

SCIENTIFIC POLYMER PRODUCTS, INC.
MATERIAL SAFETY DATA SHEET

Effective Date: 06/96
Revision Date: 12/08

Catalog Number: M-154
Page Number: 1

Scientific Polymer urges each customer or recipient of this MSDS to study it carefully to become aware of and understand the hazards associated with the product. The reader should consider consulting reference works or individuals who are experts in ventilation, toxicology, and fire prevention, as necessary or appropriate to use and understand the data contained in this MSDS.

To promote safe handling, each customer or recipient should: 1) Notify its employees, agents, contractors and others whom it knows or believes will use this material or the information in this MSDS and any other information regarding hazards or safety; 2) Furnish this same information to each of its customers for the product; 3) Request its customers to notify their employees, customers, and other users of the product of this information.

SECTION 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name Methacrylonitrile

CAS Number: 126-98-7 **Molecular Formula:** C₄H₅N

Manufacturer Information:

Scientific Polymer Products
6265 Dean Parkway
Ontario, NY 14519

Non-Emergency Phone Number: 585/265-0413
Emergency Phone Number (24 hrs): 1-800-255-3924 (CHEM TEL)
Website: www.scientificpolymer.com

SECTION 2. COMPOSITION AND INFORMATION ON INGREDIENTS

Ingredient	CAS Number	%
Methacrylonitrile	126-98-7	>99

SECTION 3. HAZARDS IDENTIFICATION

Emergency Overview: Flammable liquid and vapor.
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Signs and Symptoms of Exposure:

INHALATION: Toxic. Harmful if inhaled. May cause drowsiness, dizziness, headaches, nausea, loss of coordination. Irritating. May cause cyanosis (blue-gray coloring of skin and lips caused by lack of oxygen).

EYES: Severely irritating.

SKIN: Toxic. Harmful if absorbed through skin. May cause skin sensitization, an allergic reaction, which becomes evident on re-exposure to this material.

INGESTION: Harmful if swallowed. Causes irritation of mouth and stomach.

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Medical Conditions Aggravated by Exposure:

Intoxications with this substances may lead to symptoms similar to those of hydrocyanic acid intoxications.

Chronic Effects: May cause reproductive effects based on studies on laboratory animals.

SECTION 4. FIRST AID MEASURES

INHALATION:

Remove to fresh air. If breathing is difficult, give oxygen. If unconscious, evaluate the need for artificial respiration. Get immediate medical attention.

EYE CONTACT:

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes, or until all material has been removed. Get immediate medical attention.

SKIN CONTACT:

Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Obtain medical attention. Wash clothing before reuse. Destroy or thoroughly clean contaminated shoes before reuse.

INGESTION:

Get immediate medical attention. Only induce vomiting if directed by a physician. Never give anything by mouth to an unconscious person.

Note to Physician:

If poisoned casualty still breathes regularly and is not unconscious let him/her rest comfortably with protection against heat loss. In any case make the casualty inhale oxygen, especially if he/she is unconscious and respiration is still regular. In case of unconsciousness, disordered respiration or respiratory arrest, immediate intensive artificial respiration only with respiration bag or special respiration by doctor on call must be supplied.

SECTION 5. FIRE FIGHTING MEASURES

Flash Point/Method:	32°F	Autoignition Temperature:	N/A
Flammable Limits:	LFL: 1.7%	UFL:	13.2%

Extinguishing Media: Foam, dry chemical, carbon dioxide

Fire Fighting Procedures:

Containers can build pressure if exposed to heat (fire). Cool with water spray. As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

Unusual Fire & Explosion Hazards:

Flammable liquid. Vapors can travel to a source of ignition and flash back. Explosive mixtures may occur at temperatures at or above the flashpoint.

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SECTION 6. ACCIDENTAL RELEASE MEASURES

Steps to be Taken if Material is Released or Spilled:

Remove sources of ignition and ventilate area. Absorb spill with inert material and place into a suitable container for disposal.

SECTION 7. HANDLING AND STORAGE

Handling:

Keep away from heat. Keep away from sparks, flames and other sources of ignition. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Use with adequate ventilation. Follow all precautions even after the container is emptied because it may retain product residues. Wash thoroughly before handling.

Storage:

Keep in the original container at a temperature not exceeding 30°C. Keep container closed when not in use. Protect from light. Residual vapors might explode on ignition; do not apply heat, cut, drill, grind or weld on or near this container. Do not store together with acids or alkalis.

SECTION 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

EXPOSURE LIMITS:

Methacrylonitrile:

ACGIH TLV-TWA: 1 ppm 2.7 mg/m³

Skin – Danger of cutaneous absorption

OEL-TWA (Alberta): 1 ppm 2.7 mg/m³

Skin designation (substance can be absorbed through intact skin)

OEL-STEL (Alberta): 2 ppm 5.5 mg/m³

Skin designation (substance can be absorbed through intact skin)

OEL-TWA (British Columbia): 1 ppm

Skin designation (skin absorption can contribute to the overall exposure)

OEL-STEL (British Columbia): 2 ppm

Skin designation (skin absorption can contribute to the overall exposure)

OEL-TWA (Ontario): 1 ppm 2.7 mg/m³ Skin designation

OEL-TWA (Quebec): 1 ppm 2.7 mg/m³ Skin designation

OEL-TWA (Mexico): 1 ppm 3 mg/m³

Mexican OEL Skin Designation: absorption through the skin, including mucous membranes and eyes, must be considered.

OEL-STEL (Mexico): 2 ppm 6 mg/m³

Mexican OEL Skin Designation: absorption through the skin, including mucous membranes and eye, must be considered.

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Personal Protective Equipment:

RESPIRATORY: A respiratory protection program meeting OSHA 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use. None required if airborne concentrations are maintained below the exposure limit listed in "Exposure Limit Information".

EYE/FACE: Tightly fitting goggles.

SKIN: Chemical-resistant gloves should be worn whenever this material is handled. Gloves should be removed and replaced immediately if there is any indication of degradation or chemical breakthrough.

Engineering Controls:

Use process enclosures, local exhaust ventilation or other engineering controls to control airborne exposure.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Clear liquid	Odor:	Characteristic
Specific Gravity:	0.800 (20°C)	Melting Point:	-35.8°C
Boiling Point:	90.3°C	Mw:	67.09
Refractive Index:	n_D^{20} 1.401	Vapor Density:	>1 (20°C) (Air = 1)
Solubility in Water:	25.7 g/l (20°C)	Evaporation Rate:	Slower than BA

SECTION 10. STABILITY AND REACTIVITY

Stability: This product is stable under normal storage conditions

Hazardous Polymerization:

Polymerization with heat evolution may occur in the presence of radical forming substances (e.g. peroxides), reducing substances, and/or heavy metal ions. Polymerization is also induced by light.

Conditions to Avoid: Avoid high temperatures and sources of ignition, ultraviolet light

Incompatibilities: Oxidizing agents, free radical initiators

Hazardous Decomposition Products: None when used as directed

SECTION 11. TOXICOLOGICAL INFORMATION

Acute Oral Toxicity:	LD50 Rat	25-50 mg/kg
Acute Inhalation Toxicity:	LC50 Rat, 4 H	900 mg/m ³
Acute Dermal Toxicity:	LD50 Rabbit	256 mg/kg
Irritant Effect on the Skin:	Rabbit, 24 H	Slightly irritating
Irritant Effect on the Eyes:	Rabbit, 24 H	Slightly irritating

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Sensitization: Guinea pig Non-sensitizing

Toxicity on Repeated Administration:
Rat, inhalational, 91 D, 19,3 – 109, 3 ppm NOAEL 19,3 ppm
Dog, inhalational, 90 D, 3,2 – 13,5 ppm NOAEL 3,2 ppm

Mutagenicity:
Positive as well as negative results in in vitro mutagenicity/genotoxicity tests. No experimental information on genotoxicity in vivo available. In summary not mutagenic according to internationally accepted criteria.

SECTION 12. ECOLOGICAL INFORMATION

Information on Elimination (Persistence and Degradability)

Biodegradability: Indications of biodegradation processes are available.

Ecotoxicological Effect:

LC50 Danio rerio, OECD 203, 96 h 354 mg/l

SECTION 13. DISPOSAL CONSIDERATIONS

Waste Disposal:

DO NOT DUMP INTO ANY SEWERS, ON THE GROUND, OR INTO ANY BODY OF WATER. All disposal practices must be in compliance with all Federal, State/Provincial and local laws and regulations. Regulations may vary in different locations. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator. SP2 HAS NO CONTROL OVER THE MANAGEMENT PRACTICES OR MANUFACTURING PROCESSES OF PARTIES HANDLING OR USING THIS MATERIAL. THE INFORMATION PRESENTED HERE PERTAINS ONLY TO THE PRODUCT AS SHIPPED IN ITS INTENDED CONDITION DESCRIBED IN SECTION 2.

SECTION 14. TRANSPORT INFORMATION

DOT-GROUND INFORMATION:

Proper Shipping Name: Not accepted for shipment
Hazard Class: N/A
Packing Group: N/A
UN#: N/A

DOT-AIR INFORMATION:

Proper Shipping Name: Not accepted for shipment
Hazard Class: N/A
Packing Group: N/A
UN#: N/A

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IATA INFORMATION:

Proper Shipping Name: Not accepted for shipment
Hazard Class: N/A
Packing Group: N/A
UN#: N/A

SECTION 15. REGULATORY INFORMATION

INVENTORY INFORMATION:

EC EINECS: Listed
USA TSCA: Listed
USA FDA: 177.1010 (copolymer)
Canada DSL: Listed
Australia AICS: Listed
Japan MITI: Listed
South Korea ECL: Listed
Philippines PICCS: Listed
New Zealand: Listed
China: Listed

US FEDERAL REGULATORY INFORMATION

Component/CAS#	TPQ (lbs)	CERCLA	SARA 302	SARA 313	TSCA 12b
Methacrylonitrile/126-98-7	500	1,000	YES	YES	NO

PRODUCT CLASSIFICATION UNDER SECTION 311/312 OF SARA (40 CFR370):

Acute, fire, reactive

US STATE REGULATORY INFORMATION

Component/CAS#	NJ	PA	MA	Calif. Prop. 65
Methacrylonitrile/126-98-7	YES	YES	YES	NO

CANADIAN REGULATION

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulation and the MSDS contains all information required by the Controlled Products Regulations.

Component/CAS#	WHMIS	NPRI
Methacrylonitrile/126-98-7	D2B	NO

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SECTION: 16. OTHER INFORMATION

HMIS HAZARD RATING

HEALTH: 3
FLAMMABILITY: 3
REACTIVITY: 1

PERSONAL PROTECTION: B

FIRE:

Material that must be preheated before ignition can occur.

HEALTH:

Materials which on exposure under fire conditions would offer no hazard beyond that of ordinary combustible material.

REACTIVITY:

Materials which in themselves are normally stable, even under fire exposure conditions, and which are not reactive with water.

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