



VINYL ACETATE

Version 3.1

Revision Date 03/21/2012

Ref. 130000035507

This SDS adheres to the standards and regulatory requirements of the United States and may not meet the regulatory requirements in other countries.

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : VINYL ACETATE
 MSDS Number : 130000035507

Manufacturer : DuPont
 1007 Market Street
 Wilmington, DE 19898

Product Information : 1-800-441-7515 (outside the U.S. 1-302-774-1000)
 Medical Emergency : 1-800-441-3637 (outside the U.S. 1-302-774-1139)
 Transport Emergency : CHEMTREC: 1-800-424-9300 (outside the U.S. 1-703-527-3887)

Other information : professional use

SECTION 2. HAZARDS IDENTIFICATION

Potential Health Effects

Skin

Vinyl acetate : May cause skin irritation.
 May cause: Discomfort, itching, redness, or swelling.

Acetaldehyde : May irritate skin.

Hydroquinone : May irritate skin. May cause sensitization by skin contact.

Eyes

Vinyl acetate : May cause eye irritation.
 May cause: Tearing, redness, or discomfort.

Acetaldehyde : Causes eye irritation.

Hydroquinone : Causes eye irritation. Risk of serious damage to eyes.

Inhalation

Vinyl acetate : May cause respiratory tract irritation.

Target Organs



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Vinyl acetate : Respiratory Tract

Hydroquinone : Kidney Liver

Carcinogenicity
Material

IARC

NTP

OSHA

Vinyl acetate

2B

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS-No.	Concentration
Vinyl acetate	108-05-4	>99%
Acetaldehyde	75-07-0	<0.1 %
Hydroquinone	123-31-9	<0.1 %

SECTION 4. FIRST AID MEASURES

- Skin contact : Wash off immediately with plenty of water. Take off contaminated clothing and shoes immediately. Wash contaminated clothing before re-use. Consult a physician.
- Eye contact : If in eyes, rinse with water for 15 minutes. Consult a physician if necessary.
- Inhalation : Move to fresh air. Oxygen or artificial respiration if needed. Consult a physician.
- Ingestion : Do NOT induce vomiting. Drink 1 or 2 glasses of water. Never give anything by mouth to an unconscious person. Call a physician immediately.

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SECTION 5. FIREFIGHTING MEASURES**Flammable Properties**

Flash point : -9 °C (16 °F)

Autoignition temperature : 427 °C (801 °F)

Lower explosion limit : 2.6 vol%

Upper explosion limit : 13.4 vol%

Fire and Explosion Hazard : Vapours may form explosive mixtures with air. Flash back possible over considerable distance. Burning produces noxious and toxic fumes. Fire or intense heat may cause violent rupture of packages. Flammable liquid

Vinyl acetate vapors may form polymers in vents and flame arrester resulting in blockage of vents.

Usually inhibited with hydroquinone or diphenylamine to prevent polymerization.

Suitable extinguishing media : Foam, Dry chemical, Carbon dioxide (CO₂)

Unsuitable extinguishing media : Water

Firefighting Instructions : Wear self-contained breathing apparatus and protective suit. Use personal protective equipment.
Cool containers / tanks with water spray. Do not allow run-off from fire fighting to enter drains or water courses. Evacuate personnel to safe areas. Evacuate personnel and keep upwind of fire.
Water spray may be used to dilute liquid in order to decrease exposure.
Fight fire from a distance, heat may rupture containers.



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SECTION 6. ACCIDENTAL RELEASE MEASURES

NOTE: Review FIRE FIGHTING MEASURES and HANDLING (PERSONNEL) sections before proceeding with clean-up. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean-up.

- Safeguards (Personnel)** : Wear self-contained breathing apparatus and protective suit. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Remove all sources of ignition. Pay attention to flashback. Ventilate the area.
- Spill Cleanup** : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Dike spill.
- Accidental Release Measures** : Prevent material from entering sewers, waterways, or low areas. Suppress (knock down) gases/vapours/mists with a water spray jet. Eliminate all sources of ignition - heat, sparks, flame, electricity, impact and friction.

SECTION 7. HANDLING AND STORAGE

- Handling (Personnel)** : Avoid contact with skin, eyes and clothing. Avoid inhalation of vapour or mist. Wash hands before breaks and immediately after handling the product. Remove and wash contaminated clothing before re-use. Keep away from fire, sparks and heated surfaces. Ensure all equipment is electrically grounded before beginning transfer operations. Discard shoes or other leather clothing if contaminated. Inhibitor level should be checked every three months and maintained at original level. Precautions Regarding Recycled/Recovered vinyl acetate monomer (VAM): Special transfer and storage procedures must be used for recycled vinyl acetate monomer, such as unreacted VAM recovered from an incomplete polymerization process. Recycled VAM will not contain sufficient levels of inhibitor to prevent polymerization and may even contain traces of polymerization initiator. Recycled or recovered VAM must not be returned to a storage tank unless special precautions are taken to ensure that adequate polymerization inhibitors have been added and that cross contamination of storage tanks does not occur.
- Storage** : Keep containers tightly closed in a cool, well-ventilated place.



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Store in accordance with National Fire Protection Association recommendations.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls : Ensure adequate ventilation. Provide grounding of equipment to prevent static build-up. Allow sufficient ullage when drum filling to allow for thermal expansion.

Personal protective equipment
Respiratory protection : Respirator with filter for organic vapour
 Wear a positive-pressure supplied-air respirator.
 Consult the respirator manufacturer to determine the appropriate type of equipment for a given application. Observe respirator use limitations specified by the manufacturer.
 A respiratory protection program that meets country requirements must be followed whenever workplace conditions warrant respirator use.
 Consult the OSHA respiratory protection information located at 29CFR 1910.134.
 Where there is potential for airborne exposures in excess of applicable limits, wear NIOSH approved respiratory protection.

Hand protection : Material: Impervious butyl rubber gloves

Eye protection : Safety glasses with side-shields
 Wear overall chemical splash goggles and face shield when the possibility exists for eye and face contact due to splashing or spraying of material.

Skin and body protection : Impervious clothing
 Chemical resistant apron
 Complete suit protecting against chemicals
 butyl-rubber

Exposure Guidelines
Exposure Limit Values
 Vinyl acetate
 TLV (ACGIH) 10 ppm TWA



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TLV	(ACGIH)	15 ppm	STEL
AEL *	(DUPONT)	5 ppm	8 & 12 hr. TWA
AEL *	(DUPONT)	10 ppm	15 minute TWA

Acetaldehyde

PEL:	(OSHA)	200 ppm	360 mg/m ³	8 hr. TWA
TLV	(ACGIH)	25 ppm	TLV-C	
AEL *	(DUPONT)	25 ppm	8 hr. TWA	
AEL *	(DUPONT)	50 ppm	15 minute TWA	

Hydroquinone

PEL:	(OSHA)	2 mg/m ³	8 hr. TWA
PEL:	(OSHA)	2 mg/m ³	8 hr. TWA
TLV	(ACGIH)	1 mg/m ³	TWA
AEL *	(DUPONT)	2 mg/m ³	8 & 12 hr. TWA

* AEL is DuPont's Acceptable Exposure Limit. Where governmentally imposed occupational exposure limits which are lower than the AEL are in effect, such limits shall take precedence.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Form	: liquid
Color	: colourless
Odor	: acrid, ester-like
Melting point	: -93 °C (-135 °F)
Boiling point	: 73 °C (163 °F) at 1,013 hPa
% Volatile	: 100 %



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Density : 0.93 g/cm³ at 20 °C (68 °F)
 Specific gravity : 0.93 at 20 °C (68 °F)
 Water solubility : 2.4 g/l at 20 °C (68 °F)
 Vapour density : 3.0
 (Air = 1.0)

SECTION 10. STABILITY AND REACTIVITY

Stability : Unstable with heat.
 Polymerisation is a highly exothermic reaction and may generate sufficient heat to cause thermal decomposition and/or rupture containers.

Conditions to avoid : Temperature > 36 °C (> 97 °F)
 Heat, flames and sparks. Exposure to sunlight. Decomposes on heating.

Incompatibility : Peroxides Reducing agents, Oxidizing agents, Strong acids and strong bases

Hazardous decomposition products : Hazardous decomposition products: Carbon monoxide, Carbon dioxide (CO₂), Organic acids, Aldehydes, Alcohols, acetaldehydes, Acrolein

Hazardous reactions : Reacts violently with peroxides.

SECTION 11. TOXICOLOGICAL INFORMATION

Vinyl acetate

Dermal LD50 : 7,440 mg/kg , rabbit

Oral LD50 : 3,500 mg/kg , rat

Inhalation 4 h LC50 : 15.8 mg/l , rat
 Target Organs: Respiratory Tract
 Respiratory tract Irritation

Skin irritation : slight irritation, rabbit

Eye irritation : slight irritation, rabbit

Skin sensitization : Did not cause sensitization on laboratory animals., mouse

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- Repeated dose toxicity : Inhalation
multiple species

Pathologic changes, Respiratory Tract, Respiratory tract irritation
- Carcinogenicity : An increased incidence of tumours was observed in laboratory animals.
- Mutagenicity : Overall weight of evidence indicates that the substance is not mutagenic.
Genetic damage in animals was observed in some laboratory tests but not in others.
Genetic damage in cultured mammalian cells was observed in some laboratory tests but not in others.
Did not cause genetic damage in cultured bacterial cells.
- Reproductive toxicity : Animal testing showed no reproductive toxicity.
- Teratogenicity : Animal testing showed effects on embryo-fetal development at levels equal to or above those causing maternal toxicity.

Acetaldehyde

- Dermal LD50 : 640 mg/kg , rat
- Oral LD50 : 660 mg/kg , rat
- Inhalation 4 h LC50 : 24 mg/l , rat
- Skin irritation : Mild skin irritation, rabbit irritant
- Eye irritation : Severe eye irritation, rabbit irritant
- Skin sensitization : Positive in human patch test., human
- Repeated dose toxicity : Oral - drinking water
rat

No toxicologically significant effects were found.

Inhalation



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rat

No toxicologically significant effects were found.

Carcinogenicity : An increased incidence of tumours was observed in laboratory animals.

Mutagenicity : Did not cause genetic damage in cultured bacterial cells.
Caused genetic damage in cultured mammalian cells.
Caused genetic damage in animals.

Hydroquinone

Oral LD50 : > 300 mg/kg , rat

Skin Irritation : guinea pig
Mild skin irritation

Eye Irritation : Eye irritation, rabbit

Skin sensitization : guinea pig
Causes sensitization.

Repeated dose toxicity : Oral
Liver effects, Kidney effects

Carcinogenicity : An increased incidence of tumours was observed in laboratory animals.

Mutagenicity : Evidence suggests this substance does not cause genetic damage in cultured bacterial cells.
Caused genetic damage in cultured mammalian cells.
Caused genetic damage in animals.

Reproductive toxicity : No toxicity to reproduction

Teratogenicity : Animal testing showed effects on embryo-fetal development at levels equal to or above those causing maternal toxicity.



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SECTION 12. ECOLOGICAL INFORMATION

Aquatic Toxicity

Vinyl acetate

- 96 h LC50 : Fathead minnow 24 mg/l
- 72 h ErC50 : Pseudokirchneriella subcapitata (green algae) 12.7 mg/l
- 48 h EC50 : Daphnia 12.6 mg/l

Acetaldehyde

- 96 h LC50 : Pimephales promelas (fathead minnow) 30.8 mg/l
- 48 h EC50 : Daphnia magna (Water flea) 48.3 mg/l

Hydroquinone

- 96 h LC50 : Pimephalos promelas (fathead minnow) 0.044 mg/l
- 72 h EC50 : Algae 0.335 mg/l

Environmental Fate

Vinyl acetate

- Bioaccumulation : Bioconcentration factor (BCF) : 3.16
Bioaccumulation is unlikely.

Hydroquinone

- Bioaccumulation : Bioconcentration factor (BCF) : 40

SECTION 13. DISPOSAL CONSIDERATIONS

- Waste Disposal : In accordance with local and national regulations. The organic ingredients can be incinerated in a suitable installation when in accordance with local regulations. Do not flush into surface water or sanitary sewer system.

SECTION 14. TRANSPORT INFORMATION



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DOT UN number : 1301
 Proper shipping name : Vinyl acetate, stabilized
 Class : 3
 Packing group : II
 Labelling No. : 3
 Reportable Quantity : 5,000 lbs Vinyl acetate

IATA_C UN number : 1301
 Proper shipping name : Vinyl acetate, stabilized
 Class : 3
 Packing group : II
 Labelling No. : 3

IMDG UN number : 1301
 Proper shipping name : Vinyl acetate, stabilized
 Class : 3
 Packing group : II
 Labelling No. : 3

SECTION 15. REGULATORY INFORMATION

TSCA Status : In compliance with TSCA Inventory requirements for commercial purposes.

SARA 313 Regulated Chemical(s) : Vinyl acetate

CERCLA Reportable Quantity : 5,004 lbs
 Based on the percentage composition of this chemical in the product.:
 Vinyl acetate

SARA Reportable Quantity : 5,004 lbs
 Based on the percentage composition of this chemical in the product.:
 Vinyl acetate

California Prop. 65 : WARNING! This product contains a chemical known to the State of California to cause cancer. Acetaldehyde



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PA Right to Know Regulated Chemical(s) : Substances on the Pennsylvania Hazardous Substances List present at a concentration of 1% or more (0.01% for Special Hazardous Substances): Vinyl acetate

NJ Right to Know Regulated Chemical(s) : Substances on the New Jersey Workplace Hazardous Substance List present at a concentration of 1% or more (0.1% for substances identified as carcinogens, mutagens or teratogens): Vinyl acetate

SECTION 16. OTHER INFORMATION

Restrictions for use : Do not use DuPont materials in medical applications involving implantation in the human body or contact with internal body fluids or tissues unless the material has been provided from DuPont under a written contract that is consistent with DuPont policy regarding medical applications and expressly acknowledges the contemplated use. For further information, please contact your DuPont representative. You may also request a copy of the DuPont POLICY Regarding Medical Applications H-50103-3 and DuPont CAUTION Regarding Medical Applications H-50102-3.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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