

Material Safety Data Sheet Ethylene Vinyl Alcohol Copolymer

Section 1 - Product Identification

Synonym : EVOH.
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Recommended use : Industrial use.

Section 2 – Hazards Identification

2.1. Classification

Not a dangerous substance or mixture according to the Globally Harmonized System (GHS)

2.2. Label elements

Symbols/Pictograms

Not applicable

Signal Word

Not applicable

Hazard Statements

Not applicable

Precautionary Statements

Not applicable

2.3. Other hazards

Not applicable

Section 3 – Composition/Information on Ingredients

3.1 Composition comments

Chemical Name	EC No/CAS No	Purity, %
Ethylene Vinyl Alcohol Copolymer (EVOH)	26221-27-2	99.7

Section 4 – First-Aid Measures

4.1. Description of first aid measures

Eyes

Rinse with water. Get medical attention if irritation develops and persists.

Skin

Wash off with soap and water. Get medical attention if irritation develops and persists.

Ingestion

Rinse mouth. Get medical attention if symptoms occur.

Inhalation

Move to fresh air. Call a physician if symptoms develop or persist.

4.2. Most important symptoms and effects, both acute and delayed

Direct contact with eyes may cause temporary irritation.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

Section 5 – Fire Fighting Measures

5.1. Suitable Extinguishing media

Water fog. Foam. Dry chemical powder. Carbon dioxide (CO₂).

5.2. Unsuitable Extinguishing media

Do not use a water jet as an extinguisher, as this will spread the fire.

5.3. Specific hazards arising from the chemical

During fire, gases hazardous to health may be formed.

5.4. Special protective actions for fire-fighters

Use water spray to cool unopened containers. Self-contained breathing apparatus and full protective clothing must be worn in case of fire. Use standard firefighting procedures and consider the hazards of other involved materials.

Section 6 – Accidental Release Measures

6.1. Personal precautions, protective equipment and emergency procedures

Keep unnecessary personnel away. For personal protection, see section 8 of the MSDS.

6.2. Environmental precautions

Avoid discharge into drains, water courses or onto the ground.

6.3. Methods and material for containment and cleaning up

Avoid discharge into drains, water courses or onto the ground. The product is immiscible with water and will spread on the water surface. Stop the flow of material, if this is without risk. Following product recovery, flush the area with water. For waste disposal, see section 13 of the MSDS.

Section 7 – Handling and Storage

7.1. Precautions for safe Handling

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

7.2. Conditions for safe storage, including any incompatibilities

Store away from incompatible materials (see Section 10 of the MSDS). Store in original tightly closed container.

Section 8 – Exposure Controls/Personal Protection

8.1. Appropriate engineering controls

Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

8.2. Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection

Wear safety glasses with side shields (or goggles).

Skin protection

Wear appropriate chemical resistant gloves.

Body Protection

Wear suitable protective clothing.

Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment.

Section 9 – Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Physical State: Solid

Appearance: Translucent or White Pellets.

Odor: Odorless.

Vapor Pressure: Not available

Vapor Density: Not available

Boiling Point: Not available

Flash point: ca. 300°C

Auto-ignition temperature: > 788 °F (> 420 °C)

Freezing/Melting Point: 302 - 392 °F (150 - 200 °C)

Decomposition Temperature: > 572 °F (> 300 °C)

Solubility: Soluble in water-alcohol solution, DMSO.

Specific Gravity: 1.1 - 1.24

Section 10 – Stability and Reactivity

10.1. Reactivity

The product is stable and non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal temperatures and pressures.

10.3. Possibility of hazardous reactions

No dangerous reaction known under conditions of normal use.

10.4. Conditions to avoid:

Avoid temperatures exceeding the decomposition temperature. Contact with incompatible materials.

10.5. Incompatible materials

Strong oxidizing agents.

10.6. Hazardous decomposition products

No hazardous decomposition products are known.

Section 11 – Toxicological Information

11.1 Health effects associated with ingredients

Acute toxicity

LD50 Rat > 5000 mg/kg

Skin corrosion/irritation

Prolonged skin contact may cause temporary irritation.

Serious eye damage/eye irritation

Direct contact with eyes may cause temporary irritation.

Respiratory or skin sensitization

Not a respiratory sensitizer. This product is not expected to cause skin sensitization.

Germ cell mutagenicity

No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity

Not available.

Reproductive toxicity

This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity - single exposure

Not classified.

Specific target organ toxicity - repeated exposure

Not classified.

Aspiration hazard

Not an aspiration hazard.

Section 12 – Ecological Information

12.1. Ecotoxicity

The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

12.2. Bioaccumulative potential

Not available.

12.3. Mobility in soil

The product is immiscible with water and will spread on the water surface.

12.4. Persistence and Degradability

Not available.

12.5. Other adverse effects

No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

Section 13 – Disposal Considerations

13.1. Disposal methods

Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. Follow label warnings even after the container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

When your own wastewater treatment plant is not available, collect entire waste and then charge to a licensed industrial waste management professional with manifests for industrial waste.

Section 14 – Transport Information

14.1. US DOT

Not regulated

14.2. IMDG

Not regulated

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

No information available

14.3. IATA

Not regulated

Section 15 – Regulatory Information

15.1. Safety, health and environmental regulations

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.

Section 16 : Additional Information

16.1. List of abbreviation and acronyms used in this MSDS

SDS : Safety Data Sheets

Index N° : atomic number of the element most characteristic of the properties of the substance

CAS No : Chemical Abstracts Service number

EC No : EINECS Number : European Inventory of Existing Commercial Substances

Repr. Cat. 2 : Substance presumed human reproductive toxicant

Acute Oral Cat. 5 : Substance which is of relatively low acute oral toxicity.

GHS : Globally Harmonised System of Classification and Labelling

LD₅₀ : Median Lethal Dose

LC₅₀ : Lethal Concentration, 50%

N.A. : Not Applicable

OSHA : Occupational Safety & Health Administration

Cal OSHA : The State of California Division of Occupational Safety and Health (DOSH)

PEL : Permissible Exposure Limits

ACGIH : American Conference of Governmental Industrial Hygienists

TLV : Threshold Limit Value

Japanese MITI : Japanese Ministry of International Trade and Industry

EC₅₀ : Half maximal effective concentration

UN : United Nations

U.S. EPA TSCA Inventory: Inventory of the chemical substances manufactured or processed in the United States according to Toxic Substances Control Act compiled and published under the authority of the Environmental Protection Agency

Canadian DSL: Canadian Domestic Substances List

16.2. List of relevant hazard statements and precautionary statements used in this MSDS

Hazard Statement

H361 d: Suspected of damaging the unborn child

H319: Causes serious eye irritation

H303: May be harmful if swallowed

Precautionary Statements

Prevention

P201: Obtain special instructions before use.

P202: Do not handle until all safety precautions have been read and understood.

P281: Use personal protective equipment as required.

P264: Wash eyes thoroughly after handling.

P280: Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response

P308 + P313: If exposed or concerned: get medical advice/attention.

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

P337+P313: If eye irritation persists: Get medical advice/attention.

Storage

P405: Store locked up.

Disposal

P501: Dispose of contents/container in accordance with local regulations.

16.3. Disclaimer of Liability

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