



Safety Data Sheet

according to Regulation (EC) No. 1907/2006

Version 01 Issuing Date: 2016-04-20

Review Date: 2021-04-14

1. Identification of the Substance/Mixture and of the Company/Undertaking

1.1 Product identifiers

Product name: Poly(1-vinylpyrrolidone-co-vinyl acetate) solution

Brand name: PolyViscol® VA73E

CAS-No.: 25086-89-9

REACH Registration No.: A registration number is not available for this substance as polymers are exempted from REACH registration.

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

Identified uses: polymer, cosmetic ingredient.

1.3 Details of the supplier of the safety data sheet

Company: Boai NKY Pharmaceuticals Ltd.

Address: No.1888 East Wenhua Road, Boai, Jiaozuo, Henan Province, China 454450.

Tel.: +86 391 8696320

Fax: +86 391 8692950

Email address: sales@boai-nky.com

1.4 Emergency telephone number

Emergency Phone #: +86 22 58316066

2. Hazards Identification

2.1 Classification of the substance or mixture

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

Flammable liquids (Category 2)

Eye Damage/Irritation (Category 1)

Classification according to EU Directives 67/548/EEC or 1999/45/EC

Possible Hazards:

Highly flammable.

Risk of serious damage to eyes.

For the classifications not written out in full in this section the full text can be found in Section 16.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008

Globally Harmonized System, EU (GHS)



Pictogram

Signal word

Danger

Hazard Statement(s)

H225

Highly flammable liquid and vapour



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| | |
|---|--|
| H318 | Causes serious eye damage. |
| Precautionary statement(s) (Prevention) | |
| P210 | Keep away from heat/sparks/open flames/hot surfaces – No smoking. |
| P280 | Wear protective gloves/protective clothing/eye protection/face protection. |
| P280f | Wear protective gloves and eye/face protection. |
| P243 | Take precautionary measures against static discharge. |
| P241 | Use explosion-proof electrical/ventilating/lighting/equipment. |
| P233 | Keep container tightly closed. |
| P240 | Ground/bond container and receiving equipment. |
| P242 | Use only non-sparking tools. |

Precautionary Statement(s) (Response):

| | |
|----------------|--|
| P305+P351+P338 | If in eyes: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P310 | Immediately call a POISON CENTER or doctor/physician. |
| P303+P361+P353 | If on skin (or hair): remove/take off immediately all contaminated clothing. Rinse skin with water/shower. |
| P370+P378.1 | In case of fire: use extinguishing powder, foam or CO2 for extinction. |

Precautionary Statement(s) (Storage):

| | |
|-----------|--|
| P403+P235 | Store in a well-ventilated place. Keep cool. |
|-----------|--|

Precautionary Statement(s) (Disposal):

| | |
|-------|---|
| P501: | Dispose of contents/container to hazardous or special waste collection point. |
|-------|---|

According to European Directive 67/548/EEC or 1999/45/EC.

Self classification

| | | |
|------------------|----|------------------|
| Hazard symbol(s) | F | Highly flammable |
| | Xi | Irritant |



R-phrase(s)

| | |
|-----|--------------------------------|
| R11 | Highly flammable |
| R41 | Risk of serious damage to eyes |

S-phrase(s)



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| | |
|-----|---|
| S16 | Keep away from sources of ignition – No smoking. |
| S26 | In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. |
| S39 | Wear eye/face protection. |

2.3 Other hazards - none

3. Composition/Information on Ingredients

3.2 Mixtures

Chemical Nature

INCI Name: VP/VA Copolymer

Preparation based on: Acetic acid ethenyl ester, polymer with 1-ethyl-2-pyrrolidinone, ethanol

Hazardous ingredients according to Regulation (EC) No 1272/2008

| Component | Classification | Concentration |
|---|---|---------------|
| Ethanol | | |
| CAS-No. 64-17-5 EC-No. 200-578-6 Index-No. 603-002-00-5 | Flam. Liq. 2; Eye Dam./Irrit.2; H225, H319 | 48.0%-52.0% |

Hazardous ingredients according to Directive 1999/45/EC

| Component | Classification | Concentration |
|---|--|---------------|
| Ethanol | | |
| CAS-No. 64-17-5 EC-No. 200-578-6 Index-No. 603-002-00-5 | Hazard symbol(s): F; R-phrases(s): 11 | 48.0%-52.0% |

For the classifications not written out in full in this section, including the indication of danger, the hazard symbols, the R phrases, and the hazard statements, the full text is listed in section 16.

4. First Aid Measures

4.1 Description of first aid measures

Remove contaminated clothing.

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration.

In case of skin contact

Wash off with soap and plenty of water.

In case of eye contact

Immediately wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.

If swallowed



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Rinse mouth immediately and then drink plenty of water, seek medical attention.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labeling (see section 2.2) and/or in Section 11.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

5. Firefighting Measures

5.1 Extinguishing media:

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture

Carbon oxides, nitrogen oxides (NO_x), cyanides.

5.3 Advice for firefighters

Wear self contained breathing apparatus for firefighting.

5.4 Further information

Collect contaminated extinguishing water separately, do not allow to reach sewage or effluent systems.

Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

Keep containers cool by spraying with water if exposed to fire.

6. Accidental Release Measures

6.1 Personal precautions protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

For personal protection see section 8.

6.2 Environmental precautions

Do not discharge into drains/surface waters/ground water.

6.3 Methods and materials for containment and cleaning up

For large amounts: Dike spillage. Cover with blanket of foam (alcohol-resistant foam). Pump off product. Dispose of absorbed material in accordance with regulations.

For residues: Contain with absorbent material (e.g. sand, silica gel, acid binder, general purpose binder, sawdust). Dispose of absorbed material in accordance with regulations.

6.4 Reference to other sections

Information regarding exposure controls/personal protection and disposal considerations can be found in section 8 and 13.

7. Handling and Storage

7.1 Precautions for safe handling

Ensure thorough ventilation of stores and work areas. Wear suitable protective clothing and eye/face protection. Avoid contact with the skin, eyes and clothing. Keep container tightly sealed.



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Protection against fire and explosion:

The product is combustible. Avoid all sources of ignition: heat, sparks, open flame. Take precautionary measures against static discharges. If exposed to fire, keep containers cool by spraying with water. Vapours may form explosive mixtures with air.

7.2 Conditions for safe storage, including any incompatibilities

Further information on storage conditions: Keep container tightly closed in a cool, well-ventilated place. Protect containers from physical damage.

7.3 Specific end uses

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

8. Exposure Controls/Personal Protection

8.1 Control parameters

Components with workplace control parameters

64-17-5: ethanol

Hazardous Components with PNEC

64-17-5: ethanol

Fresh water: 1 mg/L

Marine water: 0.1 mg/L

Intermittent release: 10 mg/L

STP: 650 mg/L

Sediment (freshwater): 2.09 mg/Kg

Soil: 0.153 mg/Kg

Hazardous Components with DNEL

64-17-5: ethanol

Worker: Short-term exposure – systemic effects, inhalation: 1920 mg/m³

Worker: Long-term exposure – systemic effects, inhalation: 960 mg/m³

8.2 Exposure controls

Personal protective equipment

Respiratory protection:

Gas filter for gases/vapours of organic compounds (boiling point >65 °C, e. g. EN 14387 Type A)

Hand protection:

Suitable materials also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN 374):

butyl rubber (butyl) - 0.7 mm coating thickness

fluoroelastomer (FKM) - 0.7 mm coating thickness

Supplementary note: The specifications are based on tests, literature data and information of glove manufacturers or are derived from similar substances by analogy. Due to many conditions (e.g. temperature) it must be considered, that the practical usage of a chemical-protective glove in practice may be much shorter than the permeation time determined through testing.



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Manufacturer's directions for use should be observed because of great diversity of types.

Eye protection:

Tightly fitting safety goggles (splash goggles) (e.g. EN 166)

Body protection:

Body protection must be chosen depending on activity and possible exposure, e.g. apron, protecting boots, chemical-protection suit (according to EN 14605 in case of splashes or EN ISO 13982 in case of dust).

General safety and hygiene measures

Avoid inhalation of vapour.

9. Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

| | |
|---|--|
| a) Appearance | Form: liquid Colour: slightly yellowish |
| b) Odour | Perceptible |
| c) Odour threshold | No data available |
| d) pH | No data available |
| e) Melting point/freezing point | No data available |
| f) Initial boiling point and boiling range | 78 °C |
| g) Flash point | Approx. 12 °C (DIN 51755) |
| h) Evaporation rate | No data available |
| i) Flammability (solid, gas) | No data available |
| j) Upper/lower flammability or explosive limits | |
| Lower explosion limit: | 3.5% (V) |
| Upper explosion limit: | 15% (V) |
| k) Vapour pressure | Approx. 45 hPa (20 °C)/ 240 hPa (50 °C) |
| l) Vapour density | No data available |
| m) Relative density | 0.91-1.0 g/cm ³ (20 °C) |
| n) Water solubility | Dispersible (20 °C) |
| o) Partition coefficient: n-octanol/water | No data available |
| p) Autoignition temperature | Approx. 400 °C |
| q) Decomposition temperature | 78 °C |
| r) Viscosity | No data available |
| s) Explosive properties | No data available |
| t) Oxidizing properties | No data available |

9.2 Other safety information

No data available.



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10. Stability and Reactivity

10.1 Reactivity

When heated can give off ignitable vapours.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

Evolution of explosive gases/vapours.

10.4 Conditions to avoid

Avoid all sources of ignition: heat, sparks, open flame.

10.5 Incompatible materials

Flammable, oxidizable substances.

10.6 Hazardous decomposition products

No hazardous decomposition products if stored and handled as prescribed/indicated.

11. Toxicological Information

11.1 Information on toxicological effects

Acute toxicity

Information on: Acetic acid ethenyl ester, polymer with 1-ethenyl-2-pyrrolidinone

Assessment of acute toxicity:

Virtually nontoxic after a single ingestion.

Information on: ethanol

Assessment of acute toxicity:

Virtually nontoxic after a single ingestion. Virtually nontoxic by inhalation.

Information on: Acetic acid ethenyl ester, polymer with 1-ethenyl-2-pyrrolidinone

Experimental/calculated data:

LD50 rat (oral): > 10,000 mg/kg (BASF-Test)

Information on: ethanol

Experimental/calculated data:

LD50 rat (oral): 15,010 mg/kg

Irritation

Experimental/calculated data:

Skin corrosion/irritation rabbit: non-irritant (Draize test)

The data refer to a preparation of the substance.

Serious eye damage/irritation rabbit: Risk of serious damage to eyes. (Draize test)

Respiratory/Skin sensitization

Information on: Acetic acid ethenyl ester, polymer with 1-ethenyl-2-pyrrolidinone

Assessment of sensitization:

Skin sensitizing effects were not observed in animal studies.

Information on: Acetic acid ethenyl ester, polymer with 1-ethenyl-2-pyrrolidinone



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Experimental/calculated data:

Guinea pig maximization test guinea pig: Non-sensitizing. (OECD Guideline 406)

Germ cell mutagenicity

Information on: Acetic acid ethenyl ester, polymer with 1-ethenyl-2-pyrrolidinone

Assessment of mutagenicity:

No mutagenic effect was found in various tests with bacteria and mammalian cell culture. The substance was not mutagenic in studies with mammals.

Developmental toxicity

Information on: Acetic acid ethenyl ester, polymer with 1-ethenyl-2-pyrrolidinone

Assessment of teratogenicity:

No indications of a developmental toxic / teratogenic effect were seen in animal studies.

12. Ecological Information

12.1 Toxicity

Information on: Acetic acid ethenyl ester, polymer with 1-ethenyl-2-pyrrolidinone

Assessment of aquatic toxicity:

There is a high probability that the product is not acutely harmful to aquatic organisms. The inhibition of the degradation activity of activated sludge is not anticipated when introduced to biological treatment plants in appropriate low concentrations.

Information on: Acetic acid ethenyl ester, polymer with 1-ethenyl-2-pyrrolidinone

Toxicity to fish:

LC50 (96 h) > 10,000 mg/l, Brachydanio rerio (OECD Guideline 203, static)

Information on: Acetic acid ethenyl ester, polymer with 1-ethenyl-2-pyrrolidinone

Aquatic invertebrates:

EC50 (48 h) > 100 mg/l, Daphnia magna (Directive 79/831/EEC, static)

Information on: Acetic acid ethenyl ester, polymer with 1-ethenyl-2-pyrrolidinone

Aquatic plants:

EC50 (72 h) > 100 mg/l (biomass), Scenedesmus subspicatus (OECD Guideline 201, static)

12.2 Persistence and degradability

Information on: Acetic acid ethenyl ester, polymer with 1-ethenyl-2-pyrrolidinone

Assessment biodegradation and elimination (H₂O):

Poorly eliminated from water.

Information on: Acetic acid ethenyl ester, polymer with 1-ethenyl-2-pyrrolidinone

Elimination information:

approx. 20 - 30 % DOC reduction (15 d) (OECD Guideline 302 B) (aerobic, activated sludge, adapted)

Poorly eliminated from water.

12.3 Bioaccumulation potential

Information on: Acetic acid ethenyl ester, polymer with 1-ethenyl-2-pyrrolidinone

Bioaccumulation potential:



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Based on its structural properties, the polymer is not biologically available. Accumulation in organisms is not to be expected.

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

According to Annex XIV of Regulation (EC) No.1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH): The product does not contain a substance fulfilling the PBT (persistent/bioaccumulative/toxic) criteria or the vPvB (very persistent/very bioaccumulative) criteria. Self classification.

12.6 Other adverse effects

No data available

13. Disposal Considerations

13.1 Waste treatment methods

Observe national and local legal requirements.

14. Transport Information

14.1 Land transport

ADR

Hazard class: 3

Packing group: III

ID number: UN 1866

Hazard label: 3

Proper shipping name: RESIN SOLUTION (contains ETHANOL)

RID

Hazard class: 3

Packing group: III

ID number: UN 1866

Hazard label: 3

Proper shipping name: RESIN SOLUTION (contains ETHANOL)

14.2 Inland waterway transport

ADN

Hazard class: 3

Packing group: III

ID number: UN 1866

Hazard label: 3

Proper shipping name: RESIN SOLUTION (contains ETHANOL)

14.3 Sea transport

IMDG

Hazard class: 3



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Packing group: II

ID number: UN 1866

Hazard label: 3

Marine pollutant: NO

Proper shipping name: RESIN SOLUTION (contains ETHANOL)

14.4 Air transport

IATA/ICAO

Hazard class: 3

Packing group: II

ID number: UN 1866

Hazard label: 3

Proper shipping name: RESIN SOLUTION (contains ETHANOL)

15. Regulatory Information

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

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

If other regulatory information applies that is not already provided elsewhere in this safety data sheet, then it is described in this subsection.

16 Other Information

Full text of the classifications, including the indication of danger, the hazard symbols, the R phrases, and the hazard statements, if mentioned in section 2 or 3:

F Highly flammable.

H11 Highly flammable.

Flam. Liq. Flammable liquid

Eye Dam./Irrit. Serious eye damage/eye irritation

H319 Causes serious eye irritation.

H225 Highly flammable liquid and vapour.

Further information

The above information is believed to be correct, but does not intend to be all-inclusive and shall be used only as a guide. This material safety data sheet is based on our current knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any assurance on product properties and does not constitute a contractual legal relationship.

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