



ISO 9001:2000
Certificate No.: CH98/8032

ISO 14001:2004
Certificate No.: CH03/0112

OHSAS 18001:1999
Certificate No.: CH05/0675

Address:

No. 3, Taban St.
Vali-e-Asr Ave.
Tehran - IRAN

Tel:

(+98 21)82122700

Fax:

(+98 21)8867 4126-27

Web-site:

arpc-ir.com

E-mail:

info@arpc-ir.com

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Vinyl Acetate Monomer (VAM) 99%
CHEMICAL FORMULA: $C_4H_6O_2$
CAS Number: 108-05-4
EINECS Number: 203-545-4
MANUFACTURER: Shazand (Arak) Petrochemical Corporation
No.68., West Taban St., Vali-e-Asr Ave.,
Tehran-Iran
Tel: (+98 21)821227-04 Fax: (+9821)88674126-37

EMERGENCY

TELEPHONE NUMBER: (+98 86) 32633

2. HAZARD IDENTIFICATION

GHS Classification:

- Flammable Liquid, Category 2
- Acute Toxicity (Inhalation), Category 4
- Skin Irritation, Category 2
- Eye Irritation, Category 2A
- Carcinogenicity, Category 2

GHS Label Elements:

- **Signal Word:** Danger
- **Hazard Statements:**
 - H225: Highly flammable liquid and vapor
 - H315: Causes skin irritation
 - H319: Causes serious eye irritation
 - H332: Harmful if inhaled
 - H351: Suspected of causing cancer

Precautionary Statements:

- P210: Keep away from heat/sparks/open flames
- P280: Wear protective gloves/eye protection
- P302+P352: If on skin: Wash with soap and water
- P305+P351+P338: If in eyes: Rinse cautiously with water



3. COMPOSITION / INFORMATION ON THE COMPONENTS

Component	CAS Number	EC Number	Content
Vinyl Acetate	108-05-4	EEC No. 203-545-4	≥ 99.9%
Hydroquinone	123-31-9	EEC No. 204-617-8	< 0.01



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4. FIRST AID MEASURES

Inhalation: Remove victim to fresh air. Keep warm and at rest. If symptoms persist, seek medical attention. Administer oxygen if breathing is difficult.

Skin Contact: Remove contaminated clothing. Wash thoroughly with soap and water. If irritation persists, get medical help.

Eye Contact: Rinse cautiously with clean water for at least 15 minutes, keeping eyelids open. Seek immediate medical advice.

Ingestion: Do not induce vomiting. Rinse mouth with water. Seek immediate medical attention.

5. FIREFIGHTING MEASURES

Suitable Extinguishing Media: Alcohol-resistant foam, dry chemical powder, CO₂, water spray.

Unsuitable Extinguishing Media: Alcohol-resistant foam, dry chemical powder, CO₂, water spray.

Specific Hazards: Vapors are heavier than air and may travel long distances to ignition sources. Explosive mixtures possible. Combustion produces CO, CO₂, and irritating vapors.

Protective Equipment for Firefighters: Self-contained breathing apparatus (SCBA) and full protective suit.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: Remove all ignition sources. Ventilate area. Use protective clothing, gloves, goggles, and respirator.

Environmental Precautions: Prevent entry into sewers, soil, and waterways. Notify authorities if large spill occurs.

Methods for Cleaning: Absorb with inert material (sand, earth, vermiculite). Collect in suitable containers for disposal. Wash spill area with plenty of water.

7. HANDLING AND STORAGE

Handling:

- Avoid breathing vapors.
- Avoid contact with skin, eyes, and clothing.
- Use explosion-proof equipment.
- Ground all containers.
- Do not use near open flames.

Storage:

- Store in tightly closed containers with inhibitor (hydroquinone).
- Keep in cool, dry, well-ventilated area.
- Protect from sunlight and heat.
- Recommended storage temperature: 5–30 °C.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Limits:

- ACGIH TLV: 10 ppm (TWA)
- OSHA PEL: 10 ppm (8h TWA).



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Engineering Controls: Local exhaust ventilation, explosion-proof ventilation systems.

Respiratory Protection: If exposure exceeds limits: use approved respirator with organic vapor cartridge.

Eye Protection: Safety goggles with side-shields.

Skin Protection: Chemical-resistant gloves (nitrile, neoprene). Protective clothing.

Hygiene Measures: Wash hands and face after handling. Do not eat, drink, or smoke during use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Property	Value
Appearance	Clear, colorless liquid
Odor	Sweet, pungent
Molecular Weight	86.09 g/mol
Boiling Point	~72 °C
Melting Point	-93 °C
Flash Point	-8 °C (closed cup)
Autoignition Temperature	427 °C
Density	0.932 g/cm ³ at 20 °C
Vapor Pressure	90 mmHg at 20 °C
Solubility	Slightly soluble in water; miscible with alcohols, ethers, and most organic solvents
Partition Coefficient (log Kow)	0.73
Viscosity	0.41 mPa s at 25 °C

10. STABILITY AND REACTIVITY

Chemical Stability: Stable with inhibitor under recommended storage.

Hazardous Reactions: Exothermic polymerization possible without inhibitor.

Conditions to Avoid: Heat, sparks, static electricity, direct sunlight.

Incompatible Materials: Strong oxidizers, acids, bases, peroxides, polymerization initiators.

Hazardous Decomposition Products: Carbon monoxide, carbon dioxide, acetic acid, irritating fumes.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity: Oral LD₅₀ (rat): ~3,470 mg/kg; Inhalation LC₅₀ (rat, 4h): ~11.4 mg/L.

Skin: Causes irritation; may cause dermatitis on prolonged contact.

Eyes: Causes severe irritation and redness.

Respiratory: Harmful if inhaled; may cause headache, dizziness, nausea.

Chronic Effects: Suspected carcinogen (IARC 2B). Prolonged exposure may affect liver and kidneys.



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12. ECOLOGICAL INFORMATION

Aquatic Toxicity: Harmful to aquatic life (LC₅₀ fish: ~35 mg/L, 96h).

Mobility: Mobile in soil; volatile.

Persistence and Degradability: Readily biodegradable under aerobic conditions.

Bioaccumulation: Low potential (log Kow < 1).

Other: Prevent contamination of soil and water.

13. DISPOSAL CONSIDERATIONS

Waste Disposal: Incinerate in approved facility. Do not discharge into drains or environment.

Contaminated Packaging: Empty containers may retain vapors. Dispose according to local regulations.

14. TRANSPORT INFORMATION:

UN Number: 1301

UN Hazard Class: 3 (Flammable liquid)

UN Packing Group: II

Proper Shipping Name: Vinyl Acetate, stabilized.

Label: Flammable liquid, Toxic.

Marine Pollutant: No.

Special Precautions: Must contain stabilizer (hydroquinone) during transport.

15. REGULATORY INFORMATION

European information

EC NO: 203-545-4

- R-11 Highly flammable
- S-16 Keep away from sources of ignition- no smoking
- S-23 Do not breathe fumes/ vapour/spray
- S -29 Do not empty into drains
- S-33 Take precautionary measures against static discharges

US information

- Is listed in EPA TSCA chemical inventory.
- None of the chemicals in this product are listed under TSCA section 12b
- This chemical has an RQ=5000 lbs under SARA Section 302 RQ
- This chemical has an TPQ= 1000 lbs under SARA Section 302 TPQ
- This chemical is reported under SARA Section 313
- This chemical doesn't contain any class1 & class2 ozone depletors , but listed as hazardous air pollutants under 'Clean Air Act'
- This chemical is listed as Hazardous substances or priority pollutants or Toxic substances list under 'Clean Water Act'



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16. OTHER INFORMATION

Source of Data: Information compiled from the Technical Data Sheet (TDS) of Shazand (Arak) Petrochemical Company, public data from ECHA, OSHA, ACGIH, IARC, NIOSH, and international CLP/GHS regulations.

Manufacturer's License: Product manufactured under Casale license (Switzerland) using advanced catalytic technology.

Revision Information: This MSDS has been prepared in 2025. Users are advised to check regularly for updates in REACH/CLP and OSHA regulations.

Disclaimer of Liability: The information contained herein is based on current knowledge and supplier data and is intended for informational purposes only. It does not relieve the user from responsibility to comply with local legislation, regulations, and workplace safety requirements. Neither the manufacturer nor the supplier shall be held liable for any damage resulting from misuse, mishandling, or improper storage of the product.

Training Recommendations:

Personnel handling Vinyl Acetate Monomer must be trained in:

- Safe handling of flammable liquids
- Use of respiratory and skin protection
- Emergency procedures in case of fire or accidental release
- First aid measures for inhalation and skin/eye contact

Additional Remarks:

- Not for household use.
- Hydroquinone inhibitor levels must be monitored during storage and transportation.
- For technical support or additional safety information, contact the manufacturer or authorized distributor.
- International transport must comply with ADR/IMDG/IATA standards and use certified containers with appropriate hazard labeling.

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