

## Material Safety Data Sheet

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Version 1.4

According to 91/155/EEC

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1 - Product and Company Information

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Product Name	VINYL ACETATE, STAB.
Product Number	46060
Company	Sigma-Aldrich Pte Ltd #08-01 Citilink Warehouse Singapore 118529 Singapore
Technical Phone #	65 271 1089
Fax	65 271 1571

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2 - Composition/Information on Ingredients

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Product Name	CAS #	EC no	Annex I Index Number
VINYL ACETATE	108-05-4	203-545-4	607-023-00-0

Formula	C4H6O2
Molecular Weight	86.09 AMU
Synonyms	Acetate de vinyle (French) * Acetic acid, ethenyl ester * Acetic acid, ethylene ether * Acetoxyethene * 1-Acetoxyethylene * Ethanoic acid, ethenyl ester * Ethenyl acetate * Ethenyl ethanoate * Octan winylu (Polish) * VAC * Vinile (acetato di) (Italian) * Vinylacetaat (Dutch) * Vinylacetat (German) * Vinyl acetate (ACGIH) * Vinyl acetate H.Q. * Vinyl A monomer * Vinyle (acetate de) (French) * Vinylester kyseliny octove (Czech) * Vinyl ethanoate * VYAC * Zeset T

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3 - Hazards Identification

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SPECIAL INDICATION OF HAZARDS TO HUMANS AND THE ENVIRONMENT  
Highly flammable.

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4 - First Aid Measures

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## AFTER INHALATION

If inhaled, remove to fresh air. If not breathing give  
artificial respiration. If breathing is difficult, give oxygen.

## AFTER SKIN CONTACT

In case of contact, immediately wash skin with soap and copious  
amounts of water.

## AFTER EYE CONTACT

In case of contact, immediately flush eyes with copious amounts  
of water for at least 15 minutes.

## AFTER INGESTION

If swallowed, wash out mouth with water provided person is

conscious. Call a physician.

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## 5 - Fire Fighting Measures

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### EXTINGUISHING MEDIA

Suitable: Water spray. Carbon dioxide, dry chemical powder, or appropriate foam.

### SPECIAL RISKS

Specific Hazard(s): Flammable liquid. Emits toxic fumes under fire conditions.

Explosion Hazards: Vapor may travel considerable distance to source of ignition and flash back. Container explosion may occur under fire conditions.

### SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

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## 6 - Accidental Release Measures

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### PERSONAL PRECAUTION PROCEDURES TO BE FOLLOWED IN CASE OF LEAK OR SPILL

Evacuate area. Shut off all sources of ignition. Use nonsparking tools.

### PROCEDURE(S) OF PERSONAL PRECAUTION(S)

Wear self-contained breathing apparatus, rubber boots, and heavy rubber gloves.

### METHODS FOR CLEANING UP

Cover with dry-lime, sand, or soda ash. Place in covered containers using non-sparking tools and transport outdoors. Ventilate area and wash spill site after material pickup is complete.

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## 7 - Handling and Storage

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### HANDLING

Directions for Safe Handling: Do not breathe vapor. Do not get in eyes, on skin, on clothing. Avoid prolonged or repeated exposure.

### STORAGE

Conditions of Storage: Keep tightly closed. Keep away from heat, sparks, and open flame.

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## 8 - Exposure Controls / Personal Protection

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### ENGINEERING CONTROLS

Safety shower and eye bath. Use nonsparking tools. Mechanical exhaust required.

### GENERAL HYGIENE MEASURES

Remove and wash contaminated clothing promptly. Wash thoroughly after handling.

### EXPOSURE LIMITS

Country	Source	Type	Value
Poland		NDS	10 mg/m <sup>3</sup>
Poland		NDSch	30 mg/m <sup>3</sup>
Poland		NDSP	

## EXPOSURE LIMITS - DENMARK

Source	Type	Value
OEL	TWA	30 mg/m3 10 ppm

Remarks: K

## EXPOSURE LIMITS - GERMANY

Source	Type	Value
TRGS 900	OEL	35 mg/m3 10 ppm

Remarks: =1=

## EXPOSURE LIMITS - NORWAY

Source	Type	Value
	OEL	30 mg/m3 10 ppm

## EXPOSURE LIMITS - SWEDEN

Source	Type	Value
	LLV (Level)	18 mg/m3 5 ppm

## EXPOSURE LIMITS - SWITZERLAND

Source	Type	Value
OEL	OEL	35 mg/m3 10 ppm

Remarks: D

## EXPOSURE LIMITS - UNITED KINGDOM

Source	Type	Value
OEL	OEL	36 mg/m3 10 ppm
OEL	STEL	72 mg/m3 20 ppm

## PERSONAL PROTECTIVE EQUIPMENT

Respiratory Protection: Government approved respirator.

Hand Protection: Compatible chemical-resistant gloves.

Eye Protection: Chemical safety goggles.

## 9 - Physical and Chemical Properties

Appearance	Physical State: Clear liquid Color: Colorless	
Property	Value	At Temperature or Pressure
pH	N/A	
BP/BP Range	71 - 73 °C	
MP/MP Range	-93 °C	
Flash Point	-8 °C	Method: closed cup
Flammability	N/A	
Autoignition Temp	427 °C	
Oxidizing Properties	N/A	
Explosive Properties	N/A	
Explosion Limits	Lower: 2.6 % Upper: 13.4 %	
Vapor Pressure	N/A	
SG/Density	0.932 g/cm3	
Partition Coefficient	N/A	
Viscosity	N/A	
Vapor Density	3 g/l	

Saturated Vapor Conc.	N/A
Evaporation Rate	N/A
Bulk Density	N/A
Decomposition Temp.	N/A
Solvent Content	N/A
Water Content	N/A
Surface Tension	N/A
Conductivity	N/A
Miscellaneous Data	N/A
Solubility	N/A

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## 10 - Stability and Reactivity

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### STABILITY

Stable: Stable.

Conditions to Avoid: Heat. Loss of inhibitor

Materials to Avoid: Acids, Bases, Oxidizing agents, Peroxides.

### HAZARDOUS DECOMPOSITION PRODUCTS

Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide.

### STABILIZERS PRESENT

Stabilized with hydroquinone.

### HAZARDOUS POLYMERIZATION

Hazardous Polymerization: May occur

Hazardous Polymerization Reactions: May polymerize on exposure to light.

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## 11 - Toxicological Information

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RTECS NUMBER: AK0875000

### ACUTE TOXICITY

LD50  
Oral  
Rat  
2900 mg/kg

LC50  
Inhalation  
Rat  
11,400 mg/m<sup>3</sup>  
4H

LD50  
Oral  
Mouse  
1600 mg/kg

LC50  
Inhalation  
Mouse  
1,550 ppm  
4H

LC50  
Inhalation  
Rabbit  
2,500 ppm  
4H

LD50  
Skin  
Rabbit  
2335 mg/kg

LC50  
Inhalation  
Guinea pig  
6,200 ppm  
4H

#### IRRITATION DATA

Eyes  
Human  
22 ppm

#### ROUTE OF EXPOSURE

Skin Contact: Causes skin irritation.  
Skin Absorption: May be harmful if absorbed through the skin.  
Eye Contact: Causes eye irritation.  
Inhalation: Harmful if inhaled. Material is irritating to mucous membranes and upper respiratory tract.  
Ingestion: May be harmful if swallowed.

#### TARGET ORGAN INFORMATION

Central nervous system. Liver. Cardiovascular system.

#### CHRONIC EXPOSURE - CARCINOGEN

Result: This product is or contains a component that has been reported to be possibly carcinogenic based on its IARC, ACGIH, NTP, or EPA classification.

Rat

Route of Application: Oral

Exposure Time: 2Y

Result: Tumorigenic: Carcinogenic by RTECS criteria.

Endocrine: Thyroid tumors. Tumorigenic Effects: Uterine tumors

Rat

Route of Application: Inhalation

Exposure Time: 6H/5D/2Y

Result: Tumorigenic: Equivocal tumorigenic agent by RTECS criteria. Sense Organs and Special Senses (Nose, Eye, Ear, and Taste): Olfaction: Tumors.

Mouse

Route of Application: Inhalation

Exposure Time: 6H/5D/2Y

Result: Tumorigenic: Equivocal tumorigenic agent by RTECS criteria. Lungs, Thorax, or Respiration: Tumors.

#### IARC CARCINOGEN LIST

Rating: Group 2B

#### CHRONIC EXPOSURE - MUTAGEN

Human  
500 UMOL/L  
Cell Type: lymphocyte

## Micronucleus test

Human  
250 UMOL/L  
Cell Type: lymphocyte  
Cytogenetic analysis

Human  
100 UMOL/L  
Cell Type: lymphocyte  
Sister chromatid exchange

Mouse  
1 GM/KG  
Intraperitoneal  
Micronucleus test

Mouse  
2500 MG/KG  
Intraperitoneal  
5D  
sperm

Hamster  
62500 UG/L  
Cell Type: Embryo  
Morphological transformation.

Hamster  
125 UMOL/L  
Cell Type: ovary  
Sister chromatid exchange

## CHRONIC EXPOSURE - REPRODUCTIVE HAZARD

Species: Rat  
Dose: 500 MG/KG/D  
Route of Application: Oral  
Exposure Time: (MULTIGENERATIONS)  
Result: Effects on Fertility: Male fertility index (e.g., # males impregnating females per # males exposed to fertile nonpregnant females).

Species: Rat  
Dose: 91 GM/KG  
Route of Application: Oral  
Exposure Time: (MULTIGENERATION)  
Result: Maternal Effects: Other effects. Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus).

Species: Rat  
Dose: 4770 MG/KG  
Route of Application: Oral  
Exposure Time: (6-15D PREG)  
Result: Maternal Effects: Other effects.

Species: Rat  
Dose: 1000 PPM/6H  
Route of Application: Inhalation  
Exposure Time: (6-15D PREG)  
Result: Maternal Effects: Other effects. Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus).

## 12 - Ecological Information

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No data available.

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## 13 - Disposal Considerations

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### SUBSTANCE DISPOSAL

Contact a licensed professional waste disposal service to dispose of this material. Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Observe all federal, state, and local environmental regulations.

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## 14 - Transport Information

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### RID/ADR

UN#: 1301  
Class: 3  
PG: II  
Proper Shipping Name: Vinyl acetate, inhibited

### IMDG

UN#: 1301  
Class: 3  
PG: II  
Proper Shipping Name: Vinyl acetate, inhibited  
Marine Pollutant: No  
Severe Marine Pollutant: No

### IATA

UN#: 1301  
Class: 3  
PG: II  
Proper Shipping Name: Vinyl acetate, stabilized  
Inhalation Packing Group I: No

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## 15 - Regulatory Information

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### CLASSIFICATION AND LABELING ACCORDING TO EU DIRECTIVES

ANNEX I INDEX NUMBER: 607-023-00-0

NOTA: D

INDICATION OF DANGER: F

Highly Flammable.

R-PHRASES: 11

Highly flammable.

S-PHRASES: 16 23 29 33

Keep away from sources of ignition - no smoking. Do not breathe vapor. Do not empty into drains. Take precautionary measures against static discharges.

### COUNTRY SPECIFIC INFORMATION

#### Germany

WGK: 2

#### SWITZERLAND

SWISS POISON CLASS: 4

#### NORWAY

Labelling for organic solvents where the package is 1liter or more.

YL-tall m3/l: 43400

YL-group: 5

Risk phrases: 20

Harmful by inhalation.

Safety phrases: 38 42 210

In case of insufficient ventilation, wear suitable respiratory equipment. During fumigation/spraying wear suitable respiratory equipment. Use compressed air- or fresh air line breathing apparatus in confined spaces.

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## 16 - Other Information

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### WARRANTY

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. Sigma-Aldrich Inc., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. Copyright 2004 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.

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