

**Nafion® PFSA 10% Dispersions D1021**

Version 2.1

Revision Date 09/12/2011

Ref. 130000034154

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 : Nafion® PFSA 10% Dispersions D1021
Product Grade/Type : D1021FP

MSDS Number : 130000034154

Manufacturer : DuPont
1007 Market Street
Wilmington, DE 19898

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)

SECTION 2. HAZARDS IDENTIFICATION

Potential Health Effects

Before using, read the product bulletin.

Inhalation

Perfluorosulfonic acid/TFE copolymer : 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.

Carcinogenicity

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 3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS-No.	Concentration
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Perfluorosulfonic acid/TFE copolymer	31175-20-9	5 - 15 %
Water	7732-18-5	85 - 95 %
Mixed Ethers and Other VOC's		<0.09 %

SECTION 4. FIRST AID MEASURES

- Skin contact : Wash off immediately with plenty of water. Wash contaminated clothing before reuse.
- Eye contact : Rinse immediately with plenty of water and seek medical advice.
- Inhalation : Move to fresh air in case of accidental inhalation of fumes from overheating or combustion. Artificial respiration and/or oxygen may be necessary. If breathing is difficult, give oxygen. Call a physician.
- Ingestion : Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Consult a physician.

SECTION 5. FIREFIGHTING MEASURES

- Flammable Properties
- Flash point : > 93.3 °C (> 199.9 °F) closed cup
Method : Pensky-Martens closed cup - PMCC
- Fire and Explosion Hazard : Hazardous decomposition products Carbonyl fluoride Hydrogen fluoride acid fluorides Sulphur oxides
- Suitable extinguishing media : Water, Foam, Dry chemical, Carbon dioxide (CO₂)

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Firefighting Instructions : Wear self-contained breathing apparatus (SCBA). Wear suitable protective equipment. Wear neoprene gloves during cleaning up work after a fire. Evacuate personnel and keep upwind of fire. Cool containers / tanks with water spray. Protect from hydrogen fluoride fumes which react with water to form hydrofluoric acid.

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) : Wear suitable protective equipment.

Spill Cleanup : Dike spill. Recover undamaged and minimally contaminated material for reuse and reclamation. Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13). Dispose of in an approved container.

SECTION 7. HANDLING AND STORAGE

Handling (Personnel) : Avoid contact with skin, eyes and clothing.
Keep container closed.

Storage : Store in a cool, dry place away from flammable materials.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls : Use only in area provided with appropriate exhaust ventilation.

Personal protective equipment
Respiratory protection : In the case of vapour formation use a respirator with an approved filter.

Hand protection : Material: PVC or other plastic material gloves
Additional protection: When handling hot material, use heat resistant gloves.

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Eye protection : Wear safety glasses or coverall chemical splash goggles.

Skin and body protection : Where there is potential for skin contact, have available and wear as appropriate, impervious gloves, apron, pants, jacket, hood and boots.

Exposure Guidelines
Exposure Limit Values

None established.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Form : liquid
Color : clear, colourless, to, light yellow
Odor : alcohol-like
pH : 1 - 3
% Volatile : 85 - 95 %
Water

Density : 1.05 - 1.07 g/cm³
Water solubility : completely soluble

SECTION 10. STABILITY AND REACTIVITY

Stability : Stable at normal temperatures and storage conditions.

Conditions to avoid : Will react with most metals, releasing potentially explosive hydrogen gas.

Hazardous decomposition products : Hazardous decomposition products: Hydrogen fluoride, Carbonyl fluoride, Fluorinated hydrocarbons

SECTION 11. TOXICOLOGICAL INFORMATION

Perfluorosulfonic acid/TFE copolymer

Oral ALD : > 20,000 mg/kg , rat

Skin irritation : non-irritant



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Eye irritation : non-irritant

Further information : The substance is a polymer and is not expected to produce toxic effects.

SECTION 12. ECOLOGICAL INFORMATION

Aquatic Toxicity
Perfluorosulfonic acid/TFE copolymer : The substance is a polymer and is not expected to produce toxic effects.

SECTION 13. DISPOSAL CONSIDERATIONS

Waste Disposal : Preferred option for disposal is to separate solids from liquid by precipitation and decanting or filtering. Dispose of dry solids in a landfill that is permitted, licensed or registered by a state to manage industrial solid waste. Discharge liquid filtrate to a wastewater treatment system. Incinerate only if incinerator is capable of scrubbing out hydrogen fluoride and other acidic combustion products. Treatment, storage, transportation, and disposal must be in accordance with applicable federal, state/provincial, and local regulations.

SECTION 14. TRANSPORT INFORMATION

Not classified as dangerous in the meaning of transport regulations.

SECTION 15. REGULATORY INFORMATION

TSCA Status : On the inventory, or in compliance with the inventory

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SARA 313 Regulated Chemical(s) : 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.

California Prop. 65 : Chemicals known to the State of California to cause cancer, birth defects or any other harm: none known

SECTION 16. OTHER INFORMATION

	NFPA
Health :	2
Flammability :	1
Reactivity/Physical hazard :	0
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 H-50103-3 and DuPont CAUTION Regarding Medical Applications H-50102-3.

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The DuPont Oval Logo is a registered trademark of E.I. du Pont de Nemours and Company.
Consult the technical guidelines for the use of this substance/mixture.

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 given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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