SAFETY DATA SHEET

Revision Date: 08/14/17

Section 1: Identification

PRODUCT AND COMPANY INFORMATION

Product Name: Acrylonitrile **Molecular Formula:** C_3H_3N

Catalog Number(s): M-156

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 liquids, Category 2, H225
Acute toxicity, Oral, Category 2, H301
Acute toxicity, Inhalation, Category 3, H331
Acute toxicity, Dermal (Category 3), H311
Skin irritation, Category 2, H315
Serious eye damage, Category 1, H318
Skin sensitization, Category 1, H317
Carcinogenicity, Category 2, H351
Reproductive toxicity, Category 2, H361
Specific target organ toxicity- single exposure, Category 3, Respiratory system, H335
Acute aquatic toxicity, Category 2, H401
Chronic aquatic toxicity, Category 2, H411

GHS Label elements, including precautionary statements

Pictogram

Signal word Danger

Hazard statement(s)

H225	Highly flammable liquid and vapor.
H301+H311+H331	Toxic if swallowed, in contact with skin or if inhaled.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H335	May cause respiratory irritation.
H351	Suspected of causing cancer.
H361	Suspected of damaging fertility or the unborn child.
H411	Toxic to aquatic life with long lasting effects.

Precautionary statement(s)

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P210	Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P233	Keep container tightly closed.
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 discharge.
P261	Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.
P264	Wash skin thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P310+P330	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Rinse mouth.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.
P304+P340+P311	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor.
P305+P351+P338+P310	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P362	Take off contaminated clothing and wash before reuse.
P370+P378	In case of fire: Use dry sand, dry chemical or alcohol resistant foam to extinguish.
P391	Collect spillage.
P403+P233	Store in a well ventilated place. Keep container tightly closed.
P403+P235	Store in a well ventilated place. Keep cool.
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 (%)
Acrylonitrile	107-13-1	100

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
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.

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
No data available

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. 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. Use explosion proof equipment. Keep away from sources of ignition- No smoking. Take measures to prevent the buildup 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.

Light sensitive.
Storage class (TRGS 510): Flammable liquids

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
Acrylonitrile	107-13-1	TWA	2 ppm	USA. ACGIH Threshold Limit Values (TLV)
	Remarks	Central Nervous System impairment Lower Respiratory Tract irritation Confirmed animal carcinogen with unknown relevance to humans Danger of cutaneous absorption		
		TWA	1 ppm	USA. NIOSH Recommended Exposure Limits
		Potential Occupational Carcinogen See Appendix A Potential for dermal absorption 15 minute ceiling value		
		C	10 ppm	USA. NIOSH Recommended Exposure Limits
		Potential Occupational Carcinogen See Appendix A Potential for dermal absorption 15 minute ceiling value		
		Substance listed; for more information see OSHA document 1910.1045		
		See 1910.1045		

Exposure controls

Appropriate engineering controls
Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

Personal protective equipment

Eye/face protection
Face shield(8-inch minimum) and tightly fitting safety goggles. 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. Discharge into the environment must be avoided.

Section 9: Physical and Chemical Properties

Information on basic physical and chemical properties

a)	Appearance	Form: Liquid
b)	Odor	No data available
c)	Odor Threshold	No data available
d)	pH	No data available
e)	Melting point/freezing point	-83° C (-117° F)
f)	Initial boiling point and boiling range	77° C (171° F)
g)	Flash point	-5° C (23° F)- 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	0.806 g/cm3
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
Vapors may form explosive mixture with air

Conditions to avoid
Heat, flames and sparks

Incompatible materials
Oxidizing agents, Copper

Hazardous decomposition products
Hazardous decomposition products formed under fire conditions- Carbon oxides, Nitrogen oxides (NOx)
Other decomposition products- no data available
In the event of fire: see section 5

Section 11: Toxicological Information

Acute toxicity
LD50 Oral- Rat- 81 mg/kg

LC50 Inhalation- Rat-male- 4 h- > 2.09 mg/l

LD50 Dermal-Rabbit-226 mg/kg

Skin Corrosion/Irritation
Skin-Rabbit
Result: Skin irritation
(OECD Test Guideline 404)

Serious Eye Damage/Eye Irritation
Eyes-Rabbit
Result: Risk of serious damage to eyes

Respiratory or Skin Sensitization
Maximization Test- Guinea pig
Result: May cause sensitization by skin contact.
(OECD Test Guideline 406)

Germ Cell Mutagenicity
No data available

Carcinogenicity:

Possible human carcinogen

IARC: 2B- Group 2b: Possibly carcinogenic to humans (Acrylonitrile)

NTP: Reasonably anticipated to be a human carcinogen (Acrylonitrile)

OSHA: OSHA specifically regulated carcinogen (Acrylonitrile).

Reproductive Toxicity
Suspected human reproductive toxicant

Specific Target Organ Toxicity – Single Exposure
May cause respiratory irritation

Specific Target Organ Toxicity – Repeated Exposure
No data available

Aspiration Hazard
No data available

Additional Information:
RTECS: AT5250000

Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes and skin.
Cough, shortness of breath, Headache, Nausea

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

Section 12: Ecological Information

Toxicity

Toxicity to daphnia And other aquatic Invertebrates	EC50- Daphnia magna (Water flea)- 7.4 - 10 mg/l - 48 h

Persistence & Degradability
Biodegradability Biotic/ Aerobic – Exposure time 28 d

Bioaccumulation Potential
Bioaccumulation Lepomis macrochirus– 14 d
-9.94 µg/l

Bioconcentration factor (BCF): 48

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
An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Toxic to aquatic life with long lasting effects.

Section 13: Disposal Considerations

Waste treatment methods

Product
Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging
Dispose of as unused product.

Section 14: Transport Information

DOT (US)
UN number: 1093 Class: 3(6.1) Packing group: I
Proper shipping name: Acrylonitrile, stabilized
Reportable Quantity (RQ): 100 lbs
Poison Inhalation Hazard: No

IMDG
UN number: 1093 Class: 3(6.1) Packing group: I
Proper shipping name: Acrylonitrile, stabilized
Marine pollutant: Yes

IATA
UN number: 1093 Class: 3(6.1) Packing group: I
Proper shipping name: Acrylonitrile, stabilized
IATA Passenger: Not permitted for transport

Section 15: Regulatory Information

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

	CAS No.
Acrylonitrile	107-13-1

SARA 313 Components
The following components are subject to reporting levels established by SARA Title III, Section 313:

	CAS No.
Acrylonitrile	107-13-1

SARA 311/312 Hazards
Fire Hazard, Acute Health Hazard, Chronic Health Hazard

Massachusetts Right To Know Components

	CAS No.
Acrylonitrile	107-13-1

Pennsylvania Right To Know Components

	CAS No.
Acrylonitrile	107-13-1

New Jersey Right To Know Components

	CAS No.
Acrylonitrile	107-13-1

California Prop. 65 Components

Warning! This product contains a chemical known to the State of California to cause cancer.

	CAS No.
Acrylonitrile	107-13-1

Section 16: Other Information

HMIS Rating		**NFPA Rating**	
Health:	2	Health:	2
Flammability:	3	Flammability:	3
Reactivity:	0	Reactivity:	0

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.