

(a-Methyl Styrene)

DATE PREPARED: 5/5/2014 REVISION NUMBER: 5/5/2014

Section 1 - Company Information

Parchem - fine & specialty chemicals
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Collect Calls Accepted

Section 2 – Product Identification/ Information on Ingredients

PRODUCT NAME a-Methyl Styrene

CAS NUMBER 98-83-9

PRODUCT	CAS NUMBER	% BY WEIGHT
a-Methyl Styrene	98-83-9	≥ 100%

Section 3 – Hazards Identification

Appearance: Liquid, colorless

Caution! Combustible liquid and vapor. May affect the central nervous system causing dizziness, headache, or nausea. May cause eye irritation. May cause skin and respiratory tract irritation. Prolonged or repeated contact may dry skin and cause dermatitis and burns.

Potential Health Effects

of eves.

Exposure Routes: Inhalation; Skin absorption; Skin contact; Eye contact; Ingestion **Eye Contact:** Can cause eye irritation. Symptoms include stinging, tearing, redness, and swelling

Skin Contact: Can cause skin irritation. Symptoms may include redness and burning of skin, and other skin damage. Prolonged or repeated contact may dry the skin. Symptoms may include redness, burning, and drying and cracking of skin, skin burns, and other skin damage.

Ingestion: Swallowing small amounts of this material during normal handling is not likely to cause harmful effects. Swallowing large amounts may be harmful. This material can get into the lungs during swallowing or vomiting. This results in lung inflammation and other lung injury.

Inhalation: Breathing of vapor or mist is possible. Breathing small amounts of this material during normal handling is not likely to cause harmful effects. Breathing large amounts may be harmful. Symptoms are not expected at air concentrations below the recommended exposure limits, if applicable (see Section 8.).

Aggravated Medical Condition: Preexisting disorders of the following organs (or organ systems) may be aggravated by exposure to this material: skin, lung (for example, asthma-like conditions)



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Symptoms: Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include:, allergic skin reaction (delayed skin rash which may be followed by blistering, scaling and other skin effects), stomach or intestinal upset (nausea, vomiting, diarrhea), irritation (nose, throat, airways), central nervous system depression (dizziness, drowsiness, weakness, fatigue, nausea, headache, unconsciousness) **Target Organs:** Overexposure to this material (or its components) has been suggested as a cause of the following effects in laboratory animals: mild, reversible liver effects and/or mild, reversible kidney effects.

Carcinogenicity: a-Methyl styrene has been shown to cause cancer in laboratory animals. The relevance of this finding to humans is uncertain. a-Methyl styrene is not listed as a carcinogen by the International Agency for Research on Cancer (IARC), the National Toxicology Program (NTP), or the Occupational Safety and Health Administration (OSHA).

Reproductive Hazard: This material (or a component) has been shown to cause harm to the fetus in laboratory animal studies. The relevance of these findings to humans is uncertain.

Section 4 – First Aid Measures

Eyes: If symptoms develop, immediately move individual away from exposure and into fresh air. Flush eyes gently with water for at least 15 minutes while holding eyelids apart; seek immediate medical attention.

Skin: Remove contaminated clothing. Flush exposed area with large amounts of water. If skin is damaged, seek immediate medical attention. If skin is not damaged and symptoms persist, seek medical attention. Launder clothing before reuse.

Ingestion: Seek medical attention. If individual is drowsy or unconscious, do not give anything by mouth; place individual on the left side with the head down. Contact a physician, medical facility, or poison control center for advice about whether to induce vomiting. If possible, do not leave individual unattended.

Inhalation: If symptoms develop, move individual away from exposure and into fresh air. If symptoms persist, seek medical attention. If breathing is difficult, administer oxygen. Keep person warm and quiet; seek immediate medical attention.

Notes to Physician

Hazards: This material is an aspiration hazard. Potential danger from aspiration must be weighed against possible oral toxicity (see Section 3) when deciding whether to induce vomiting. **Treatment:** No information available.

Section 5 – Fire Fighting Measures

Suitable Extinguishing Media: Dry chemical; Carbon dioxide (CO₂); Water spray **Hazardous Combustion Products:** Carbon dioxide and carbon monoxide; Toxic fumes; Hydrocarbons



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Precautions for Fire-Fighting: If product is heated above its flash point, it will produce vapors sufficient to support combustion. Vapors are heavier than air and may travel along the ground and be ignited by heat, pilot lights, other flames and ignition sources at locations near the point of release. Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can ignite explosively. Wear full firefighting turn-out gear (full Bunker gear), and respiratory protection (SCBA). Use water spray to cool fire exposed containers and structures until fire is out if it can be done with minimal risk. Avoid spreading burning material with water used for cooling purposes.

NFPA Flammable and Combustible Liquids Classification: Combustible Liquid Class II

Section 6 – Accidental Release Measures

Personal Precautions: For personal protection see Section 8. Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Ensure adequate ventilation. Eliminate all ignition sources (flares, flames including pilot lights, electrical sparks). Pay attention to the spreading of gases especially at ground level (heavier than air) and to the direction of the wind.

Environmental Precautions: Prevent spreading over a wide area (e.g. by containment or oil barriers). Do not let product enter drains. Do not flush into surface water or sanitary sewer system. Local authorities should be advised if significant spillages cannot be contained.

Methods for Cleaning Up: Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see Section 13).

Other Information: Comply with all applicable federal, state, and local regulations. Suppress (knock down) gases/vapors/mists with a water spray jet.

Section 7 – Handling & Storage

Handling: Containers of this material may be hazardous when emptied. Since emptied containers retain product residues (vapor, liquid, and/or solid), all hazard precautions given in the Safety Data Sheet must be observed. Static ignition hazard can result from handling and use. Electrically bond and ground all containers, personnel, and equipment before transfer or use of material. Special precautions may be necessary to dissipate static electricity for non-conductive containers. Use proper bonding and grounding during product transfer as described in National Fire Protection Association document NFPA

77.

Storage: Store in a cool, dry, ventilated area.



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Section 8 – Exposure Controls & Personal Protection

Exposure Guidelines

ACGIH Time Weighted Average: 10 ppm

NIOSH Recommended Exposure Limit (REL): 50 ppm NIOSH Recommended Exposure Limit (REL): 240 mg/m³

NIOSH Short Term Exposure Limit: 100 ppm NIOSH Short Term Exposure Limit: 485 mg/m³

OSHA Z1 Ceiling Limit Value: 100 ppm OSHA Z1 Ceiling Limit Value: 480 mg/m³

General Advice: These recommendations provide general guidance for handling this product. Personal protective equipment should be selected for individual applications and should consider factors which affect exposure potential, such as handling practices, chemical concentrations and ventilation. It is ultimately the responsibility of the employer to follow regulatory guidelines established by local authorities.

Exposure Controls: Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below exposure guidelines (if applicable) or below levels that cause known, suspected, or apparent adverse effects.

Eye Protection: Wear chemical splash goggles when there is the potential for exposure of the eyes to liquid, vapor or mist.

Skin and Body Protection: Wear normal work clothing including long pants, long-sleeved shirts and foot covering to prevent direct contact of the product with the skin. Launder clothing before reuse. If skin irritation develops, contact your facility health and safety professional or your local safety equipment supplier to determine the proper personal protective equipment for your use. Wear resistant gloves such as: polyvinyl alcohol. Discard gloves that show tears, pinholes, or signs of wear.

Respiratory Protection: A NIOSH-approved air-purifying respirator with an appropriate cartridge and/or filter may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits (if applicable) or if overexposure has otherwise been determined. Protection provided by air-purifying respirators is limited. Use a positive pressure, air-supplied respirator if there is any potential for uncontrolled release, exposure levels are not known or any other circumstances where an air-purifying respirator may not provide adequate protection.

Section 9 – Physical & Chemical Properties

Physical State: Liquid

Form: Liquid
Color: Colorless
Odor: Aromatic

Boiling Point/Boiling Range: 329.7°F / 165.4°C

Melting Point/Range: -9.8°F / -23.2°C Sublimation Point: No data available



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pH: No data available

Flash Point: 136.04°F / 57.80°C (Cleveland open cup)

Ignition Temperature: No data available **Evaporation Rate:** No data available

Lower Explosion Limit/Upper Explosion Limit: 1.9 % (V) / 6.1 % (V)

Particle Size: No data available

Vapor Pressure: 0.253 kPa at $7^{\circ}F / 25^{\circ}C$ Relative Vapor Density: 4.080 (air = 1) Density: 0.92 g/cm³ at $68.0^{\circ}F / 20.0^{\circ}C$

7.56 lb/gal at 77°F / 25°C **Bulk Density:** No data

Water Solubility: No data available Solubility(ies): No data available

Partition Coefficient: n-Octanol/Water: No data available

Log Pow: 3.48

Autoignition Temperature: 1066°F / 574°C Viscosity, Dynamic: No data available Viscosity, Kinematic: No data available Solids in Solution: No data available

Decomposition Temperature: No data available

Burning Number: No data available

Dust Explosion Constant: No data available **Minimum Ignition Energy:** No data available

Section 10 – Stability & Reactivity Data

Stability: Stable.

Conditions to Avoid: Avoid heat, open flame, and prolonged storage at elevated temperatures. **Incompatible Products:** Aluminum; Copper; Halogenated hydrocarbons; Halogens; Iron

chloride; Strong oxidizing agents; Peroxides; Sulfuric acid

Hazardous Decomposition Products: Carbon dioxide and carbon monoxide; Toxic fumes;

Hydrocarbons

Hazardous Reactions: Avoid exposure to excessive heat, peroxides and polymerization

catalysts. Product will not undergo hazardous polymerization.

Thermal Decomposition: No data

Section 11 – Toxicological Information

Acute Oral Toxicity: LD 50 Rat: 4900 mg/kg

Acute Inhalation Toxicity: LC Lo Rat: 3000 ppm; 4 h Acute Dermal Toxicity: LD Lo Rabbit: 14.6 g/kg



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Section 12 – Ecological Information

Biodegradability: No data available **Bioaccumulation:** No data available

Ecotoxicity Effects

Toxicity to Fish: No data available

Toxicity to Daphnia and other Aquatic Invertebrates: No data available

Toxicity to Algae: No data available **Toxicity to Bacteria:** No data available

Biochemical Oxygen Demand (BOD): No data available Chemical Oxygen Demand (COD): No data available Additional Ecological Information: No data available

Section 13 – Disposal Consideration

Dispose of product and contaminated packaging in accordance with all local, state and federal environmental control regulations.

Section 14 – Transportation Data

Mexican Regulation for the Land Transport of Hazardous Materials and Wastes

UN Number: UN2303

Proper Shipping Name: Isopropenylbenzene

Hazard Class: 3
Subsidiary Hazards: Packing Group: |||

Marine Pollutant / LTD. QTY.: -

International Air Transport Association - Passenger

UN Number: UN2303

Proper Shipping Name: Isopropenylbenzene

Hazard Class: 3
Subsidiary Hazards: Packing Group: |||

Marine Pollutant / LTD. QTY.: -

International Air Transport Association - Cargo

UN Number: UN2303

Proper Shipping Name: Isopropenylbenzene

Hazard Class: 3
Subsidiary Hazards: Packing Group: Ⅲ

Marine Pollutant / LTD. QTY.: -



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International Maritime Dangerous Goods

UN Number: UN2303

Proper Shipping Name: Isopropenylbenzene

Hazard Class: 3
Subsidiary Hazards: Packing Group: |||

Marine Pollutant: Alpha-methyl styrene

Transport Canada - Inland Waterways

UN Number: UN2303

Proper Shipping Name: Isopropenylbenzene

Hazard Class: 3 Subsidiary Hazards: -Packing Group: Ⅲ

Marine Pollutant: Alpha-methyl styrene

Transport Canada - Rail UN Number: UN2303

Proper Shipping Name: Isopropenylbenzene

Hazard Class: 3 Subsidiary Hazards: -Packing Group: Ⅲ

Marine Pollutant / LTD. QTY.: -

Transport Canada - Road UN Number: UN2303

Proper Shipping Name: Isopropenylbenzene

Hazard Class: 3
Subsidiary Hazards: Packing Group: |||

Marine Pollutant / LTD. QTY.: -

U.S. DOT - Inland Waterways

UN Number: UN2303

Proper Shipping Name: Isopropenylbenzene

Hazard Class: 3
Subsidiary Hazards: Packing Group: |||

Marine Pollutant: Alpha-methyl styrene



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U.S. DOT - Rail

UN Number: UN2303

Proper Shipping Name: Isopropenylbenzene

Hazard Class: 3 Subsidiary Hazards: -Packing Group: Ⅲ

Marine Pollutant: Alpha-methyl styrene

Dangerous goods descriptions (if indicated above) may not reflect quantity, end-use or regionspecific exceptions that can be applied. Consult shipping documents for descriptions that are specific to the shipment.

Section 15 – Regulatory Information

California Prop. 65: This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

SARA Hazard Classification: Fire Hazard. Acute Health Hazard. Reactivity Hazard.

SARA 313: 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.

New Jersey RTK Label Information: Alpha methyl styrene, 98-83-9 Pennsylvania RTK Label Information: Alpha methyl styrene, 98-83-9

Notification Status

Australia - Industrial Chemical (Notification and Assessment) Act: Positive listing
Canada - Canadian Environmental Protection Act (CEPA); Domestic Substances List

(DSL). (Can. Gaz. Part II, Vol. 133): Positive listing

China - Inventory of Existing Chemical Substances: Positive listing

Japan - Kashin-Hou Law List: Positive listing
US - Toxic Substances Control Act: Positive listing

Korea - Toxic Chemical Control Law (TCCL) List: Positive listing

Philippines - The Toxic Substances and Hazardous and Nuclear Waste Control Act:

Positive listing

Japan - Industrial Safety & Health Law (ISHL) List: Positive listing

New Zealand - Inventory of Chemicals (NZIoC), as published by ERMA New

Zealand: Positive listing



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HMIS Health: 2

Flammability: 2 Physical Hazards: 1 Specific Hazard: -

NFPA Health: 2 Flammability: 2 Instability: 1 Specific Hazard: -

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.

OCICO COMPANDA Specialty chemicals