

# Safety data sheet

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BASF safety data sheet. This is a translation of the country-specific safety data sheet into a language other than that required by law. This document does not replace the safety data sheet provided according to Regulation (EC) No 1907/2006.

Date / Revised: 02.03.2023

Version: 2.0

Date previous version: 28.03.2022

Previous version: 1.0

Date / First version: 28.03.2022

Product: **Kollidon® 12 PF**

(ID no. 30034972/SDS\_GEN\_NO/EN)

Date of print 13.10.2025

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

### 1.1. Product identifier

## Kollidon® 12 PF

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

CAS Number: 9003-39-8

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

Relevant identified uses: pharmaceutical excipient

### 1.3. Details of the supplier of the safety data sheet

Company:  
BASF SE  
67056 Ludwigshafen  
GERMANY

Contact address:  
BASF AS  
Lilleakerveien 2B  
0283 Oslo  
NORWAY

Telephone: +47 90 28 05 15

E-mail address: product-safety-north@basf.com

### 1.4. Emergency telephone number

Giftinformasjonen +47 22 59 13 00, 24-timers service 7 dager i uken

International emergency number:

Telephone: +49 180 2273-112

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## SECTION 2: Hazards Identification

### 2.1. Classification of the substance or mixture

According to Regulation (EC) No 1272/2008 [CLP]

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

### 2.2. Label elements

According to Regulation (EC) No 1272/2008 [CLP]

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

### 2.3. Other hazards

According to Regulation (EC) No 1272/2008 [CLP]

The product does not contain a substance fulfilling the PBT (persistent/bioaccumulative/toxic) criteria or the vPvB (very persistent/very bioaccumulative) criteria. Product does not contain a substance above legal limits included in the list established in accordance with Article 59(1) of Regulation (EC) No 1907/2006 for having endocrine disrupting properties or is identified to have endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

The product is under certain conditions capable of dust explosion.

## SECTION 3: Composition/Information on Ingredients

### 3.1. Substances

Chemical nature

2-Pyrrolidinone, 1-ethenyl-, homopolymer

CAS Number: 9003-39-8

### 3.2. Mixtures

Not applicable

## SECTION 4: First-Aid Measures

### 4.1. Description of first aid measures

Remove contaminated clothing.

If inhaled:

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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.

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

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

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

Treatment: Symptomatic treatment (decontamination, vital functions).

---

### **SECTION 5: Fire-Fighting Measures**

#### **5.1. Extinguishing media**

Suitable extinguishing media:

water spray, foam, dry powder

Unsuitable extinguishing media for safety reasons:

water jet

Additional information:

Avoid whirling up the material/product because of the danger of dust explosion.

#### **5.2. Special hazards arising from the substance or mixture**

Endangering substances: carbon oxides, cyanides, nitrogen oxides

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

#### **5.3. 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.

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## SECTION 6: Accidental Release Measures

Avoid the formation and build-up of dust - danger of dust explosion. Dust in sufficient concentration can result in an explosive mixture in air. Handle to minimize dusting and eliminate open flame and other sources of ignition. Avoid dispersal of dust in the air (e.g. by clearing dusty surfaces with compressed air).

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

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

### 6.2. Environmental precautions

Do not discharge into drains/surface waters/groundwater.

### 6.3. 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.

### 6.4. Reference to other sections

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

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## SECTION 7: Handling and Storage

### 7.1. 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.

### 7.2. Conditions for safe storage, including any incompatibilities

Further information on storage conditions: Keep container tightly closed and dry.

### 7.3. 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.

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## SECTION 8: Exposure Controls/Personal Protection

### 8.1. Control parameters

Components with occupational exposure limits

| No substance specific occupational exposure limits known.

### 8.2. 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 P1 or FFP1)

Hand protection:

Suitable chemical resistant safety gloves (EN ISO 374-1) also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN ISO 374-1): E.g. nitrile rubber (0.4 mm), chloroprene rubber (0.5 mm), butyl rubber (0.7 mm) etc. 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.

Eye protection:

Safety glasses with side-shields (frame goggles) (e.g. EN 166)

Body protection:

Body protection must be chosen based on level of activity and exposure.

#### 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.

## SECTION 9: Physical and Chemical Properties

### 9.1. Information on basic physical and chemical properties

|                  |                                     |
|------------------|-------------------------------------|
| State of matter: | solid                               |
| Form:            | powder                              |
| Colour:          | white to cream                      |
| Odour:           | almost odourless                    |
| Odour threshold: |                                     |
|                  | not determined                      |
| melting range:   | >= 130 °C                           |
|                  | The substance / product decomposes. |

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|   |  |                          |
|---|--|--------------------------|
| Boiling point:                                      | not applicable   |                          |
| Flammability:                                       | not highly flammable   | (VDI 2263, sheet 1, 1.2) |
| Lower explosion limit:                              | For solids not relevant for classification and labelling.                                      |                          |
| Upper explosion limit:                              | For solids not relevant for classification and labelling.                                      |                          |
| Flash point:  | not applicable   |                          |
| Auto-ignition temperature:                          | approx. 420 °C   | (DIN 51794)              |
| Thermal decomposition:                              | > 165 °C (DSC (DIN 51007))   |                          |
| SADT:   | Not a substance liable to self-decomposition according to UN transport regulations, class 4.1. |                          |
| pH value:   | 3 - 7<br>(100 g/l, 20 °C)  |                          |
| Viscosity, dynamic:                                 | not relevant   |                          |
| Solubility in water:                                | > 800 g/l<br>(23 °C)   |                          |
| Solubility (qualitative) solvent(s):                | organic solvents<br>soluble  |                          |
| Partitioning coefficient n-octanol/water (log Kow): | < -5   |                          |
| Vapour pressure:                                    | negligible   |                          |
| Density:  | 1,2 g/cm <sup>3</sup><br>(20 °C)   |                          |

#### Particle characteristics

|                             |                   |   |
|-----------------------------|-------------------|---|
| Particle size distribution: | typically > 10 µm | (D50, Volumetric Distribution, ISO 13320-1) |
|-----------------------------|-------------------|---|

## 9.2. Other information

### Information with regard to physical hazard classes

#### Explosives

|                   |   |
|-------------------|---|
| Explosion hazard: | Product is not explosive, however a dust explosion could result from an air / dust mixture. |
|-------------------|---|

#### Oxidizing properties

|                            |                      |
|----------------------------|----------------------|
| Fire promoting properties: | not fire-propagating |
|----------------------------|----------------------|

#### Substances and mixtures, which emit flammable gases in contact with water

|                               |  |
|-------------------------------|--|
| Formation of flammable gases: | Forms no flammable gases in the presence of water. |
|-------------------------------|--|

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#### Corrosion to metals

Corrosive effects to metal are not anticipated.

#### **Other safety characteristics**

Bulk density: 400 - 600 kg/m<sup>3</sup>

SAPT-Temperature:

Study scientifically not justified.

Evaporation rate:

negligible

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## **SECTION 10: Stability and Reactivity**

### **10.1. Reactivity**

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

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

Formation of flammable gases: Remarks: Forms no flammable gases in the presence of water.

### **10.2. Chemical stability**

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

### **10.3. Possibility of hazardous reactions**

Dust explosion hazard.

### **10.4. 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.

### **10.5. Incompatible materials**

Substances to avoid:  
strong alkalis

### **10.6. Hazardous decomposition products**

Hazardous decomposition products:

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

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## SECTION 11: Toxicological Information

### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

#### Acute toxicity

Assessment of acute toxicity:

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

Experimental/calculated data:

LD50 rat (oral): > 2.000 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:

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.



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#### 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

#### Interactive effects

No data available.

### **11.2. Information on other hazards**

#### Endocrine disrupting properties

| Product does not contain a substance above legal limits included in the list established in accordance with Article 59(1) of Regulation (EC) No 1907/2006 for having endocrine disrupting properties or is identified to have endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

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## SECTION 12: Ecological Information

### 12.1. 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)

Microorganisms/Effect on activated sludge:

EC20 (0,5 h) > 1.995 mg/l, activated sludge, industrial (OECD Guideline 209, aerobic)

### 12.2. Persistence and degradability

Assessment biodegradation and elimination (H<sub>2</sub>O):

Poorly eliminated from water.

Elimination information:

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

### 12.3. Bioaccumulative potential

Bioaccumulation potential:

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

### 12.4. Mobility in soil

Assessment transport between environmental compartments:

Adsorption in soil: Adsorption to solid soil phase is not expected.

### 12.5. 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

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## 12.6. Endocrine disrupting properties

Product does not contain a substance above legal limits included in the list established in accordance with Article 59(1) of Regulation (EC) No 1907/2006 for having endocrine disrupting properties or is identified to have endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

## 12.7. Other adverse effects

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

# SECTION 13: Disposal Considerations

## 13.1. 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.

# SECTION 14: Transport Information

## Land transport

ADR

Not classified as a dangerous good under transport regulations

UN number or ID number: Not applicable

UN proper shipping name: Not applicable

Transport hazard class(es): Not applicable

Packing group: Not applicable

Environmental hazards: Not applicable

Special precautions for user: None known

RID

Not classified as a dangerous good under transport regulations

UN number or ID number: Not applicable

UN proper shipping name: Not applicable

Transport hazard class(es): Not applicable

Packing group: Not applicable

Environmental hazards: Not applicable

Special precautions for user: None known

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user

### **Inland waterway transport**

ADN

|                               |  |
|-------------------------------|--|
|                               | Not classified as a dangerous good under transport regulations |
| UN number or ID number:       | Not applicable   |
| UN proper shipping name:      | Not applicable   |
| Transport hazard class(es):   | Not applicable   |
| Packing group:                | Not applicable   |
| Environmental hazards:        | Not applicable   |
| Special precautions for user: | None known   |

### **Transport in inland waterway vessel**

Not evaluated

### **Sea transport**

IMDG

|                               |  |
|-------------------------------|--|
|                               | Not classified as a dangerous good under transport regulations |
| UN number or ID number:       | Not applicable   |
| UN proper shipping name:      | Not applicable   |
| Transport hazard class(es):   | Not applicable   |
| Packing group:                | Not applicable   |
| Environmental hazards:        | Not applicable   |
| Special precautions for user: | None known   |

### **Air transport**

IATA/ICAO

|                               |  |
|-------------------------------|--|
|                               | Not classified as a dangerous good under transport regulations |
| UN number or ID number:       | Not applicable   |
| UN proper shipping name:      | Not applicable   |
| Transport hazard class(es):   | Not applicable   |
| Packing group:                | Not applicable   |
| Environmental hazards:        | Not applicable   |
| Special precautions for user: | None known   |

## **14.1. UN number or ID number**

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See corresponding entries for "UN number or ID number" for the respective regulations in the tables above.

#### **14.2. UN proper shipping name**

See corresponding entries for "UN proper shipping name" for the respective regulations in the tables above.

#### **14.3. Transport hazard class(es)**

See corresponding entries for "Transport hazard class(es)" for the respective regulations in the tables above.

#### **14.4. Packing group**

See corresponding entries for "Packing group" for the respective regulations in the tables above.

#### **14.5. Environmental hazards**

See corresponding entries for "Environmental hazards" for the respective regulations in the tables above.

#### **14.6. Special precautions for user**

See corresponding entries for "Special precautions for user" for the respective regulations in the tables above.

#### **14.7. Maritime transport in bulk according to IMO instruments**

Maritime transport in bulk is not intended.

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### **SECTION 15: Regulatory Information**

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

Directive 2012/18/EU - Control of Major Accident Hazards involving dangerous substances (EU):  
Listed in above regulation: no

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

#### **15.2. Chemical Safety Assessment**

Chemical Safety Assessment not required

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### **SECTION 16: Other Information**

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

#### Abbreviations

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ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road.  
ADN = The European Agreement concerning the International Carriage of Dangerous Goods by Inland waterways. ATE = Acute Toxicity Estimates. CAO = Cargo Aircraft Only. CAS = Chemical Abstract Service. CLP = Classification, Labelling and Packaging of substances and mixtures. DIN = German national organization for standardization. DNEL = Derived No Effect Level. EC50 = Effective concentration median for 50% of the population. EC = European Community. EN = European Standards. IARC = International Agency for Research on Cancer. IATA = International Air Transport Association. IBC-Code = Intermediate Bulk Container code. IMDG = International Maritime Dangerous Goods Code. ISO = International Organization for Standardization. STEL = Short-Term Exposure Limit. LC50 = Lethal concentration median for 50% of the population. LD50 = Lethal dose median for 50% of the population. TLV = Threshold Limit Value. MARPOL = The International Convention for the Prevention of Pollution from Ships. NEN = Dutch Norm. NOEC = No Observed Effect Concentration. OEL = Occupational Exposure Limit. OECD = Organization for Economic Cooperation and Development. PBT = Persistent, Bioaccumulative and Toxic. PNEC = Predicted No Effect Level. PPM = Parts per million. RID = The European Agreement concerning the International Carriage of Dangerous Goods by Rail. TWA = Time Weight Average. UN-number = UN number at transport. vPvB = very Persistent and very Bioaccumulative.

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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Vertical lines in the left hand margin indicate an amendment from the previous version.