## Krytox™ XHT-1000



 Version
 Revision Date:
 SDS Number:
 Date of last issue: 25.10.2019

 1.2
 21.02.2020
 3128446-00003
 Date of first issue: 30.08.2018

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

**Product identifier** 

Product name : Krytox™ XHT-1000

Chemical name : PFPE fluid

CAS-No. : Proprietary Ingredient

Product code :

SDS-Identcode : 130000031590

Recommended use of the chemical and restrictions on use

Recommended use

Lubricant

Restrictions on use : Do not use or resell Chemours<sup>™</sup> materials in medical applica-

tions 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.

For industrial use only.

Manufacturer or supplier's details

Company : The Chemours Company FC, LLC

Address : 1007 Market Street,

Wilmington DE 19899, United States of America

Telephone : 1302 773 1000

Emergency telephone number : 1302 773 2000

#### **SECTION 2: Hazards identification**

#### Classification of the hazardous chemical

Not a hazardous substance or mixture.

#### Label elements

Not a hazardous substance or mixture.

#### Other hazards which do not result in classification

The thermal decomposition vapours of fluorinated plastics may cause polymer fume fever with flu-like symptoms in humans, especially when smoking contaminated tobacco.

## Krytox™ XHT-1000



Version **Revision Date:** SDS Number: Date of last issue: 25.10.2019 1.2 21.02.2020 3128446-00003 Date of first issue: 30.08.2018

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

Substance / Mixture Substance

Components

No hazardous ingredients

**SECTION 4: First aid measures** 

If inhaled : If inhaled, remove to fresh air.

Get medical attention if symptoms occur.

In case of skin contact Wash with water and soap as a precaution.

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.

> 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: Polymer fume fever

Skin contact may provoke the following symptoms: Redness

Eye contact may provoke the following

symptoms Blurred vision

Discomfort Lachrymation

Protection of first-aiders No special precautions are necessary for first aid responders.

Treat symptomatically and supportively. Notes to physician

**SECTION 5: Firefighting measures** 

**Extinguishing media** 

Suitable extinguishing media : Not applicable

Will not burn

Unsuitable extinguishing

media

: Not applicable Will not burn

Physicochemical hazards arising from the chemical

Specific hazards during fire-: Exposure to combustion products may be a hazard to health.

fighting

Hazardous combustion prod: :

ucts

Hydrogen fluoride carbonyl fluoride

potentially toxic fluorinated compounds

## Krytox™ XHT-1000



Version **Revision Date:** SDS Number: Date of last issue: 25.10.2019 1.2 21.02.2020 3128446-00003 Date of first issue: 30.08.2018

aerosolized particulates

Carbon oxides

#### Special protective equipment and precautions for fire-fighters

for firefighters

Special protective equipment : Wear self-contained breathing apparatus for firefighting if nec-

Use personal protective equipment.

ods

Specific extinguishing meth- : Use extinguishing measures that are appropriate to local cir-

cumstances and the surrounding environment. Use water spray to cool unopened containers.

Remove undamaged containers from fire area if it is safe to do

SO.

Evacuate area.

#### **SECTION 6: Accidental release measures**

Personal precautions, protec- : tive equipment and emergency procedures

Follow safe handling advice and personal protective equip-

ment recommendations.

Environmental precautions

: Discharge into the environment must be avoided.

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 absor-

bent.

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 deter-

mine which regulations are applicable.

Sections 13 and 15 of this SDS provide information regarding

certain local or national requirements.

## **SECTION 7: Handling and storage**

### Handling

## Precautions for safe handling

Technical measures : See Engineering measures under EXPOSURE

CONTROLS/PERSONAL PROTECTION section.

Local/Total ventilation : Use only with adequate ventilation.

## Krytox™ XHT-1000



 Version
 Revision Date:
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 Date of last issue: 25.10.2019

 1.2
 21.02.2020
 3128446-00003
 Date of first issue: 30.08.2018

Advice on safe handling : Handle in accordance with good industrial hygiene and safety

practice, based on the results of the workplace exposure

as-sessment

Take care to prevent spills, waste and minimize release to

the environment.

**Storage** 

Conditions for safe storage, including any incompatibilities

Conditions for safe storage : Keep in properly labelled containers.

Store in accordance with the particular national regulations.

Materials to avoid : No special restrictions on storage with other products.

Further information on stor-

age stability

No decomposition if stored and applied as directed.

**SECTION 8: Exposure controls and personal protection** 

**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	CEIL	3 ppm 2.3 mg/m3 (Fluorine)	MY PEL
		TWA	0.5 ppm (Fluorine)	ACGIH
		С	2 ppm (Fluorine)	ACGIH
Carbonyl difluoride	353-50-4	TWA	2 ppm 5.4 mg/m3	MY PEL
		TWA	2 ppm	ACGIH
		STEL	5 ppm	ACGIH
Carbon dioxide	124-38-9	TWA	5,000 ppm 9,000 mg/m3	MY PEL
		TWA	5,000 ppm	ACGIH
		STEL	30,000 ppm	ACGIH
Carbon monoxide	630-08-0	TWA	25 ppm 29 mg/m3	MY PEL
		TWA	25 ppm	ACGIH

Appropriate engineering controls

Processing may form hazardous compounds (see section

10).

Ensure adequate ventilation, especially in confined areas.

Minimize workplace exposure concentrations.

Individual protection measures, such as personal protective equipment

## Krytox™ XHT-1000



Version Revision Date: SDS Number: Date of last issue: 25.10.2019
1.2 21.02.2020 3128446-00003 Date of first issue: 30.08.2018

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

Safety glasses

Skin protection : Skin should be washed after contact.

Hand protection

Remarks : Wash hands before breaks and at the end of workday.

Respiratory protection : If adequate local exhaust ventilation is not available or expo-

sure assessment demonstrates exposures outside the rec-

ommended guidelines, use respiratory protection.

Filter type : Combined acidic gas/vapour and organic vapour type

Hygiene measures : If exposure to chemical is likely during typical use, provide

eye flushing systems and safety showers close to the work-

ing place.

When using do not eat, drink or smoke. Wash contaminated clothing before re-use.

### **SECTION 9: Physical and chemical properties**

Appearance : viscous liquid

Colour : colourless

Odour : odourless

Odour Threshold : No data available

pH : 7

Melting point/freezing point : No data available

Initial boiling point and boiling

range

: No data available

Flash point : Method: Pensky-Martens closed cup

does not flash

Evaporation rate : No data available

Flammability (solid, gas) : Not applicable

Flammability (liquids) : Will not burn

Upper explosion limit / Upper

flammability limit

: No data available

## Krytox™ XHT-1000



 Version
 Revision Date:
 SDS Number:
 Date of last issue: 25.10.2019

 1.2
 21.02.2020
 3128446-00003
 Date of first issue: 30.08.2018

Lower explosion limit / Lower

flammability limit

: No data available

Vapour pressure : No data available

Relative vapour density : No data available

Relative density : 1.86 - 1.91 (24 °C)

Solubility(ies)

Water solubility : insoluble

Partition coefficient: n-

octanol/water

No data available

Auto-ignition temperature : No data available

Decomposition temperature : 350 ℃

Viscosity

Viscosity, kinematic : No data available

Explosive properties : Not explosive

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

Particle size : Not applicable

**SECTION 10: Stability and reactivity** 

Reactivity : Not classified as a reactivity hazard.

Chemical stability : Stable under normal conditions.

Possibility of hazardous reac- :

tions

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

**SECTION 11: Toxicological information** 

Information on likely routes of

Inhalation
Skin contact

exposure

6 / 10

## Krytox™ XHT-1000



Version 1.2

Revision Date: 21.02.2020

SDS Number: 3128446-00003

Date of last issue: 25.10.2019 Date of first issue: 30.08.2018

Ingestion Eye contact

## **Acute toxicity**

Not classified based on available information.

#### Skin corrosion/irritation

Not classified based on available information.

### Serious eye damage/eye irritation

Not classified based on available information.

## Respiratory or skin sensitisation

#### Skin sensitisation

Not classified based on available information.

### Respiratory sensitisation

Not classified based on available information.

#### Germ cell mutagenicity

Not classified based on available information.

### Carcinogenicity

Not classified based on available information.

#### Reproductive toxicity

Not classified based on available information.

## STOT - single exposure

Not classified based on available information.

## STOT - repeated exposure

Not classified based on available information.

### **Aspiration toxicity**

Not classified based on available information.

### **SECTION 12: Ecological information**

## **Ecotoxicity**

No data available

#### Persistence and degradability

No data available

## Bioaccumulative potential

No data available

### Mobility in soil

No data available

### Other adverse effects

No data available

## Krytox™ XHT-1000



Version Revision Date: SDS Number: Date of last issue: 25.10.2019
1.2 21.02.2020 3128446-00003 Date of first issue: 30.08.2018

#### **SECTION 13: Disposal information**

**Disposal methods** 

Waste from residues : Disposal of waste to be in accordance with the Environmental

Quality (Scheduled Wastes) Regulations and other guidelines

issuance by DOE and/or local authorities.

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**

## **International Regulations**

#### **UNRTDG**

Not regulated as a dangerous good

#### **IATA-DGR**

Not regulated as a dangerous good

#### **IMDG-Code**

Not regulated as a dangerous good

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

Not applicable for product as supplied.

## **SECTION 15: Regulatory information**

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

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

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

### **SECTION 16: Other information**

Other information : Krytox<sup>TM</sup> and any associated logos are trademarks or copy-

rights 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 Agen-

cy, http://echa.europa.eu/

Date format : dd.mm.yyyy

## Krytox™ XHT-1000



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#### Full text of other abbreviations

ACGIH : USA. ACGIH Threshold Limit Values (TLV)

MY PEL : Malaysia. Occupational Safety and Health (Use and Stand-

ards of Exposure of Chemicals Hazardous to Health) Regula-

tions 2000.

ACGIH / TWA : 8-hour, time-weighted average ACGIH / STEL : Short-term exposure limit

ACGIH / C : Ceiling limit

MY PEL / TWA : Eight-hour time-weighted average airborne concentration

MY PEL / CEIL : Ceiling limit airborne concentration

AICS - Australian Inventory of Chemical Substances; 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; (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; 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.

# Krytox™ XHT-1000



Version Revision Date: 1.2 21.02.2020

SDS Number: 3128446-00003

Date of last issue: 25.10.2019 Date of first issue: 30.08.2018

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