

Material safety data sheet

For industrial use only

Vinyl neodecanoate (W10)

Section 1. Identification

Product name: Vinyl neodecanoate-W10

Product type: Vinyl Ester.

Material uses: Intermediate, Industrial use.

Manufacturer: JIANGXI YORDO MOLECULAR CHEMICAL CO., LTD.

Address: Spark Industrial Park Economic Development Zone Yunshan Yongxiu Jiangxi, CHINA

Telephone: 0792-3053111

Section 2. Composition/information on ingredients

Chemical name: Not available

CAS number: 51000-52-3

EC number: 256-905-8

% by weight: 100%

Section 3. Hazards identification

Risk category: Hazard to aquatic environment - acute hazard - Category 1

Hazards to the aquatic environment - long term hazard - Category 1

GHS label elements

Hazard pictograms:



Signal words: Warning

Hazard statements: Very toxic to aquatic life with long lasting effects, and no obvious risk to human health.

Prevention and control: Avoid release to the environment.

Accident response: Collect spills.

Environmental hazard: Extremely toxic to aquatic organisms with long-term lasting effects.

Section 4. First aid measures

Description of necessary first aid measures

Inhalation:

Transfer the patient to a place with fresh air, rest and maintain a position conducive to breathing. No breathing, irregular breathing or respiratory arrest, the trained personnel shall perform artificial respiration or oxygen supply. If the harmful health effects persist or worsen, they shall seek medical treatment. If lose consciousness, they shall be placed in recovery position and seek medical treatment immediately.

Skin contact:

Wash contaminated skin with plenty of water and remove contaminated clothing and shoes. If symptoms appear, seek medical attention.

Eye contact:

Immediately flush eyes with plenty of water and lift upper and lower eyelids from time to time. Check and remove any contact lenses and rinse continuously for at least 10 minutes. If you feel pain or discomfort, seek medical treatment.

Ingestion:

Rinse the mouth with water, transfer the patient to a place with fresh air, rest and maintain a position conducive to breathing. If the substance has been swallowed and the patient remains awake, drink a small amount of water. If the patient feels nauseous, stop because vomiting can be dangerous. Do not induce vomiting unless there is professional medical guidance. If vomiting occurs, keep your head down to prevent vomit from entering the lungs. If harmful health effects persist or worsen, seek medical treatment. Do not give any oral substance to the unconscious. If unconscious, put it in recovery position and seek medical treatment immediately.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician: Symptomatic treatment, if a large amount of intake or inhalation, immediately contact the poisoning disposal experts.

Protection of first aid personnel:

No action should be taken if there is any personal danger or has not been properly trained. If mouth to mouth breathing is used for rescue, it may cause danger to the rescuer.

Section 5. Fire-fighting measures

Suitable extinguishing media:

Use water mist, foam, dry powder or carbon dioxide. Do not use water in the nozzle, it will float and ignite again on the water surface.

Danger in fire fighting:

Warning. Combustible. Vessels exposed to strong heat from fire sources should be cooled with water to prevent steam pressure build-up leading to vessel rupture. In order to prevent the vessel structure from weakening, a large amount of water should be used to cool the vessel directly in contact with the flame. Use water to cool containers exposed to fire.

Precautions and protective measures:

In case of fire, evacuate all personnel from the disaster area and nearby areas in order to quickly isolate the scene. No action should be taken when there is any personal danger or without proper training.

Special protective equipment for firefighters:

Do not enter the narrow fire area (helmet with protective cover, jacket, gloves and rubber boots) without a full set of fire suits, including a complete set of positive pressure breathing apparatus.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures**For non-emergency personnel:**

No action should be taken if there is any personal danger or has not been properly trained. Evacuate the surrounding area to prevent the entry of irrelevant personnel and unprotected personnel.

For emergency responders:

If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions:

Avoid spills from spreading and flowing away, and avoid spills from contacting soil, rivers, sewers and sewage pipes. If the product has caused environmental pollution (sewer, waterway, soil or air), please inform the relevant authorities. If released in large quantities, it can harm the environment and collect spills.

Methods and materials for containment and cleaning**Small spill:**

If there is no danger, stop leaking and move the container away from the discharge area. If dissolved in water, dilute with water and wipe off. Accordingly, if insoluble in water, absorb with an inert dry material and place in a suitable waste disposal container. Disposal by licensed waste disposal contractors.

Large spill:

If there is no danger, stop the leak and move the container away from the leak area. Approach the leakage from upwind. Prevent access to sewers, waterways, basements or confined areas. Flush the spills to a wastewater treatment plant or treat as described below. Collect spills with non combustible absorbents such as sand, earth, vermiculite, diatomite and store in containers for disposal in accordance with local regulations (see section 13). Disposal by licensed waste disposal contractors.

Section 7. Handling and storage

Precautions for safe handling

Protective measures:

Wear appropriate personal protective equipment (see Section 8). Do not eat, avoid contact with eyes, skin and clothing, avoid inhalation of vapor or smoke, and avoid release to the environment. Keep in original containers or approved substitutes made of compatible materials and keep containers closed when not in use.

Occupational health advice:

Diet and smoking should be prohibited in areas where the substance is handled, stored and processed. Staff should wash hands before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering the eating area. See Section 8 for additional information on health precautions.

Conditions for secure storage:

Store in accordance with local regulations. Store in original containers, protected from direct sunlight, in a dry, cool and well ventilated area, away from contraindications (see section 10), food and beverages. Keep container tightly closed and sealed before use. Containers that have been opened must be carefully re sealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use proper leak prevention system to prevent environmental pollution.

Section 8. Exposure controls/personal protection

Control parameters

Monitoring procedures:

If the product contains components with exposure limits, the individual, workplace atmosphere or biological environment should be monitored to determine the effectiveness of ventilation or other control measures and / or the need to use respiratory protective equipment.

Engineering control:

Special ventilation requirements. Good general ventilation should be sufficient to control the level of airborne pollutants in the working environment of workers. If this product contains ingredients with exposure limits, use isolation devices, local ventilation systems, or other process control methods to ensure that workers work in environments below the recommended or statutory limits.

Environmental exposure control:

Emissions from ventilation or working process equipment should be tested to ensure that they meet the requirements of environmental protection regulations. In some cases, modification of smoke scrubbers, filters or process equipment may be necessary to reduce emissions to acceptable levels.

Personal protection measures**Health measures:**

After exposure to chemicals, wash hands, forearms and face thoroughly before meals, before smoking, before going to the toilet and after work. Use appropriate techniques to remove potentially contaminated clothing. Clean contaminated clothing before reuse to ensure eye wash table and safe shower are close to work area.

Eye / face protection:

If the risk assessment results show that it is necessary to avoid exposure to liquid splash, water mist, gas or dust, wear safety glasses that meet the standard. If contact is likely to occur, the following protective equipment should be worn, unless assessment results indicate that a higher degree of protection is required for safety glasses with side shields.

Hand protection:

If the risk assessment results show that it is necessary, always wear standard chemical resistant and impermeable gloves when contacting chemical products. Considering the parameters specified by the glove manufacturer, check whether the gloves still maintain their protective performance during use.

Body protection:

The selection of personal protective equipment should be based on the type of work to be performed

and the risks to be taken, and must be approved by professionals.

Respiratory protection:

Due to the risk and possibility of exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used in accordance with the respiratory protection program and ensure proper assembly, training and other important aspects of use.

Section 9. Physical and chemical properties

Physical state: Liquid

Color: Colorless/Colourless

Odor: Ester odor

Melting point: $-73.5\text{ }^{\circ}\text{C}$ ($-100.3\text{ }^{\circ}\text{F}$)

Boiling point: $212\text{ }^{\circ}\text{C}$ ($414\text{ }^{\circ}\text{F}$)

Flash point: $94\text{ }^{\circ}\text{C}$ ($201\text{ }^{\circ}\text{F}$) (PMCC/ASTM D93)

Auto-ignition temperature: $267\text{-}279\text{ }^{\circ}\text{C}$ ($513\text{-}534\text{ }^{\circ}\text{F}$)

Vapor pressure: [38.6 Pa @ 20](#) $^{\circ}\text{C}$ ($68\text{ }^{\circ}\text{F}$)

Relative density: 0.8793

Density: At $20\text{ }^{\circ}\text{C}$ ($68\text{ }^{\circ}\text{F}$) 880 kg/m^3

Relative vapor density: 6.8

Partition coefficient(noctanol/water): log Pow : 4.9

Solubility in water: 7-12 mg/L

Kinematic viscosity: At $20\text{ }^{\circ}\text{C}$ ($68\text{ }^{\circ}\text{F}$) $2.2\text{ mm}^2/\text{s}$

Molecular weight (average weight Mw): 198

Section 10. Stability and reactivity

Reactivity: Stable under normal conditions.

Chemical stability: The product is stable.

Possibility of hazardous reactions:

Hazardous reactions or instability may occur under certain conditions of storage or use.

Conditions to avoid: No specific data.

Incompatible materials: No specific data.

Hazardous decomposition products:

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

Section 11. Toxicological information

Acute oral toxicity: LD₅₀>8,850 mg/kg (rats) low toxicity, LD₅₀>2000mg/kg

Acute percutaneous toxicity: LD₅₀>3,540 mg/kg (rats) low toxicity, LD₅₀>2000mg/kg

Acute inhalation toxicity: LD₅₀>2,600 mg/kg (rats) low toxicity, LC₅₀>5mg/L

Chronic health risks

Eye irritation: Not available.

Skin irritation: Slight irritation.

Sensitization: Non skin sensitizer.

Repeated dose toxicity: Repeated exposure does not cause significant toxicity.

Mutagenicity: Non mutagenic substance.

Impact on people: Long term and repeated exposure may cause dermatitis.

Assessment basis: This information is based on product data.

Potential health effects

Skin: Slight irritation to skin.

Eyes: No eye irritation is expected, but vapors released in hot conditions can cause pain.

Section 12. Ecological information

Elimination of information (persistence and degradation)

Biodegradability: It is essentially non degradable.

Bioaccumulation: There is a possibility of bioaccumulation.

Ecotoxicity

Toxicity to fish: Strong toxicity, LC/EC/IC₅₀≤1mg/L

Toxicity to algae: Toxic, 1<LC/EC/IC₅₀≤10mg/L

Acute toxicity - invertebrates: Strong toxicity, LC/EC/IC₅₀≤1mg/L

Sewage disposal: It is expected to be almost non-toxic, LC/EC/IC₅₀>100mg/L

Assessment basis:

The information provided is based on product data and compositional and toxicological data of

similar products.

Other environmental harmful effects: No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal method:

Waste generation should be avoided or reduced as much as possible. The disposal of products, solutions and their by-products shall comply with the requirements of environmental protection, waste disposal regulations and relevant local regulations. Dispose of residues and non renewable products through licensed waste disposal contractors. Waste should not be discharged into sewers without disposal unless it fully meets the requirements of the authorities in all jurisdictions. Packaging waste should be recycled. Only when recycling is not feasible, incineration or landfill should be considered. The material and its container must be disposed of in a safe manner. Handle empty containers without cleaning or flushing with care. Avoid spillage, spillage and spillage of products into the sewers, pipes and pipes.

Section 14. Transport information

International transport regulations:

UN- number	3082
Grade	9
Packing category	III
Proper shipping name	Environmentally hazardous, liquid, Glycidyl neodecanoate

IATA 国际空运协会:

UN –number	3082
grade	9
Packing category	III
Proper shipping name	Environmentally hazardous, liquid, Glycidyl neodecanoate

PG* Packing category

Environmental hazards

Environmentally hazardous and/or Marine Pollutant: Yes.

Transportation precautions:

When transporting in the user's site, always use sealed containers and keep them upright and fixed. Make sure that the transport personnel understand the action to be taken in the event of an accident or leakage.

Transport in bulk according to MARPOL Annex II and IBC guidelines

Section 15. Regulatory information

National regulations

The following regulations, regulations and standards regulate the use, operation, storage, transportation, classification and labeling of chemical products.

Regulations on Safety Administration of Hazardous Chemicals

Regulation of Safety Use Chemicals at Workplace

Regulations on Labor Protection in Workplaces Where Toxic Products Are Used

Safety data sheet for chemical products - Content and order of sections (GB/T 16483)

General rules for preparation of precautionary label for industrial chemicals (GB 15258)

Rules for classification and labelling of chemicals (GB 30000.2-GB 30000.29)

General rule for classification and hazard communication of chemicals (GB 13690)

List of dangerous goods (GB 12268)

Classification and code of dangerous goods (GB 6944)

Labels for packages of dangerous goods (GB 190)

Occupational Exposure Limits for Hazardous Agents in the Workplace, Part 1, Chemical Hazardous Agents (GBZ 2.1)

Treat and dispose of the waste in compliance with the applicable environmental protection and waste disposal legislation.

China inventory (IECSC): All components are listed or exempted.

International regulations

AICS (Australia inventory) :	All components are listed or exempted
DSL (Canada inventory) :	All components are listed or exempted
ENCS (JP) (Japan inventory) :	All components are listed or exempted
TSCA (United States inventory) :	All components are listed or exempted
NZTOC (New Zealand inventory)	All components are listed or exempted
KECI (KR) (Korea inventory) :	All components are listed or exempted
PICCS (PH) (Philippines inventory) :	All components are listed or exempted

Section 16. Other information

The information provided in this safety data sheet is only based on our knowledge, information and belief at the date of its publication. This information is only used as a guide for safe handling, use, processing, storage, transportation, handling, leakage, and is not considered as a warranty or quality specification. This information relates only to the specific substance specified and, unless explicitly stated in the text, may not be valid for the combined use of the substance with any other substance or in any process.