



Safety Data Sheet

Cat. # RC-086

PVP (Polyvinylpyrrolidone)

Size: 1kg





PVP (Polyvinylpyrrolidone)

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830
Revision date: 5/11/2017 Version: 1.1

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form	: Substance
Substance name	: PVP (Polyvinylpyrrolidone)
Chemical name	: PVP (Polyvinylpyrrolidone)
EC-No.	: 201-800-4
CAS-No.	: 9003-39-8
Product code	: 622P
Type of product	: Group, Polymer
Formula	: (C ₆ H ₉ NO) _n
Synonyms	: 143 RP / 1-ethenyl-2-pyrrolidinone polymers / 1-ethenyl-2-pyrrolidinone, polymers / 1-ethenyl-2-pyrrolidinone, polymer / 1-vinyl-2-pyrrolidinone, polymers / 1-vinyl-2-pyrrolidinone polymers / 2-pyrrolidinone, 1-ethenyl, homopolymer / 2-pyrrolidinone, 1-vinyl-, polymers / agent AT 717 / agrimer / albigen A / aldacol Q / AT 717 / bolinan / ganex P 804 / hemodesis / hemodez / Hueper's polymer No. 1 / Hueper's polymer No. 2 / Hueper's polymer No. 3 / Hueper's polymer No. 4 / Hueper's polymer No. 5 / Hueper's polymer No. 6 / Hueper's polymer No. 7 / K 115 / K 115 (polyamide) / K 115, polyamide / K 15 / K 25 / K 25 (polymer) / K 25, polymer / K 30 / K 30 (polymer) / K 30, polymer / K 60 / K 60 (polymer) / K 60, polymer / K 90 / kollidon / kollidon 17 / kollidon 25 / kollidon 30 / luviskol / luviskol K 17 / luviskol K 25 / luviskol K 30 / MPK 90 / neocompensan / N-vinyl, polymer / N-vinylbutyrolactam polymer / N-vinylbutyrolactam, polymer / N-vinylpyrrolidinone polymer / N-vinylpyrrolidinone, polymer / N-vinylpyrrolidone polymer / N-vinylpyrrolidone, polymer / P.V.P / peragal ST / peregal ST / periston / periston-N / peviston / plasdon K-26/28 / plasdon XL / plasdone / plasdone C / plasdone K 29-32 / plasmosan / poly(1-(2-oxo-1-pyrrolidinyl)ethylene) / poly(1-vinyl-2-pyrrolidinone), homopolymer / poly(1-vinyl-2-pyrrolidinone)Hueper's polymer No.1 / poly(1-vinyl-2-pyrrolidinone)Hueper's polymer No.2 / poly(1-vinyl-2-pyrrolidinone)Hueper's polymer No.3 / poly(1-vinyl-2-pyrrolidinone)Hueper's polymer No.4 / poly(1-vinyl-2-pyrrolidinone)Hueper's polymer No.5 / poly(1-vinyl-2-pyrrolidinone)Hueper's polymer No.6 / poly(1-vinyl-2-pyrrolidinone)Hueper's polymer No.7 / poly(1-vinylpyrrolidinone) / poly(N-vinylbutyrolactam) / poly(N-vinylpyrrolidinone) / poly(vinylpyrrolidinone) / poly(vinylpyrrolidone) / polyclar AT / polyclar H / polyclar L / POLYVIDONE / polyvinylpyrrolidone K 12 / polyvinylpyrrolidone K 15 / polyvinylpyrrolidone K 25 / polyvinylpyrrolidone K 30 / polyvinylpyrrolidone K 60 / polyvinylpyrrolidone K 90 / polyvinylpyrrolidone, special grade / povidone / povidone (usp xix) / povidone, usp xix / protagent / PVP / PVP 1 / PVP 2 / PVP 3 / PVP 4 / PVP 5 / PVP 6 / PVP 7 / PVP-10 / PVP-360 / PVP-40 / PVP-40T / PVP-k 15 / PVP-k 30 / PVP-k 60 / PVP-k 90 / PVPP / RP 143 / subtosan / vinisil / vinylpyrrolidinone polymer / vinylpyrrolidinone, polymer / vinylpyrrolidone polymer / vinylpyrrolidone, polymer
Product group	: Raw material
BIG No	: 18611

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.2.1. Relevant identified uses

Main use category : Research purposes

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Geno Technology, Inc./ G-Biosciences
9800 Page Avenue
63132-1429 Saint Louis - United States
T 800-628-7730 - F 314-991-1504
technical@GBiosciences.com - www.GBiosciences.com

1.4. Emergency telephone number

Emergency number : Chemtrec **1-800-424-9300** (USA/Canada), **+1-703-527-3887** (Intl)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

Adverse physicochemical, human health and environmental effects

To our knowledge, this product does not present any particular risk, provided it is handled in accordance with good occupational hygiene and safety practice.

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2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

No labelling applicable

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
PVP (Polyvinylpyrrolidone)	(CAS-No.) 9003-39-8 (EC-No.) 201-800-4	100	Not classified

3.2. Mixtures

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: Check the vital functions. Unconscious: maintain adequate airway and respiration. Respiratory arrest: artificial respiration or oxygen. Cardiac arrest: perform resuscitation. Victim conscious with laboured breathing: half-seated. Victim in shock: on his back with legs slightly raised. Vomiting: prevent asphyxia/aspiration pneumonia. Prevent cooling by covering the victim (no warming up). Keep watching the victim. Give psychological aid. Keep the victim calm, avoid physical strain. Depending on the victim's condition: doctor/hospital.
First-aid measures after inhalation	: Remove the victim into fresh air. Respiratory problems: consult a doctor/medical service.
First-aid measures after skin contact	: Rinse with water. Soap may be used. Take victim to a doctor if irritation persists.
First-aid measures after eye contact	: Rinse with water. Remove contact lenses, if present and easy to do. Continue rinsing. Do not apply neutralizing agents. Take victim to an ophthalmologist if irritation persists.
First-aid measures after ingestion	: Rinse mouth with water. Consult a doctor/medical service if you feel unwell. Victim is fully conscious: immediately induce vomiting. Ingestion of large quantities: immediately to hospital. Call Poison Information Centre (www.big.be/antigif.htm).

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects after ingestion	: AFTER INGESTION OF HIGH QUANTITIES: Diarrhoea.
Chronic symptoms	: ON CONTINUOUS/REPEATED EXPOSURE/CONTACT: Lung tissue affection/degeneration. Enlargement/affection of the liver.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Quick-acting ABC powder extinguisher. Class A foam extinguisher. Water (quick-acting extinguisher, reel). Water. Class A foam.
Unsuitable extinguishing media	: Quick-acting BC powder extinguisher. Quick-acting CO2 extinguisher.

5.2. Special hazards arising from the substance or mixture

Fire hazard	: DIRECT FIRE HAZARD: Not easily combustible. In finely divided state: increased fire hazard. INDIRECT FIRE HAZARD: Temperature above flashpoint: higher fire/explosion hazard. May build up electrostatic charges: risk of ignition.
Explosion hazard	: DIRECT EXPLOSION HAZARD: Fine dust is explosive with air. INDIRECT EXPLOSION HAZARD: Dust cloud can be ignited by a spark.
Hazardous decomposition products in case of fire	: Toxic fumes may be released.

5.3. Advice for firefighters

Precautionary measures fire	: Exposure to fire/heat: keep upwind. Exposure to fire/heat: consider evacuation. Exposure to fire/heat: have neighbourhood close doors and windows.
Firefighting instructions	: Dilute toxic gases with water spray.
Protection during firefighting	: Heat/fire exposure: compressed air/oxygen apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment	: Gloves. Protective clothing. Dust cloud production: compressed air/oxygen apparatus.
Emergency procedures	: Mark the danger area. Prevent dust cloud formation, e.g. by wetting. No naked flames.

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Measures in case of dust release : In case of dust production: keep upwind. Dust production: have neighbourhood close doors and windows. In case of dust production: stop engines and no smoking. In case of dust production: no naked flames or sparks. Dust: spark-/explosionproof appliances/lighting equipment.

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 : Contain released product, pump into suitable containers. Plug the leak, cut off the supply. Knock down/dilute dust cloud with water spray. Provide equipment/receptacles with earthing. Powdered form: no compressed air for pumping over spills.

Methods for cleaning up : Stop dust cloud by humidifying. Scoop solid spill into closing containers. Powdered: do not use compressed air for pumping over spills. Carefully collect the spill/leftovers. Take collected spill to manufacturer/competent authority. Clean contaminated surfaces with an excess of water. Wash clothing and equipment after handling.

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 : Avoid raising dust. Take precautions against electrostatic charges. Keep away from naked flames/heat. In finely divided state: use spark-/explosionproof appliances. Finely divided: keep away from ignition sources/sparks. Measure the concentration in the air regularly. Carry operations in the open/under local exhaust/ventilation or with respiratory protection. Comply with the legal requirements. Remove contaminated clothing immediately. Clean contaminated clothing. Powdered form: no compressed air for pumping over. Keep container tightly closed.

Hygiene measures : 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 in a well-ventilated place. Keep cool.

Storage temperature : 20 °C

Heat and ignition sources : KEEP SUBSTANCE AWAY FROM: heat sources. ignition sources.

Information on mixed storage : KEEP SUBSTANCE AWAY FROM: oxidizing agents. reducing agents.

Storage area : Store in a dry area. Store in a dark area. Provide the tank with earthing. Keep only in the original container. Meet the legal requirements.

Special rules on packaging : SPECIAL REQUIREMENTS: closing. watertight. dry. opaque. correctly labelled. meet the legal requirements. Secure fragile packagings in solid containers.

Packaging materials : SUITABLE MATERIAL: synthetic material.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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United Kingdom - Occupational Exposure Limits

WEL TWA (mg/m ³)	10 mg/m ³ 4 mg/m ³
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8.2. Exposure controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

Materials for protective clothing:

GIVE GOOD RESISTANCE: synthetic material. rubber

Hand protection:

Gloves

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Eye protection:

Safety glasses. In case of dust production: protective goggles

Skin and body protection:

Protective clothing

Respiratory protection:

Dust formation: dust mask

Environmental exposure controls:

Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Appearance	: Solid. Amorphous powder.
Colour	: Off-white to light yellow.
Odour	: Characteristic odour. Mild odour.
Odour threshold	: No data available
pH	: 3 - 7 (5 %)
Relative evaporation rate (butylacetate=1)	: 0
Melting point	: 130 °C
Freezing point	: Not applicable
Boiling point	: No data available
Flash point	: > 250 °C
Auto-ignition temperature	: 420 °C
Decomposition temperature	: No data available
Flammability (solid, gas)	: Non flammable.
Vapour pressure	: < 0.1 hPa (20 °C)
Relative vapour density at 20 °C	: Not applicable
Relative density	: 1.2 - 1.3
Density	: 1230 - 1290 kg/m ³
Solubility	: Soluble in water. Soluble in ethanol. Soluble in chloroform. Soluble in chlorinated hydrocarbons. Water: > 30 g/100ml
Log Pow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: Not applicable

9.2. Other information

VOC content	: 0 %
Other properties	: Hygroscopic. Acid reaction. May generate electrostatic charges.

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. Hygroscopic.

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

Hazardous decomposition products.

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SECTION 11: Toxicological information

11.1. Information on toxicological effects

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

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LD50 oral rat	100000 mg/kg (Rat, Oral)
LD50 dermal rat	> 12000 mg/kg (Rat, Dermal)
Skin corrosion/irritation	: Not classified pH: 3 - 7 (5 %)
Serious eye damage/irritation	: Not classified pH: 3 - 7 (5 %)
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified
Potential adverse human health effects and symptoms	: Non-toxic if swallowed (LD50 oral, rat > 5000 mg/kg). Non-toxic in contact with skin (LD50 skin > 5000 mg/kg). Not irritant to skin. Not irritant to respiratory organs. Slightly irritant to eyes.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.
Ecology - air	: Not classified as dangerous for the ozone layer (Regulation (EC) No 1005/2009).
Ecology - water	: Not harmful to fishes. Mild water pollutant (surface water). Not harmful to activated sludge.
Acute aquatic toxicity	: Not classified
Chronic aquatic toxicity	: Not classified

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LC50 fish 1	> 10000 mg/l (96 h, Leuciscus idus)
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12.2. Persistence and degradability

PVP (Polyvinylpyrrolidone) (9003-39-8)

Persistence and degradability	Not readily biodegradable in water.
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12.3. Bioaccumulative potential

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Bioaccumulative potential	No bioaccumulation data available.
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12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods	: Waste treatment methods.
Product/Packaging disposal recommendations	: Recycle/reuse. Remove to an authorized dump. Remove to an authorized incinerator with energy recovery. Precipitate/make insoluble.
Additional information	: Can be considered as non hazardous waste according to Directive 2008/98/EC, as amended by Regulation (EU) No 1357/2014 and Regulation (EU) No 2017/997.
European List of Waste (LoW) code	: 07 02 13 - waste plastic

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

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14.1. UN number

UN-No. (ADR)	: Not regulated
UN-No. (IMDG)	: Not regulated
UN-No. (IATA)	: Not regulated
UN-No. (ADN)	: Not regulated
UN-No. (RID)	: Not regulated

14.2. UN proper shipping name

Proper Shipping Name (ADR)	: Not regulated
Proper Shipping Name (IMDG)	: Not regulated
Proper Shipping Name (IATA)	: Not regulated
Proper Shipping Name (ADN)	: Not regulated
Proper Shipping Name (RID)	: Not regulated

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR)	: Not regulated
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IMDG

Transport hazard class(es) (IMDG)	: Not regulated
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IATA

Transport hazard class(es) (IATA)	: Not regulated
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ADN

Transport hazard class(es) (ADN)	: Not regulated
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RID

Transport hazard class(es) (RID)	: Not regulated
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14.4. Packing group

Packing group (ADR)	: Not regulated
Packing group (IMDG)	: Not regulated
Packing group (IATA)	: Not regulated
Packing group (ADN)	: Not regulated
Packing group (RID)	: Not regulated

14.5. Environmental hazards

Dangerous for the environment	: No
Marine pollutant	: No
Other information	: No supplementary information available

14.6. Special precautions for user

Overland transport

Not regulated

Transport by sea

Not regulated

Air transport

Not regulated

Inland waterway transport

Not regulated

Rail transport

Not regulated

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1. EU-Regulations

No REACH Annex XVII restrictions

PVP (Polyvinylpyrrolidone) is not on the REACH Candidate List

PVP (Polyvinylpyrrolidone) is not on the REACH Annex XIV List

PVP (Polyvinylpyrrolidone) is not subject to REGULATION (EU) No 649/2012 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 4 July 2012 concerning the export and import of hazardous chemicals.

PVP (Polyvinylpyrrolidone) is not subject to Regulation (EC) No 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC

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VOC content : 0 %

15.1.2. National regulations

Not listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Safety Data Sheet applicable for regions : GB - United Kingdom

SDS EU (REACH Annex II)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.