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Certificate of Analysis

BASF Performance Polyamides Korea Co., Ltd

SURAJ CHEMICALS

340, MADHAVARAM HIGH ROAD

600060 VADHYARTHOTTAM, CHENNAI

India

2025-08-06 Certificate No 540

Specific test report 2.3 according to EN 10204

ADIPIC ACID K

25KG Paper bags
Purchase order/Customer material
1
000000000050730881

Material	50730881
Order	6013135420 000010
Delivery	6215288694 000010
Batch	KPPSE23
Batch/Qty	18000.000 KG
Total	18000.000 KG
Transport	WHSU2233482

Production Date: 23.07.2025
Best Before: 23.07.2026

Characteristic	Unit	Value	Lower Limit	Upper Limit
Content	%	99.89	99.80	
Moisture	%	0.11		0.20
Iron	mg/kg	0.08		0.30
Nitrate as HNO3	mg/kg	0.68		3.00
Ash	mg/kg	1.0		4.0
UV-ABS		0.002		0.020
Melting point	°C	152.0	151.5	152.5
APHA Color	APHA	0.7		5.0
Appearance		White Powder		

The above results are means of individual test values determined on samples taken during production of the lot.

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Safety Data Sheet
ADIPIC ACID K

1. Identification

Product identifier used on the label

ADIPIC ACID K

Recommended use of the chemical and restriction on use

Recommended use*: for the production of homopolymerisates and copolymerisates; initial product for chemical syntheses
Unsuitable for use: Not intended for sale to or use by the general public.

* 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.

Details of the supplier of the safety data sheet

Company:
BASF CORPORATION
100 Park Avenue
Florham Park, NJ 07932, USA

Telephone: +1 973 245-6000

Emergency telephone number

24 Hour Emergency Response Information
CHEMTREC: 1-800-424-9300
BASF HOTLINE: 1-800-832-HELP (4357)

Other means of identification

Molecular formula:	C6 H10 O4
Chemical family:	No data available.
Synonyms:	ADIPIC ACID
	1,6 Hexanedioic Acid

2. Hazards Identification

According to Regulation 2024 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

Classification of the product

Eye Dam.	1	Serious eye damage
Aquatic Acute	3	Hazardous to the aquatic environment - acute

Label elements

Pictogram:

Signal Word:
Danger

Hazard Statement:

H318	Causes serious eye damage.
H402	Harmful to aquatic life.

Precautionary Statements (Prevention):

P280	Wear eye and face protection.
P273	Avoid release to the environment.

Precautionary Statements (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 physician.

Precautionary Statements (Disposal):

P501	Dispose of contents/container in accordance with local regulations.

Hazards not otherwise classified

No specific dangers known, if the regulations/notes for storage and handling are considered.

3. Composition / Information on Ingredients

According to Regulation 2024 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

adipic acid
CAS Number: 124-04-9
Content (W/W): >= 80.0 - <= 100.0%
Synonym: 1,4-Butanedicarboxylic acid; Adipic acid, Hexanedioic acid

The actual concentration is withheld as a trade secret.

4. First-Aid Measures

Description of first aid measures

General advice:
Remove contaminated clothing.

If inhaled:
Remove the affected individual into fresh air and keep the person calm. Assist in breathing if necessary. Immediate medical attention required.

If on skin:
Wash affected areas thoroughly with soap and water. Remove contaminated clothing. Immediate medical attention required.

If in eyes:
Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after first 5 minutes, then continue rinsing. Seek medical attention.

If swallowed:
Rinse mouth and then drink 200-300 ml of water. Do not induce vomiting. Never induce vomiting or give anything by mouth if the victim is unconscious or having convulsions. Immediate medical attention required.

Most important symptoms and effects, both acute and delayed

Symptoms: Overexposure may cause:, dyspnea, coughing
Hazards: No applicable information available.

Indication of any immediate medical attention and special treatment needed

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

5. Fire-Fighting Measures

Extinguishing media

Suitable extinguishing media:
water spray, dry powder, foam, carbon dioxide

Unsuitable extinguishing media for safety reasons:
water jet

Special hazards arising from the substance or mixture
Hazards during fire-fighting:
No particular hazards known.

Advice for fire-fighters
Protective equipment for fire-fighting:
Firefighters should be equipped with self-contained breathing apparatus and turn-out gear.

Further information:
If exposed to fire, keep containers cool by spraying with water.

Impact Sensitivity:
Method: Explosive properties

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures
Avoid dust formation. Sources of ignition should be kept well clear. Use breathing apparatus if exposed to vapours/dust/aerosol.

Environmental precautions
Discharge into the environment must be avoided. Do not empty into drains. Retain and dispose of contaminated wash water.

Substance/product is RCRA hazardous due to its properties.

Methods and material for containment and cleaning up
Spills should be contained, solidified, and placed in suitable containers for disposal.

7. Handling and Storage

Precautions for safe handling
Ensure thorough ventilation of stores and work areas. Avoid contact with skin and eyes. Wear suitable protective clothing and eye/face protection. Handle in accordance with good industrial hygiene and safety practice.

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.

No explosion proofing necessary.

Conditions for safe storage, including any incompatibilities
Segregate from alkalies and alkalizing substances.

Suitable materials for containers: Stainless steel 1.4401, Stainless steel 1.4301 (V2), Aluminium, Polyester resin, glass reinforced (Palatal A410), Paper/Fibreboard, High density polyethylene (HDPE), glass, Low density polyethylene (LDPE)

Further information on storage conditions: Avoid extreme heat. Keep away from sources of ignition - No smoking.

Storage stability:
Tends to cake.

8. Exposure Controls/Personal Protection

Components with occupational exposure limits

adipic acid	ACGIH, US:	TWA value 5 mg/m3 ;

Advice on system design:
Provide local exhaust ventilation to control dust.

Personal protective equipment

Respiratory protection:
Wear a NIOSH-certified (or equivalent) particulate respirator. Do not exceed the maximum use concentration for the respirator facepiece/cartridge combination. For emergency or non-routine, high exposure situations, use a NIOSH-certified full facepiece pressure demand self-contained breathing apparatus (SCBA) or a full facepiece pressure demand supplied-air respirator (SAR) with escape provisions.

Observe OSHA regulations for respirator use (29 CFR 1910.134).

Hand protection:
Chemical resistant protective gloves should be worn to prevent all skin contact., Suitable materials may include, nitrile rubber (Buna N), chloroprene rubber (Neoprene), polyvinylchloride (Pylox), Consult with glove manufacturer for testing data., Protective glove selection must be based on the user's assessment of the workplace hazards.

Eye protection:
Tightly fitting safety goggles (chemical goggles). Wear face shield if splashing hazard exists.

Body protection:
Body protection must be chosen depending on activity and possible exposure, e.g. head protection, apron, protective boots, chemical-protection suit.

General safety and hygiene measures:
Avoid inhalation of dusts. Eye wash fountains and safety showers must be easily accessible. Wear protective clothing as necessary to minimize contact. Handle in accordance with good industrial hygiene and safety practice. Take off immediately all contaminated clothing. At the end of the shift the skin should be cleaned and skin-care agents applied.

9. Physical and Chemical Properties

Physical state:	solid	
Form:	crystalline	
Odour:	odourless	
Odour threshold:	No data available.	
Colour:	white	
pH value:	2.7	(pH Meter)
	(23 g/l, 25 °C)	
	3.2	
	(10 g/l)	
Melting point:	150 - 153 °C	
Freezing point:	No data available.	
Boiling point:	337.5 °C	
	(1,013 hPa)	
	Literature data.	
Sublimation point:	No applicable information available.	
Flash point:	not applicable, the product is a solid	
Flammability:	not highly flammable	(Directive 92/69/EEC, A.10)
Lower explosion limit:	No data available.	
Upper explosion limit:	No data available.	
Autoignition:	405 °C	(DIN 51794)

Vapour pressure:	0.097 hPa (18.5 °C) Literature data.	
Density:	1.36 g/cm3 (25 °C) Literature data.	
Relative density:	1.36 (25 °C) Literature data.	
Bulk density:	approx. 700 kg/m3	(other)
Relative vapour density:	No data available.	
Partitioning coefficient n-octanol/water (log Pow):	0.093 (25 °C)	(measured)
Self-ignition temperature:	not self-igniting	
	> 400 °C	(Directive 92/69/EEC, A.16)
Thermal decomposition:	not determined	
Viscosity, dynamic:	No data available.	
Viscosity, kinematic:	No data available.	
Solubility in water:	23 g/l (25 °C) Literature data.	
Solubility (quantitative):	No data available.	
Solubility (qualitative):	soluble solvent(s): organic solvents,	
Molecular weight:	146.14 g/mol	
Evaporation rate:	The product is a non-volatile solid.	

Particle characteristics

Particle size distribution:	approx. 60 µm	(D50, Volumetric Distribution, measured)
	particles <= 4.19 µm	2.76 %
	particles <= 10.48 µm	8.79 %
	particles <= 103.58 µm	78.08 %
	fine particles	

10. Stability and Reactivity

Reactivity
No applicable information available.

Corrosion to metals:
No corrosive effect on metal.

Oxidizing properties:
Based on its structural properties the product is not classified as oxidizing.

Minimum ignition energy:
10 - 30 mJ (DIN EN 13821)

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

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

Possibility of hazardous reactions
Reacts with basic components to generate heat. Dust explosion hazard.
The product is chemically stable.

Conditions to avoid
Avoid dust formation. Avoid deposition of dust. Avoid extreme heat. Avoid sources of ignition.

Incompatible materials
strong bases, oxidizing agents

Hazardous decomposition products

Decomposition products:
Thermal decomposition products: No hazardous decomposition products if stored and handled as prescribed/indicated., Incomplete combustion results in formation of toxic gases, containing mainly carbon monoxide and carbon dioxide.

Thermal decomposition:
not determined

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. Virtually nontoxic after a single skin contact.

Oral
Type of value: LD50
Species: rat (male/female)
Value: approx. 5,560 mg/kg (BASF-Test)

Inhalation
Type of value: LC50
Species: rat
Value: > 7.7 mg/l (BASF-Test)
Exposure time: 4 h
An aerosol was tested.

Dermal
Type of value: LD50
Species: rabbit (male/female)
Value: > 7,940 mg/kg (other)

Assessment other acute effects

Assessment of STOT single:
Based on available data, the classification criteria are not met.

Irritation / corrosion
Assessment of irritating effects: May cause slight irritation to the skin. May cause severe damage to the eyes.

Skin
Species: rabbit
Result: non-irritant
Method: BASF-Test

Eye
Species: rabbit
Result: irreversible damage
Method: OECD Guideline 405

Sensitization
Assessment of sensitization: Skin sensitizing effects were not observed in animal studies. A sensitizing effect on particularly sensitive individuals cannot be excluded.

Species: guinea pig
Result: Non-sensitizing.
Method: other

Aspiration Hazard
No aspiration hazard expected.

Chronic Toxicity/Effects

Repeated dose toxicity
Assessment of repeated dose toxicity: Repeated oral uptake of the substance did not cause substance-related effects.
The substance may cause damage to the upper respiratory tract after repeated inhalation, as shown in animal studies. May affect the liver and kidneys as indicated in animal studies. May affect the central nervous system as indicated in animal studies.

Genetic toxicity
Assessment of mutagenicity: The substance was not mutagenic in bacteria. The substance was not mutagenic in mammalian cell culture. The substance was not genotoxic in mammalian cell culture. The substance was not genotoxic in a test with mammals.

Carcinogenicity
Assessment of carcinogenicity: In long-term animal studies in which the substance was given in high concentrations by feed, a carcinogenic effect was not observed.

Reproductive toxicity
Assessment of reproduction toxicity: No effects have been reported in reproductive organs in long term animal studies.

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

Medical conditions aggravated by overexposure

Data available do not indicate that there are medical conditions that are generally recognized as being aggravated by exposure to this substance/product.

12. Ecological Information

Toxicity

Aquatic toxicity
Assessment of aquatic toxicity:
Acutely harmful for 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
LC0 (96 h) >= 1,000 mg/l, Danio rerio (other, static)
Nominal values (confirmed by concentration control analytics)

Aquatic invertebrates
LC50 (48 h) 46 mg/l, Daphnia magna (OECD Guideline 202, part 1)
Nominal concentration.

Aquatic plants
EC50 (72 h) 64.5 mg/l (growth rate), Pseudokirchneriella subcapitata (OECD Guideline 201, static)
Nominal concentration.

No observed effect concentration (72 h) 40.6 mg/l (growth rate), Pseudokirchneriella subcapitata (OECD Guideline 201, static)
Nominal concentration.

Chronic toxicity to fish
Study scientifically not justified.

Chronic toxicity to aquatic invertebrates
No observed effect concentration (21 d) 6.3 mg/l, Daphnia magna (OECD Guideline 211)
Nominal concentration.

Assessment of terrestrial toxicity
No data available.
Study scientifically not justified.

Microorganisms/Effect on activated sludge

Toxicity to microorganisms
OECD Guideline 209 aerobic
activated sludge/EC50 (3 h): > 100 mg/l

Persistence and degradability

Assessment biodegradation and elimination (H2O)
Readily biodegradable (according to OECD criteria).

Elimination information

83 % BOD of the ThOD (30 d) (OECD 301D; 92/69/EWG, C.4-E) (aerobic, domestic sewage)
Literature data.

Assessment of stability in water
According to structural properties, hydrolysis is not expected/probable.

Bioaccumulative potential

Assessment bioaccumulation potential
Because of the n-octanol/water distribution coefficient (log Pow) accumulation in organisms is not to be expected.

Bioaccumulation potential
Bioconcentration factor: 3.16 (calculated)
Accumulation in organisms is not to be expected.

Mobility in soil

Assessment transport between environmental compartments
The substance will not evaporate into the atmosphere from the water surface.
Adsorption to solid soil phase is not expected.

Additional information

Other ecotoxicological advice:
Do not release untreated into natural waters.

13. Disposal considerations

Waste disposal of substance:
Do not discharge into waterways or sewer systems without proper authorization. Dispose of in accordance with national, state and local regulations.

Container disposal:
Empty containers with less than 1 inch of residue may be landfilled at a licensed facility. Recommend crushing, puncturing or other means to prevent unauthorized use of used containers. If containers are not empty, they must be disposed of in a RCRA-licensed facility.

RCRA: D002

14. Transport Information

Land transport
USDOT
Not classified as a dangerous good under transport regulations

Sea transport
IMDG
Not classified as a dangerous good under transport regulations

Air transport
IATA/ICAO
Not classified as a dangerous good under transport regulations

15. Regulatory Information

Federal Regulations

Registration status:
Chemical TSCA, US

All substances are TSCA listed and active.

EPCRA 311/312 (Hazard categories): Refer to SDS section 2 for GHS hazard classes applicable for this product.

CERCLA RQ	CAS Number	Chemical name
5000 LBS	124-04-9	adipic acid

Reportable Quantity for release: 5,000 lb

State regulations

State RTK	CAS Number	Chemical name
PA	124-04-9	adipic acid
NJ	124-04-9	adipic acid

NFPA Hazard codes:
Health: 3 Fire: 1 Reactivity: 0 Special:

16. Other Information

SDS Prepared by:
BASF NA Product Regulations
SDS Prepared on: 2025/12/01

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

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END OF DATA SHEET