

SECTION 1: Identification

1.1. Identification

Product form : Mixture
 Product name : VWRAP LTX
 Product code : 21909

1.2. Recommended use and restrictions on use

No additional information available

1.3. Supplier

Polymeric US
 117 E. 14th Ave
 North Kansas City, MO 64116
 800-746-5567

1.4. Emergency telephone number

Emergency number Chemtel - U.S., Canada, Puerto Rico, U.S. Virgin Islands 1-800-255-3924; International 813-248-0585

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS-US classification

Eye Dam. 1	Causes serious eye damage.
Skin Sens. 1	May cause an allergic skin reaction.
Carc. 2	Suspected of causing cancer.
STOT RE 2	May cause damage to organs through prolonged or repeated exposure.

2.2. GHS Label elements, including precautionary statements

GHS US labelling

Hazard pictograms (GHS US) :



Signal word (GHS US) :

Danger

Hazard statements (GHS US) :

May cause an allergic skin reaction.
 Causes serious eye damage.
 Suspected of causing cancer.
 May cause damage to organs through prolonged or repeated exposure.

Precautionary statements (GHS US) :

Obtain special instructions before use.
 Do not handle until all safety precautions have been read and understood.
 Do not breathe dust/fume/gas/mist/vapours/spray.
 Avoid breathing mist, spray.
 Contaminated work clothing must not be allowed out of the workplace.
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2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

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Name	Product identifier	%	GHS-US classification
1-ethenyl-2-pyrrolidone*	(CAS-No.) Trade Secret	15 – 30	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation), H332 Eye Dam. 1, H318 Carc. 2, H351 STOT SE 3, H335 STOT RE 2, H373 Aquatic Acute 3, H402
2-propenoic acid* (Note D)	(CAS-No.) Trade Secret	5 – 15	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 Aquatic Chronic 3, H412

Note D : Certain substances which are susceptible to spontaneous polymerisation or decomposition are generally placed on the market in a stabilised form. It is in this form that they are listed in Part 3. However, such substances are sometimes placed on the market in a non-stabilised form. In this case, the supplier must state on the label the name of the substance followed by the words 'non-stabilised'.

*Chemical name, CAS number and/or exact concentration have been withheld as a trade secret

Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures

4.1. Description of first aid measures

- First-aid measures general : IF exposed or concerned: Get medical advice/attention.
- First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Call a poison center or a doctor if you feel unwell.
- First-aid measures after skin contact : Wash skin with plenty of water. Take off contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention.
- First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately.
- First-aid measures after ingestion : Call a poison center or a doctor if you feel unwell.

4.2. Most important symptoms and effects (acute and delayed)

- Symptoms/effects after inhalation : May cause respiratory irritation.
- Symptoms/effects after skin contact : Irritation. May cause an allergic skin reaction.
- Symptoms/effects after eye contact : Serious damage to eyes.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

5.2. Specific hazards arising from the chemical

Reactivity : The product is non-reactive under normal conditions of use, storage and transport.

5.3. Special protective equipment and precautions for fire-fighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area. Do not breathe dust/fume/gas/mist/vapours/spray. Avoid contact with skin and eyes.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment : Collect spillage.

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- Methods for cleaning up : Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters.
- Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear personal protective equipment. Do not breathe dust/fume/gas/mist/vapours/spray. Use only outdoors or in a well-ventilated area. Avoid contact with skin and eyes.
- Hygiene measures : Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

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

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

VWRAP LTX		
ACGIH	Local name	N-Vinyl-2-pyrrolidone
ACGIH	ACGIH TWA (ppm)	0.05 ppm
ACGIH	Remark (ACGIH)	TLV® Basis: Liver dam. Notations: A3 (Confirmed Animal Carcinogen with Unknown Relevance to Humans)
ACGIH	Regulatory reference	ACGIH 2019
2-propenoic acid		
Not applicable		
1-ethenyl-2-pyrrolidone		
ACGIH	Local name	N-Vinyl-2-pyrrolidone
ACGIH	ACGIH TWA (ppm)	0.05 ppm
ACGIH	Remark (ACGIH)	TLV® Basis: Liver dam. Notations: A3 (Confirmed Animal Carcinogen with Unknown Relevance to Humans)
ACGIH	Regulatory reference	ACGIH 2019

8.2. Appropriate engineering controls

- Appropriate engineering controls : Ensure good ventilation of the work station.
- Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Hand protection:

Protective gloves

Eye protection:

Safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

[In case of inadequate ventilation] wear respiratory protection.

Personal protective equipment symbol(s):

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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Liquid.
	: Colourless
	: acrylate odor
Odour threshold	: No data available
pH	: No data available
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Flammability (solid, gas)	: Not applicable.
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Solubility	: No data available
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive limits	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

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

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified

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Acute toxicity (dermal) : Not classified
 Acute toxicity (inhalation) : Not classified

1-ethenyl-2-pyrrolidone	
LD50 oral rat	1022 mg/kg 834-1314,Rat; Equivalent or similar to OECD 401; Experimental value
LD50 dermal rat	1043 mg/kg rat
LD50 dermal rabbit	> 400 mg/kg (BASF test, 24 h, Rabbit, Male / female, Experimental value, Dermal)
LC50 inhalation rat (mg/l)	3.07 mg/l (BASF test, 4 h, Rat, Male / female, Experimental value, Inhalation (aerosol))
ATE US (oral)	1022 mg/kg bodyweight
ATE US (dermal)	1043 mg/kg bodyweight
ATE US (vapours)	3.07 mg/l/4h
ATE US (dust,mist)	3.07 mg/l/4h

Skin corrosion/irritation : Not classified
 Serious eye damage/irritation : Causes serious eye damage.
 Respiratory or skin sensitisation : May cause an allergic skin reaction.
 Germ cell mutagenicity : Not classified
 Carcinogenicity : Suspected of causing cancer.

1-ethenyl-2-pyrrolidone	
IARC group	3 - Not classifiable

Reproductive toxicity : Not classified
 STOT-single exposure : Not classified

1-ethenyl-2-pyrrolidone	
STOT-single exposure	May cause respiratory irritation.

STOT-repeated exposure : May cause damage to organs through prolonged or repeated exposure.

1-ethenyl-2-pyrrolidone	
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard : Not classified
 Viscosity, kinematic : No data available
 Symptoms/effects after inhalation : May cause respiratory irritation.
 Symptoms/effects after skin contact : Irritation. May cause an allergic skin reaction.
 Symptoms/effects after eye contact : Serious damage to eyes.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Toxic to aquatic life with long lasting effects. Toxic to aquatic life.

1-ethenyl-2-pyrrolidone	
LC50 fish 1	976 mg/l (OECD 203: Fish, Acute Toxicity Test, 72 h, Oncorhynchus mykiss, Static system, Fresh water, Experimental value)
EC50 Daphnia 1	45 mg/l (Equivalent or similar to OECD 202, 48 h, Daphnia sp., Static system, Fresh water, Experimental value)
ErC50 (algae)	> 1000 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Desmodesmus subspicatus, Static system, Fresh water, Experimental value)

12.2. Persistence and degradability

2-propenoic acid	
Persistence and degradability	Inherently biodegradable.

1-ethenyl-2-pyrrolidone	
Persistence and degradability	Readily biodegradable in water.
Biochemical oxygen demand (BOD)	< 0.002 g O ₂ /g substance
Chemical oxygen demand (COD)	1.894 g O ₂ /g substance

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12.3. Bioaccumulative potential

2-propenoic acid	
Bioaccumulative potential	No bioaccumulation data available.
1-ethenyl-2-pyrrolidone	
Partition coefficient n-octanol/water (Log Pow)	0.4 (Experimental value, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

12.4. Mobility in soil

1-ethenyl-2-pyrrolidone	
Partition coefficient n-octanol/water (Log Koc)	1.099 – 1.1497 (log Koc, SRC PCKOCWIN v2.0, Calculated value)
Ecology - soil	Highly mobile in soil.

12.5. Other adverse effects

VWRAP LTX	
2-propenoic acid	
1-ethenyl-2-pyrrolidone	

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Transport document description : UN3082 Environmentally hazardous substances, liquid, n.o.s., 9, III
UN-No.(DOT) : UN3082
Proper Shipping Name (DOT) : Environmentally hazardous substances, liquid, n.o.s.
Class (DOT) : 9 - Class 9 - Miscellaneous hazardous material 49 CFR 173.140
Packing group (DOT) : III - Minor Danger
Hazard labels (DOT) : 9 - Class 9 (Miscellaneous dangerous materials)



DOT Packaging Non Bulk (49 CFR 173.xxx) : 203
DOT Packaging Bulk (49 CFR 173.xxx) : 241
DOT Symbols : G - Identifies PSN requiring a technical name

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DOT Special Provisions (49 CFR 172.102)	: 8 - A hazardous substance that is not a hazardous waste may be shipped under the shipping description "Other regulated substances, liquid or solid, n.o.s.", as appropriate. In addition, for solid materials, special provision B54 applies. 146 - This description may be used for a material that poses a hazard to the environment but does not meet the definition for a hazardous waste or a hazardous substance, as defined in 171.8 of this subchapter, or any hazard class as defined in Part 173 of this subchapter, if it is designated as environmentally hazardous by the Competent Authority of the country of origin, transit or destination. 173 - An appropriate generic entry may be used for this material. 335 - Mixtures of solids that are not subject to this subchapter and environmentally hazardous liquids or solids may be classified as "Environmentally hazardous substances, solid, n.o.s.," UN3077 and may be transported under this entry, provided there is no free liquid visible at the time the material is loaded or at the time the packaging or transport unit is closed. Each transport unit must be leakproof when used as bulk packaging. IB3 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1 and 31HA2, 31HB2, 31HN2, 31HD2 and 31HH2). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized, except for UN2672 (also see Special Provision IP8 in Table 2 for UN2672). T4 - 2.65 178.274(d)(2) Normal..... 178.275(d)(3) TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling = $97 / (1 + a (tr - tf))$ Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling. TP29 - A portable tank having a minimum test pressure of 1.5 bar (150.0 kPa) may be used provided the calculated test pressure is 1.5 bar or less based on the MAWP of the hazardous materials, as defined in 178.275 of this subchapter, where the test pressure is 1.5 times the MAWP.
DOT Packaging Exceptions (49 CFR 173.xxx)	: 155
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)	: No limit
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)	: No limit
DOT Vessel Stowage Location	: A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel.
Emergency Response Guide (ERG) Number	: 171
Other information	: No supplementary information available.

Transportation of Dangerous Goods

Not applicable

Transport by sea

Transport document description (IMDG)	: UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., 9, III
UN-No. (IMDG)	: 3082
Proper Shipping Name (IMDG)	: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
Class (IMDG)	: 9 - Miscellaneous dangerous substances and articles
Packing group (IMDG)	: III - substances presenting low danger
Limited quantities (IMDG)	: 5 L

Air transport

Transport document description (IATA)	: UN 3082 Environmentally hazardous substance, liquid, n.o.s., 9, III
UN-No. (IATA)	: 3082
Proper Shipping Name (IATA)	: Environmentally hazardous substance, liquid, n.o.s.
Class (IATA)	: 9 - Miscellaneous Dangerous Goods
Packing group (IATA)	: III - Minor Danger

SECTION 15: Regulatory information

15.1. US Federal regulations

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All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

15.2. International regulations

No additional information available

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

Component	State or local regulations
1-ethenyl-2-pyrrolidone()	U.S. - New Jersey - Right to Know Hazardous Substance List

SECTION 16: Other information

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision date : 07/31/2019

Other information : Polymeric urges the customer receiving this safety data sheet to study it carefully to become aware of the hazards, if any, in the product. In the interest of safety, the customer should (1) notify your employees, agents and contractors of the information included in this SDS and (2) furnish a copy to each of your employees, customers and agents. Polymeric US makes no warranty, express or implied, as to the accuracy or reliability of information contained herein, except that such information is, to the best of Polymeric US's knowledge and belief, accurate as of the date indicated on this document. Final determination of suitability of material is the sole responsibility of the user. All the materials may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

Full text of H-statements:

Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Acute 3	Hazardous to the aquatic environment — Acute Hazard, Category 3
Aquatic Chronic 3	Hazardous to the aquatic environment — Chronic Hazard, Category 3
Carc. 2	Carcinogenicity, Category 2
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
STOT RE 2	Specific target organ toxicity — Repeated exposure, Category 2
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation

SDS US - Polymeric US

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