### SAFETY DATA SHEET



## Krytox<sup>™</sup> 240AZ GR1

Versi 5.4	on	Revision Date: 09/12/2020		0S Number: 65918-00009	Date of last issue: 02/20/2020 Date of first issue: 06/23/2017				
SECT	FION 1.	DENTIFICATION							
F	Product	t name	:	Krytox™ 240AZ 0	GR1				
F	Product	t code	:	D10942498					
S	SDS-Id	entcode	:	130000031476	130000031476				
I	Manufa	acturer or supplier's o	deta	iils					
(	Compa	ny name of supplier	:	The Chemours Company FC, LLC					
I	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)					
E	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)					
F	Recom	mended use of the c	hen	nical and restriction	ons on use				
F	Recommended use		:	Lubricant					
F	Restrict	ions on use	:	tions involving imp internal body fluid written agreemen	only. ell Chemours™ materials in medical applica- blantation in the human body or contact with s or tissues unless agreed to by Seller in a t covering such use. For further information, ur Chemours representative.				

#### **SECTION 2. HAZARDS IDENTIFICATION**

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

Not a hazardous substance or mixture.

#### **GHS** label elements

Not a hazardous substance or mixture.

#### Other hazards

The thermal decomposition vapors of fluorinated plastics may cause polymer fume fever with flulike symptoms in humans, especially when smoking contaminated tobacco.

#### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Components

No hazardous ingredients



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SECTION	4. FIRST AID MEASUF	RES					
lf inha	aled	:	If inhaled, remov Get medical atte	e to fresh air. ntion if symptoms occur.			
In cas	In case of skin contact			Wash with water and soap as a precaution. Get medical attention if symptoms occur.			
In cas	In case of eye contact		Flush eyes with water as a precaution. Get medical attention if irritation develops and persists.				
lf swa	allowed	:	Get medical atter	NOT induce vomiting. ntion if symptoms occur. roughly with water.			
and e	Most important symptoms and effects, both acute and delayed		Inhalation may provoke the following symptoms: Irritation Lung edema Eye contact may provoke the following symptoms Blurred vision Discomfort Lachrymation Skin contact may provoke the following symptoms: Irritation Redness				
Prote	ction of first-aiders	:	No special preca	utions are necessary for first aid responders.			
Notes	s to physician	:	Treat symptomat	ically and supportively.			

### SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	:	Not applicable Will not burn
Unsuitable extinguishing media	:	Not applicable Will not burn
Specific hazards during fire fighting	:	Exposure to combustion products may be a hazard to health.
Hazardous combustion prod- ucts	:	Hydrogen fluoride carbonyl fluoride potentially toxic fluorinated compounds aerosolized particulates Carbon oxides
Specific extinguishing meth- ods	:	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.

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			Evacuate area.				
Special protective equipment for fire-fighters			: Wear self-contained breathing apparatus for firefighting if necessary. Use personal protective equipment.				
SECTION	6. ACCIDENTAL RELE	AS	E MEASURES				
tive e	onal precautions, protec- quipment and emer- / procedures	:		ing advice (see section 7) and personal pro- recommendations (see section 8).			
Enviro	Environmental precautions		Retain and dispos	akage or spillage if safe to do so. se of contaminated wash water. should be advised if significant spillages			
	Methods and materials for containment and cleaning up		For large spills, pument to keep mat pumped, store red Clean up remainin bent. Local or national us sal of this materia ployed in the clea which regulations Sections 13 and 1	t absorbent material. rovide diking or other appropriate contain- erial from spreading. If diked material can be covered material in appropriate container. ng materials from spill with suitable absor- regulations may apply to releases and dispo- I, as well as those materials and items em- nup of releases. You will need to determine are applicable. 5 of this SDS provide information regarding tional requirements.			

### SECTION 7. HANDLING AND STORAGE

Technical measures	:	See Engineering measures under EXPOSURE CONTROLS/PERSONAL PROTECTION section.
Local/Total ventilation	:	Use only with adequate ventilation.
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.
Conditions for safe storage	:	Keep in properly labeled 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.



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#### SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Ingredients with workplace control parameters

Contains no substances with occupational exposure limit values.

#### Occupational exposure limits of decomposition products

Components	CAS-No.	Value type (Form of exposure)	Control parame- ters / Permissible concentration	Basis
Hydrofluoric acid	7664-39-3	TŴA	3 ppm 2.5 mg/m <sup>3</sup>	NIOSH REL
		С	6 ppm 5 mg/m³	NIOSH REL
		TWA	3 ppm	OSHA Z-2
		TWA	0.5 ppm (Fluorine)	ACGIH
		С	2 ppm (Fluorine)	ACGIH
Carbonyl difluoride	353-50-4	TWA	2 ppm	ACGIH
		STEL	5 ppm	ACGIH
		ST	5 ppm 15 mg/m³	NIOSH REL
		TWA	2 ppm 5 mg/m <sup>3</sup>	NIOSH REL
Carbon dioxide	124-38-9	TWA	5,000 ppm	ACGIH
		STEL	30,000 ppm	ACGIH
		TWA	5,000 ppm 9,000 mg/m <sup>3</sup>	OSHA Z-1
		TWA	5,000 ppm 9,000 mg/m <sup>3</sup>	NIOSH REL
		ST	30,000 ppm 54,000 mg/m <sup>3</sup>	NIOSH REL
Carbon monoxide	630-08-0	TWA	25 ppm	ACGIH
		TWA	35 ppm 40 mg/m <sup>3</sup>	NIOSH REL
		С	200 ppm 229 mg/m <sup>3</sup>	NIOSH REL
		TWA	50 ppm 55 mg/m <sup>3</sup>	OSHA Z-1

**Engineering measures** 

Processing may form hazardous compounds (see section 10).

Ensure adequate ventilation, especially in confined areas. Minimize workplace exposure concentrations.

#### Personal protective equipment

:

1

Respiratory protection

General and local exhaust ventilation is recommended to maintain vapor exposures below recommended limits. Where concentrations are above recommended limits or are

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			unknown, appropriate respiratory protection should be Follow OSHA respirator regulations (29 CFR 1910.134) use NIOSH/MSHA approved respirators. Protection pro by air purifying respirators against exposure to any haze dous chemical is limited. Use a positive pressure air su respirator if there is any potential for uncontrolled releas exposure levels are unknown, or any other circumstance where air purifying respirators may not provide adequat protection.			
Hand	d protection					
R	emarks	:	Wash hands befo	pre breaks and at the end of workday.		
Eyeı	protection	:	Wear the followin Safety glasses	g personal protective equipment:		
Skin	and body protection	:	Skin should be w	ashed after contact.		
Hygid	ene measures	:	eye flushing syste king place. When using do n	emical is likely during typical use, provide ems and safety showers close to the wor- ot eat, drink or smoke. ted clothing before re-use.		

### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	Grease
Color	:	white
Odor	:	odorless
Odor Threshold	:	No data available
рН	:	7
Melting point/freezing point	:	608 °F / 320 °C
Initial boiling point and boiling range	:	No data available
Flash point	:	Method: Pensky-Martens closed cup Not applicable
Evaporation rate	:	Not applicable
Flammability (solid, gas)	:	Will not burn
Upper explosion limit / Upper	:	No data available



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fl	ammal	bility limit			
		explosion limit / Lower bility limit	:	No data available	
V	/apor p	ressure	:	Not applicable	
R	Relative	e vapor density	:	Not applicable	
R	Relative	edensity	:	1.89 - 1.93	
S	Solubilit Wate	y(ies) er solubility	:	insoluble	
	Partitior	n coefficient: n- /water	:	Not applicable	
А	utoign	ition temperature	:	No data available	)
D	Decomp	position temperature	:	572 °F / 300 °C	
V	iscosit/ Visco	y osity, kinematic	:	Not applicable	
E	xplosiv	ve properties	:	Not explosive	
С	Dxidizin	g properties	:	The substance o	r mixture is not classified as oxidizing.
Р	Particle	size	:	No data available	

### 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

hermal decomposition	:	Hydrofluoric acid
-		Carbonyl difluoride
		Carbon dioxide
		Carbon monoxide

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#### SECTION 11. TOXICOLOGICAL INFORMATION

#### Information on likely routes of exposure

Skin contact 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 sensitization

#### Skin sensitization

Not classified based on available information.

#### **Respiratory sensitization**

Not classified based on available information.

#### **Germ cell mutagenicity** Not classified based on available information.

#### Carcinogenicity

Not classified based on available information.

- **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**

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



rsion	Revision Date: 09/12/2020	-	DS Number: 765918-00009	Date of last issue: 02/20/2020 Date of first issue: 06/23/2017
	stence and degradat	oility		
	ccumulative potentia	I		
	l <b>ity in soil</b> ata available			
	r <b>adverse effects</b> ata available			
CTION	13. DISPOSAL CON	SIDEF	RATIONS	
Dispo	osal methods			
Wast	e from residues	:	Dispose of in a	ccordance with local regulations.
Contaminated packaging : Empty containers should be taken to an approved waste handling site for recycling or disposal. If not otherwise specified: Dispose of as unused product				r recycling or disposal.
CTION	14. TRANSPORT INF	ORM	ATION	
Interr	national Regulations			
UNR Not re	<b>FDG</b> egulated as a dangero	us go	od	
IATA Not re	-DGR egulated as a dangero	us go	od	
-	<b>-Code</b> egulated as a dangero	us go	od	
	sport in bulk accordin pplicable for product a	-		RPOL 73/78 and the IBC Code
	estic regulation	•		
Dome				

#### **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.

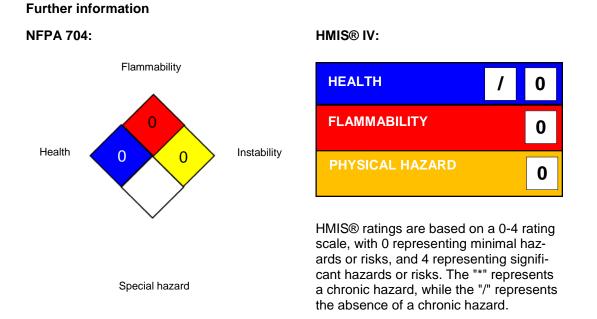
SARA 302 Extremely Hazardous Substances Threshold Planning Quantity This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 Hazards : No SARA Hazards



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SARA	313	known CAS nur	bes not contain any chemical components with nbers that exceed the threshold (De Minimis) established by SARA Title III, Section 313.			
US Sta	US State Regulations					
Penns	ylvania Right To Kno	w				
	PFPE fluid		Trade secret			
	Fluoropolymer		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 birth defects or other reproductive harm. For more information go to 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



Krytox<sup>™</sup> and any associated logos are trademarks or copyrights of The Chemours Company FC, LLC.

Chemours  ${}^{\rm M}$  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
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ACGIH	:	USA. ACGIH Threshold Limit Values (TLV)
NIOSH REL	:	USA. NIOSH Recommended Exposure Limits
OSHA Z-1	:	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Lim- its for Air Contaminants
OSHA Z-2	:	USA. Occupational Exposure Limits (OSHA) - Table Z-2



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ACGIH / TWA ACGIH / STEL		<ul><li>8-hour, time-weighted average</li><li>Short-term exposure limit</li></ul>			
ACGIH / C		: Ceiling limit			
NIOSH REL / TWA		5	<ul> <li>Time-weighted average concentration for up to a 10-hour workday during a 40-hour workweek</li> </ul>		
NIOSH REL / ST			: STEL - 15-minute TWA exposure that should not be exceeded at any time during a workday		
NIOSH	H REL / C	: Ceiling value not be exceeded at any time.			
OSHA	Z-1 / TWA	: 8-hour time w	: 8-hour time weighted average		
OSHA	Z-2 / TWA	: 8-hour time w	eighted 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; 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	:	09/12/2020

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





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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.

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