# MATERIAL SAFETY DATA SHEET

# Vinyl acetate monomer

**Section 1 Product and Company Identification**

**> Product Identifier**

**Product Name VINYL ACETATE**
Synonyms -
CAS No. 108-05-4
EC No. 203-545-4
Molecular Formula C4H6O2

**> Relevant Identified Uses of the Substance or Mixture and Uses Advised Against**

Relevant Identified Uses Please consult manufacturer.
Uses Advised Against Please consult manufacturer.

**> Details of the Supplier of the Safety Data Sheet**

COSMO CHEMISTRY

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Surat, Gujarat, India – 395006

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**Hazard class and label elements of the product according to GHS (the seventh revised edition):**

Flammable Liquids Category 2
Acute Toxicity – Oral Category 5
Acute Toxicity – Dermal Category 5
Acute Toxicity – Inhalation Category 4
Specific Target Organ Toxicity (Single Exposure) Category 3
Carcinogenicity Category 2

**> GHS Label Elements**

Pictogram

Signal Word Danger

**> Hazard Statements**

H225 Highly flammable liquid and vapour
H303 May be harmful if swallowed
H313 May be harmful in contact with skin
H332 Harmful if inhaled
H335 May cause respiratory irritation
H351 Suspected of causing cancer

**> Precautionary Statements**

**Prevention**

P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P210 Keep away from heat, hot surfaces, sparks,open flames and other ignition sources. No smoking.
P233 Keep container tightly closed.
P240 Ground and bond container and receiving equipment.
P241 Use explosion-proof [electrical/ventilating/lighting] equipment.
P242 Use non-sparking tools.
P243 Take action to prevent static discharges.
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves/protective clothing/eye protection/face protection.

**Response**

P312 Call a POISON CENTER/doctor,if you feel unwell.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P308+P313 IF exposed or concerned: Get medical advice/ attention.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

**Storage**

P405 Store locked up.
P403+P233 Store in a well-ventilated place. Keep container tightly closed

P403+P235 Store in a well-ventilated place. Keep cool.

**Disposal**

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

**Section 3 Composition/Information on Ingredients**

| Component | Concentration (weight percent, %) | CAS No. | EC No. |
|---|---|---|---|
| VINYL ACETATE | 99 | 108-05-4 | 203-545-4 |

**Section 4 First Aid Measures**

Description of First Aid Measures

General Advice Immediate medical attention is required. Show this safety data sheet (SDS) to the doctor in attendance.

Eye Contact Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician if feel uncomfortable.

Skin Contact Take off contaminated clothing and shoes immediately. Wash off with plenty of water for at least 15 minutes and consult a physician if feel uncomfortable.

Ingestion Do not induce vomiting. Never give anything by mouth to an unconscious person. Call a physician or Poison Control Center immediately.

Inhalation
Move victim into fresh air. If breathing is difficult, give oxygen. Do not use mouth to mouth resuscitation if victim ingested or inhaled the substance. If not breathing, give artificial respiration and consult a physician immediately.

Protecting of First-aiders
Ensure that medical personnel are aware of the substance involved. Take precautions to protect themselves and prevent spread of contamination.

**> Most Important Symptoms and Effects, both Acute and Delayed**

**1** Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure.

> Indication of Any Immediate Medical Attention and Special Treatment Needed

1 Treat symptomatically.
2 Symptoms may be delayed.

**Section 5 Fire Fighting Measures**

Extinguishing Media

Suitable Extinguishing Media Dry chemical, carbon dioxide or alcohol-resistant foam.

Unsuitable Extinguishing Media Do not use a solid water stream as it may scatter or spread fire.

**> Specific Hazards Arising from the Substance or Mixture**

1 Will form explosive mixtures with air.
2 Fire exposed containers may vent contents through pressure relief valves thereby increasing fire intensity and/ or vapour concentration.
3 Vapours may travel to source of ignition and flash back.
4 Liquid and vapour are flammable.
5 Containers may explode when heated.
6 Fire exposed containers may vent contents through pressure relief valves.

**> Advice for Firefighters**

1 As in any fire, wear self-contained breathing apparatus （MSHA/NIOSH approved or equivalent)and full protective gear.
2 Fight fire from a safe distance, with adequate cover.
3 Prevent fire extinguishing water from contaminating surface water or the ground water system.

**Section 6 Accidental Release Measure**

**> Personal Precautions, Protective Equipment and Emergency Procedures**

1 Avoid breathing vapors and contacting with skin and eye.
2 Beware of vapours accumulating to form explosive concentrations.
3 Vapours can accumulate in low areas.
4 Emergency personnel wear positive pressure self-contained breathing apparatus. Wear protective and anti-static clothing. Wear chemical impermeable gloves.
5 Ensure adequate ventilation. Remove all sources of ignition.
6 Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.
7 Use personal protective equipment. Avoid breathing vapours, mist, gas or dust.

**> Environmental Precautions**

1 Prevent further leakage or spillage if safe to do so.
2 Discharge into the environment must be avoided.

**> Methods and Materials for Containment and Cleaning Up**

1 Absorb spilled material in dry sand or inert absorbent. In case of large amount of spillage, contain a spill by bunding.
2 Adhered or collected material should be promptly disposed of, in accordance with appropriate la and regulations.
3 Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment.

## Section 7 Handling and Storage

### > Precautions for Handling

1 Avoid inhalation of vapors.
2 Use only non-sparking tools.
3 To prevent fire caused by electrostatic discharge steam, equipment on all metal parts should be grounded.
4 Use explosion proof equipment.
5 Handling is performed in a well ventilated place.
6 Wear suitable protective equipment.
7 Avoid contact with skin and eyes.
8 Keep away from heat/sparks/open flames/ hot surfaces.
9 Take precautionary measures against static discharges.

### > Precautions for Storage

1 Keep containers tightly closed.

2 Keep containers in a dry, cool and well-ventilated place.
3 Keep away from heat/sparks/open flames/ hot surfaces.
4 Store away from incompatible materials and foodstuff containers.

## Section 8 Exposure Controls/Personal Protection

### > Control Parameters

**Occupational Exposure Limit Values**

| Component | Country/Region | Limit Value - Eight Hours (ppm) | ($mg/m^3$) | Limit Value - Short Term (ppm) | ($mg/m^3$) |
|---|---|---|---|---|---|
| VINYL ACETATE 108-05-4 | USA - NIOSH | - | - | 4 | 15 |
| | South Korea | 10 | - | 15 | - |
| | Ireland | 5 | 18 | 10 | 35 |
| | Germany (AGS) | 5 | 18 | 10 | 36 |
| | Denmark | 10 | 30 | 20 | 60 |
| | Australia | 10 | 35 | 20 | 70 |

**Biological Limit Values**

No information available

**Monitoring Methods**

1 EN 14042 Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents.
2 GBZ/T 160.1~GBZ/T 160.81-2004 Determination of toxic substances in workplace air（Series standard）.

**> Engineering Controls**

1 Ensure adequate ventilation, especially in confined areas.
2 Ensure that eyewash stations and safety showers are close to the workstation location.
3 Use explosion-proof electrical/ventilating/lighting/equipment.
4 Set up emergency exit and necessary risk-elimination area.

**> Personal Protection Equipment**

Eye Protection Tightly fitting safety goggles (approved by EN 166(EU) or NIOSH (US).

Hand Protection Wear protective gloves（such as butyl rubber）, passing the tests according to EN 374(EU),US F739 or AS/NZS 2161.1 standard.

Respiratory protection
If exposure limits are exceeded or if irritation or other symptoms are experienced, use a full-face respirator with multi-purpose combination (US) or type AXBEK (EN 14387) respirator cartridges.

Skin and Body Protection Wear fire/flame resistant/retardant clothing and antistatic boots.

**Section 9 Physical and Chemical Properties**

Appearance: Colorless liquid
Odor: No information available

Odor Threshold: No information available
pH: No information available

Melting Point/Freezing Point (℃): -93
Initial Boiling Point and Boiling Range (℃): 72

Flash Point (℃)( Closed Cup): -8
Evaporation Rate: No information available

Flammability: Not applicable
Upper/lower explosive limits[%(v/v)]: Upper limit：13.4；Lower limit：2.6

**Section 10 Stability and Reactivity**

Reactivity
Contact with incompatible substances can cause decomposition or other chemical reactions.

Chemical Stability
Stable under proper operation and storage conditions.

Possibility of Hazardous Reactions
In contact with inorganic acids and organic peroxides causes a severe polymerization.

Conditions to Avoid
Incompatible materials, heat, flame and spark.

Incompatible Materials
Inorganic acids, alkali and organic peroxides.

Hazardous Decomposition products
Under normal conditions of storage and use, hazardous decomposition products should not be produced.

**Section 11 Toxicological Information**

**> Acute Toxicity**

| Component | CAS No. | LD50(Oral) | LD50(Dermal) | LC50(Inhalation, 4h) |
|---|---|---|---|---|
| VINYL ACETATE | 108-05-4 | 2900mg/kg(Rat) | 2335mg/kg(Rabbit) | 11.4mg/L(Rat) |

**> Skin Corrosion/Irritation**

No information available

**> Serious Eye Damage/Irritation**

No information available

**> Skin Sensitization**

No information available

**> Respiratory Sensitization**

No information available

**> Germ Cell Mutagenicity**

No information available

**> Carcinogenicity**

| ID | CAS No. | Component | IARC | NTP |
|---|---|---|---|---|
| 1 | 108-05-4 | VINYL ACETATE | Category 2B | Not Listed |



**> Reproductive Toxicity**

No information available

**> Reproductive Toxicity (Additional)**

No information available

**> STOT-Single Exposure**

May cause respiratory irritation(Category 3)(VINYL ACETATE )

**> STOT-Repeated Exposure**

No information available

**> Aspiration Hazard**

No information available

**Section 12 Ecological Information**

**> Acute Aquatic Toxicity**

| Component | CAS No. | Fish | Crustaceans | Algae |
|---|---|---|---|---|
| VINYL ACETATE | 108-05-4 | LC50 : 2.4mg/L (96h)(Fish) | EC50 : 9.2mg/L (48h) | ErC50 : 8.9mg/L (72h) |

**> Chronic Aquatic Toxicity**

| Component | CAS No. | Fish | Crustaceans | Algae |
|---|---|---|---|---|
| VINYL ACETATE | 108-05-4 | No information available | NOEC : 0.32mg/L | NOEC : 0.20mg/L |

**> Others**

Persistence and Degradability No information available
Bioaccumulative Potential No information available
Mobility in Soil No information available

Results of PBT and vPvB Assessment
VINYL ACETATE does not meet the criteria for PBT and vPvB according to Regulation (EC) No 1907/2006, annex XIII.

**Section 13 Disposal Considerations**

Waste Chemicals
Before disposal should refer to the relevant national and local laws and regulation. Recommend the use of incineration disposal.

Contaminated Packaging
Containers may still present chemical hazard when empty. Keep away from hot and ignition source of fire. Return to supplier for recycling if possible.

Disposal Recommendations
Refer to section 13.1and 13.2.

**Section 14 Transport Information**



Transporting Label

Marine pollutant None

UN Number 1301

UN Proper Shipping Name VINYL ACETATE, STABILIZED

Transport Hazard Class 3

Transport Subsidiary Hazard Class None

Packing Group Ⅱ

**Section 15 Regulatory Information**

**> International Chemical Inventory**

| Component | EINECS | TSCA | DSL | IECSC | NZIoC | PICCS | KECI | AICS | ENCS |
|---|---|---|---|---|---|---|---|---|---|
| VINYL ACETATE | √ | √ | √ | √ | √ | √ | √ | √ | √ |

【EINECS】 European Inventory of Existing Commercial Chemical Substances.
【TSCA】 United States Toxic Substances Control Act Inventory.
【DSL】 Canadian Domestic Substances List.
【IECSC】 China Inventory of Existing Chemical Substances.
【NZIoC】 New Zealand Inventory of Chemicals.
【PICCS】 Philippines Inventory of Chemicals and Chemical Substances.
【KECI】 Existing and Evaluated Chemical Substances.
【AICS】 Australia Inventory of Chemical Substances.
【ENCS】 Existing And New Chemical Substances.

Note
"√" Indicates that the substance included in the regulations
"×" That no data or included in the regulations

**Section 16 Additional Information**

**> Disclaimer**

This Safety Data Sheet (SDS) was prepared according to UN GHS (the 7th revised edition). The data included was derived from international authoritative database and provided by the enterprise. Other information was based on the present state of our knowledge. We try to ensure the correctness of all information. However, due to the diversity of information sources and the limitations of our knowledge, this document is only for user's reference. Users should make their independent judgment of suitability of this information for their particular purposes. We do not assume responsibility for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product.