

Section 1. Product and Company Identification

**Product Name** Alpha Methyl Styrene  
**CAS Number** 98-83-9

**Parchem - fine & specialty chemicals**  
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**New Rochelle, NY 10801**  
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CHEMTEL  
Toll Free US & Canada: 1 (800) 255-3924  
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Collect Calls Accepted

Section 2. Hazards Identification

**Classification of the substance or mixture**

**GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)**

Flammable liquids (Category 3), H226  
Eye irritation (Category 2A), H319  
Carcinogenicity (Category 2), H351  
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**

**Pictograms:**



**Signal word:** Warning

**Hazard and precautionary statements**

**Hazard statement(s)**

H226 Flammable liquid and vapor.  
H319 Causes serious eye irritation.  
H335 May cause respiratory irritation.  
H351 Suspected of causing cancer.  
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/ vapours/ spray.
- P264 Wash skin thoroughly after handling.
- P271 Use only outdoors or in a well-ventilated area.
- P273 Avoid release to the environment.
- P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
- P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
- P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/ physician if you feel unwell.
- P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P308 + P313 IF exposed or concerned: Get medical advice/ attention.
- P337 + P313 If eye irritation persists: Get medical advice/ attention.
- 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:** Lachrymator.

Section 3. Composition / Information on Ingredients

**Common Name** Alpha Methyl Styrene  
**Synonym(s)** 2-Phenylpropene; Isopropenylbenzene  
**Formula** C<sub>9</sub>H<sub>10</sub>  
**CAS Number** 98-83-9

COMPONENT	CAS NUMBER	CONCENTRATION
Alpha Methyl Styrene	98-83-9	≤ 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.

**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. 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. Firefighting Measures

##### **Extinguishing media**

**Suitable extinguishing media:** Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**Special hazards arising from the substance or mixture:** Carbon oxides

**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. 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).

**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 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. Recommended storage temperature 2 - 8 °C.

Section 8. Exposure Controls / Personal Protection

**Control parameters**

**Components with workplace control parameters**

Component	CAS-No.	Value	Control parameters	Basis
2-Phenylpropene	98-83-9	STEL	100.000000 ppm	USA. ACGIH Threshold Limit Values (TLV)
	Remarks	Central Nervous System impairment Upper Respiratory Tract irritation Adopted values or notations enclosed are those for which changes are proposed in the NIC 2010 Revision or addition to the notice of intended changes See Notice of Intended Changes (NIC) Value withdrawn on the 2009 Notice of Intended Changes		
		C	100.000000 ppm 480.000000 mg/m <sup>3</sup>	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
		The value in mg/m <sup>3</sup> is approximate. Ceiling limit is to be determined from breathing-zone air samples.		
		TWA	50.000000 ppm 240.000000 mg/m <sup>3</sup>	USA. NIOSH Recommended Exposure Limits
		ST	100.000000 ppm 485.000000 mg/m <sup>3</sup>	USA. NIOSH Recommended Exposure Limits
		TWA	10 ppm	USA. ACGIH Threshold Limit Values (TLV)
		Upper Respiratory Tract irritation Kidney damage Female reproductive damage Confirmed animal carcinogen with unknown relevance to humans		
		TWA	10.000000 ppm	USA. ACGIH Threshold Limit Values (TLV)
		Upper Respiratory Tract irritation Kidney damage Female reproductive damage Confirmed animal carcinogen with unknown relevance to humans		

**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:** Face shield and safety glasses 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:** Impervious clothing, 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 multipurpose 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 or 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

**Appearance:** Clear, liquid

**Color:** Colorless

**Melting point/range:** -24 °C (-11 °F) - lit.

**Initial boiling point and boiling range:** 165 - 169 °C (329 - 336 °F) - lit.

**Flash point:** 46 °C (115 °F) - closed cup

**Upper explosion limit:** 6.1 %(V)

**Lower explosion limit:** 0.9 %(V)

**Vapor pressure:** 2.53 hPa (1.90 mmHg) at 20 °C (68 °F)

**Vapor density:** 4.08 - (Air = 1.0)

**Relative density:** 0.909 g/cm<sup>3</sup> at 25 °C (77 °F)

**Water solubility:** 0.1 g/l at 25 °C (77 °F) - OECD Test Guideline 105 - slightly soluble

**Partition coefficient: n-octanol/water:** log Pow: 3.48 at 25 °C (77 °F)

**Auto-ignition temperature:** 574 °C (1,065 °F) at 1,013 hPa (760 mmHg)

##### Other safety information

###### Solubility in other solvents

**Diethylether:** Soluble

**Acetone:** Soluble

**Ethanol:** Soluble

**Benzene:** Soluble

**Relative vapor density:** 4.08 - (Air = 1.0)

#### Section 10. Stability and Reactivity

**Reactivity:** No data available

**Chemical stability:** Stable under recommended storage conditions.

**Possibility of hazardous reactions:** No data available

**Conditions to avoid:** Heat, flames and sparks.

**Incompatible materials:** Strong oxidizing agents, Peroxides, Organometallic compounds, Metallic salts

**Hazardous decomposition products:** In the event of fire: see section 5

Section 11. Toxicological Information

**Information on toxicological effects**

**Acute toxicity**

LD50 Oral - Rat - male and female - 2,840 mg/kg

LC50 Inhalation - Rat - male - 6 h - 22.85 mg/l

LD50 Dermal - Rabbit - male - 14,560 mg/kg

**Skin corrosion/irritation**

Skin - Rabbit

Result: Mild skin irritation - 4 h

**Serious eye damage/eye irritation**

Eyes - Rabbit

Result: Mild eye irritation - 24 h

**Respiratory or skin sensitization**

No data available

**Germ cell mutagenicity**

Ames test

S. typhimurium

Result: negative

Hamster

Lungs

Result: negative

Mutagenicity (micronucleus test)

Mouse - male

Result: negative

**Carcinogenicity**

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

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**

Inhalation - May cause respiratory irritation.



**Specific target organ toxicity - repeated exposure**

No data available

**Aspiration hazard**

No data available

**Additional Information**

Repeated dose toxicity - Rat - male and female - Oral - No observed adverse effect level - > 100 mg/kg - Lowest observed adverse effect level - 200 mg/kg  
RTECS: WL5075300  
Cough, Shortness of breath, Headache, Nausea, Vomiting  
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Section 12. Ecological Information

**Toxicity**

**Toxicity to fish:** Static test LC50 - Danio rerio (zebra fish) - 2.97 mg/l - 96 h (OECD Test Guideline 203)

**Toxicity to daphnia and other aquatic invertebrates:**

Static test EC50 - Daphnia magna (Water flea) - 1.645 mg/l - 48 h (OECD Test Guideline 202)

**Toxicity to algae:** Static test EC50 - Desmodesmus subspicatus (green algae) - 11.44 mg/l - 72 h (OECD Test Guideline 201)

**Toxicity to bacteria:** Respiration inhibition EC50 - Sludge Treatment - > 2,000 mg/l - 3 h (OECD Test Guideline 209)

**12.2 Persistence and degradability**

Biodegradability aerobic - Exposure time 28 d  
Result: 56 % - Not readily biodegradable.  
(OECD Test Guideline 301D)

**12.3 Bioaccumulative potential**

Bioaccumulation Cyprinus carpio (Carp) - 56 d  
at 25 °C - 0.3 mg/l  
Bioconcentration factor (BCF): 15 - 140  
(OECD Test Guideline 305)

**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. Avoid release to the environment.

Section 13. Disposal Considerations

**Waste Treatment Methods:** Dispose of product and contaminated packaging in accordance with all local, state, and federal environmental control regulations.



Section 14. Transport Information

**DOT (US)**

**UN number:** 2303

**Class:** 3

**Packing group:** III

**Proper shipping name:** Isopropenylbenzene

**Poison Inhalation Hazard:** No

**IMDG**

**UN number:** 2303

**Class:** 3

**Packing group:** III

**EMS-No:** F-E, S-D

**Proper shipping name:** ISOPROPENYLBENZENE

**Marine pollutant:** yes

**IATA**

**UN number:** 2303

**Class:** 3

**Packing group:** III

**Proper shipping name:** Isopropenylbenzene

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:** 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, Chronic Health Hazard

**Massachusetts Right To Know Components**

2-Phenylpropene

CAS-No. 98-83-9

Revision Date 1994-04-01

**Pennsylvania Right To Know Components**

2-Phenylpropene

CAS-No. 98-83-9

Revision Date 1994-04-01

**New Jersey Right To Know Components**

2-Phenylpropene

CAS-No. 98-83-9

Revision Date 1994-04-01





**California Prop. 65 Components:** WARNING! This product contains a chemical known to the State of California to cause cancer.

2-Phenylpropene

CAS-No. 98-83-9

Revision Date 2014-05-02

Section 16. Other Information

**Disclaimer:** The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product.

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