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Safety Data Sheet

1. Chemical product and company identification

Product name	:	Vinyl acetate, monomer

Company information

Name of manufacturer	:	KANTO CHEMICAL CO., INC.
Address	:	2-1, Nihonbashi, Muromachi 2-Chome, Chuo-Ku, Tokyo, 103-0022, JP
Name of section	:	Business Administration Department, Reagent Division
Telephone number	:	+81-3-6214-1090
Facsimile number	:	+81-3-3241-1047
Mail address	:	BC32@kanto.co.jp
Reference No	:	44033
Recommended use	:	For research use only
Restrictions on use	:	Seek expert judgment when using the product for applications other than those recommended.

2. Hazards identification

GHS classification

Physical hazards	Flammable liquids	Category 2
	Self-reactive substances and mixtures	Type G
Health hazards	Acute toxicity (inhalation:vapors)	Category 4
	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 2A
	Germ cell mutagenicity	Category 2
	Carcinogenicity	Category 1B
	Specific target organ toxicity (single exposure)	Category 3 (narcosis)
	Specific target organ toxicity (single exposure)	Category 3 (respiratory tract irritation.)
	Specific target organ toxicity (repeated exposure)	Category 2 (respiratory organs)
Environmental hazards	Aquatic acute	Category 2
	Aquatic chronic	Category 3

Hazard pictograms



Signal word : Danger

Hazard statements : Highly flammable liquid and vapor
Causes skin irritation
Causes serious eye irritation
Harmful if inhaled

May cause respiratory irritation
May cause drowsiness or dizziness
Suspected of causing genetic defects
May cause cancer
May cause damage to organs (respiratory organs) through prolonged or repeated exposure
Toxic to aquatic life
Harmful to aquatic life with long lasting effects

Precautionary statements

Prevention : Do not handle until all safety precautions have been read and understood.
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Keep container tightly closed.
Ground and bond container and receiving equipment.
Use explosion-proof electrical/ventilating/lighting equipment.
Use only non-sparking tools.
Take action to prevent static discharges.
Do not breathe mist/vapors.
Wash hands, forearms and face thoroughly after handling.
Use only outdoors or in a well-ventilated area.
Avoid release to the environment.
Wear protective gloves/protective clothing/eye protection/face protection.

Response : IF ON SKIN: Wash with plenty of water.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water .
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
IF exposed or concerned: Get medical advice/attention.
Call a POISON CENTER or doctor if you feel unwell.
Get medical advice/attention if you feel unwell.
If skin irritation occurs: Get medical advice/attention.
If eye irritation persists: Get medical advice/attention.
Take off contaminated clothing and wash it before reuse.

Storage : Store in a well-ventilated place. Keep container tightly closed.
Store in a well-ventilated place. Keep cool.
Store locked up.

Disposal : Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

3. Composition/information on ingredients

Distinction of substance or mixture : Substance

Chemical name	Concentration (%)	Formula	TSCA	EC-No.	CAS RN
Vinyl acetate	≥ 99	C4H6O2	Listed	203-545-4	108-05-4

＊Stabilized with hydroquinone.

4. First aid measures

First aid measures

First-aid measures after inhalation	:	Remove the victim to fresh air, and make him blow his nose and gargle. If necessary, get medical treatment.
First-aid measures after skin contact	:	Wash the affected areas under running water.
First-aid measures after eye contact	:	Wash the affected areas under running water for at least 15 minutes. If necessary, get medical treatment.
First-aid measures after ingestion	:	The chemical is volatile. Do not induce vomiting because it increases the risk of aspiration into the lungs. Get medical attention immediately. If necessary, rinse mouth with water.
Personal Protection in First Aid and Measures	:	Rescuers should wear proper protective equipment like rubber gloves, goggles.

Most Important Symptoms/Effects

Symptoms/effects	:	If inhaled, causes cough, hoarse voice, shortness of breath, dizziness, drowsiness, unconsciousness.

5. Fire fighting measures

Suitable extinguishing media	:	Dry chemical, CO2, dry sand, or alcohol-resistant foam
Unsuitable extinguishing media	:	Water spray, Foam extinguisher
Firefighting instructions	:	Move containers from fire area if it can be done without risk, if not possible, apply water from a safe distance to cool and protect surrounding area. Fight fire from windward. Dry chemical powder, carbon dioxide or dry sand should be used for small fires. Alcohol-resistant foam extinguisher is effective for a large scale fire.
Personal protection (Emergency response)	:	Wear breathing apparatus.

6. Accidental release measures

Personal Precautions, Protective Equipment and Emergency Procedures

General measures	:	Wear proper protective equipment and avoid contact with skin and inhalation of vapor. Conduct operations from upwind and evacuate people downwind. Remove all sources of ignition. Keep away personnel except for authorized ones from spillage area by stretching ropes.

Environmental precautions

Environmental precautions	:	Attention should be given to avoid damage to the environment by flowing of spillage to rivers.

Methods and Equipment for Containment and Cleaning up

For containment	:	Absorb spill with inert material (e.g, diatomaceous earth, sand) and flush spillage area with copious amounts of water.
Prevention Measures for Secondary Accidents	:	Remove nearby sources of ignition and prepare extinguishing media.

7. Handling and storage

Handling

Technical measures	:	Wear proper protective equipment to avoid contact with skin or inhalation of vapor. Fire is strictly prohibited. Ventilate well at working places. Prevent build-up of electrostatic charges (e.g. by grounding).
Precautions for safe handling	:	Avoid formation of vapor and aerosols. Do not allow contact with oxidizing substances.

Storage

Storage conditions	:	Store in a refrigerator and tightly closed (0-6℃).
Material used in packaging/containers	:	Glass, fluorine resin, stainless steel. Do not use vinyl chloride resin, acrylic resin, polystyrene etc.

8. Exposure controls / Personal protection equipment

ACGIH TWA	10 ppm
ACGIH STEL	15 ppm

Appropriate engineering controls	:	Use with an enclosed system or a local exhaust ventilation.

Protective equipment

Respiratory protection	:	Chemical cartridge respirator with an organic vapor cartage or airline respirator
Hand protection	:	Impervious protective gloves
Eye protection	:	Safety goggles
Skin and body protection	:	Protective clothing, protective boots

9. Physical and chemical properties

Physical state	:	Liquid
Color	:	Colorless.
Odor	:	Sweet odor
pH	:	No data available
Melting point	:	-93 ° C
Freezing point	:	No data available
Boiling point	:	72 ° C
Flash point	:	-8 ° C (C.C.)
Auto-ignition temperature	:	385 ° C
Decomposition temperature	:	No data available
Flammability	:	Flammable
Vapor pressure	:	120 hPa (20℃)
Relative density	:	0.93 - 0.94 (20/20℃)
Density	:	No data available
Relative gas density	:	2.98
Solubility	:	Organic solvents: Freely soluble in ethanol, diethyl ether, etc. Water: 2 % (20℃)
Partition coefficient n-octanol/water (log Pow)	:	0.73
Explosive limits (vol %)	:	2.6 - 13.4 vol %
Viscosity, kinematic	:	0.46 mm²/s (20℃)

Particle characteristics	:	No data available

10. Stability and reactivity

Reactivity	:	Has radical polymerization property. May react with oxidizing substances.
Chemical stability	:	Stable under normal conditions. It may spontaneously polymerize under hot and humid conditions.
Possibility of hazardous reactions	:	When it comes into contact with a radical source such as peroxide, it generates heat and polymerizes.
Conditions to avoid	:	Light, heat.
Incompatible materials	:	Oxidizing substances.
Hazardous decomposition products	:	Carbon monoxide.

11. Toxicological information

Acute toxicity (oral)	:	No classification rat LD50=2900mg/kg
Acute toxicity (dermal)	:	No classification rabbit LD50=2325mg/kg
Acute toxicity (inhalation)	:	No classification (gas) Harmful if inhaled (vapor) rat LC50=3680ppm/4h Classification not possible (dust, mist)
Skin corrosion/irritation	:	Causes skin irritation Following exposure to the substance, irritation was observed in workers. Long-term exposure causes blisters. The substance causes irritation of the mucosa/skin, and has skin degreasing action at high concentrations. Thus, it was classified into category 2.
Serious eye damage/irritation	:	Causes serious eye irritation Human studies have shown that the substance causes irritation to the eyes and throat at 21.6 ppm. In addition, exposure to the substance (vapor and undiluted solution) causes eye irritation. Thus, it was classified into category 2A.
Respiratory sensitization	:	Classification not possible
Skin sensitization	:	No classification In a mouse local lymph node assay (LLNA) in accordance with OECD TG 429, the SI value was less than 3. Thus, it was judged to be negative.
Germ cell mutagenicity	:	Suspected of causing genetic defects As for in vivo, although there are many negative data on mouse and rat bone marrow and mouse spermatogonia micronucleus assays by intraperitoneal administration or inhalation exposure, bone marrow micronucleus assays by intraperitoneal administration to rats are rated overall positive by weighting evidence. In addition, there are positive data on chromosome aberration tests and sister chromatid exchange tests in rat bone marrow cells. As for in vitro, there are negative data on reverse mutation test in bacteria, and positive data on chromosome aberration tests, sister chromatid exchange test and mouse lymphoma assay in cultured mammalian cells. Thus, it was classified into category 2.

Carcinogenicity	:	May cause cancer In carcinogenicity tests in rats, increased incidences of squamous cell carcinoma and squamous cell papilloma in the oral cavity in the male treatment groups, and squamous cell carcinoma in the oral cavity and esophagus in the female treatment groups were observed. In carcinogenicity tests in mice, increased incidences of squamous cell carcinoma and squamous cell papilloma in the oral cavity and stomach, and squamous cell carcinoma in the esophagus and larynx were observed in the male and female treatment groups. Thus, it was classified into category 1B.
Reproductive toxicity	:	Classification not possible Regarding reproductive toxicity, there was a difference in the evaluation in each evaluation report and it was not possible to classify.
STOT-single exposure	:	May cause drowsiness or dizziness May cause respiratory irritation In the study in which volunteers were exposed by inhalation to 72 ppm of the substance for 30 minutes, all four subjects developed irritation of the throat mucosa. In addition, the substance causes irritation of the mucosa/skin, and at high concentrations, skin defatting and narcosis. Thus, it was classified into category 3 (narcosis, respiratory tract irritation).
STOT-repeated exposure	:	May cause damage to organs (respiratory organs) through prolonged or repeated exposure In 2-year inhalation toxicity tests in mice, olfactory epithelial atrophy of the nasal cavity and atrophy of mucus secretory glands at 200 ppm and above, and desquamation or flattening of the bronchial epithelium, and accumulation of pigment phagocytic macrophages in the lung at 600 ppm were observed. In 2-year inhalation toxicity tests in rats, squamous metaplasia and atrophy of the nasal olfactory epithelium, and basal cell hyperplasia at 200 ppm and above, and desquamation or flattening of the bronchial epithelium, and accumulation of pigment phagocytic macrophages in the lung at 600 ppm were observed. Thus, it was classified into category 1 (respiratory organs).
Aspiration hazard	:	Classification not possible

12. Ecological information

Ecotoxicity

Aquatic acute	:	Toxic to aquatic life Oryzias latipes LC50=2.4mg/L/96h
Aquatic chronic	:	Harmful to aquatic life with long lasting effects Selenastrum capricornutum NOEC=0.2mg/L/72h

Persistence and degradability

Readily biodegradable
BOD : 90%

Bioaccumulative potential

Low bioconcentration
BCF : 2

Mobility in soil

High mobility
Koc : 6

Hazardous to the ozone layer

Ozone : Classification not possible

13. Disposal considerations

Ecological waste information : Burn in a chemical incinerator equipped with an afterburner and a scrubber. Or entrust approved waste disposal companies with the disposal.

Contaminated container and packaging : In case of disposal of empty bottles, dispose bottles after removing the content thoroughly.

14. Transport information

International Regulations

Transport by sea(IMDG)

UN-No. (IMDG) : 1301
Proper Shipping Name (IMDG) : VINYL ACETATE, STABILIZED
Packing group (IMDG) : II
Transport hazard class(es) (IMDG) : 3

Air transport(IATA)

UN-No. (IATA) : 1301
Proper Shipping Name (IATA) : Vinyl acetate, stabilized
Packing group (IATA) : II
Transport hazard class(es) (IATA) : 3

Marine pollutant : Not applicable

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

Pollutant category : Y
MFAG-No : 129P

15. Regulatory information

Regulatory information with regard to this substance in your country or region should be examined by your own responsibility.

16. Other information

Data sources : NITE Chemical Risk Information Platform (NITE-CHRIP), National Institute of Technology and Evaluation.
Dictionary of Organic Compounds, The society of Synthetic Organic Chemistry, Kodansha Ltd. (1985) .
Handbook of Dangerous Substances Springer-Verlag Tokyo (1991) .
Handbook of 17625 Chemical Products, The Chemical Daily Co. (2025) .

The information contained herein is based on several references and the present state of our knowledge. However the SDS does not always cover all information about the product, handle the product carefully.The information is intended to ordinary usage, in case of particular handlings, conduct appropriate safety measurements.The information herein is only provision of information, and it does not represent a guarantee the properties of the product.The Safety Data Sheet(SDS) is prepared based on JIS Z7253.