

Safety data sheet

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BASF Safety data sheet according to the United Nations' Globally Harmonized System (UN GHS)

Date / Revised: 31.07.2025

Version: 6.0

Product: **Kauramin® Powder 773**

(ID no. 30034945/SDS_GEN_00/EN)

Date of print 20.10.2025

1. Identification

Product identifier

Kauramin® Powder 773

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

Relevant identified uses: Chemical

Recommended use: Chemical, for industrial and professional users

Details of the supplier of the safety data sheet

Company:

BASF SE

67056 Ludwigshafen

GERMANY

Division Monomers

Telephone: +49 621 60 42737

E-mail address: pss.monomers@basf.com

Emergency telephone number

International emergency number:

Telephone: +49 180 2273-112

2. Hazards Identification

Classification of the substance or mixture

According to UN GHS criteria

Skin Irrit. 3
Skin Sens. 1
Carc. 1B
Repr. 2 (fertility)

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

Label elements

Globally Harmonized System (GHS)

Pictogram:



Signal Word:

Danger

Hazard Statement:

H316	Causes mild skin irritation.
H317	May cause an allergic skin reaction.
H361	Suspected of damaging fertility.
H350	May cause cancer.

Precautionary Statements (Prevention):

P280	Wear protective gloves, protective clothing and eye protection or face protection.
P201	Obtain special instructions before use.
P261	Avoid breathing dust or fume.
P202	Do not handle until all safety precautions have been read and understood.
P272	Contaminated work clothing should not be allowed out of the workplace.

Precautionary Statements (Response):

P308 + P313	IF exposed or concerned: Get medical attention.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P333 + P313	If skin irritation or rash occurs: Get medical attention.
P362 + P364	Take off contaminated clothing and wash it before reuse.
P332 + P313	If skin irritation occurs: Get medical attention.

Precautionary Statements (Storage):

P405	Store locked up.
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Precautionary Statements (Disposal):

P501	Dispose of contents and container to hazardous or special waste collection point.
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Other hazardsAccording to UN GHS criteria

No specific dangers known, if the regulations/notes for storage and handling are considered. If applicable information is provided in this section on other hazards which do not result in classification but which may contribute to the overall hazards of the substance or mixture.

3. Composition/Information on Ingredients**Substances**

Not applicable

MixturesChemical nature

Condensate based on: Melamine, Formaldehyde

modified

Hazardous ingredients (GHS)

According to UN GHS criteria

Melamine

Content (W/W): $\geq 5\%$ - $< 10\%$
CAS Number: 108-78-1
EC-Number: 203-615-4

Acute Tox. 5 (oral)
Carc. 2
Repr. 2 (fertility)
STOT RE (Urinary tract.) 2
H303, H351, H361, H373

caprolactam

Content (W/W): $\geq 1\%$ - $< 3\%$
CAS Number: 105-60-2
EC-Number: 203-313-2
INDEX-Number: 613-069-00-2

Acute Tox. 4 (Inhalation - dust)
Acute Tox. 4 (oral)
Skin Irrit. 2
Eye Irrit. 2A
STOT SE 3 (irr. to respiratory syst.)
H319, H315, H335, H302 + H332

Butane-1,4-diol

Content (W/W): $\geq 1\%$ - $< 3\%$
CAS Number: 110-63-4
EC-Number: 203-786-5

Acute Tox. 4 (oral)
STOT SE 3 (drowsiness and dizziness)
H302, H336

2-Diethylaminoethanol

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Content (W/W): $\geq 0,3\%$ - $< 1\%$	Flam. Liq. 3
CAS Number: 100-37-8	Acute Tox. 3 (Inhalation - vapour)
EC-Number: 202-845-2	Acute Tox. 4 (oral)
INDEX-Number: 603-048-00-6	Acute Tox. 3 (dermal)
	Skin Corr. 1B
	Eye Dam. 1
	STOT SE 3 (irr. to respiratory syst.)
	Aquatic Acute 3
	H226, H302, H335, H314, H311 + H331, H402

Specific concentration limit:STOT SE 3, irr. to respiratory syst.: $\geq 5\%$

Formaldehyde

Content (W/W): $\geq 0,2\%$ - $< 0,3\%$	Flam. Liq. 4
CAS Number: 50-00-0	Acute Tox. 2 (Inhalation - vapour)
EC-Number: 200-001-8	Acute Tox. 3 (oral)
INDEX-Number: 605-001-00-5	Acute Tox. 3 (dermal)
	Skin Corr. 1B
	Eye Dam. 1
	Skin Sens. 1A
	Carc. 1B
	Aquatic Acute 2
	H227, H330, H317, H350, H314, H301 + H311, H401

Specific concentration limit:Eye Irrit. 2: 5 - $< 25\%$ STOT SE 3, irr. to respiratory syst.: $\geq 5\%$ Skin Sens. 1: $\geq 0,2\%$ Skin Irrit. 2: 5 - $< 25\%$ Skin Corr. 1B: $\geq 25\%$

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

4. First-Aid Measures

Description of first aid measures

First aid personnel should pay attention to their own safety. If the patient is likely to become unconscious, place and transport in stable sideways position (recovery position). Immediately remove contaminated clothing.

If inhaled:

Keep patient calm, remove to fresh air, seek medical attention.

On skin contact:

Immediately wash thoroughly with soap and water, seek medical attention.

On contact with eyes:

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

On ingestion:

Immediately rinse mouth and then drink 200-300 ml of water, seek medical attention.

Most important symptoms and effects, both acute and delayed

Symptoms: Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11., (Further) symptoms and / or effects are not known so far

Hazards: Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11. (Further) symptoms and / or effects are not known so far

Indication of any immediate medical attention and special treatment needed

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

5. Fire-Fighting Measures

Extinguishing media

Suitable extinguishing media:

water spray, foam, carbon dioxide, dry powder

Unsuitable extinguishing media for safety reasons:

water jet

Special hazards arising from the substance or mixture

Formaldehyde, harmful vapours

Dust explosion hazard.

Advice for fire-fighters

Further information:

Fire debris must be disposed of in accordance with official regulations. In case of combustion evolution of toxic gases/vapours possible. Do not allow to enter drains or waterways. Forms slippery surfaces with water.

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

Take appropriate protective measures. Information regarding personal protective measures, see section 8. Use personal protective clothing.

Environmental precautions

Do not allow to enter soil, waterways or waste water channels. Prevent entry into drains and surface waters. Ensure compliance with local regulations before discharging into effluent treatment plants.

Methods and material for containment and cleaning up

For small amounts: Sweep/shovel up.

For large amounts: Sweep/shovel up.

7. Handling and Storage**Precautions for safe handling**

Protection against fire and explosion:

Avoid dust formation. The product is capable of dust explosion. Sources of ignition should be kept well clear. Take precautionary measures against static discharges.

Conditions for safe storage, including any incompatibilities

Suitable materials for containers: Low density polyethylene (LDPE), High density polyethylene (HDPE), Aluminium, glass, Stainless steel 1.4306 (V2A), Stainless steel 1.4402 (V4A)

Further information on storage conditions: Keep in a cool place.

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

50-00-0: Formaldehyde

57-50-1: Sucrose

100-37-8: 2-Diethylaminoethanol

105-60-2: caprolactam

108-78-1: Melamine

110-63-4: Butane-1,4-diol

Exposure controlsPersonal protective equipment

Respiratory protection:

Breathing protection if dusts are formed. (Particle filter EN 143 P2 or FFP2)

Hand protection:

Chemical resistant protective gloves (EN ISO 374-1)

Suitable materials 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), polyvinylchloride (0.7 mm) and other

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.

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

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

Do not breathe dust. Do not breathe vapour/spray. No eating, drinking, smoking or tobacco use at the place of work. Wash contaminated clothing before reuse.

9. Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

State of matter:	solid
Form:	powder
Colour:	white
Odour:	almost odourless
Odour threshold:	No data available.
Melting point:	approx. 100 °C
:	not applicable
Flammability:	not determined
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, the product is a solid
Auto-ignition temperature:	> 500 °C (VDI 2263, sheet 1, 2.6 (May 1990))
Thermal decomposition:	> 250 °C (DTA) No decomposition if correctly stored and handled.
pH value:	approx. 9 (DIN ISO 976) (660 g/l, 20 °C)
Viscosity, kinematic:	not applicable, the product is a solid
Viscosity, dynamic:	not applicable, the product is a solid
Solubility in water:	The product has not been tested. The statement has been derived from substances/products of a similar structure or composition. > 2 g/l

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Partitioning coefficient n-octanol/water (log Kow): < 3,0

The statements are based on the properties of the individual components.

Vapour pressure:

not applicable

Relative density:

not determined

Density:

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

Relative vapour density (air):

The product is a non-volatile solid.

Particle characteristics

Particle size distribution: 33,53 - 77,79 µm

(D50, Volumetric Distribution, measured)

fine particles -

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

Self-heating substances and mixtures

Self heating ability:

It is not a substance capable of spontaneous heating according to UN transport regulations class 4.2.

Other safety characteristics

Bulk density:

approx. 700 kg/m³

(ISO 697)

Other Information:

none

Evaporation rate:

The product is a non-volatile solid.

10. Stability and Reactivity**Reactivity**

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

Chemical stability

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

Possibility of hazardous reactions

During processing with acids, water and / or heat formaldehyde will be released, which may act as a sensitizer.

Conditions to avoid

> 30 °C

Avoid heat. Avoid humidity. Avoid dust formation.

Incompatible materials

Substances to avoid:

Organic Peroxides, strong bases, strong acids, acid anhydrides

Hazardous decomposition products

:

Formaldehyde

11. Toxicological Information**Information on toxicological effects**Acute toxicity

Assessment of acute toxicity:

Virtually nontoxic after a single ingestion.

Experimental/calculated data:

LD50 rat (oral): > 2.000 mg/kg

Irritation

Assessment of irritating effects:

Skin contact causes slight irritation. Not irritating to the eyes.

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

Respiratory/Skin sensitization

Assessment of sensitization:

Sensitization after skin contact possible.

Information on: Formaldehyde

Assessment of sensitization:

Caused skin sensitization in animal studies. Caused sensitization in humans.

Germ cell mutagenicity

Assessment of mutagenicity:

Based on available data, the classification criteria are not met.

Carcinogenicity

Assessment of carcinogenicity:

The substance caused cancer in animal studies.

Information on: Melamine

Assessment of carcinogenicity:

Indication of possible carcinogenic effect in animal tests. Based on our experience and the information available, no adverse health effects are expected if handled as recommended with suitable precautions for designated uses.

Information on: Formaldehyde

Assessment of carcinogenicity:

After lifelong inhalation exposure to concentrations that were severely damaging to the nasal epithelium, nasal tumors were induced in rats; in other species these findings were not found or were considerably less pronounced. The International Agency for Research on Cancer (IARC) has classified formaldehyde as a Group 1 (known) human carcinogen based on epidemiological evidence linking formaldehyde exposure to occurrence of nasopharyngeal cancer and leukemia. No adverse health effects are anticipated if recommended personal protective equipment and industrial hygiene practices are used.

Reproductive toxicity

Assessment of reproduction toxicity:

Based on the ingredients, there is a suspicion of a toxic effect on reproduction.

Information on: Melamine

Assessment of reproduction toxicity:

The substance may cause damage to the testes after repeated ingestion of high doses, as shown in animal studies. The potential to impair fertility cannot be excluded.

Study scientifically not justified.

Developmental toxicity

Assessment of teratogenicity:

Not classified, due to lack of data.

Specific target organ toxicity (single exposure)

Assessment of STOT single:

The available information is not sufficient for the evaluation of specific target organ toxicity.

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

Assessment of repeated dose toxicity:

The information available on the product provides no indication of toxicity on target organs after repeated exposure.

Information on: Formaldehyde

Assessment of repeated dose toxicity:

After repeated exposure the prominent effect is local irritation.

Information on: Melamine

Assessment of repeated dose toxicity:

The substance may cause damage to the kidney after repeated ingestion of high doses, as shown in animal studies.

Aspiration hazard

not applicable

Other relevant toxicity information

The product has not been tested. The statements on toxicology have been derived from the properties of the individual components.

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) > 500 mg/l, *Leuciscus idus* (DIN 38412 Part 15, static)

Nominal concentration.

Microorganisms/Effect on activated sludge:

Inhibition of degradation activity in activated sludge is not to be anticipated during correct introduction of low concentrations. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Persistence and degradability

Assessment biodegradation and elimination (H₂O):

The product has not been tested.

Elimination information:

No data available.

Bioaccumulative potential

Assessment 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: The substance will not evaporate into the atmosphere from the water surface.

Other adverse effects

The product does not contain substances that are listed in Regulation (EU) 2024/590 on substances that deplete the ozone layer.

Additional information

Other ecotoxicological advice:

The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

13. Disposal Considerations

Waste treatment methods

Incinerate in suitable incineration plant, observing local authority regulations.

No disposal via sewage or waste water systems.

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

Inland waterway transport

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ADN

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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

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

Full text of classifications, hazard symbols and hazard statements, if mentioned in section 2 or 3:

Skin Irrit.	Skin irritation
Skin Sens.	Skin sensitization
Carc.	Carcinogenicity
Repr.	Reproductive toxicity
Acute Tox.	Acute toxicity
STOT RE	Specific target organ toxicity — repeated exposure
Eye Irrit.	Eye irritation
STOT SE	Specific target organ toxicity — single exposure
Flam. Liq.	Flammable liquids
Skin Corr.	Skin corrosion
Eye Dam.	Serious eye damage
Aquatic Acute	Hazardous to the aquatic environment - acute
H303	May be harmful if swallowed.
H351	Suspected of causing cancer.
H361	Suspected of damaging fertility.
H373	May cause damage to organs (Urinary tract.) through prolonged or repeated exposure.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H302 + H332	Harmful if swallowed or if inhaled.
H302	Harmful if swallowed.
H336	May cause drowsiness or dizziness.
H226	Flammable liquid and vapour.
H314	Causes severe skin burns and eye damage.
H311 + H331	Toxic in contact with skin or if inhaled.
H402	Harmful to aquatic life.
H227	Combustible liquid.
H330	Fatal if inhaled.
H317	May cause an allergic skin reaction.
H350	May cause cancer.
H301 + H311	Toxic if swallowed or in contact with skin.
H401	Toxic to aquatic life.

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.

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