

# SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



## Krytox™ BP REACTION MASS

Version	Revision Date:	SDS Number:	Date of last issue: 03/31/2023
4.0	11/01/2023	5914998-00008	Date of first issue: 05/11/2020

### SECTION 1. IDENTIFICATION

Product name : Krytox™ BP REACTION MASS

SDS-Identcode : 130000033395

#### Manufacturer or supplier's details

Company name of supplier : The Chemours Company FC, LLC

Address : 1007 Market Street  
Wilmington, DE 19801 United States of America (USA)

Telephone : 1-844-773-CHEM (outside the U.S. 1-302-773-1000)

Emergency telephone : Medical emergency: 1-866-595-1473 (outside the U.S. 1-302-773-2000) ; Transport emergency: +1-800-424-9300 (outside the U.S. +1-703-527-3887)

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

Recommended use : Lubricant

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.

### SECTION 2. HAZARDS IDENTIFICATION

#### GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Carcinogenicity (Inhalation) : Category 2

Reproductive toxicity : Category 1B

#### GHS label elements

Hazard pictograms :



Signal Word : Danger

Hazard Statements : H351 Suspected of causing cancer if inhaled.  
H360FD May damage fertility. May damage the unborn child.

# SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



## Krytox™ BP REACTION MASS

Version 4.0      Revision Date: 11/01/2023      SDS Number: 5914998-00008      Date of last issue: 03/31/2023  
Date of first issue: 05/11/2020

**Precautionary Statements :**

**Prevention:**  
P201 Obtain special instructions before use.  
P202 Do not handle until all safety precautions have been read and understood.  
P280 Wear protective gloves, protective clothing, eye protection and face protection.

**Response:**  
P308 + P313 IF exposed or concerned: Get medical attention.

**Storage:**  
P405 Store locked up.

**Disposal:**  
P501 Dispose of contents and container to an approved waste disposal plant.

### Other hazards

None known.

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Substance

Substance name : Functional PFPE Fluid

CAS-No. : Trade secret

### Components

Chemical name	CAS-No.	Concentration (% w/w)
Hexafluoropropylene	116-15-4	$\geq 0.1 - < 1$
Bis(2-(2-methoxyethoxy)ethyl) ether	143-24-8	$\geq 0.1 - < 1$
Caesium fluoride	13400-13-0	$\geq 0.1 - < 1$

Actual concentration is withheld as a trade secret

## SECTION 4. FIRST AID MEASURES

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

If inhaled : Move to fresh air in case of accidental inhalation of vapors or decomposition products.  
Keep patient warm and at rest.  
Administer 100% oxygen by mask.  
Nebulize 2.5% calcium gluconate in normal saline solution continuously until medical evaluation, at least 10- 15 minutes, and again especially if pain reappears.  
Get medical attention immediately.

# SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



## Krytox™ BP REACTION MASS

Version	Revision Date:	SDS Number:	Date of last issue: 03/31/2023
4.0	11/01/2023	5914998-00008	Date of first issue: 05/11/2020

- |   |  |
|---|--|
| In case of skin contact                                     | : Go to the nearest source of water or safety shower, open the water valve, remove all your clothes, shoes and jewelry. While closing your eyes and facing the water flow, remove your goggles or respirator face mask if you are sure that there is no HF on your face any longer. Rinse until calcium gluconate is available, for a minimum of 1 minute. Apply 2.5% calcium gluconate gel and massage into the affected area using rubber gloves; continue to massage while repeatedly applying gel until 15 minutes after pain is relieved. Get medical attention immediately. Double bag all contaminated clothing for disposal. |
| In case of eye contact                                      | : Go to the nearest eye wash or clean source of water, open the water valve. Remove contact lenses, if applicable, put your eye(s) in the water flow and open and close your eye lids for 1 to 5 minutes maximum. Irrigate each eye with 1% calcium gluconate solution while the individual is transported for medical evaluation by an eye specialist. If not available, use 0.9% saline solution. Get medical attention immediately.   |
| If swallowed  | : If swallowed, DO NOT induce vomiting. Get medical attention. Rinse mouth thoroughly with water.  |
| Most important symptoms and effects, both acute and delayed | : Suspected of causing cancer if inhaled. May damage fertility. May damage the unborn child.   |
| 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.  |

### SECTION 5. FIRE-FIGHTING MEASURES

- |                                       |  |
|---------------------------------------|--|
| Suitable extinguishing media          | : Water spray<br>Alcohol-resistant foam<br>Carbon dioxide (CO <sub>2</sub> )<br>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         | : Carbon oxides<br>Fluorine compounds  |

# SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



## Krytox™ BP REACTION MASS

Version	Revision Date:	SDS Number:	Date of last issue: 03/31/2023
4.0	11/01/2023	5914998-00008	Date of first issue: 05/11/2020

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

### SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.  
Follow safe handling advice (see section 7) and personal protective equipment recommendations (see section 8).
- Environmental precautions : Avoid release to the environment.  
Prevent further leakage or spillage if safe to do so.  
Prevent spreading over a wide area (e.g., by containment or oil barriers).  
Retain and dispose of contaminated wash water.  
Local authorities should be advised if significant spillages cannot be contained.
- Methods and materials for containment and cleaning up : Soak up with inert absorbent material.  
For large spills, provide diking or other appropriate containment to keep material from spreading. If diked material can be pumped, store recovered material in appropriate container.  
Clean up remaining materials from spill with suitable absorbent.  
Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which regulations are applicable.  
Sections 13 and 15 of this SDS provide information regarding certain local or national requirements.

### SECTION 7. HANDLING AND STORAGE

- 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 vapors or spray mist.  
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

# SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



## Krytox™ BP REACTION MASS

Version 4.0      Revision Date: 11/01/2023      SDS Number: 5914998-00008      Date of last issue: 03/31/2023  
Date of first issue: 05/11/2020

Keep container tightly closed.  
Keep away from water.  
Protect from moisture.  
Take care to prevent spills, waste and minimize release to the environment.

Conditions for safe storage : Keep in properly labeled containers.  
Store locked up.  
Keep tightly closed.  
Store in accordance with the particular national regulations.

Materials to avoid : Do not store with the following product types:  
Strong oxidizing agents  
Self-reactive substances and mixtures  
Organic peroxides  
Explosives  
Gases

### SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Ingredients with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Hexafluoropropylene	116-15-4	TWA	0.1 ppm	ACGIH
Caesium fluoride	13400-13-0	TWA	2.5 mg/m <sup>3</sup> (Fluorine)	OSHA Z-1
		TWA	2.5 mg/m <sup>3</sup> (Fluorine)	ACGIH

#### Occupational exposure limits of decomposition products

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Hydrofluoric acid	7664-39-3	TWA	0.5 ppm (Fluorine)	ACGIH
		C	2 ppm (Fluorine)	ACGIH
		C	6 ppm 5 mg/m <sup>3</sup>	NIOSH REL
		TWA	3 ppm 2.5 mg/m <sup>3</sup>	NIOSH REL
		TWA	3 ppm	OSHA Z-2

#### Biological occupational exposure limits

Components	CAS-No.	Control parameters	Biological specimen	Sampling time	Permissible concentration	Basis
Caesium fluoride	13400-13-0	Fluoride (Fluorine)	Urine	Prior to shift (16 hours)	2 mg/l	ACGIH BEI

# SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



## Krytox™ BP REACTION MASS

Version 4.0      Revision Date: 11/01/2023      SDS Number: 5914998-00008      Date of last issue: 03/31/2023  
Date of first issue: 05/11/2020

				after exposure ceases)		
		Fluoride (Fluorine)	Urine	End of shift (As soon as possible after exposure ceases)	3 mg/l	ACGIH BEI

**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** : General and local exhaust ventilation is recommended to maintain vapor exposures below recommended limits. Where concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn. Follow OSHA respirator regulations (29 CFR 1910.134) and use NIOSH/MSHA approved respirators. Protection provided by air purifying respirators against exposure to any hazardous chemical is limited. Use a positive pressure air supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstance where air purifying respirators may not provide adequate protection.

### Hand protection

**Material** : Chemical-resistant gloves

**Remarks** : Choose gloves to protect hands against chemicals depending on the concentration 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.

**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 work area.

# SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



## Krytox™ BP REACTION MASS

Version	Revision Date:	SDS Number:	Date of last issue: 03/31/2023
4.0	11/01/2023	5914998-00008	Date of first issue: 05/11/2020

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

### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	liquid
Color	:	No data available
Odor	:	No data available
Odor Threshold	:	No data available
pH	:	No data available
Melting point/freezing point	:	No data available
Initial boiling point and boiling range	:	No data available
Flash point	:	No data available
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
Vapor pressure	:	No data available
Relative vapor density	:	No data available
Relative density	:	No data available
Solubility(ies) Water solubility	:	No data available
Partition coefficient: n-octanol/water	:	Not applicable
Autoignition temperature	:	No data available

# SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



## Krytox™ BP REACTION MASS

Version 4.0	Revision Date: 11/01/2023	SDS Number: 5914998-00008	Date of last issue: 03/31/2023 Date of first issue: 05/11/2020
----------------	------------------------------	------------------------------	---

Decomposition temperature : No data available

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 reactions : Can react with strong oxidizing agents.  
Hazardous decomposition products will be formed upon contact with water or humid air.

Conditions to avoid : Exposure to moisture.

Incompatible materials : Oxidizing agents  
Water

#### Hazardous decomposition products

Contact with water or humid air : Hydrofluoric acid

### SECTION 11. TOXICOLOGICAL INFORMATION

#### Information on likely routes of exposure

Inhalation  
Skin contact  
Ingestion  
Eye contact

#### Acute toxicity

|| Not classified based on available information.

#### Components:

##### Hexafluoropropylene:

|| Acute oral toxicity : Assessment: The substance or mixture has no acute oral toxicity

|| Acute inhalation toxicity : LC50 (Rat): 3060 ppm  
Exposure time: 4 h



# SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



## Krytox™ BP REACTION MASS

Version	Revision Date:	SDS Number:	Date of last issue: 03/31/2023
4.0	11/01/2023	5914998-00008	Date of first issue: 05/11/2020

Test atmosphere: gas  
Method: OECD Test Guideline 403

Acute dermal toxicity : Assessment: The substance or mixture has no acute dermal toxicity

### **Bis(2-(2-methoxyethoxy)ethyl) ether:**

Acute oral toxicity : LD50 (Rat): 3,850 mg/kg

Acute inhalation toxicity : LC50 (Rat): > 11 mg/l  
Exposure time: 7 h  
Test atmosphere: vapor  
Method: OECD Test Guideline 403  
Remarks: Based on data from similar materials

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

### **Caesium fluoride:**

Acute oral toxicity : LD50 (Rat, female): 500 mg/kg  
Method: OECD Test Guideline 423

Acute dermal toxicity : LD50 (Rat): > 2,000 mg/kg  
Remarks: Based on data from similar materials

### **Skin corrosion/irritation**

Not classified based on available information.

### **Components:**

#### **Hexafluoropropylene:**

Result : No skin irritation

#### **Bis(2-(2-methoxyethoxy)ethyl) ether:**

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

#### **Caesium fluoride:**

Species : reconstructed human epidermis (RhE)  
Method : OECD Test Guideline 439

Result : No skin irritation

### **Serious eye damage/eye irritation**

Not classified based on available information.

# SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



## Krytox™ BP REACTION MASS

Version	Revision Date:	SDS Number:	Date of last issue: 03/31/2023
4.0	11/01/2023	5914998-00008	Date of first issue: 05/11/2020

---

### Components:

#### Hexafluoropropylene:

|| Result : No eye irritation

#### Bis(2-(2-methoxyethoxy)ethyl) ether:

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

### Respiratory or skin sensitization

#### Skin sensitization

|| Not classified based on available information.

#### Respiratory sensitization

|| Not classified based on available information.

### Components:

#### Hexafluoropropylene:

|| Routes of exposure : Skin contact  
|| Result : negative

|| Routes of exposure : Inhalation  
|| Result : negative

#### Bis(2-(2-methoxyethoxy)ethyl) ether:

|| Test Type : Local lymph node assay (LLNA)  
|| Routes of exposure : Skin contact  
|| Species : Mouse  
|| Method : OECD Test Guideline 429  
|| Result : negative  
|| Remarks : Based on data from similar materials

#### Caesium fluoride:

|| Test Type : Local lymph node assay (LLNA)  
|| Routes of exposure : Skin contact  
|| Species : Mouse  
|| Method : OECD Test Guideline 429  
|| Result : negative  
|| Remarks : Based on data from similar materials

### Germ cell mutagenicity

|| Not classified based on available information.

### Components:

#### Hexafluoropropylene:

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

# SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



## Krytox™ BP REACTION MASS

Version 4.0	Revision Date: 11/01/2023	SDS Number: 5914998-00008	Date of last issue: 03/31/2023 Date of first issue: 05/11/2020
----------------	------------------------------	------------------------------	---

	Result: negative
	Test Type: In vitro mammalian cell gene mutation test Method: OECD Test Guideline 476 Result: negative
	Test Type: in vitro micronucleus test Method: OECD Test Guideline 487 Result: negative
Genotoxicity in vivo	: Test Type: Unscheduled DNA synthesis (UDS) test with mammalian liver cells in vivo Species: Rat Application Route: inhalation (gas) Method: OECD Test Guideline 486 Result: negative
	Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay) Species: Mouse Application Route: inhalation (gas) Method: OECD Test Guideline 474 Result: negative
	Test Type: Rodent dominant lethal test (germ cell) (in vivo) Species: Rat Application Route: inhalation (gas) Method: OPPTS 870.5450 Result: negative
Germ cell mutagenicity - Assessment	: Weight of evidence does not support classification as a germ cell mutagen.

### Bis(2-(2-methoxyethoxy)ethyl) ether:

Genotoxicity in vitro	: Test Type: Bacterial reverse mutation assay (AMES) Result: negative
	Test Type: In vitro mammalian cell gene mutation test Result: negative
	Test Type: In vitro sister chromatid exchange assay in mammalian cells Result: positive
Genotoxicity in vivo	: Test Type: Mutagenicity (in vivo mammalian bone-marrow cytogenetic test, chromosomal analysis) Species: Rat Application Route: inhalation (vapor) Result: negative Remarks: Based on data from similar materials

### Caesium fluoride:

# SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



## Krytox™ BP REACTION MASS

Version	Revision Date:	SDS Number:	Date of last issue: 03/31/2023
4.0	11/01/2023	5914998-00008	Date of first issue: 05/11/2020

Genotoxicity in vitro	: Test Type: Bacterial reverse mutation assay (AMES) Method: OECD Test Guideline 471 Result: negative Remarks: Based on data from similar materials
	Test Type: In vitro mammalian cell gene mutation test Method: OECD Test Guideline 476 Result: negative Remarks: Based on data from similar materials
Genotoxicity in vivo	: Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay) Species: Mouse Application Route: Intraperitoneal injection Result: negative Remarks: Based on data from similar materials

### Carcinogenicity

|| Suspected of causing cancer if inhaled.

#### Components:

##### Hexafluoropropylene:

Species	: Rat
Application Route	: inhalation (gas)
Exposure time	: 104 weeks
Method	: OPPTS 870.4200
Result	: positive
Remarks	: Based on data from similar materials The mechanism or mode of action may not be relevant in humans.

Carcinogenicity - Assessment	: Limited evidence of carcinogenicity in inhalation studies with animals.
------------------------------	---

**IARC** No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**OSHA** No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

**NTP** No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

### Reproductive toxicity

|| May damage fertility. May damage the unborn child.

#### Components:

##### Hexafluoropropylene:

Effects on fertility	: Test Type: One-generation reproduction toxicity study Species: Rat Application Route: inhalation (gas)
----------------------	--

# SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



## Krytox™ BP REACTION MASS

Version	Revision Date:	SDS Number:	Date of last issue: 03/31/2023
4.0	11/01/2023	5914998-00008	Date of first issue: 05/11/2020

		Method: OECD Test Guideline 443 Result: negative
Effects on fetal development	:	Test Type: Prenatal development toxicity study (teratogenicity) Species: Rat Application Route: inhalation (gas) Method: OECD Test Guideline 414 Result: negative
		Test Type: Prenatal development toxicity study (teratogenicity) Species: Rabbit Application Route: inhalation (gas) Method: OECD Test Guideline 414 Result: negative
Reproductive toxicity - Assessment	:	Weight of evidence does not support classification for reproductive toxicity

### Bis(2-(2-methoxyethoxy)ethyl) ether:

Effects on fertility	:	Test Type: Reproduction/Developmental toxicity screening test Species: Rat Application Route: Ingestion Method: OECD Test Guideline 421 Result: positive
Effects on fetal development	:	Test Type: Embryo-fetal development Species: Rat Application Route: Ingestion Method: OECD Test Guideline 414 Result: positive
Reproductive toxicity - Assessment	:	Clear evidence of adverse effects on development, based on animal experiments., Clear evidence of adverse effects on sexual function and fertility, based on animal experiments.

### Caesium fluoride:

Effects on fertility	:	Test Type: Combined repeated dose toxicity study with the reproduction/developmental toxicity screening test Species: Rat Application Route: Ingestion Result: positive Remarks: Based on data from similar materials
Effects on fetal development	:	Test Type: Embryo-fetal development Species: Rat Application Route: Ingestion Method: OECD Test Guideline 414 Result: negative Remarks: Based on data from similar materials
Reproductive toxicity - Assessment	:	Some evidence of adverse effects on sexual function and

# SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



## Krytox™ BP REACTION MASS

Version	Revision Date:	SDS Number:	Date of last issue: 03/31/2023
4.0	11/01/2023	5914998-00008	Date of first issue: 05/11/2020

Assessment fertility, based on animal experiments.

### STOT-single exposure

Not classified based on available information.

#### Components:

##### Hexafluoropropylene:

Routes of exposure	: inhalation (gas)
Target Organs	: Kidney
Assessment	: Shown to produce significant health effects in animals at concentrations of >2500 to 20000 ppmV/4h.

### STOT-repeated exposure

Not classified based on available information.

#### Components:

##### Hexafluoropropylene:

Routes of exposure	: inhalation (gas)
Target Organs	: Kidney
Assessment	: Shown to produce significant health effects in animals at concentrations of >50 to 250 ppmV/6h/d.

##### Bis(2-(2-methoxyethoxy)ethyl) ether:

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

### Repeated dose toxicity

#### Components:

##### Hexafluoropropylene:

Species	: Mouse, male and female
NOAEL	: 10 ppm
LOAEL	: 50 ppm
Application Route	: inhalation (gas)
Exposure time	: 90 Days
Method	: OPPTS 870.3465

##### Bis(2-(2-methoxyethoxy)ethyl) ether:

Species	: Rat
NOAEL	: 250 mg/kg
Application Route	: Ingestion
Exposure time	: 28 Days
Method	: OECD Test Guideline 407
Remarks	: Based on data from similar materials

### Aspiration toxicity

Not classified based on available information.

# SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



## Krytox™ BP REACTION MASS

Version	Revision Date:	SDS Number:	Date of last issue: 03/31/2023
4.0	11/01/2023	5914998-00008	Date of first issue: 05/11/2020

### SECTION 12. ECOLOGICAL INFORMATION

#### Ecotoxicity

##### Components:

##### Hexafluoropropylene:

##### Ecotoxicology Assessment

- |                          |   |  |
|--------------------------|---|--|
| Acute aquatic toxicity   | : | The physicochemical properties in conjunction with limited or no aqueous exposure indicate the potential for toxicity to aquatic organisms is low. |
| Chronic aquatic toxicity | : | The physicochemical properties in conjunction with limited or no aqueous exposure indicate the potential for toxicity to aquatic organisms is low. |

##### Bis(2-(2-methoxyethoxy)ethyl) ether:

- |  |   |   |
|--|---|---|
| Toxicity to fish   | : | LC50 (Danio rerio (zebra fish)): > 100 mg/l<br>Exposure time: 96 h<br>Method: OECD Test Guideline 203<br>Remarks: Based on data from similar materials  |
| Toxicity to daphnia and other aquatic invertebrates                    | : | EC50 (Daphnia magna (Water flea)): 7,467 mg/l<br>Exposure time: 48 h<br>Method: OECD Test Guideline 202   |
| Toxicity to algae/aquatic plants                                       | : | ErC50 (Pseudokirchneriella subcapitata (green algae)): 8,996 mg/l<br>Exposure time: 72 h<br>Method: OECD Test Guideline 201<br><br>EC10 (Pseudokirchneriella subcapitata (green algae)): 2,871 mg/l<br>Exposure time: 72 h<br>Method: OECD Test Guideline 201 |
| Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) | : | NOEC (Daphnia magna (Water flea)): > 100 mg/l<br>Exposure time: 21 d<br>Method: OECD Test Guideline 211<br>Remarks: Based on data from similar materials  |
| Toxicity to microorganisms   | : | EC10: > 100 mg/l<br>Exposure time: 3 h<br>Method: OECD Test Guideline 209<br>Remarks: Based on data from similar materials  |

##### Caesium fluoride:

- |                  |   |   |
|------------------|---|---|
| Toxicity to fish | : | LC50 (Danio rerio (zebra fish)): > 10 - 100 mg/l<br>Exposure time: 96 h<br>Method: OECD Test Guideline 203<br>Remarks: Based on data from similar materials |
|------------------|---|---|

# SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



## Krytox™ BP REACTION MASS

Version	Revision Date:	SDS Number:	Date of last issue: 03/31/2023
4.0	11/01/2023	5914998-00008	Date of first issue: 05/11/2020

Toxicity to daphnia and other aquatic invertebrates	: EC50 (Daphnia magna (Water flea)): 62 mg/l Exposure time: 48 h Method: OECD Test Guideline 202
Toxicity to algae/aquatic plants	: ErC50 (Pseudokirchneriella subcapitata (algae)): 36 mg/l Exposure time: 72 h Method: OECD Test Guideline 201  EC10 (Pseudokirchneriella subcapitata (algae)): 19 mg/l Exposure time: 72 h Method: OECD Test Guideline 201
Toxicity to fish (Chronic toxicity)	: NOEC (Danio rerio (zebra fish)): > 1 mg/l Exposure time: 35 d Method: OECD Test Guideline 210 Remarks: Based on data from similar materials
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	: NOEC (Daphnia magna (Water flea)): > 1 mg/l Exposure time: 21 d Method: OECD Test Guideline 211 Remarks: Based on data from similar materials
Toxicity to microorganisms	: EC50 (activated sludge): > 100 mg/l Exposure time: 3 h Method: OECD Test Guideline 209 Remarks: Based on data from similar materials

### Persistence and degradability

#### Components:

##### **Bis(2-(2-methoxyethoxy)ethyl) ether:**

Biodegradability	: Result: Inherently biodegradable. Method: OECD Test Guideline 302B Remarks: Based on data from similar materials
------------------	--

### Bioaccumulative potential

#### Components:

##### **Hexafluoropropylene:**

Bioaccumulation	: Remarks: Bioaccumulation is unlikely.
Partition coefficient: n-octanol/water	: log Pow: 1.95 pH: 7

##### **Bis(2-(2-methoxyethoxy)ethyl) ether:**

Partition coefficient: n-octanol/water	: log Pow: -0.84
--	------------------



# SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



## Krytox™ BP REACTION MASS

Version	Revision Date:	SDS Number:	Date of last issue: 03/31/2023
4.0	11/01/2023	5914998-00008	Date of first issue: 05/11/2020

### Mobility in soil

No data available

### Other adverse effects

No data available

## SECTION 13. DISPOSAL CONSIDERATIONS

### Disposal methods

Waste from residues : Dispose of in accordance with local regulations.  
Do not dispose of waste into sewer.

Contaminated packaging : Empty containers should be taken to an approved waste  
handling site for recycling or disposal.  
If not otherwise specified: Dispose of as unused product.

## SECTION 14. TRANSPORT INFORMATION

### International Regulations

#### UNRTDG

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.

### Domestic regulation

#### 49 CFR

Not regulated as a dangerous good

### Special precautions for user

Not applicable

## SECTION 15. REGULATORY INFORMATION

### CERCLA Reportable Quantity

This material does not contain any components with a CERCLA RQ.

### SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

### SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

**SARA 311/312 Hazards** : Carcinogenicity  
Reproductive toxicity

# SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



## Krytox™ BP REACTION MASS

Version	Revision Date:	SDS Number:	Date of last issue: 03/31/2023
4.0	11/01/2023	5914998-00008	Date of first issue: 05/11/2020

**SARA 313** : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

### US State Regulations

#### Pennsylvania Right To Know

Functional PFPE Fluid

Trade secret

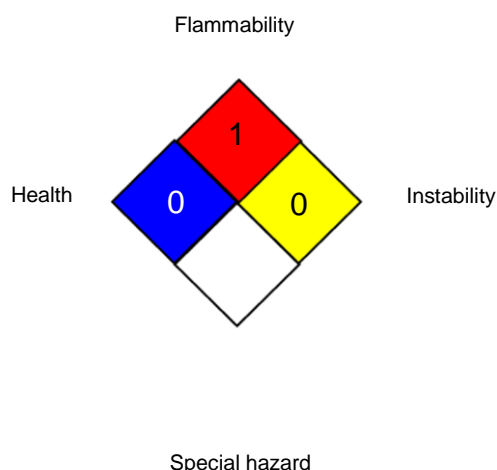
#### California Prop. 65

WARNING: This product can expose you to chemicals including Pentadecafluorooctanoic acid, which is/are known to the State of California to cause cancer, and Pentadecafluorooctanoic acid, which is/are known to the State of California to cause birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov). Note to User: This product is not made with PFOA nor is PFOA intentionally present in the product; however, it is possible that PFOA may be present as an impurity at background (environmental) levels.

## SECTION 16. OTHER INFORMATION

### Further information

#### NFPA 704:



#### HMIS® IV:

HEALTH	*	0
FLAMMABILITY		1
PHYSICAL HAZARD		0

HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "\*" represents a chronic hazard, while the "/" represents the absence of a chronic hazard.

Krytox™ 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.

### Full text of other abbreviations

ACGIH	: USA. ACGIH Threshold Limit Values (TLV)
ACGIH BEI	: ACGIH - Biological Exposure Indices (BEI)
NIOSH REL	: USA. NIOSH Recommended Exposure Limits
OSHA Z-1	: USA. Occupational Exposure Limits (OSHA) - Table Z-1 Lim-

# SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



## Krytox™ BP REACTION MASS

Version	Revision Date:	SDS Number:	Date of last issue: 03/31/2023
4.0	11/01/2023	5914998-00008	Date of first issue: 05/11/2020

	its for Air Contaminants
OSHA Z-2	: USA. Occupational Exposure Limits (OSHA) - Table Z-2
ACGIH / TWA	: 8-hour, time-weighted average
ACGIH / C	: Ceiling limit
NIOSH REL / TWA	: Time-weighted average concentration for up to a 10-hour workday during a 40-hour workweek
NIOSH REL / C	: Ceiling value not be exceeded at any time.
OSHA Z-1 / TWA	: 8-hour time weighted average
OSHA Z-2 / TWA	: 8-hour time weighted average

AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; 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; HMIS - Hazardous Materials Identification System; 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; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; 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; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; 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

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

Revision Date : 11/01/2023

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

# SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



## Krytox™ BP REACTION MASS

Version	Revision Date:	SDS Number:	Date of last issue: 03/31/2023
4.0	11/01/2023	5914998-00008	Date of first issue: 05/11/2020

---

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.

US / Z8