

| Versi 5.6 | on | Revision Date: 09/01/2021 | | 0S Number: 65620-00012 | Date of last issue: 09/12/2020 Date of first issue: 06/21/2017 | | | | | |
|--------------|---------------------------|------------------------------|------|--|--|--|--|--|--|--|
| SECT | SECTION 1. IDENTIFICATION | | | | | | | | | |
| I | Produc | t name | : | Krytox™ GPL 217 | | | | | | |
| I | Produc | t code | : | D10351171 | | | | | | |
| Ś | SDS-Id | entcode | : | 130000024225 | | | | | | |
| I | Manufa | acturer or supplier's o | deta | iils | | | | | | |
| (| Compa | ny name of supplier | : | | | | | | | |
| / | 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) | | | | | | |
| I | Emergency telephone | | : | Medical emergency: 1-866-595-1473 (outside the U.S. 1-302 773-2000) ; Transport emergency: +1-800-424-9300 (outsid the U.S. +1-703-527-3887) | | | | | | |
| I | Recom | mended use of the c | hen | nical and restriction | ons on use | | | | | |
| I | Recom | mended use | : | Lubricant | | | | | | |
| I | Restric | tions 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



Krytox™ GPL 217

| Version 5.6 | Revision Date: 09/01/2021 | | DS Number: 65620-00012 | Date of last issue: 09/12/2020 Date of first issue: 06/21/2017 | | | | |
|----------------|--|-----|--|--|--|--|--|--|
| SECTION | 4. FIRST AID MEASUF | RES | | | | | | |
| lf inha | aled | : | If inhaled, removed of the second sec | ve to fresh air. ention if symptoms occur. | | | | |
| In cas | e 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 | llowed | : | Get medical atte | D NOT induce vomiting. ention if symptoms occur. proughly with water. | | | | |
| | important symptoms ffects, both acute and ed | : | Irritation Lung edema Eye contact may Blurred vision Discomfort Lachrymation | provoke the following symptoms: y provoke the following symptoms y provoke the following symptoms: | | | | |
| Prote | ction of first-aiders | : | No special preca | autions are necessary for first aid responders. | | | | |
| Notes | to physician | : | Treat symptoma | tically 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 Metal oxides Sulfur 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. |

Krytox™ GPL 217



| Vers 5.6 | sion | Revision Date: 09/01/2021 | | 0S Number: 65620-00012 | Date of last issue: 09/12/2020 Date of first issue: 06/21/2017 | | | | |
|--|----------|--|----|--|--|--|--|--|--|
| | | | | Remove undamaç so. Evacuate area. | ged containers from fire area if it is safe to do | | | | |
| Special protective equipment for fire-fighters | | | : | Wear self-contained breathing apparatus for firefighting if necessary. Use personal protective equipment. | | | | | |
| SEC | TION 6 | . ACCIDENTAL RELE | AS | E MEASURES | | | | | |
| | tive equ | al precautions, protec- uipment and emer- procedures | : | | ng advice (see section 7) and personal pro- recommendations (see section 8). | | | | |
| | Enviror | nmental precautions | : | Retain and dispos | akage or spillage if safe to do so. e of contaminated wash water. hould be advised if significant spillages | | | | |
| | | ls and materials for ment and cleaning up | : | For large spills, pr ment to keep mate pumped, store rec Clean up remainin bent. Local or national r sal of this materia ployed in the clea which regulations Sections 13 and 1 | absorbent material. ovide diking or other appropriate contain- erial from spreading. If diked material can be covered material in appropriate container. In materials from spill with suitable absor- egulations may apply to releases and dispo- l, 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. |



| Version | Revision Date: | SDS Number: | Date of last issue: 09/12/2020 |
|---------|----------------|---------------|---------------------------------|
| 5.6 | 09/01/2021 | 1765620-00012 | Date of first issue: 06/21/2017 |

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 | TWA | 0.5 ppm (Fluorine) | ACGIH |
| | | С | 2 ppm (Fluorine) | ACGIH |
| | | С | 6 ppm 5 mg/m³ | NIOSH REL |
| | | TWA | 3 ppm 2.5 mg/m ³ | NIOSH REL |
| | | TWA | 3 ppm | OSHA Z-2 |
| Carbonyl difluoride | 353-50-4 | TWA | 2 ppm | ACGIH |
| | | STEL | 5 ppm | ACGIH |
| | | TWA | 2 ppm 5 mg/m ³ | NIOSH REL |
| | | ST | 5 ppm 15 mg/m³ | 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 ³ | NIOSH REL |
| | | ST | 30,000 ppm 54,000 mg/m ³ | NIOSH REL |
| | | TWA | 5,000 ppm 9,000 mg/m ³ | OSHA Z-1 |
| Carbon monoxide | 630-08-0 | TWA | 25 ppm | ACGIH |
| | | TWA | 35 ppm 40 mg/m ³ | NIOSH REL |
| | | С | 200 ppm 229 mg/m ³ | NIOSH REL |
| | | TWA | 50 ppm 55 mg/m³ | 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

Respiratory protection

: General and local exhaust ventilation is recommended to



Krytox™ GPL 217

| Version 5.6 | Revision Date: 09/01/2021 | | DS Number: 65620-00012 | Date of last issue: 09/12/2020 Date of first issue: 06/21/2017 |
|----------------|------------------------------|---|--|--|
| | | | concentrations ar unknown, approp Follow OSHA res use NIOSH/MSH/ by air purifying re dous chemical is respirator if there exposure levels a | posures below recommended limits. Where e above recommended limits or are riate respiratory protection should be worn. pirator regulations (29 CFR 1910.134) and A approved respirators. Protection provided spirators against exposure to any hazar- limited. Use a positive pressure air supplied is any potential for uncontrolled release, re unknown, or any other circumstance g respirators may not provide adequate |
| Hand | protection | | | |
| R | emarks | : | Wash hands befo | re breaks and at the end of workday. |
| Еуе р | protection | : | Wear the following Safety glasses | g personal protective equipment: |
| Skin | and body protection | : | Skin should be wa | ashed after contact. |
| Hygie | ene measures | : | eye flushing syste king place. When using do no | emical is likely during typical use, provide ems and safety showers close to the wor- ot eat, drink or smoke. ed clothing before re-use. |

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

| Appearance | : | Grease |
|---|---|---|
| Color | : | black |
| 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 |

SAFETY DATA SHEET



Krytox™ GPL 217

| Vers 5.6 | ion | Revision Date: 09/01/2021 | | S Number: 5620-00012 | Date of last issue: 09/12/2020 Date of first issue: 06/21/2017 |
|-------------|---------------------|---|---|-------------------------|---|
| | | explosion limit / Upper bility limit | : | No data available | |
| | | explosion limit / Lower bility limit | : | No data available |) |
| | Vapor p | pressure | : | Not applicable | |
| | Relative | e vapor density | : | Not applicable | |
| | Relative | e density | : | 1.89 - 1.93 | |
| | Solubili Wat | ty(ies) er solubility | : | No data available | • |
| | Partitio octanol | n coefficient: n- /water | : | Not applicable | |
| | Autoigr | ition temperature | : | No data available |) |
| | Decom | position temperature | : | 572 °F / 300 °C | |
| | Viscosi Visc | ty osity, kinematic | : | Not applicable | |
| | Explosi | ve properties | : | Not explosive | |
| | | ng properties | : | | r mixture is not classified as oxidizing. |
| | Particle | size | : | No data available |) |

SECTION 10. STABILITY AND REACTIVITY

| Hazardous decomposition products | | | | | |
|---|---|---|--|--|--|
| Incompatible materials | : | None. | | | |
| Conditions to avoid | : | None known. | | | |
| Possibility of hazardous reac- tions | : | Hazardous decomposition products will be formed at elevated temperatures. | | | |
| Chemical stability | : | Stable under normal conditions. | | | |
| Reactivity | : | Not classified as a reactivity hazard. | | | |

| Thermal decomposition | • | : | Hydrofluoric acid |
|-----------------------|---|---|---------------------|
| | | | Carbonyl difluoride |
| | | | Carbon dioxide |
| | | | Carbon monoxide |

SAFETY DATA SHEET

Revision Date:

09/01/2021



Date of last issue: 09/12/2020

Date of first issue: 06/21/2017

Krytox™ GPL 217

Version

5.6

| Information | on likely routes of exposure |
|--------------------------|--|
| Skin contact | |
| Ingestion Eye contact | |
| | |
| Acute toxic | ny d based on available information. |
| | sion/irritation |
| | d based on available information. |
| | |
| - | e damage/eye irritation d based on available information. |
| | |
| Respiratory | v or skin sensitization |
| Skin sensit | |
| | d based on available information. |
| | v sensitization |
| Not classifie | d based on available information. |
| | nutagenicity |
| Not classifie | d based on available information. |
| Carcinogen | licity |
| Not classifie | d based on available information. No ingredient of this product present at levels greater than or equal to 0.1 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. on OSHA's list of regulated carcinogens. |
| NTP | No ingredient of this product present at levels greater than or equal to 0.1 identified as a known or anticipated carcinogen by NTP. |
| Reproducti | ve toxicity |
| Not classifie | d based on available information. |
| STOT-singl | e exposure |
| Not classifie | d based on available information. |
| STOT-repea | ated exposure |
| Not classifie | d based on available information. |
| Aspiration t | toxicity |
| Not clossifio | d based on available information. |

SDS Number:

1765620-00012

No data available



| /ersion 5.6 | Revision Date: 09/01/2021 | SDS Number: 1765620-00012 | Date of last issue: 09/12/2020 Date of first issue: 06/21/2017 |
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| | stence and degradab Ita available | ility | |
| | cumulative potential ta available | | |
| | ity in soil ita available | | |
| | adverse effects available | | |
| ECTION | 13. DISPOSAL CONS | DERATIONS | |
| • | e from residues | : Dispose of in | accordance with local regulations. |
| Conta | Contaminated packaging : Empty containers should be taken to an approved was handling site for recycling or disposal. If not otherwise specified: Dispose of as unused produ | | |
| ECTION | 14. TRANSPORT INF | ORMATION | |
| | | | |
| Intern | national Regulations | | |
| UNRT | | us good | |
| UNRT Not re IATA- | DG egulated as a dangerou | - | |
| UNRT Not re IATA- Not re IMDG | DG egulated as a dangerou DGR | us good | |
| UNRT Not re IATA- Not re IMDG Not re Trans | FDG egulated as a dangerou DGR egulated as a dangerou -Code egulated as a dangerou | us good us good ng to Annex II of M A | ARPOL 73/78 and the IBC Code |
| UNRT Not re IATA- Not re IMDG Not re Trans Not ap | TDG egulated as a dangerou DGR egulated as a dangerou -Code egulated as a dangerou sport in bulk accordir | us good us good ng to Annex II of M A | ARPOL 73/78 and the IBC Code |
| UNRT Not re IATA- Not re IMDG Not re Trans Not ap Dome | TDG egulated as a dangerou DGR egulated as a dangerou -Code egulated as a dangerou sport in bulk accordin oplicable for product as estic regulation | us good us good ng to Annex II of M s supplied. | ARPOL 73/78 and the IBC Code |
| UNRT Not re IATA- Not re IMDG Not re Trans Not ap Dome 49 CF Not re Speci | TDG egulated as a dangerou DGR egulated as a dangerou egulated as a dangerou sport in bulk accordin oplicable for product as estic regulation | us good us good ng to Annex II of M s supplied. us good | ARPOL 73/78 and the IBC Code |
| UNRT Not re IATA- Not re IMDG Not re Trans Not ap Dome 49 CF Not re Speci Not ap | TDG egulated as a dangerou DGR egulated as a dangerou -Code egulated as a dangerou sport in bulk accordin oplicable for product as estic regulation R egulated as a dangerou al precautions for us | us good us good ng to Annex II of M s supplied. us good ser | ARPOL 73/78 and the IBC Code |
| UNRT Not re IATA- Not re IMDG Not re Trans Not ap Dome 49 CF Not re Speci Not ap SECTION | FDG egulated as a dangerou DGR egulated as a dangerou -Code egulated as a dangerou sport in bulk accordir oplicable for product as estic regulation R egulated as a dangerou ial precautions for us oplicable | us good us good ng to Annex II of M s supplied. us good ser IFORMATION | |

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

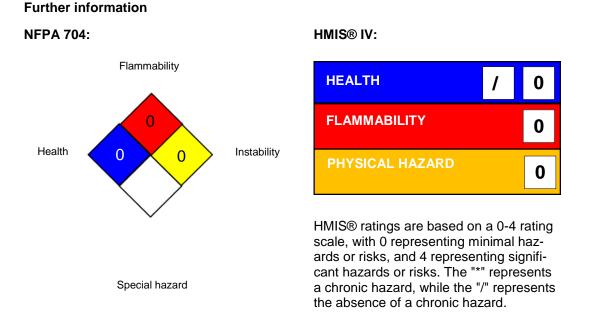
SARA 302 Extremely Hazardous Substances Threshold Planning Quantity This material does not contain any components with a section 302 EHS TPQ.



| Version 5.6 | Revision Date: 09/01/2021 | | DS Number: 765620-00012 | Date of last issue: 09/12/2020 Date of first issue: 06/21/2017 | |
|----------------|------------------------------|----|---|---|--|
| SARA | 311/312 Hazards | : | No SARA Haza | rds | |
| 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 St | ate Regulations | | | | |
| Penns | sylvania Right To Kno | ow | | | |
| | PFPE fluid | | | Trade secret | |
| Fluoropolymer | | | | Trade secret | |
| | Additive | | | Trade secret | |
| | • | | | cals 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



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For further information contact the local Chemours office or nominated distributors.

Full text of other abbreviations

| ACGIH | : | USA. ACGIH Threshold Limit Values (TLV) |
|-----------|---|---|
| NIOSH REL | : | USA. NIOSH Recommended Exposure Limits |



| Version 5.6 | Revision Date: 09/01/2021 | | OS Number: 65620-00012 | Date of last issue: 09/12/2020 Date of first issue: 06/21/2017 | | | | |
|-----------------|---------------------------|---|---|---|--|--|--|--|
| 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 | | | | | |
| ACGIH / TWA | | : | : 8-hour, time-weighted average | | | | | |
| ACGIH / STEL | | : | : Short-term exposure limit | | | | | |
| 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 / 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 weigh | ited average | | | | |
| OSHA | Z-2 / TWA | : | 8-hour time weigh | ited 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; TECI - 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 | : | Internal technical data, data from raw material SDSs, OECD |
|-----------------------------|---|--|
| compile the Material Safety | | eChem Portal search results and European Chemicals Agen- |
| Data Sheet | | cy, http://echa.europa.eu/ |

Revision Date

: 09/01/2021

SAFETY DATA SHEET



Krytox[™] GPL 217

| Version | Revision Date: | SDS Number: | Date of last issue: 09/12/2020 |
|---------|----------------|---------------|---------------------------------|
| 5.6 | 09/01/2021 | 1765620-00012 | Date of first issue: 06/21/2017 |

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