1. Product and company identification

Trade Name

Vinamul 3479

Manufacturer, importer, supplier
Celanese Ltd.
222 W. Las Colinas Blvd., Suite 900N
Irving, TX  75039
United States
Phone:  972 443 4000
Internet:  www.celanese.com

Transportation emergency phone numbers:
For Chemical Emergency:  Spill Leak Fire Exposure or Accident
Call CHEMTREC Day or Night
DOMESTIC NORTH AMERICA:  800-424-9300
INTERNATIONAL, CALL +1 703-527-3887 (collect calls accepted)

2. Hazard Identification


GHS Classification
Hazards        Category
Carcinogenicity Category 2

Label elements

Signal Word   Warning
Hazard Statements Suspected of causing cancer
Precautionary statements
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Wear protective gloves/ protective clothing/ eye protection/ face protection.
IF exposed or concerned: Get medical advice/attention.
Store locked up.
Dispose of contents/ container to an approved waste disposal plant.

3. Composition/information on ingredients

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No</th>
<th>Percent %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vinyl acetate copolymer</td>
<td></td>
<td>49 - 51</td>
</tr>
<tr>
<td>9-Octadecenoic acid (Z)-, sulfonated, potassium salts</td>
<td>68609-93-8</td>
<td>1 - 5</td>
</tr>
<tr>
<td>Vinyl acetate</td>
<td>108-05-4</td>
<td>&lt; 0.5</td>
</tr>
</tbody>
</table>

4. First aid measures

General Information
Remove contaminated, soaked clothing immediately and dispose of safely.

Skin
Wash off with soap and water. If symptoms persist, call a physician.

Eyes
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Call a physician immediately.

Inhalation
Move to fresh air. If symptoms persist, call a physician.

Ingestion
If swallowed, seek medical advice immediately and show this container or label. If conscious, drink plenty of water. Do not induce vomiting without medical advice.

5. Fire-fighting measures

Suitable extinguishing media
The product in solution form does not burn. The product will burn only after the water it contains is driven off. For dry polymer, use alcohol resistant foam, carbon dioxide (CO2) or dry chemical.

Extinguishing media which must not be used for safety reasons
Do not use a solid water stream as it may scatter and spread fire.
Special exposure hazards arising from the substance or preparation itself, its combustion products, or released gases
Under conditions giving incomplete combustion, hazardous gases produced may consist of
Carbon monoxide
Carbon dioxide (CO2)
Combustion gases of organic materials must in principle be graded as inhalation poisons

Special protective equipment for fire-fighters
Wear self contained breathing apparatus for fire fighting if necessary.

Environmental precautions
Dike and collect water used to fight fire

Other Information
This is a water-based product and presents no particular fire or explosion hazard

6. Accidental release measures

Personal precautions
Contaminated surfaces will be extremely slippery. Avoid contact with the skin and the eyes.

Environmental precautions
Do not allow material to contaminate ground water system. Do not flush into surface water or sanitary sewer system. Dike and collect water used to fight fire.

Methods for cleaning up
Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Keep in suitable, closed containers for disposal. Contaminated equipment (brushes, rags) must be cleaned immediately with water. Dispose of in accordance with local regulations.

7. Handling and storage

Advice on safe handling
Open containers in ventilated area. Product may contain hazardous volatile ingredients which could accumulate in the unvented headspace of drums or containers. Do not breathe vapor. During longer storage small amounts of carbon monoxide may form. To the best of our knowledge, no OEL (occupational exposure limit) is exceeded during the intended use. Containers/tanks may only be entered after thoroughly executed ventilation while considering national regulations and international standards for inspection of containers/tanks. In any case of doubt a measurement of the CO concentration is necessary.

Protection - fire and explosion:
No special protective measures against fire required.

Technical measures/Storage conditions
No special technical protective measures required.

Material storage
Store locked up. Keep tightly closed in a dry and cool place. Protect from frost. To maintain product quality, do not store in heat or direct sunlight. Keep at temperatures between 5°C and 35°C (40°F and 95°F). Agitate before use.

Incompatible products
Materials that react with water
8. Exposure controls / personal protection

OSHA Exposure Limits

<table>
<thead>
<tr>
<th>Components</th>
<th>STEL</th>
<th>20 PPM</th>
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</thead>
<tbody>
<tr>
<td>Vinyl acetate</td>
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ACGIH Exposure Limits

<table>
<thead>
<tr>
<th>Components</th>
<th>TWA</th>
<th>10 PPM</th>
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<tbody>
<tr>
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<table>
<thead>
<tr>
<th>Components</th>
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Mexico National Exposure Limits

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<th>Components</th>
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<table>
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<tr>
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<table>
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<th>Components</th>
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<tbody>
<tr>
<td>Vinyl acetate</td>
<td>A3</td>
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Exposure controls

Engineering measures
Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction.

Protective equipment
A safety shower and eybath should be readily available.

General advice
Avoid contact with skin and eyes.

Skin protection:
Wear impervious clothing and gloves when there is a reasonable chance for skin contact.

Eye/face protection:
Safety goggles.
9. Physical and chemical properties

Appearance
- Form: liquid
- Color: white
- Odor: sweet
- Autoignition Temperature: Not determined
- Boiling point/range: ~ 100°C
- Density: 0.95 - 1.1 g/ml @ 25°C
- Method: ISO 2811-3
- pH: 4.0 - 5.5
- Method: ISO 976
- Viscosity: 50 - 300 mPa*s
- Method: Brookfield Visc. RVT Sp. 2 / 20 r.p.m.
- Vapor pressure: 24 hPa @ 20°C
- Water solubility: miscible

10. Stability and reactivity

Chemical stability
Stable under recommended storage conditions

Conditions to avoid
Do not freeze

Incompatible Materials
Materials that react with water

Possibility of hazardous reactions
No hazards to be especially mentioned.

11. Toxicological information

Potential health effects

Routes of exposure: Skin, eyes, inhalation, ingestion.

Immediate effects
- Skin: Prolonged or repeated exposure may cause: skin irritation
- Eyes: May cause eye irritation.
Inhalation
May cause respiratory tract irritation.

Ingestion
May cause gastrointestinal irritation.

Other:
Vinyl Acetate is listed as an IARC 2B, possible human carcinogen based on animal data.

Toxicological data are not available. Observe the usual hygienic measures for handling chemicals.

12. Ecological Information

Ecotoxicological data are not available. According to experience, the material has no harmful effect on the environment.

13. Disposal considerations

Disposal considerations
Dispose of spilled material in accordance with state and local regulations for waste that is non-hazardous by Federal definition. Note that this information applies to the material as manufactured; processing, use, or contamination may make this information inappropriate, inaccurate, or incomplete.

Note that this handling and disposal information may also apply to empty containers, liners and rinsate. State or local regulations or restrictions are complex and may differ from federal regulations. This information is intended as an aid to proper handling and disposal; the final responsibility for handling and disposal is with the owner of the waste.

14. Transport information

US Department of Transportation Not regulated
TDG Not regulated
Mexico Transport Information Not regulated
ICAO/IATA Not restricted
IMDG Not regulated

15. Regulatory Information

US State Regulations
Chemicals associated with the product which are subject to the state right-to-know regulations are listed along with the applicable state(s):
Vinyl acetate 108-05-4
Pennsylvania Listed
New York Listed
New Jersey Listed
Illinois Listed
Louisiana Listed
Massachusetts Listed
Rhode Island Listed

U.S. FEDERAL REGULATIONS

TSCA Inventory:
This product complies with the U.S. Toxic Substances Control Act (TSCA).

Environmental Regulations:

SARA 313 Chemicals
Vinyl acetate (108-05-4) 0.5 %

Vinyl acetate 108-05-4
EPCRA Section 313 Listed
CERCLA Hazardous Substance Listed
Extremely Hazardous Substance Listed

SARA 311:
Acute health: No
Chronic health: Yes
Fire: No
Sudden release of pressure: No
Reactive: No

INTERNATIONAL REGULATIONS

International Inventories
Not determined

16. Other information

Prepared By
Product Stewardship Department
Celanese

For more information, consult the Technical Data Sheet (www.celanese-emulsions.com)
Sources of key data used to compile the datasheet

Information contained in this safety data sheet is based on Celanese owned data and public sources deemed valid or acceptable. The absence of data elements required by ANSI or 1907/2006/EC indicates that no data meeting these requirements is available.

Other Information:
Traces of residual monomers can be found in the product:
- Vinyl acetate
- Vinyl chloride
- N-methylolacrylamide

Changes against the previous version are marked by ***

For industrial use only. The information contained herein is accurate to the best of our knowledge. We do not suggest or guarantee that any hazards listed herein are the only ones which exist. Celanese makes no warranty of any kind, express or implied, concerning the safe use of this material in your process or in combination with other substances. Effects can be aggravated by other materials and/or this material may aggravate or add to the effects of other materials. This material may be released from gas, liquid, or solid materials made directly or indirectly from it. User has the sole responsibility to determine the suitability of the materials for any use and the manner of use contemplated. User must meet all applicable safety and health standards. Material safety data sheets are provided on the Internet by Celanese as a service to its customers. Possession of an Internet MSDS does not indicate that the possessor of the MSDS was a purchaser or user of the subject product.

Abbreviation and Acronym:

ADR = Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
CAS = Chemical Abstracts Service (division of the American Chemical Society)
CLP = Classification, Labelling and Packaging
DNEL = Derived No Effect Level
EINECS = European Inventory of Existing Commercial Chemical Substances
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC Code = International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (IMO)
ICAO = International Civil Aviation Organization
IMDG = International Maritime Code for Dangerous Goods
LC50 = Lethal Concentration
LD50 = Lethal Dose
RID = Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
R-Phrases = Risk Phrases
S-Phrases = Safety Phrases