Advice for firefighters

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.

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006, as amended by
Commission Regulation (EU) 2020/878



Capstone™ FS-3000

Version	Revision Date:	SDS Number:	Date of last issue: 09.05.2024
2.1	17.10.2024	11261451-00003	Date of first issue: 28.08.2023

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

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

6.2 Environmental precautions

Environmental precautions : Avoid release to the environment.
Prevent further leakage or spillage if safe to do so.
Retain and dispose of contaminated wash water.
Local authorities should be advised if significant spillages cannot be contained.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Sweep up or vacuum up spillage and collect in suitable container for disposal.
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.

6.4 Reference to other sections

See sections: 7, 8, 11, 12 and 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Technical measures : See Engineering measures under EXPOSURE CONTROLS/PERSONAL PROTECTION section.

Local/Total ventilation : Use only with adequate ventilation.

Advice on safe handling : Do not breathe dust, fume, gas, mist, vapours or spray.
Do not swallow.
Avoid contact with eyes.
Avoid prolonged or repeated contact with skin.
Wash skin thoroughly after handling.
Handle in accordance with good industrial hygiene and safety practice, based on the results of the workplace exposure assessment
Do not eat, drink or smoke when using this product.
Take care to prevent spills, waste and minimize release to the environment.

Do not breathe decomposition products.

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006, as amended by
Commission Regulation (EU) 2020/878



Capstone™ FS-3000

Version	Revision Date:	SDS Number:	Date of last issue: 09.05.2024
2.1	17.10.2024	11261451-00003	Date of first issue: 28.08.2023

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.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Keep in properly labelled containers. Store in accordance with the particular national regulations.

Advice on common storage : No special restrictions on storage with other products.

Further information on storage stability : Risk of crystallisation or phase separation.

Mix thoroughly before use.

7.3 Specific end use(s)

Specific use(s) : No data available

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Contains no substances with occupational exposure limit values.

Occupational exposure limits of decomposition products

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
hydrofluoric acid	7664-39-3	TWA	1.8 ppm 1.5 mg/m3	2000/39/EC
	Further information: Indicative			
		STEL	3 ppm 2.5 mg/m3	2000/39/EC
	Further information: Indicative			
		OELV - 15 min (STEL)	3 ppm 2.5 mg/m3 (Fluorine)	IE OEL
	Further information: Substances which have the capacity to penetrate intact skin when they come in contact with it, and be absorbed into the body			
		OELV - 8 hrs (TWA)	1.8 ppm 1.5 mg/m3 (Fluorine)	IE OEL
	Further information: Substances which have the capacity to penetrate intact skin when they come in contact with it, and be absorbed into the body			
Carbonyl difluoride	353-50-4	OELV - 15 min (STEL)	5 ppm 13 mg/m3	IE OEL
		OELV - 8 hrs (TWA)	2 ppm 5.4 mg/m3	IE OEL

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006, as amended by
Commission Regulation (EU) 2020/878



Capstone™ FS-3000

Version 2.1 Revision Date: 17.10.2024 SDS Number: 11261451-00003 Date of last issue: 09.05.2024
Date of first issue: 28.08.2023

		TWA	2.5 mg/m3 (Fluorine)	2000/39/EC
	Further information: Indicative			
Carbon dioxide	124-38-9	TWA	5,000 ppm 9,000 mg/m3	2006/15/EC
	Further information: Indicative			
		OELV - 8 hrs (TWA)	5,000 ppm 9,000 mg/m3	IE OEL
Carbon monoxide	630-08-0	STEL	100 ppm 117 mg/m3	2017/164/EU
	Further information: Indicative			
		TWA	20 ppm 23 mg/m3	2017/164/EU
	Further information: Indicative			
		OELV - 15 min (STEL)	100 ppm 117 mg/m3	IE OEL
	Further information: Repr 1A - Substances which are known human reproductive toxicants			
		OELV - 8 hrs (TWA)	20 ppm 23 mg/m3	IE OEL
	Further information: Repr 1A - Substances which are known human reproductive toxicants			
		TWA	20 ppm 23 mg/m3	2004/37/EC
	Further information: Carcinogens or mutagens			
		STEL	100 ppm 117 mg/m3	2004/37/EC
	Further information: Carcinogens or mutagens			

8.2 Exposure controls

Engineering measures

Processing may form hazardous compounds (see section 10).
Ensure adequate ventilation, especially in confined areas.
Minimize workplace exposure concentrations.

Personal protective equipment

Eye/face protection : Wear the following personal protective equipment:
Safety glasses
Equipment should conform to I.S. EN 166

Hand protection

Material : Chemical-resistant gloves

Remarks : Choose gloves to protect hands against chemicals depending on the concentration and quantity of the hazardous substance and specific to place of work. Breakthrough time is not determined for the product. Change gloves often! 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.

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006, as amended by
Commission Regulation (EU) 2020/878



Capstone™ FS-3000

Version	Revision Date:	SDS Number:	Date of last issue: 09.05.2024
2.1	17.10.2024	11261451-00003	Date of first issue: 28.08.2023

Skin and body protection	:	Skin should be washed after contact.
Respiratory protection	:	If adequate local exhaust ventilation is not available or exposure assessment demonstrates exposures outside the recommended guidelines, use respiratory protection. Equipment should conform to I.S. EN 14387
Filter type	:	Combined particulates, acidic gas/vapour and organic vapour type (AE-P)

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	:	solid
Colour	:	yellow
Odour	:	slight
Odour Threshold	:	No data available
Melting point/freezing point	:	No data available
Initial boiling point and boiling range	:	No data available
Flammability (solid, gas)	:	No data available
Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower flammability limit	:	No data available
Flash point	:	does not flash
Auto-ignition temperature	:	No data available
Decomposition temperature	:	> 200 °C

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006, as amended by
Commission Regulation (EU) 2020/878



Capstone™ FS-3000

Version 2.1	Revision Date: 17.10.2024	SDS Number: 11261451-00003	Date of last issue: 09.05.2024 Date of first issue: 28.08.2023
----------------	------------------------------	-------------------------------	---

pH : 6 - 11

Viscosity
Viscosity, kinematic : Not applicable

Solubility(ies)
Water solubility : slightly soluble

Partition coefficient: n-
octanol/water : No data available

Vapour pressure : Not applicable

Relative density : 1.3 (25 °C)
1.26 - 1.28 (65 °C)

Relative vapour density : Not applicable

Particle characteristics
Particle size : No data available

9.2 Other information

Explosives : Not explosive

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

Evaporation rate : Not applicable

SECTION 10: Stability and reactivity

10.1 Reactivity

Not classified as a reactivity hazard.

10.2 Chemical stability

Stable under normal conditions.

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006, as amended by
Commission Regulation (EU) 2020/878



Capstone™ FS-3000

Version	Revision Date:	SDS Number:	Date of last issue: 09.05.2024
2.1	17.10.2024	11261451-00003	Date of first issue: 28.08.2023

10.3 Possibility of hazardous reactions

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

10.4 Conditions to avoid

Conditions to avoid : None known.

10.5 Incompatible materials

Materials to avoid : None.

10.6 Hazardous decomposition products

Thermal decomposition : hydrofluoric acid
Carbonyl difluoride
Carbon dioxide
Carbon monoxide

SECTION 11: Toxicological information

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

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

Acute toxicity

Harmful if swallowed.

Product:

Acute oral toxicity : Acute toxicity estimate: 1,093 mg/kg
Method: Calculation method

Components:

Polyethylene oxide, mono(3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl) ethers:

Acute oral toxicity : LD50 (Rat): 1,030 mg/kg

Acute inhalation toxicity : LC50 (Rat): > 5.9 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Assessment: The substance or mixture has no acute inhalation toxicity
Remarks: Based on data from similar materials

Acute dermal toxicity : LD50 (Rat): > 5,000 mg/kg
Remarks: Based on data from similar materials

3,3,4,4,5,5,6,6,7,7,8,8,8-Tridecafluorooctan-1-ol:

Acute oral toxicity : LD50 (Rat): 1,750 mg/kg
Method: OECD Test Guideline 425

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006, as amended by
Commission Regulation (EU) 2020/878



Capstone™ FS-3000

Version	Revision Date:	SDS Number:	Date of last issue: 09.05.2024
2.1	17.10.2024	11261451-00003	Date of first issue: 28.08.2023

Acute inhalation toxicity : LC50 (Rat): 5.2 - 9.9 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: OECD Test Guideline 403
Assessment: The substance or mixture has no acute inhalation toxicity

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

Skin corrosion/irritation

Not classified based on available information.

Components:

Polyethylene oxide, mono(3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl) ethers:

Species : Rabbit
Result : No skin irritation
Remarks : Based on data from similar materials

3,3,4,4,5,5,6,6,7,7,8,8,8-Tridecafluorooctan-1-ol:

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

Serious eye damage/eye irritation

Not classified based on available information.

Components:

Polyethylene oxide, mono(3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl) ethers:

Species : Rabbit
Result : No eye irritation
Remarks : Based on data from similar materials

3,3,4,4,5,5,6,6,7,7,8,8,8-Tridecafluorooctan-1-ol:

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

Respiratory or skin sensitisation

Skin sensitisation

Not classified based on available information.

Respiratory sensitisation

Not classified based on available information.

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006, as amended by
Commission Regulation (EU) 2020/878



Capstone™ FS-3000

Version	Revision Date:	SDS Number:	Date of last issue: 09.05.2024
2.1	17.10.2024	11261451-00003	Date of first issue: 28.08.2023

Components:

Polyethylene oxide, mono(3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl) ethers:

Test Type	: Local lymph node assay (LLNA)
Exposure routes	: Skin contact
Species	: Mouse
Result	: negative
Remarks	: Based on data from similar materials

3,3,4,4,5,5,6,6,7,7,8,8,8-Tridecafluorooctan-1-ol:

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:

3,3,4,4,5,5,6,6,7,7,8,8,8-Tridecafluorooctan-1-ol:

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 Method: OECD Test Guideline 476 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
----------------------	---

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.

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006, as amended by
Commission Regulation (EU) 2020/878



Capstone™ FS-3000

Version	Revision Date:	SDS Number:	Date of last issue: 09.05.2024
2.1	17.10.2024	11261451-00003	Date of first issue: 28.08.2023

Components:

3,3,4,4,5,5,6,6,7,7,8,8,8-Tridecafluorooctan-1-ol:

Effects on fertility	: Test Type: One-generation reproduction toxicity study Species: Rat Application Route: Ingestion Method: OECD Test Guideline 415 Result: negative
	Test Type: One-generation reproduction toxicity study Species: Mouse Application Route: Ingestion Method: OECD Test Guideline 415 Result: negative
Effects on foetal development	: Test Type: Prenatal development toxicity study (teratogenicity) Species: Rat Application Route: Ingestion Method: OECD Test Guideline 414 Result: negative
Reproductive toxicity - Assessment	: Weight of evidence does not support classification for reproductive toxicity

STOT - single exposure

Not classified based on available information.

Components:

3,3,4,4,5,5,6,6,7,7,8,8,8-Tridecafluorooctan-1-ol:

Exposure routes	: Skin contact
Assessment	: No significant health effects observed in animals at concentrations of 2000 mg/kg bw or less
Exposure routes	: Ingestion
Assessment	: No significant health effects observed in animals at concentrations of 2000 mg/kg bw or less
Exposure routes	: inhalation (dust/mist/fume)
Assessment	: No significant health effects observed in animals at concentrations of 5.0 mg/l/4h or less

STOT - repeated exposure

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

Components:

Polyethylene oxide, mono(3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl) ethers:

Target Organs	: spleen
Assessment	: Shown to produce significant health effects in animals at concentrations of >10 to 100 mg/kg bw.
Remarks	: Based on data from similar materials

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006, as amended by
Commission Regulation (EU) 2020/878



Capstone™ FS-3000

Version	Revision Date:	SDS Number:	Date of last issue: 09.05.2024
2.1	17.10.2024	11261451-00003	Date of first issue: 28.08.2023

3,3,4,4,5,5,6,6,7,7,8,8,8-Tridecafluorooctan-1-ol:

Exposure routes	: Ingestion
Target Organs	: Liver, Teeth
Assessment	: Shown to produce significant health effects in animals at concentrations of >10 to 100 mg/kg bw.

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:

Polyethylene oxide, mono(3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl) ethers:

Species	: Mouse
NOAEL	: 30 mg/kg
LOAEL	: 125 mg/kg
Application Route	: Ingestion
Exposure time	: 28 d
Remarks	: Based on data from similar materials

3,3,4,4,5,5,6,6,7,7,8,8,8-Tridecafluorooctan-1-ol:

Species	: Mouse, male and female
NOAEL	: 5 mg/kg
LOAEL	: 25 mg/kg
Application Route	: Ingestion
Exposure time	: 70 Days
Method	: OECD Test Guideline 415

Species	: Rat, male and female
LOAEL	: 1.5 mg/l
Application Route	: inhalation (vapour)
Exposure time	: 28 Days
Method	: OECD Test Guideline 412

Aspiration toxicity

Not classified based on available information.

11.2 Information on other hazards

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, as amended by
Commission Regulation (EU) 2020/878



Capstone™ FS-3000

Version	Revision Date:	SDS Number:	Date of last issue: 09.05.2024
2.1	17.10.2024	11261451-00003	Date of first issue: 28.08.2023

SECTION 12: Ecological information

12.1 Toxicity

Components:

Polyethylene oxide, mono(3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl) ethers:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 36.7 mg/l
Exposure time: 96 h
Remarks: Based on data from similar materials

Toxicity to daphnia and other : EC50 (Daphnia magna (Water flea)): 28.8 mg/l
aquatic invertebrates Exposure time: 48 h
Remarks: Based on data from similar materials

Toxicity to algae/aquatic : ErC50 (Pseudokirchneriella subcapitata (green algae)): 88.3
plants mg/l
Exposure time: 72 h
Remarks: Based on data from similar materials

EbC50 (Pseudokirchneriella subcapitata (green algae)): 50.3
mg/l
Exposure time: 72 h
Remarks: Based on data from similar materials

EyC50 (Pseudokirchneriella subcapitata (green algae)): 50.1
mg/l
Exposure time: 72 h
Remarks: Based on data from similar materials

3,3,4,4,5,5,6,6,7,7,8,8,8-Tridecafluorooctan-1-ol:

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 4.48 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203

Toxicity to daphnia and other : EC50 (Daphnia magna (Water flea)): 7.84 mg/l
aquatic invertebrates Exposure time: 48 h
Method: OECD Test Guideline 202

Toxicity to algae/aquatic : EbC50 (Desmodesmus subspicatus (green algae)): 3.8 mg/l
plants Exposure time: 72 h
Method: OECD Test Guideline 201

NOEC (Desmodesmus subspicatus (green algae)): 1.3 mg/l
Exposure time: 3 d
Method: OECD Test Guideline 201

Toxicity to fish (Chronic tox- : NOEC: 0.0137 mg/l
icity) Exposure time: 122 d
Species: Oryzias latipes (Japanese medaka)
Method: OECD Test Guideline 234

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006, as amended by
Commission Regulation (EU) 2020/878



Capstone™ FS-3000

Version	Revision Date:	SDS Number:	Date of last issue: 09.05.2024
2.1	17.10.2024	11261451-00003	Date of first issue: 28.08.2023

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 2.16 mg/l
Exposure time: 21 d
Species: Daphnia magna (Water flea)
Method: OECD Test Guideline 211

M-Factor (Chronic aquatic toxicity) : 1

12.2 Persistence and degradability

Components:

Polyethylene oxide, mono(3,3,4,4,5,5,6,6,7,7,8,8,8-tridecafluorooctyl) ethers:

Biodegradability : Biodegradation: 62 %
Exposure time: 28 d
Method: OECD Test Guideline 301B

3,3,4,4,5,5,6,6,7,7,8,8,8-Tridecafluorooctan-1-ol:

Biodegradability : Result: Not readily biodegradable.
Method: OECD Test Guideline 301B

12.3 Bioaccumulative potential

Components:

3,3,4,4,5,5,6,6,7,7,8,8,8-Tridecafluorooctan-1-ol:

Bioaccumulation : Species: Cyprinus carpio (Carp)
Bioconcentration factor (BCF): 46
Method: OECD Test Guideline 305
Remarks: Does not bioaccumulate.

Partition coefficient: n-octanol/water : log Pow: 4.54

12.4 Mobility in soil

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

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006, as amended by
Commission Regulation (EU) 2020/878



Capstone™ FS-3000

Version	Revision Date:	SDS Number:	Date of last issue: 09.05.2024
2.1	17.10.2024	11261451-00003	Date of first issue: 28.08.2023

(EU) 2017/2100 or Commission Regulation (EU) 2018/605 at
levels of 0.1% or higher.

12.7 Other adverse effects

No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

- | | | |
|------------------------|---|--|
| Product | : | Dispose of in accordance with local regulations.
According to the European Waste Catalogue, Waste Codes
are not product specific, but application specific.
Waste codes should be assigned by the user, preferably in
discussion with the waste disposal authorities.
Do not dispose of waste into sewer. |
| Contaminated packaging | : | Empty containers should be taken to an approved waste han-
dling site for recycling or disposal.
If not otherwise specified: Dispose of as unused product. |

SECTION 14: Transport information

14.1 UN number or ID number

- | | | |
|------|---|-----------------------------------|
| ADN | : | Not regulated as a dangerous good |
| ADR | : | Not regulated as a dangerous good |
| RID | : | Not regulated as a dangerous good |
| IMDG | : | Not regulated as a dangerous good |
| IATA | : | Not regulated as a dangerous good |

14.2 UN proper shipping name

- | | | |
|------|---|-----------------------------------|
| ADN | : | Not regulated as a dangerous good |
| ADR | : | Not regulated as a dangerous good |
| RID | : | Not regulated as a dangerous good |
| IMDG | : | Not regulated as a dangerous good |
| IATA | : | Not regulated as a dangerous good |

14.3 Transport hazard class(es)

- | | | |
|------|---|-----------------------------------|
| ADN | : | Not regulated as a dangerous good |
| ADR | : | Not regulated as a dangerous good |
| RID | : | Not regulated as a dangerous good |
| IMDG | : | Not regulated as a dangerous good |
| IATA | : | Not regulated as a dangerous good |

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006, as amended by
Commission Regulation (EU) 2020/878



Capstone™ FS-3000

Version	Revision Date:	SDS Number:	Date of last issue: 09.05.2024
2.1	17.10.2024	11261451-00003	Date of first issue: 28.08.2023

14.4 Packing group

ADN	:	Not regulated as a dangerous good
ADR	:	Not regulated as a dangerous good
RID	:	Not regulated as a dangerous good
IMDG	:	Not regulated as a dangerous good
IATA (Cargo)	:	Not regulated as a dangerous good
IATA (Passenger)	:	Not regulated as a dangerous good

14.5 Environmental hazards

Not regulated as a dangerous good

14.6 Special precautions for user

Not applicable

14.7 Maritime transport in bulk according to IMO instruments

Remarks : Not applicable for product as supplied.

SECTION 15: Regulatory information

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

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 75: If you intend to use this product as tattoo ink, please contact your vendor.
--	---	--

Substance(s) or mixture(s) are listed here according to their appearance in the regulation, irrespective of their use/purpose or the conditions of the restriction. Please refer to the conditions in corresponding Regulation to determine whether an entry is applicable to the placing on the market or not.

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59).	:	Not applicable
---	---	----------------

Regulation (EC) on substances that deplete the ozone layer	:	Not applicable
--	---	----------------

Regulation (EU) 2019/1021 on persistent organic pollutants (recast)	:	Not applicable
---	---	----------------

Regulation (EU) No 649/2012 of the European Parliament and the Council concerning the export and import	:	Not applicable
---	---	----------------

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006, as amended by
Commission Regulation (EU) 2020/878



Capstone™ FS-3000

Version	Revision Date:	SDS Number:	Date of last issue: 09.05.2024
2.1	17.10.2024	11261451-00003	Date of first issue: 28.08.2023

of dangerous chemicals

REACH - List of substances subject to authorisation : Not applicable
(Annex XIV)

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.
Not applicable

Other regulations:

Take note of Directive 94/33/EC on the protection of young people at work or stricter national regulations, where applicable.

15.2 Chemical safety assessment

A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

Other information : 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.

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

Full text of other abbreviations

2000/39/EC	: Europe. Commission Directive 2000/39/EC establishing a first list of indicative occupational exposure limit values
2004/37/EC	: Europe. Directive 2004/37/EC on the protection of workers from the risks related to exposure to carcinogens or mutagens at work
2006/15/EC	: Europe. Indicative occupational exposure limit values
2017/164/EU	: Europe. Commission Directive 2017/164/EU establishing a fourth list of indicative occupational exposure limit values
IE OEL	: Ireland. List of Chemical Agents and Carcinogens with Occupational Exposure Limit Values - Code of Practice, Schedule 1 and 2
2000/39/EC / TWA	: Limit Value - eight hours
2000/39/EC / STEL	: Short term exposure limit
2004/37/EC / STEL	: Short term exposure limit
2004/37/EC / TWA	: Long term exposure limit
2006/15/EC / TWA	: Limit Value - eight hours
2017/164/EU / STEL	: Short term exposure limit
2017/164/EU / TWA	: Limit Value - eight hours
IE OEL / OELV - 8 hrs (TWA)	: Occupational exposure limit value (8-hour reference period)
IE OEL / OELV - 15 min (STEL)	: Occupational exposure limit value (15-minute reference period)

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006, as amended by
Commission Regulation (EU) 2020/878



Capstone™ FS-3000

Version	Revision Date:	SDS Number:	Date of last issue: 09.05.2024
2.1	17.10.2024	11261451-00003	Date of first issue: 28.08.2023

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; 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

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/>

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.

IE / EN