# Safety data sheet

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Safety data sheet according to UN GHS 4th rev.

Date / Revised: 28.02.2023 Version: 2.0

Product: Kollidon® 17 PF

(ID no. 30034981/SDS\_GEN\_ZA/EN)

Date of print 17.10.2025

#### 1. Identification

#### **Product identifier**

# Kollidon® 17 PF

Chemical name: 2-Pyrrolidinone, 1-ethenyl-, homopolymer

CAS Number: 9003-39-8

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

Relevant identified uses: pharmaceutical excipient

## Details of the supplier of the safety data sheet

Company:

### **Emergency telephone number**

National emergency number:

+27 11 203 2420

International emergency number: Telephone: +49 180 2273-112

#### 2. Hazards Identification

#### Classification of the substance or mixture

According to UN GHS criteria

No need for classification according to GHS criteria for this product.

#### Label elements

Globally Harmonized System (GHS)

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The product does not require a hazard warning label in accordance with GHS criteria.

#### Other hazards

According to UN GHS criteria

The product is under certain conditions capable of dust explosion.

## 3. Composition/Information on Ingredients

#### **Substances**

Chemical nature

2-Pyrrolidinone, 1-ethenyl-, homopolymer CAS Number: 9003-39-8

Hazardous ingredients (GHS)

According to UN GHS criteria

No particular hazards known.

#### **Mixtures**

Not applicable

### 4. First-Aid Measures

#### **Description of first aid measures**

Remove contaminated clothing.

If inhaled:

Keep patient calm, remove to fresh air.

On skin contact:

Wash thoroughly with soap and water

On contact with eyes:

Wash affected eyes for at least 15 minutes under running water with eyelids held open.

On ingestion:

Rinse mouth and then drink 200-300 ml of water.

#### Most important symptoms and effects, both acute and delayed

Symptoms: (Further) symptoms and / or effects are not known so far

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## Indication of any immediate medical attention and special treatment needed

Treatment: Symptomatic treatment (decontamination, vital functions).

## 5. Fire-Fighting Measures

### **Extinguishing media**

Suitable extinguishing media: water spray, foam, dry powder

Unsuitable extinguishing media for safety reasons: water jet

## Special hazards arising from the substance or mixture

cyanides, nitrogen oxides, carbon oxides, harmful vapours

The substances/groups of substances mentioned can be released in case of fire. Dust explosion hazard.

#### Advice for fire-fighters

Special protective equipment:

Wear a self-contained breathing apparatus.

Further information:

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

## 6. Accidental Release Measures

Avoid the formation and build-up of dust - danger of dust explosion. Avoid dispersal of dust in the air (e.g. by clearing dusty surfaces with compressed air).

#### Personal precautions, protective equipment and emergency procedures

Avoid dust formation. Use personal protective clothing. Information regarding personal protective measures, see section 8.

## **Environmental precautions**

Do not discharge into drains/surface waters/groundwater.

#### Methods and material for containment and cleaning up

For small amounts: Contain with dust binding material and dispose of.

For large amounts: Sweep/shovel up.

Dispose of absorbed material in accordance with regulations. Avoid dust formation.

# 7. Handling and Storage

#### Precautions for safe handling

Avoid dust formation. Provide exhaust ventilation if dust is formed.

Protection against fire and explosion:

The product is capable of dust explosion. Avoid dust formation. Prevent electrostatic charge - sources of ignition should be kept well clear - fire extinguishers should be kept handy. Use explosion-proof apparatus and fittings.

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Dust explosion class: Dust explosion class 2 (Kst-value 200 up to 300 bar m s-1).

## Conditions for safe storage, including any incompatibilities

Further information on storage conditions: Keep container tightly closed. Store at ambient temperature.

#### Specific end use(s)

For the relevant identified use(s) listed in Section 1 the advice mentioned in this section 7 is to be observed.

## 8. Exposure Controls/Personal Protection

#### **Control parameters**

Components with occupational exposure limits

No substance specific occupational exposure limits known.

#### **Exposure controls**

#### Personal protective equipment

Respiratory protection:

Breathing protection if breathable aerosols/dust are formed. Particle filter with low efficiency for solid particles (e.g. EN 143 or 149, Type P1or FFP1)

Hand protection:

Wear chemical resistant protective gloves.

Eye protection:

Safety glasses with side-shields (frame 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

Handle in accordance with good industrial hygiene and safety practice. Wearing of closed work clothing is recommended. No eating, drinking, smoking or tobacco use at the place of work. Hands and/or face should be washed before breaks and at the end of the shift. Store work clothing separately.

#### 9. Physical and Chemical Properties

### Information on basic physical and chemical properties

Form: powder
Colour: white to cream
Odour: almost odourless

Odour threshold:

not determined

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pH value: 3 - 7

(100 g/l, 20 °C)

melting range: >= 130 °C

The substance / product

decomposes.

Boiling point:

not applicable

Flash point:

not applicable, the product is a solid

Evaporation rate:

The product is a non-volatile solid.

Flammability: not highly fla

not highly flammable (VDI 2263, sheet 1, 1.1)

(DIN 51794)

Lower explosion limit:

For solids not relevant for classification and labelling.

Upper explosion limit:

For solids not relevant for classification and labelling.

Ignition temperature: approx. 420 °C

Vapour pressure:

dropped

Density:

No information is available for the absolute density. Instead the bulk density was determined as a more

relevant value.

Relative vapour density (air):

not relevant

Solubility in water: fully soluble

Solubility (qualitative) solvent(s): organic solvents

soluble

Partitioning coefficient n-octanol/water (log Kow):

not determined

Thermal decomposition: 170 °C (DSC (DIN 51007))

Viscosity, dynamic:

not relevant

Viscosity, kinematic:

Explosion hazard:

not applicable, the product is a solid Product is not explosive, however a

dust explosion could result from an

air / dust mixture.

Fire promoting properties: not fire-propagating

#### Other information

Self heating ability: It is not a substance capable of (VDI 2263, sheet 1, 1.4.1)

spontaneous heating according to UN transport regulations class 4.2.

SADT: Not a substance liable to self-decomposition according to UN transport

regulations, class 4.1.

Bulk density: 400 - 600 kg/m3

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## 10. Stability and Reactivity

#### Reactivity

No hazardous reactions if stored and handled as prescribed/indicated.

Corrosion to metals: Corrosive effects to metal are not anticipated.

Formation of Remarks: Forms no flammable gases in the

flammable gases: presence of water.

### **Chemical stability**

The product is stable if stored and handled as prescribed/indicated.

#### Possibility of hazardous reactions

Dust explosion hazard.

#### Conditions to avoid

Avoid dust formation. Avoid electro-static charge. Avoid all sources of ignition: heat, sparks, open flame.

See SDS section 7 - Handling and storage.

### Incompatible materials

Substances to avoid: strong alkalies

#### Hazardous decomposition products

Hazardous decomposition products:

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

### 11. Toxicological Information

#### Information on toxicological effects

#### Acute toxicity

Assessment of acute toxicity:

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

Experimental/calculated data:

LD50 rat (oral): > 5,000 mg/kg (BASF-Test)

LC50 rat (by inhalation): > 5.2 mg/l 4 h (OECD Guideline 403)

#### Irritation

Assessment of irritating effects:

Not irritating to the skin. Not irritating to the eyes.

Experimental/calculated data:

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

Serious eye damage/irritation rabbit: non-irritant (Draize test)

#### Respiratory/Skin sensitization

Assessment of sensitization:

No data available.

#### Germ cell mutagenicity

Assessment of mutagenicity:

The substance was not mutagenic in studies with mammals.

#### Carcinogenicity

Assessment of carcinogenicity:

In long-term animal studies in which the substance was given in high doses by feed, a carcinogenic effect was not observed.

#### Reproductive toxicity

Assessment of reproduction toxicity:

No data available.

## **Developmental toxicity**

Assessment of teratogenicity:

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

#### Specific target organ toxicity (single exposure)

Remarks: No data available.

Repeated dose toxicity and Specific target organ toxicity (repeated exposure)

Assessment of repeated dose toxicity:

No data available.

## Aspiration hazard

not applicable

# 12. Ecological Information

## **Toxicity**

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.

#### Toxicity to fish:

LC50 (96 h) > 10,000 mg/l, Leuciscus idus (DIN 38412 Part 15, static)

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Microorganisms/Effect on activated sludge:

EC20 (0.5 h) > 1,995 mg/l, activated sludge, industrial (OECD Guideline 209, aerobic)

#### Persistence and degradability

Assessment biodegradation and elimination (H2O):

Poorly eliminated from water.

Elimination information:

< 10 % DOC reduction (15 d) (OECD Guideline 302 B) (aerobic, activated sludge, industrial) Poorly eliminated from water.

### **Bioaccumulative potential**

Bioaccumulation potential:

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

## Mobility in soil

Assessment transport between environmental compartments:

Volatility: No data available.

#### Results of PBT and vPvB assessment

According to Annex XIII of Regulation (EC) No.1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH): The product does not fulfill the criteria for PBT (Persistent/bioaccumulative/toxic) and vPvB (very persistent/very bioaccumulative). Self classification

#### Other adverse effects

The substance is not listed in Regulation (EC) 1005/2009 on substances that deplete the ozone layer.

## 13. Disposal Considerations

#### Waste treatment methods

Observe national and local legal requirements.

Contaminated packaging:

Uncontaminated packaging can be re-used.

Packs that cannot be cleaned should be disposed of in the same manner as the contents.

## 14. Transport Information

#### Land transport

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**ADR** 

Not classified as a dangerous good under transport regulations

UN number or ID number:
UN proper shipping name:
Transport hazard class(es):
Packing group:
Environmental hazards:
Special precautions for

Not applicable
Not applicable
Not applicable
Not applicable
Not applicable
Not applicable

user

RID

Not classified as a dangerous good under transport regulations

UN number or ID number:
UN proper shipping name:
Transport hazard class(es):
Packing group:
Environmental hazards:
Not applicable
Not applicable
Not applicable

Special precautions for

user

None known

#### **Inland waterway transport**

ADN

Not classified as a dangerous good under transport regulations

UN number or ID number:
UN proper shipping name:
Transport hazard class(es):
Packing group:
Environmental hazards:
Special precautions for

Not applicable
Not applicable
Not applicable
Not applicable
Not applicable

user:

Transport in inland waterway vessel

Not evaluated

### Sea transport

**IMDG** 

Not classified as a dangerous good under transport regulations

UN number or ID number:
UN proper shipping name:
Transport hazard class(es):
Packing group:
Environmental hazards:

Not applicable
Not applicable
Not applicable

None known

Special precautions for

user

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## Air transport

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IATA/ICAO

Not classified as a dangerous good under transport regulations

UN number or ID number
UN proper shipping name:
Transport hazard class(es):
Packing group:
Environmental hazards:
Special precautions for

Not applicable
Not applicable
Not applicable
Not applicable
Not applicable
Not applicable

user

## Maritime transport in bulk according to IMO instruments

Maritime transport in bulk is not intended.

#### 15. Regulatory Information

# Safety, health and environmental regulations/legislation specific for the substance or 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

Any other intended applications should be discussed with the manufacturer. Corresponding occupational protection measurements must be followed.

The data contained in this safety data sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. This safety data sheet is neither a Certificate of Analysis (CoA) nor technical data sheet and shall not be mistaken for a specification agreement. Identified uses in this safety data sheet do neither represent an agreement on the corresponding contractual quality of the substance/mixture nor a contractually designated use. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.

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