



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.

Section 7: Handling and Storage
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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

Section 8: Exposure Controls/Personal Protection

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

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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.