



Section 1: Identification

PRODUCT AND COMPANY INFORMATION

Product Name: 4-Vinylpyridine Molecular Formula: C₇H₇N
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.

Section 6: Accidental Release Measures

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.

Section 7: Handling and Storage

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

Section 8: Exposure Controls/Personal Protection

Control parameters

Components with workplace control parameters

Component	CAS No.	Value	Control parameters	Basis
Hydroquinone	123-31-9	TWA	1 mg/m ³	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/m3	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/m3	USA. Occupational Exposure Limits (OSHA)- Table Z-1 Limits for Air Contaminants
		TWA	2 mg/m3	USA. Occupational Exposure Limits (OSHA)- Table Z-1 Limits for Air Contaminants
		C	2 mg/m3	USA. NIOSH Recommended Exposure Limits
		15 minute ceiling value		
		PEL	2 mg/m3	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:

Hydroquinone	CAS No. 123-31-9
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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

Hydroquinone	CAS No. 123-31-9
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Pennsylvania Right to Know Components

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

New Jersey Right to Know Components

4-Vinylpyridine	CAS No. 100-43-6
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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: 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.