

**DuPont™ Krytox® Sodium Nitrite Inhibited PFPE/PTFE Greases (GPL 22(X) Series)**

Version 0.0

Revision Date 04/03/2015

Ref. 150000001171



玺瑞科技股份有限公司

Trigger Technology Inc.

TEL : (03)553-7166 ; FAX : (03)553-7155

This SDS adheres to the standards and regulatory requirements of the United States and may not meet the regulatory requirements in other countries.

**SECTION 1. PRODUCT AND COMPANY IDENTIFICATION**

|                       |   |
|-----------------------|---|
| Product name          | : DuPont™ Krytox® Sodium Nitrite Inhibited PFPE/PTFE Greases (GPL 22(X) Series)   |
| Product Grade/Type    | : GPL: 220, 221, 222, 223, 224, 225, 226, 227, 227-500<br>XHT - AC, ACX, NDR 1466<br>FG 34<br>Corrugator: 226 FG, 227 FG<br>Hi Temp T8-26, T8-27<br>HTC: 26, 27<br>AUT 2245<br>Krytox SLB 266<br>Krytox MF440 |
| Product Use           | : Lubricant, For industrial use only.   |
| Restrictions on use   | : Do not use product for anything outside of the above specified uses   |
| Manufacturer/Supplier | : DuPont<br>1007 Market Street<br>Wilmington, DE 19898<br>United States of America  |
| Product Information   | : 1-800-441-7515 (outside the U.S. 1-302-774-1000)  |
| Medical Emergency     | : 1-800-441-3637 (outside the U.S. 1-302-774-1139)  |
| Transport Emergency   | : CHEMTREC: +1-800-424-9300 (outside the U.S. +1-703-527-3887)  |
| Other information     | : professional use  |

**SECTION 2. HAZARDS IDENTIFICATION**

Not classified as a hazardous substance or mixture according to the Occupational Safety and Health Administration (OSHA) Hazard Communication Standard 2012.

**Other hazards**

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The thermal decomposition vapours of fluorinated polymers may cause polymer fume fever with flu-like symptoms in humans, especially when smoking contaminated tobacco., Repeated episodes of polymer fume fever may result in persistent lung effects.

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

| Component      | CAS-No.   | Concentration |
|----------------|-----------|---------------|
| Sodium nitrite | 7632-00-0 | 2 %           |

**SECTION 4. FIRST AID MEASURES**

|  |   |
|--|---|
| General advice                                     | : When symptoms persist or in all cases of doubt seek medical advice.   |
| Inhalation   | : Move to fresh air in case of accidental inhalation of fumes from overheating or combustion. Oxygen or artificial respiration if needed.         |
| Skin contact                                       | : Wash with water and soap as a precaution.   |
| Eye contact  | : Rinse with plenty of water. If eye irritation persists, consult a specialist.   |
| Ingestion  | : Never give anything by mouth to an unconscious person. DO NOT induce vomiting unless directed to do so by a physician or poison control center. |
| Most important symptoms/effects, acute and delayed | : No applicable data available.   |
| Protection of first-aiders                         | : If potential for exposure exists refer to Section 8 for specific personal protective equipment.   |
| Notes to physician                                 | : Treat symptomatically.  |



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**SECTION 5. FIREFIGHTING MEASURES**

- |   |  |
|---|--|
| Suitable extinguishing media                  | : The product itself does not burn.<br>Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. |
| Unsuitable extinguishing media                | : No applicable data available.  |
| Specific hazards                              | : In fire conditions, toxic decomposition products may be formed. (see also section 10)  |
| Special protective equipment for firefighters | : Wear self-contained breathing apparatus (SCBA). Wear suitable protective equipment.  |
| Further information                           | : Standard procedure for chemical fires.   |

**SECTION 6. ACCIDENTAL RELEASE MEASURES**

NOTE: Review FIRE FIGHTING MEASURES and HANDLING (PERSONNEL) sections before proceeding with clean-up. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean-up.

- |                             |  |
|-----------------------------|--|
| Safeguards (Personnel)      | : Avoid contact with the skin and the eyes. Refer to protective measures listed in sections 7 and 8. |
| Environmental precautions   | : Prevent material from entering sewers, waterways, or low areas.                                    |
| Spill Cleanup               | : Shovel into suitable container for disposal.   |
| Accidental Release Measures | : No applicable data available.  |

**SECTION 7. HANDLING AND STORAGE**

- |                      |   |
|----------------------|---|
| Handling (Personnel) | : Avoid breathing vapors from overheated material. Do not store or consume food, drink or tobacco in areas where they may become contaminated with this material.<br>General industrial hygiene practice. |
|----------------------|---|

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Keep away from food and drink. Keep away from tobacco products. Wash hands and face before breaks and immediately after handling the product.

|                             |  |
|-----------------------------|--|
| Handling (Physical Aspects) | : No applicable data available.  |
| Dust explosion class        | : No applicable data available.  |
| Storage                     | : No special storage conditions required. Keep container closed to prevent contamination.<br>No decomposition if stored and applied as directed. |
| Storage period              | : No applicable data available.  |
| Storage temperature         | : No applicable data available.  |

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

|                               |  |
|-------------------------------|--|
| Engineering controls          | : In the event that the polymer is heated above 300°C (572 F) local ventilation should be used to avoid exposure to fumes.                                       |
| Personal protective equipment |  |
| Respiratory protection        | : No personal respiratory protective equipment normally required. In the case of hazardous fumes caused by overheating, wear self-contained breathing apparatus. |
| Hand protection               | : Additional protection: No particular glove type is recommended, but nitrile may used.  |
| Eye protection                | : Safety glasses   |
| Skin and body protection      | : No PPE is specified however, avoid contact with skin, eyes, and clothing.<br>Preventive skin protection  |
| Exposure Guidelines           |  |
| Exposure Limit Values         |  |

This product does not contain any exposure limits that require disclosure according to OSHA Hazard Communication Standard 2012.

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

|                |         |
|----------------|---------|
| Appearance     |         |
| Physical state | : solid |

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|  |  |
|--|--|
| Form                                   | : grease                                 |
| Color                                  | : white                                  |
| Odor                                   | : none                                   |
| Odor threshold                         | : No applicable data available.          |
| pH                                     | : neutral                                |
| Melting point/freezing point           | : Melting point/range<br>320 °C (608 °F) |
| Boiling point/boiling range            | : No applicable data available.          |
| Flash point                            | : closed cup<br>does not flash           |
| Evaporation rate                       | : No applicable data available.          |
| Flammability (solid, gas)              | : No applicable data available.          |
| Upper explosion limit                  | : No applicable data available.          |
| Lower explosion limit                  | : No applicable data available.          |
| Vapour Pressure                        | : No applicable data available.          |
| Vapour density                         | : No applicable data available.          |
| Specific gravity (Relative density)    | : 1.89 - 1.93 at 24 °C (75 °F)           |
| Water solubility                       | : insoluble                              |
| Solubility(ies)                        | : No applicable data available.          |
| Partition coefficient: n-octanol/water | : No applicable data available.          |
| Auto-ignition temperature              | : No applicable data available.          |
| Ignition temperature                   | : no data available                      |
| Decomposition temperature              | : 320 °C                                 |

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Viscosity, kinematic : No applicable data available.

Viscosity : No applicable data available.

**SECTION 10. STABILITY AND REACTIVITY**

Reactivity : Stable under recommended storage conditions.

Chemical stability : Stable under normal conditions.

Possibility of hazardous reactions : No applicable data available.

Conditions to avoid : Decomposition temperature 320 °C (608 °F)

Incompatible materials : No applicable data available.

Hazardous decomposition products : Hazardous thermal decomposition products:: Fluorinated compounds

**SECTION 11. TOXICOLOGICAL INFORMATION**

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Oral ALD - Approximate : &gt; 11,000 mg/kg , Rat

Lethal Dose

Oral LD50 : &gt; 5,000 mg/kg , Rat

Skin irritation : slight irritation, Rabbit

Eye irritation : slight irritation, Rabbit

Sensitisation : Animal test did not cause sensitization by skin contact., Guinea pig

Carcinogenicity : Animal testing did not show any carcinogenic effects.

Mutagenicity : In vitro skin absorption study (OECD 428) - Total amount of absorbable sodium nitrite through human skin: 0.026%

Reproductive toxicity : No toxicity to reproduction

Teratogenicity : No toxicity to reproduction

Further information : The product contains no substances classified as hazardous to health

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Sodium nitrite in concentrations which should be taken into account.

Inhalation 4 h LC50 : 1.45 mg/l , Rat  
Dust

**Carcinogenicity**

The carcinogenicity classifications for this product and/or its ingredients have been determined according to HazCom 2012, Appendix A.6. The classifications may differ from those listed in the National Toxicology Program (NTP) Report on Carcinogens (latest edition) or those found to be a potential carcinogen in the International Agency for Research on Cancer (IARC) Monographs (latest edition).

None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, or OSHA, as a carcinogen.

**SECTION 12. ECOLOGICAL INFORMATION****Aquatic Toxicity****Sodium nitrite**

96 h LC50 : Oncorhynchus mykiss (rainbow trout) 0.54 mg/l

72 h ErC50 : Desmodesmus subspicatus (green algae) > 100 mg/l

72 h NOEC : Desmodesmus subspicatus (green algae) 100 mg/l

48 h EC50 : Daphnia magna (Water flea) 15.4 mg/l

29 d : NOEC Cyprinus carpio (Carp) 21 mg/l

**Environmental Fate**

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Biodegradability : Not readily biodegradable.

Additional ecological information : The product contains no substances classified as hazardous to the environment in concentrations which should be taken into account.

**SECTION 13. DISPOSAL CONSIDERATIONS**

Waste disposal methods - : In accordance with local and national regulations.  
Product

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Contaminated packaging : Dispose of container properly.  
If recycling is not practicable, dispose of in compliance with local regulations.

**SECTION 14. TRANSPORT INFORMATION**

Not classified as dangerous in the meaning of transport regulations.

**SECTION 15. REGULATORY INFORMATION**

TSCA : On the inventory, or in compliance with the inventory  
SARA 313 Regulated Chemical(s) : Sodium nitrite  
CERCLA Reportable Quantity : 2000 lbs  
Based on the percentage composition of this chemical in the product.:  
Sodium nitrite

**SECTION 16. OTHER INFORMATION**

Restrictions for use : Do not use DuPont materials in medical applications involving implantation in the human body or contact with internal body fluids or tissues unless the material has been provided from DuPont under a written contract that is consistent with DuPont policy regarding medical applications and expressly acknowledges the contemplated use. For further information, please contact your DuPont representative. You may also request a copy of the DuPont POLICY Regarding Medical Applications and DuPont CAUTION Regarding Medical Applications.

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Contact person : MSDS Coordinator, DuPont Chemicals and Fluoroproducts, Wilmington, DE  
19898, (800) 441-7515

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