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1. Identification

Product identifier used on the label

Kollidon® 90 F

Recommended use of the chemical and restriction on use

Recommended use*: pharmaceutical excipient Unsuitable for use: Not intended for sale to or use by the general public.

Details of the supplier of the safety data sheet

Company:

BASF de Costa Rica S.A. Building Epic Corporate Center, First Floor, Trejos Montealegre, Escazu San Jose, COSTA RICA

Telephone: +506 2201-1990

Emergency telephone number

24 Hour Emergency Response Information

CHEMTREC 1-703-527-3887

Centro Nacional de Control de Intoxicaciones: (506 2223-1028/222-0122/911)

Other means of identification

Synonyms: Polyvinylpyrrolidone

2. Hazards Identification

According to Executive Decree No. 40457-S

Classification of the product

Combustible Dust Combustible Dust (1) Combustible Dust

Label elements

Signal Word:

^{*} The "Recommended use" identified for this product is provided solely to comply with a Federal requirement and is not part of the seller's published specification. The terms of this Safety Data Sheet (SDS) do not create or infer any warranty, express or implied, including by incorporation into or reference in the seller's sales agreement.

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Warning

Hazard Statement:

May form combustible dust concentration in air.

Hazards not otherwise classified

The product is under certain conditions capable of dust explosion.

3. Composition / Information on Ingredients

According to Executive Decree No. 40457-S

Under the referenced regulation, this product does not contain any components classified for health hazards above the relevant cut off value.

4. First-Aid Measures

Description of first aid measures

General advice:

Remove contaminated clothing.

If inhaled:

Keep patient calm, remove to fresh air. Assist in breathing if necessary. Seek medical attention.

If on skin:

Wash affected areas thoroughly with soap and water. If irritation develops, seek medical attention.

If in eyes:

In case of contact with the eyes, rinse immediately for at least 15 minutes with plenty of water. If irritation develops, seek medical attention.

If swallowed:

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

Most important symptoms and effects, both acute and delayed

Symptoms: No data available.

Indication of any immediate medical attention and special treatment needed

Note to physician

Treatment: Symptomatic treatment (decontamination, vital functions).

5. Fire-Fighting Measures

Extinguishing media

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Suitable extinguishing media: foam, water spray, dry powder

Special hazards arising from the substance or mixture

Hazards during fire-fighting:

harmful vapours, carbon oxides, nitrogen oxides

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

Advice for fire-fighters

Protective equipment for fire-fighting:

Firefighters should be equipped with self-contained breathing apparatus and turn-out gear.

Further information:

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

Dusty conditions may ignite explosively in the presence of an ignition source causing flash fire.

6. Accidental release measures

Further accidental release measures:

Avoid dispersal of dust in the air (e.g. by clearing dusty surfaces with compressed air). 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.

Personal precautions, protective equipment and emergency procedures

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

Wear appropriate respiratory protection. Use personal protective clothing. Ensure adequate ventilation.

Environmental precautions

Do not discharge into drains/surface waters/groundwater.

Methods and material for containment and cleaning up

For small amounts: Pick up with suitable appliance and dispose of.

For large amounts: Sweep/shovel up.

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

Nonsparking tools should be used.

7. Handling and Storage

Precautions for safe handling

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

Protection against fire and explosion:

Avoid dust formation. 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. Routine housekeeping

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should be instituted to ensure that dusts do not accumulate on surfaces. Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres. Refer to NFPA 660 (2025) Standard for Combustible Dust and Particulate Solids. NFPA 660 is a combination of Standards NFPA 61 (Agriculture and Food), NFPA 484 (Metals), NFPA 652 (Fundamentals of Combustible Dusts), NFPA 654 (Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids), NFPA 65 (Sulfur), and NFPA 664 (Woodworking/Processing). Consult NFPA 660 standard for relevant commodity-specific and general safety information.

Conditions for safe storage, including any incompatibilities

Further information on storage conditions: Containers should be stored tightly sealed in a dry place. Protect against heat.

Storage stability:

No specific storage temperature necessary.

8. Exposure Controls/Personal Protection

none

Advice on system design:

Provide local exhaust ventilation to control dusts/mists. It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen deficient environment. Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment). Use only appropriately classified electrical equipment and powered industrial trucks.

Personal protective equipment

Respiratory protection:

Breathing protection if dusts are formed. Wear a NIOSH-certified (or equivalent) respirator as necessary.

Hand protection:

Chemical resistant protective gloves

Eve protection:

Safety glasses with side-shields. Wear safety goggles (chemical goggles) if there is potential for airborne dust exposures.

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.

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9. Physical and Chemical Properties

Physical state: solid Form: powder

Odour: almost odourless Odour threshold: not determined Colour: white to cream

pH value: 4.0 - 7.0(Ph. Eur. 2.2.3)

(50 g/l)

melting range: >= 130 °C The substance / product

decomposes.

freezing range: No data available.

Boiling point: The product is a non-volatile solid.

Flash point: not applicable

not highly flammable Flammability: (other) For solids not relevant for Lower explosion limit: (air)

classification and labelling.

Upper explosion limit: For solids not relevant for

classification and labelling.

Autoignition: 425 °C (DIN 51794)

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

transport regulations, class 4.1.

Vapour pressure: not applicable Density: 1.2 g/cm3

(20°C)

Relative density: No data available.

Bulk density: approx. 400 - 600 kg/m3 (DIN EN ISO 60)

Relative vapour density: The product is a non-volatile solid.

Partitioning coefficient nnot determined

octanol/water (log Pow):

Self-ignition not self-igniting

temperature:

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

It is not a self-decompositionable substance.

10,000 - 30,000 mPa.s (DIN EN ISO 2555 Viscosity, dynamic:

> (20 %(m), 23 °C) (RVT))

Viscosity, kinematic: No data available.

Solubility in water: > 270 g/l

(23°C)

Miscibility with water: soluble Solubility (qualitative): soluble

solvent(s): organic solvents,

Molecular weight: No data available.

The product is a non-volatile solid. Evaporation rate:

Particle characteristics

Particle size distribution: typically > 100 μm (D50, Volumetric Distribution,

ISO 13320-1)

10. Stability and Reactivity

Reactivity

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

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Corrosion to metals:

Corrosive effects to metal are not anticipated.

Oxidizing properties: not fire-propagating

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

strong alkalies

Hazardous decomposition products

Decomposition products:

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

Thermal decomposition:

170 °C (DSC (DIN 51007))

It is not a self-decompositionable substance.

11. Toxicological information

Primary routes of exposure

Routes of entry for solids and liquids are ingestion and inhalation, but may include eye or skin contact. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquefied gases.

Acute Toxicity/Effects

Acute toxicity

Assessment of acute toxicity: Virtually nontoxic after a single ingestion. Virtually nontoxic by inhalation.

<u>Oral</u>

Type of value: LD50

Species: rat

Value: > 2,000 mg/kg (BASF-Test)

Inhalation

Type of value: LC50

Species: rat

Value: > 5.2 mg/l (OECD Guideline 403)

Exposure time: 4 h

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No data available.

Assessment other acute effects

Assessment of STOT single:

Based on the available information there is no specific target organ toxicity to be expected after a single exposure.

Irritation / corrosion

Assessment of irritating effects: Not irritating to eyes and skin.

Skin

Species: rabbit Result: non-irritant Method: Draize test

Eye

Species: rabbit Result: non-irritant Method: Draize test

Aspiration Hazard

No aspiration hazard expected.

Chronic Toxicity/Effects

Repeated dose toxicity

Assessment of repeated dose toxicity: None known Experimental/calculated data: No data available.

Genetic toxicity

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: Not expected to cause reproductive toxicity (based on composition).

Teratogenicity

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

12. Ecological Information

Toxicity

Aquatic 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.

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Toxicity to fish

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

Microorganisms/Effect on activated sludge

<u>Toxicity to microorganisms</u>
OECD Guideline 209 aerobic
activated sludge, industrial/EC20 (0.5 h): > 1,995 mg/l

Persistence and degradability

Assessment biodegradation and elimination (H2O)

Poorly eliminated from water.

Elimination information

Information on: 2-Pyrrolidinone, 1-ethenyl-, homopolymer < 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 No data available.

Additional information

Other ecotoxicological advice:

Ecological data are determined by analogy.

13. Disposal considerations

Waste disposal of substance:

Do not discharge into drains/surface waters/groundwater. Dispose of in accordance with national, state and local regulations.

Container disposal:

Dispose of in a licensed facility. Recommend crushing, puncturing or other means to prevent unauthorized use of used containers.

14. Transport Information

Land transport

TDG

Hazard class: 4.2

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Packing group: III

ID number: UN 3088 Hazard label: 4.2

Proper shipping name: SELF-HEATING SOLID, ORGANIC, N.O.S. (contains 1-ETHENYL-

2-PYRROLIDINONE, HOMOPOLYMER)

Sea transport

IMDG

Hazard class: 4.2
Packing group: III
ID number: UN 3088

Hazard label: 4.2 Marine pollutant: NO

Proper shipping name: SELF-HEATING SOLID, ORGANIC, N.O.S. (contains 1-ETHENYL-

2-PYRROLIDINONE, HOMOPOLYMER)

Air transport

IATA/ICAO

Hazard class: 4.2
Packing group: III
ID number: UN 3088

Hazard label: 4.2

Proper shipping name: SELF-HEATING SOLID, ORGANIC, N.O.S. (contains 1-ETHENYL-

2-PYRROLIDINONE, HOMOPOLYMER)

Further information

Not dangerous goods of class 4.2 in packages up to 3000 litres capacity.

15. Regulatory Information

Federal Regulations

Not applicable

NFPA Hazard codes:

Health: 0 Fire: 1 Reactivity: 1 Special:

HMIS III rating

Health: 0 Flammability: 1 Physical hazard: 1

16. Other Information

SDS Prepared by:

BASF NA Product Regulations SDS Prepared on: 2025/08/28

We support worldwide Responsible Care® initiatives. We value the health and safety of our employees, customers, suppliers and neighbors, and the protection of the environment. Our commitment to Responsible Care is integral to conducting our business and operating our facilities in a safe and environmentally responsible fashion, supporting our customers and suppliers in ensuring the safe and environmentally sound handling of our products, and minimizing the impact of our

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operations on society and the environment during production, storage, transport, use and disposal of our products.

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This information is considered accurate but is not exhaustive and shall only be used as a guideline based on current knowledge of the chemical substance or mixture. Safety precautions suitable for the product must be applied.

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END OF DATA SHEET