



Section 1: Identification

PRODUCT AND COMPANY INFORMATION

Product Name: 4-Vinylpyridine Molecular Formula: C<sub>7</sub>H<sub>7</sub>N  
Catalog Number(s): M-106  
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)

Skin corrosion, Category 1B, H314  
Skin sensitization, Category 1, H317  
Serious eye damage, Category 1, H318  
Flammable liquids, Category 3, H227  
Acute toxicity, Inhalation, Category 3, H312  
Acute toxicity, Dermal, Category 3, H311  
Acute toxicity, Oral, Category 3, H302  
Environmental Chronic Category 2, H411  
EUH071-Corrosive to respiratory tract

GHS Label elements, including precautionary statements

Pictogram 

Signal word Danger

Hazard statement(s)  
H226 Flammable liquid and vapor.  
H301+H311+H331 Toxic if swallowed, in contact with skin or inhaled.  
H314 Causes serious skin burns and eye damage.  
H317 May cause an allergic skin reaction.  
H411 Toxic to aquatic life with long lasting effects.  
EUH071 Corrosive to the respiratory tract.

Precautionary statement(s)  
P210 Keep away from heat/sparks/open flames/hot surface – No smoking.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P261 Avoid breathing dust/fume/gas/mist/vapors/spray.  
P273 Avoid release into the environment.  
P240 Ground/bond container and receiving equipment.

P241	Use explosion-proof electrical/ventilating/lighting equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharges.
P270	Do not eat, drink or smoke when using this product.
P301+P310	IF SWALLOWED, immediately call a POISON CENTER or doctor/physician.
P303+P361+P353	IF ON SKIN (or hair), remove/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.
P304+P340	IF INHALED, remove victim to fresh air and keep at rest in a position comfortable for breathing.
P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P333+P313	If skin irritation or rash occurs, get medical advice/attention.
P363	Wash contaminated clothing before reuse.
P391	Collect spillage.
P302+P352	IF ON SKIN: Wash with plenty of soap and water.
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 (%)
4-Vinylpyridine	100-43-6	< =100%
Hydroquinone	123-31-9	< 0.1%

### 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 air. If not breathing, give artificial respiration. Consult a physician.

##### In case of skin contact

Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

##### In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Continue rinsing eyes during transport to hospital.

##### 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**

No data available

**Advice for firefighters**

Wear self-contained breathing apparatus for firefighting if necessary.

**Further information**

Use water spray to cool unopened containers.

<b>Section 6: Accidental Release Measures</b>
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**Personal precautions, protective equipment and emergency procedures**

Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas. For personal protection see section 8.

**Environmental precautions**

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

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

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13). Keep in suitable, closed containers for disposal.

**Reference to other sections**

For disposal see section 13.

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

Avoid contact with skin and eyes. Avoid inhalation of vapor or mist. Keep away from sources of ignition – No smoking. Take measures to prevent the build up of electrostatic charge. For precautions see section 2.

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

Keep container tightly closed in a dry and well ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Recommended storage temperature -20°C

Store under inert gas

**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 workplace control parameters**

Component	CAS No.	Value	Control parameters	Basis
Hydroquinone	123-31-9	TWA	1 mg/m <sup>3</sup>	USA. ACGIH Threshold Limit Values (TLV)
	Remarks	Eye irritation Eye damage Adopted values or notations enclosed are those for which changes are proposed in the NIC See Notice of Intended Changes (NIC) Confirmed animal carcinogen with unknown relevance to humans		

		TWA	1 mg/m <sup>3</sup>	USA. ACGIH Threshold Limit Values (TLV)
		Dermal Sensitization Eye irritation Eye damage 2015 Adoption Confirmed animal carcinogen with unknown relevance to humans		
		TWA	2 mg/m <sup>3</sup>	USA. Occupational Exposure Limits (OSHA)- Table Z-1 Limits for Air Contaminants
		TWA	2 mg/m <sup>3</sup>	USA. Occupational Exposure Limits (OSHA)- Table Z-1 Limits for Air Contaminants
		C	2 mg/m <sup>3</sup>	USA. NIOSH Recommended Exposure Limits
		15 minute ceiling value		
		PEL	2 mg/m <sup>3</sup>	California permissible exposure limits for chemical contaminants (Title 8, Article 107)

Hazardous components without workplace control parameters

#### Biological occupational exposure limits

Component	CAS No.	Parameters	Value	Biological specimen	Basis
Hydroquinone	123-31-9	Methemoglobin	1.500%	In blood	ACGIH- Biological Exposure Indices (BEI)
		Remarks	During or end of shift		

#### Exposure controls

##### Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

##### Personal protective equipment

##### Eye/face protection

Tightly fitting safety goggles. Face shield (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. 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	Strong, disagreeable odor
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	126° F (52° C) Closed cup
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	29.1 g/L at 20° C
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

Unstable

#### Possibility of hazardous reactions

Yes- autopolymerization may occur with explosion, due to over pressurization of containers

#### Conditions to avoid

This product must be stored below -10° C (14° F) in a dry environment. Allowing the material to heat uncontrollably or to absorb water and/or impurities can promote autopolymerization into vinylpyridine polymer.

#### Incompatible materials

Strong acids, oxidizers, elevated temperatures, polymerization initiators (i.e.: alkali metal-graphite composites, peroxides, etc)

#### Hazardous decomposition products

Other decomposition products- Toxic vapors may be released upon thermal decomposition (cyanides, nitrogen oxides, carbon monoxide)

In the event of fire: see section 5

### Section 11: Toxicological Information

#### Acute toxicity

LD50 Oral- Rat- 100-200mg/kg

LC50 Inhalation – Rat – 4 h – 1000-2000ppm

LD50 Dermal – Guinea pig - < 500 mg/kg

#### Skin Corrosion/Irritation

Corrosive to skin

#### Serious Eye Damage/Eye Irritation

Corrosive to eyes

**Respiratory or Skin Sensitization**

Positive for sensitizing effects in guinea pig maximization test

**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: UU1045000

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 & Degradability**

No data available

**Bioaccumulation Potential**

No data available

**Mobility in Soil**

This material is expected to have high mobility in soil. It absorbs weakly to most soil types

**Results of PBT and vPvB Assessment:**

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted. Substance is not bioaccumulative

**Other Adverse Effects**

No data available

**Section 13: Disposal Considerations****Waste treatment methods****Product**

Offer surplus and no-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

**Contaminated packaging**

Dispose of as unused product.

**Section 14: Transport Information**

**DOT (US)**

UN number: 3073                      Class: 6.1 (3.8)                      Packing group: II  
Proper shipping name: Vinylpyridines, stabilized  
Poison Inhalation Hazard: No

**IMDG**

UN number: 3073                      Class: 6.1 (3.8)                      Packing group: II  
Proper shipping name: Vinylpyridines, stabilized  
Poison Inhalation Hazard: No

**IATA**

UN number: 3073                      Class: 6.1 (3.8)                      Packing group: II  
Proper shipping name: Vinylpyridines, stabilized  
Poison Inhalation Hazard: No

**Section 15: Regulatory Information**

**SARA 302 Components**

The following components are subject to reporting levels established by SARA Title III, Section 302:

	CAS No.
Hydroquinone	123-31-9

**SARA 313 Components**

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.

**SARA 311/312 Hazards**

Fire Hazard, Acute Health Hazard

**Massachusetts Right To Know Components**

	CAS No.
Hydroquinone	123-31-9

**Pennsylvania Right To Know Components**

	CAS No.
4-Vinylpyridine	100-43-6
Hydroquinone	123-31-9

**New Jersey Right To Know Components**

	CAS No.
4-Vinylpyridine	100-43-6

**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: 3  
Flammability: 2  
Reactivity: 1

**NFPA Rating**

Health: 3  
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.