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| Version 5.3 | Revision Date: 02/20/2020 | | 0S Number: 65595-00009 | Date of last issue: 09/27/2019 Date of first issue: 06/23/2017 | | | | |
|---------------------|------------------------------|------|--|---|--|--|--|--|
| SECTION | 1. IDENTIFICATION | | | | | | | |
| Produ | Product name | | : Krytox™ GPL 205 | | | | | |
| SDS- | Identcode | : | 130000024223 | | | | | |
| Manı | facturer or supplier's | deta | ils | | | | | |
| Com | pany name of supplier | : | The Chemours Co | ompany FC, LLC | | | | |
| Address | | : | 1007 Market Street Wilmington, DE 19801 United States of America (USA) | | | | | |
| Telep | 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) | | | | | |
| Reco | mmended use of the c | hen | nical and restriction | ons on use | | | | |
| Reco | mmended use | : | : Lubricant | | | | | |
| Restrictions on use | | : | For industrial use only. Do not use or resell Chemours [™] 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. | | | | | |

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with 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

SECTION 4. FIRST AID MEASURES



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| lf ir | haled | 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. | | | | |
| lf s | wallowed | If swallowed, DO NOT induce vomiting. Get medical attention if symptoms occur. Rinse mouth thoroughly with water. | | | | |
| and | st important symptoms d effects, both acute and ayed | 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 | | | | |
| Pro | ptection of first-aiders | No special precautions are ne | ecessary for first aid responders. | | | |
| No | tes to physician | : Treat symptomatically 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. Evacuate area. |
| Special protective equipment for fire-fighters | : | Wear self-contained breathing apparatus for firefighting if necessary. |



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| Use personal protective equipment. | | | | | | | |
| SECTION 6 | 6. ACCIDENTAL RELE | AS | E MEASURES | | | | |
| Personal precautions, protec- : tive equipment and emer- gency procedures | | | | Follow safe handling advice and personal protective equipment recommendations. | | | |
| Environmental precautions : | | | Discharge into the environment must be avoided. Prevent further leakage or spillage if safe to do so. Retain and dispose of contaminated wash water. Local authorities should be advised if significant spillages cannot be contained. | | | | |
| Methods and materials for : containment and cleaning up | | : | Soak up with inert absorbent material. For large spills, provide diking or other appropriate contain- ment 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 absor- bent. Local or national regulations may apply to releases and dispo- sal of this material, as well as those materials and items em- ployed 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 | : | 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. | | | |

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

Contains no substances with occupational exposure limit values.



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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 | 3 ppm 2.5 mg/m ³ | 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/m ³ | NIOSH REL |
| | | TWA | 2 ppm 5 mg/m ³ | 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 | OSHA Z-1 |
| | | TWA | 5,000 ppm 9,000 mg/m ³ | NIOSH REL |
| | | ST | 30,000 ppm 54,000 mg/m ³ | NIOSH REL |
| 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 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



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| | | | exposure levels a | is any potential for uncontrolled release, are unknown, or any other circumstance g respirators may not provide adequate | | |
| Hand | protection | | | | | |
| Remarks | | : | Wash hands before breaks and at the end of workday. | | | |
| Eye protection | | : | Wear the following personal protective equipment: Safety glasses | | | |
| Skin and body protection | | : | Skin should be washed after contact. | | | |
| Hygiene measures | | : | If exposure to chemical is likely during typical use, proveye flushing systems and safety showers close to the wking place. When using do not eat, drink or smoke. Wash contaminated 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 flammability limit | : | No data available |
| Lower explosion limit / Lower flammability limit | : | No data available |



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| | Vapor r | pressure | | Not applicable | |
| | | e vapor density | : | Not applicable | |
| | Relative | e density | : | 1.89 - 1.93 (75 °I | = / 24 °C) |
| | Solubility(ies) Water solubility | | : | insoluble | |
| | Partition coefficient: n- octanol/water | | : | Not applicable | |
| | Autoignition temperature | | : | No data available | 9 |
| | Decomposition temperature | | : | 572 °F / 300 °C | |
| | Viscosi Visc | ty cosity, kinematic | : | Not applicable | |
| | Explosi | ve properties | : | Not explosive | |
| | Oxidizir | ng properties | : | The substance o | r mixture is not classified as oxidizing. |
| Particle size | | : | No data available | e | |

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 |
|-----------------------|---|---|
| | | Carbon monoxide |

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Skin contact Ingestion Eye contact

SAFETY DATA SHEET



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| | e toxicity assified based on ava | ailable information. | | |
| Skin (| corrosion/irritation | | | |
| Not cl | assified based on ava | ailable information. | | |
| | us eye damage/eye assified based on ava | | | |
| Respi | ratory or skin sensi | tization | | |
| | sensitization assified based on ava | ailable information. | | |
| - | ratory sensitization assified based on ava | | | |
| | cell mutagenicity assified based on ava | ailable information. | | |
| Carci | nogenicity | | | |
| Not cla IARC | | ent of this product pres | ent at levels greater than or equal to 0.1% is confirmed human carcinogen by IARC. | |
| OSHA No component of this product present at levels greater than or equal to 0.1% on OSHA's list of regulated carcinogens. | | | | |
| NTP | 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. | | | |
| • | oductive toxicity assified based on ava | allable information | | |
| | | | | |
| | -single exposure assified based on ava | ailable information. | | |
| | -repeated exposure | | | |
| | assified based on ava | | | |
| Aspir | ation toxicity | | | |
| • | assified based on ava | ailable information. | | |

Ecotoxicity No data available Persistence and degradability No data available Bioaccumulative potential No data available Mobility in soil No data available



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| Other adverse effects No data available | | | | | |
| SECTION 13. DISPOSAL CONSIDERATIONS | | | | | |
| Disp | osal methods | | | | |
| Wast | te from residues | : | Dispose of in acc | ordance with local regulations. | |
| Cont | aminated 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

SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know

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

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



Trade secret

Trade secret

Krytox[™] GPL 205

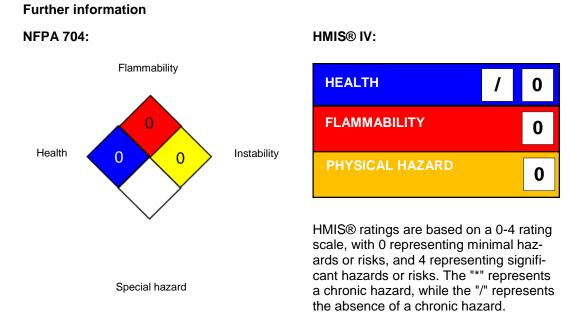
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| | | | |

PFPE fluid Fluoropolymer

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[™] 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 NIOSH REL OSHA Z-1 | : | USA. ACGIH Threshold Limit Values (TLV) USA. NIOSH Recommended Exposure Limits 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 REL / C | : | Ceiling value not be exceeded at any time. |



OSHA Z-2 / TWA

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| OSH | A Z-1 / TWA | : 8-hour time | weighted average |

:

AICS - Australian Inventory of Chemical Substances; 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

8-hour time weighted average

| 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/ |

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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.

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