



Section 1: Identification

PRODUCT AND COMPANY INFORMATION

**Product Name:** Nafion 117, hydrogen ion form, 5% w/w solution    **Molecular Formula:** N/A  
**Catalog Number:** 720  
**Company:** Scientific Polymer Products, Inc.  
6265 Dean Parkway  
Ontario, NY 14519  
**Telephone:** 585/265-0413  
**Fax:** 585/265-1390  
**Website:** www.scipoly.com  
**Emergency Phone Number:** 800-255-3924 (CHEM TEL)

Section 2: Hazards Identification

Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Flammable liquid and vapor, Category 3, H22  
Serious eye damage, Category 1, H318  
Specific target organ toxicity- single exposure, Category 3, Central nervous system, H336

GHS Label elements, including precautionary statements

Pictogram



Signal word

Danger

Hazard statement(s)

H226 Highly flammable liquid and vapor.  
H318 Causes serious eye damage.  
H336 May cause drowsiness or dizziness.

Precautionary statement(s)

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P241 Use explosion-proof electrical/ventilating/lighting/equipment.  
P303+P361+P353 IF ON SKIN(or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P405 Store locked up.  
P501 Dispose of contents/ container to an approved waste disposal plant

Hazards not otherwise classified (HNOC) or not covered by GHS – none

To the best of our knowledge, the toxicological properties of this chemical have not been thoroughly investigated. Use appropriate procedures and precautions to prevent or minimize exposure.

### Section 3: Composition/Information on Ingredients

Ingredient	CAS Number	Concentration (%)
Nafion 117	31175-20-9	5
1-Propanol	71-23-8	45
Ethyl alcohol	64-17-5	5
Water	7732-18-5	45

### Section 4: First Aid Measures

#### Description of first aid measures

##### General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

##### If inhaled

If breathed in, move person into fresh. If not breathing, give artificial respiration. Consult a physician.

##### In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

##### In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

##### If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician

##### Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11

##### Indication of any immediate medical attention and special treatment needed

No data available

### Section 5: Fire-Fighting Measures

#### Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

#### Special hazards arising from the substance or mixture

Carbon oxides, Sulfur oxides, Hydrogen fluoride

#### Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

#### Further information

Use water spray to cool unopened containers

### Section 6: Accidental Release Measures

#### Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Keep unprotected persons away. Ensure adequate ventilation. Remove all sources of ignition. For personal protection see section 8.

#### Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

**Methods and materials for containment and cleaning up**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Ensure adequate ventilation.

**Reference to other sections**

For disposal see section 13.

<b>Section 7: Handling and Storage</b>
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**Precautions for safe handling**

Keep container tightly sealed. Store in cool, dry place in tightly closed containers. Ensure good ventilation at the workplace. For precautions see section 2.

**Conditions for safe storage, including any incompatibilities**

Do not store together with acids. Store away from oxidizing agents. Water reacts with many metals to give hydrogen, often violently. Water is also incompatible with many reactive organic and inorganic chemicals. Keep container tightly sealed. Store in cool, dry conditions in well-sealed containers.

**Specific end use(s)**

Laboratory chemicals, Manufacture of substances

<b>Section 8: Exposure Controls/Personal Protection</b>
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**Control Parameters**

**Components with limit values that require monitoring at the workplace.**

**1-Propanol (71-23-8)**

PEL (USA) REL (USA)	Long term value: 500 mg/m <sup>3</sup> , 200 ppm Short-term value: 625 mg/m <sup>3</sup> , 250 ppm
TLV (USA) EL (Canada) EV (Canada)	Long term value: 500 mg/m <sup>3</sup> , 200 ppm Skin Long term value: 246 mg/m <sup>3</sup> , 100 ppm Long term value: 100 ppm Long term value: 100 ppm
<b>Ethyl alcohol (64-17-5)</b>	
PEL (USA) REL (USA)	Long term value: 1900 mg/m <sup>3</sup> , 1000 ppm Long term value: 1900 mg/m <sup>3</sup> , 1000 ppm
TLV (USA) EV (Canada)	Short term value: 1880 mg/m <sup>3</sup> , 1000 ppm Long term value: 1.900 mg/m <sup>3</sup> , 1000 ppm

**Exposure controls****Personal protective equipment****Eye/face protection**

Tightly fitting safety goggles. Faceshield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

**Skin protection**

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

**Body Protection**

Complete suit protecting against chemicals. Flame retardant antistatic protective clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**Respiratory protection**

Where risk assessment shows air purifying respirators are appropriate use a full face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Control of environmental exposure**

Prevent further leakage of spillage if safe to do so. Do not let product enter drains.

## Section 9: Physical and Chemical Properties

### Information on basic physical and chemical properties

a)	Appearance	Form: Liquid
b)	Odor	Alcoholic
c)	Odor Threshold	No data available
d)	pH	No data available
e)	Melting point/freezing point	No data available
f)	Initial boiling point and boiling range	No data available
g)	Flash point	24°C (75°F)
h)	Evaporation rate	No data available
i)	Flammability (solid, gas)	No data available
j)	Flammability or explosive limits	
	Upper	No data available
	Lower	No data available
k)	Vapor pressure	No data available
l)	Vapor density	No data available
m)	Relative density	No data available
n)	Water solubility	Soluble
o)	Partition coefficient: n- octanol/water	No data available
p)	Auto-ignition temperature	No data available
q)	Decomposition temperature	No data available
r)	Viscosity	No data available
s)	Explosive properties	No data available
t)	Oxidizing properties	No data available

### Other safety information

No data available

## Section 10: Stability and Reactivity

### Reactivity

No data available

### Chemical stability

Stable under recommended storage conditions.

### Possibility of hazardous reactions

Water reacts violently with alkali metals. Reacts with strong oxidizing agents.

### Conditions to avoid

No data available

### Incompatible materials

Acids, oxidizing agents

### Hazardous decomposition products

Carbon monoxide, carbon dioxide, sulfur oxides, hydrogen fluoride

In the event of fire: see section 5

## Section 11: Toxicological Information

### Information on toxicological effects

#### Acute toxicity

No data available

Inhalation: No data available

Dermal: No data available

**Skin corrosion/irritation**

May cause irritation

**Serious eye damage/eye irritation**

Causes serious eye damage

**Respiratory or skin sensitization**

No data available

**Germ cell mutagenicity**

No data available

**Carcinogenicity**

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

**Reproductive toxicity**

No data available

**Specific target organ toxicity - single exposure**

No data available

**Specific target organ toxicity - repeated exposure**

No data available

**Aspiration hazard**

No data available

**Additional Information**

RTECS: Not available

To the best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated.

**Section 12: Ecological Information****Toxicity**

No data available

**Persistence and degradability**

No data available

**Bioaccumulative potential**

No data available

**Mobility in soil**

No data available

**Results of PBT and vPvB assessment**

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

**Other adverse effects**

No data available

**Section 13: Disposal Considerations**

## Waste treatment methods

### Product

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional and national hazardous waste regulations to ensure complete and accurate classification.

### Contaminated packaging

Dispose of as unused product.

## Section 14: Transport Information

### DOT (US)

UN number: 1987                      Class: 3                      Packing group: III  
Proper shipping name: Alcohol, n.o.s. (n-Propanol (Propyl alcohol, normal), Ethyl alcohol)

### IMDG

UN number: 1987                      Class: 3                      Packing group: III  
Proper shipping name: Alcohol, n.o.s. (n-Propanol (Propyl alcohol, normal), Ethyl alcohol)

### IATA

UN number: 1987                      Class: 3                      Packing group: III  
Proper shipping name: Alcohol, n.o.s. (n-Propanol (Propyl alcohol, normal), Ethyl alcohol)

## Section 15: Regulatory Information

### SARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

### SARA 313 Components

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 313.

### SARA 311/312 Hazards

No hazards known

### Massachusetts Right To Know Components

Nafion 117, hydrogen ion form, 5% w/w solution	CAS No. 31175-20-9
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### Pennsylvania Right To Know Components

Nafion 117, hydrogen ion form, 5% w/w solution	CAS No. 31175-20-9
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### New Jersey Right To Know Components

Nafion 117, hydrogen ion form, 5% w/w solution	CAS No. 31175-20-9
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### California Prop. 65 Components

This product does not contain any chemicals known to the state of California to cause cancer, birth defects, or any other reproductive harm.

## Section 16: Other Information

### HMIS Rating

Health:	2
Flammability:	2
Reactivity:	1

### NFPA Rating

Health:	2
Flammability:	2
Reactivity:	1

This material is intended for laboratory use only. It is not sold or intended for drug, household or other uses. The information represents the most accurate and complete data currently available to us. However, we make no warranty, express or implied, with respect to such information, and we assume no liability resulting from its use.