

Creation date 20-Dec-2016

Revision date 10-Mar-2025

Version 6

1. Identification

Product name Fluoroplastic Film

Product identifier NO.901UL

Product Code P040-00060100-0000

Supplier Address NITTO DENKO CORPORATION Kanto Plant
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Department responsible Quality Administration Dept.

Recommended Use Mold release sheet for molded article, insulation material for generator, etc.

2. Hazards Identification

GHS Classification
Classification of the substance or mixture Not a dangerous substance or mixture according to the Globally Harmonized System (GHS)

3. Composition/information on Ingredients

Single Substance or Mixture	Article	Chemical name	CAS RN®	Weight-%
		Polytetrafluoroethylene film	-	100

* The exact percentage (concentration) of composition has been withheld as a trade secret

4. First aid measures

If inhaled No specific intervention is indicated as item is not likely to be hazardous by inhalation. If exposed fume from overheating or combustion, move to fresh air. Seek medical attention if symptoms persist.

Skin contact Wash hands and face thoroughly after handling

Eye contact In case of contact, remove item carefully, flush eyes with water, and consult a physician

Ingestion Induce vomiting immediately. Get medical advice/attention if necessary

Most important symptoms/effects, acute and delayed No information available

Self-protection of the first aider No information available

Note to physicians No information available

5. Fire-fighting measures

Fire extinguishing agent Bags of water, ABC multi-purpose extinguisher, powder extinguisher, CO2 extinguisher

Prohibited media No information available

Special exposure hazards in a fire Generation of toxic cracked gas from PTFE under condition of high temperature or over heating

Specific extinguishing methods No information available

Advice for fire-fighters Wear full protective equipment with self-contained breathing apparatus

6. Accidental release measures

Personal Precautions Will not occur. Not specified

Protective equipment and emergency procedures Will not occur. Not specified

Environmental precautions Will not occur. Not specified

Methods and material for containment and cleaning up Will not occur. Not specified

7. Handling and Storage

Handling

Technical measures: None in particular

Local and general exhaust ventilation Smoking cigarette with trace of this substance may cause inhalation of decomposed gas. As preventive measures, prohibit smoking in work area, wash face and hands thoroughly after handling,

<u>Precautions for safe handling</u>	and prevent the substance from contacting with cigarette
<u>Remarks</u>	None in particular Provide adequate ventilation when performing high-temperature processing
<u>Storage</u>	
<u>Technical measures:</u>	None in particular
<u>Storage conditions</u>	Store at room at room temperature and normal humidity away from direct sunlight
<u>Storage conditions to avoid</u>	Avoid storage in high temperature. No smoking in storage
<u>Incompatible materials</u>	May react with oxidizing agents (aluminium powder, magnesium powder, fluorine compounds such as fluoride and trichloride fluoride) to cause fires and explosion
<u>Conditions for safe storage, including any incompatibilities</u>	Shipping package

8. Exposure Controls/Personal Protection

<u>Control parameters</u>	Unset
<u>Permissible concentration</u>	Unset
<u>Appropriate engineering controls</u>	Normally not required. To avoid cracked gas, wear full-faced respirator under condition of temperature above 260°C
<u>Personal protective equipment [PPE]</u>	
<u>Respiratory Protection</u>	Normally not required. To avoid cracked gas, wear full-faced respirator under condition of temperature above 260°C.
<u>Hand protection</u>	Not required
<u>Eye protection</u>	Not required
<u>Skin protection</u>	Not required
<u>General hygiene considerations</u>	None under normal use conditions
<u>Other</u>	Generates decomposed gas at high temperature

9. Physical and Chemical Properties

<u>Physical state</u>	Solid
<u>Color</u>	Gray
<u>Odor</u>	odorless
<u>pH</u>	No data available
<u>Melting point / Freezing point</u>	PTFE : About 327°C
<u>boiling point</u>	No data available
<u>Boiling point / boiling range</u>	No data available
<u>Flash Point</u>	No data available
<u>Autoignition temperature</u>	No data available
<u>Upper/lower flammability or explosive limits</u>	No data available
<u>Vapor pressure</u>	No data available
<u>Vapor density</u>	No data available
<u>Specific gravity</u>	approx 2.14-2.20
<u>Solubility</u>	Insoluble in water
<u>Partition Coefficient (n-octanol/water)</u>	No data available
<u>Decomposition temperature</u>	PTFE : Above 260°C
<u>Kinematic viscosity</u>	No data available
<u>Particle characteristics</u>	No data available

10. Stability and Reactivity

<u>Reactivity</u>	Stable under normal conditions of use and storage
<u>Possibility of hazardous reactions</u>	Thermal decomposition generates toxic gas
<u>Conditions to avoid</u>	This product will begin to decompose very slowly above 260°C/500°F, and accelerate decomposition above 400°C/752°F
<u>Incompatible materials</u>	May react with oxidizing agents (aluminium powder, magnesium powder, fluorine compounds such as fluoride and trichloride fluoride) to cause fires and explosion
<u>Hazardous decomposition products</u>	This product will generate per-fluoroisobutylene above 470°C/878°F. This product will also generate fluoride compounds. (Toxicity of the fluoride compounds is low.)

11. Toxicological Information

<u>Acute Toxicity</u>	PTFE : Oral LD50 (Rat) 1,250mg/kg
<u>Skin corrosion/irritation</u>	No information available
<u>Serious eye damage/eye irritation</u>	Avoid contact with eyes
<u>Respiratory sensitization</u>	Inhalation of the micro particles from heating item above melting point or above 260°C may cause polymer fume fever, a temporary flu-like illness with fever, chills and sometimes cough for long

	duration. Percutaneous absorption may not be occurred, and no information is available for skin sensitization
<u>Germ cell mutagenicity</u>	No information available
<u>Carcinogenicity</u>	PTFE : Conferences of Japan Industry Sanitation Society(1993), OSHA(1993) and NTP has no description
<u>Reproductive Toxicity</u>	No information available
<u>Specification target internal organs/systemic toxicity (single exposure)</u>	No information available
<u>Specification target internal organs/systemic toxicity (repeat exposure)</u>	No information available
<u>Aspiration hazard</u>	No information available

12. Ecological Information

<u>Persistence and degradability</u>	No information available
<u>Bioaccumulation</u>	No information available
<u>Mobility in soil</u>	No information available
<u>Hazardous to the Ozone Layer</u>	No information available

13. Disposal Considerations

<u>Waste treatment methods</u>	Disposal should be in accordance with applicable regional, national and local laws and regulations
<u>Contaminated packaging</u>	Disposal should be in accordance with applicable regional, national and local laws and regulations
<u>Other information</u>	Officially certified landfill is recommended. Incineration temperature should be above 800°C at an incineration site which possess cracked gas such as hydrogen fluoride treatment facility

14. Transport Information

<u>International regulations</u>	
<u>Transport hazard class</u>	Not Applicable
<u>UN Number</u>	Not Applicable
<u>Japanese regulation</u>	Not Applicable
<u>Special precautions in connection with transport or conveyance</u>	Do not store in long term under high temperature or leave outdoors

15. Regulatory information

<u>Local regulation</u>	Not Applicable
<u>Foreign regulation</u>	International regulations Contact NITTO for more information
<u>REACH 7 Article 33 Article SVHC notification (> 0.1 wt. %)</u>	Not Applicable

16. Other information

<u>Creation date</u>	20-Dec-2016
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<u>Version</u>	6
<u>Other information</u>	The regulatory information presented here should not necessarily be considered as all-inclusive. Other local and international regulations may also apply The above information is based on the latest information, and it is possible to be renewed without notice
<u>Key literature references and sources for data</u>	JIS Z 7252: 2019 Classification of chemicals based on "Globally Harmonized System of Classification and Labelling of Chemicals (GHS)" JIS Z 7253: 2019 Safety data sheet for chemical products -Content and order of sections JFIA Lecture text Published by JAPAN FLUOROPOLYMERS INDUSTRY ASSOCIATION Handling instruction of Fluoropolymers Published by JAPAN FLUOROPOLYMERS INDUSTRY ASSOCIATION National Institute for Occupational Safety and Health Decomposition product of fluororesin Published by JAPAN FLUOROPOLYMERS INDUSTRY ASSOCIATION(JFIA)

Dupont Canada Inc. "TEFLON" PTFE FLUOROCARBON RESIN, ALL GRADES LISTED
ONPL0016126 MSDS, Canada Center for Occupation Health and Safety (1992)

Disclaimer

Contents are based on documents, information and data which are available at this time, but nothing is guaranteed as regards content, physical and chemical properties, hazards

Also precautions are subject to ordinary handling, so please take safety measures as usage in special cases

End of Safety Data Sheet