Safety data sheet

ChemiPURE di-Sodium Hydrogen Phosphate Dihydrate, ≥99.5%

Product name ChemiPURE di-Sodium Hydrogen Phosphate Dihydrate, ≥99.5%	Catalog no. SHP05, SHP10
Synonyms Disodium phosphate dibasic dihydrate	SDS revision -
CAS no. 10028-24-7	Format version / date 3 / 25 October 2026

01 PRODUCT AND COMPANY IDENTIFICATION

Product identifier	ChemiPURE di-Sodium Hydrogen Phosphate Dihydrate, ≥99.5%
Product code	SHP05, SHP10
CAS number	10028-24-7
EC number	231-448-7
Recommended use	For research use only. Laboratory reagent for phosphate buffer preparation, biochemical analysis, microbiology and molecular biology applications.
Supplier	EcoTech Biotechnology
Website	www.ecotechbiotech.com
Address	Universite Mah. İpekyolu Cad. Ata Teknokent Sitesi B Blok No: Z10, Yakutiye, Erzurum, Türkiye
Telephone	0090 544 327 34 97
SDS contact	info@ecotechbiotech.com
Emergency telephone	0090 544 327 34 97
Available	Monday-Saturday/08:00-20:00/GMT+3
Languages	Turkish/English
Outside these hours	Contact: info@ecotechbiotech.com

02 HAZARDS IDENTIFICATION

Classification	Not classified as hazardous under Regulation (EC) No. 1272/2008 (CLP).
Label elements	No hazardous label elements required.
Symbols / pictograms	None
Signal word	None
Hazard statements	None
Precautionary statements - Prevention	Avoid generating or inhaling dust. Use appropriate safety glasses and laboratory gloves; wash hands after handling.
Precautionary statements - Response	Rinse exposed skin and eyes with water. Seek medical advice if irritation or other symptoms persist.
Other hazards	Dust may cause transient mechanical irritation of the eyes or respiratory tract. Avoid uncontrolled environmental release.

Composition & response

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03 COMPOSITION / INFORMATION ON INGREDIENTS

Product name	ChemiPURE di-Sodium Hydrogen Phosphate Dihydrate, ≥99.5%
Synonyms	Disodium hydrogen phosphate dihydrate; sodium phosphate dibasic dihydrate; disodium phosphate dihydrate
Concentration	≥99.5% (purity)
Formula	$Na_2HPO_4 \cdot 2H_2O$
Molecular weight	177.99 g/mol
Mixture statement	Substance: disodium hydrogen phosphate dihydrate (CAS 10028-24-7; EC 231-448-7), purity ≥99.5%. No hazardous components requiring CLP classification are identified.

04 FIRST AID MEASURES

4.1 Description of first aid measures

Eye contact	Rinse eyes cautiously with plenty of water for several minutes, including under the eyelids. Remove contact lenses if easy. Seek medical attention if irritation continues.
Skin contact	Wash affected skin with plenty of water. Remove contaminated clothing. Seek medical advice if irritation develops.
Inhalation	Move the affected person to fresh air. Obtain medical advice if discomfort, coughing or other symptoms continue.
Ingestion	Rinse mouth with water. If conscious, drink a small amount of water. Do not induce vomiting. Seek medical advice if feeling unwell.
Self-protection of first aider	Avoid inhaling dust and use appropriate laboratory protective equipment.
Most important symptoms / effects	Airborne dust may cause temporary mechanical discomfort of the eyes and respiratory tract. Specific delayed effects are not established.
Notes to physicians	Treat symptomatically.

05 FIREFIGHTING MEASURES

Suitable extinguishing media	Use extinguishing media suitable for the surrounding fire, including water spray, carbon dioxide, foam or dry powder.
Unsuitable extinguishing media	No specific restrictions identified for this substance.
Special hazards arising from the substance or mixture	Non-combustible inorganic solid. Fire conditions may generate phosphorus oxides and sodium oxides.
Explosion data	Not classified as explosive; no unusual impact or static-discharge sensitivity identified.
Advice for firefighters	Wear suitable protective clothing and self-contained breathing apparatus. Prevent contaminated fire runoff from entering waterways.

Safe use & protection

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06 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	Provide adequate ventilation. Prevent dust formation and inhalation. Wear suitable safety glasses, protective gloves and a laboratory coat.
Environmental precautions	Do not allow uncontrolled quantities to enter drains or natural watercourses.
Methods and materials for containment and cleaning up	Collect mechanically while limiting dust generation. Place material in a clearly labelled, closed container for disposal; clean the affected area.
Reference to other sections	See Sections 8 and 13 for personal protection and disposal.

07 HANDLING AND STORAGE

Precautions for safe handling	Avoid dust formation and inhalation. Avoid unnecessary eye or skin contact; observe good laboratory hygiene and wash hands after handling.
Conditions for safe storage	Store at 15–25 °C in a tightly closed container in a dry, ventilated area. Keep away from moisture and incompatible substances.
Container labeling	Keep the original identification label intact. Use compatible, tightly sealed and correctly labelled containers.

08 EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

No specific occupational exposure limits have been established for disodium hydrogen phosphate dihydrate.

8.2 Exposure controls

Engineering measures	Provide adequate general ventilation and use local exhaust where dust may be generated.
Hygiene measures	Wash hands after use. Do not eat, drink or smoke in chemical-handling areas.
Eye / face protection	Wear safety glasses with side shields or protective goggles conforming to EN 166.
Hand protection	Use suitable laboratory protective gloves, e.g. nitrile, and inspect gloves before use.
Skin and body protection	Wear a laboratory coat and suitable protective work clothing.
Respiratory protection	Not normally needed with adequate ventilation. If airborne dust is present, use appropriate particulate respiratory protection (e.g. P1).

Material properties

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09 PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	White crystalline powder (solid)
Odor	No data available
Odor threshold	No data available
pH	Approximately 9.0–9.4 (50 g/L aqueous solution, 20 °C)
Melting point / freezing point	No distinct melting point reported; loses water of crystallization on heating
Initial boiling point and boiling range	No data available
Flash point	Not applicable (inorganic solid)
Evaporation rate	Not applicable (solid)
Flammability (solid, gas)	Non-combustible under normal conditions
Upper / lower flammability or explosive limits	Not applicable
Vapor pressure	No data available
Vapor density	Not applicable (solid)
Relative density	Approximately 2.1 g/cm³ at 20 °C
Solubility(ies)	Soluble in water; no quantified value available
Partition coefficient: n-octanol / water	Not applicable to an inorganic salt
Auto-ignition temperature	Not applicable (not combustible)
Decomposition temperature	No data available
Viscosity	Not applicable (solid)
Explosive properties	Not classified as explosive
Oxidizing properties	Not classified as oxidizing

10 STABILITY AND REACTIVITY

Reactivity	No specific reactivity data available; use standard precautions for inorganic phosphate salts.
Chemical stability	Stable under normal ambient conditions and recommended dry storage.
Possibility of hazardous reactions	Exothermic reactions may occur with strong acids; avoid contact with incompatible reactive chemicals.
Conditions to avoid	Excessive heat, moisture exposure and dust generation.
Incompatible materials	Strong acids; compatibility with other reactive materials has not been fully established.
Hazardous decomposition products	In fire or severe heating, phosphorus oxides and sodium oxides may form.

Health & environment

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11 TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity	Not classified as acutely toxic under CLP. Quantitative acute toxicity data for the dihydrate are not available.
Skin corrosion / irritation	Not classified under CLP; dust may cause temporary mechanical irritation.
Serious eye damage / eye irritation	Not classified under CLP; airborne dust may cause transient mechanical irritation.
Carcinogenicity	Not classified as carcinogenic; substance-specific data are limited.
Reproductive toxicity	Not classified for reproductive toxicity; detailed data are not available.
STOT - SE	Not classified for single-exposure specific target organ toxicity.
STOT - RE	Not classified for repeated-exposure specific target organ toxicity.
Aspiration hazard	Not applicable to a solid substance.

11.2 Potential health effects

Ingestion: Large amounts may cause gastrointestinal discomfort.
Inhalation: Airborne dust may cause temporary respiratory irritation.
Skin: Dust may cause mild mechanical irritation.
Eyes: Dust may cause temporary mechanical irritation.

11.3 Additional information

Further quantitative toxicological information for this material is not available.

12 ECOLOGICAL INFORMATION

Ecotoxicity	Not classified as hazardous to the aquatic environment; quantitative aquatic toxicity data are not available.
Persistence and degradability	No specific data available; biodegradation criteria generally do not apply to inorganic salts.
Bioaccumulative potential	No data available; significant bioaccumulation is not expected for a readily dissociating inorganic salt.
Mobility in soil	No data available. Water solubility can allow mobility in aqueous systems.
Results of PBT and vPvB assessment	No product-specific PBT/vPvB assessment available; criteria are generally not applicable to inorganic substances.

13 DISPOSAL CONSIDERATIONS

Waste treatment methods

Product	Dispose of unused substance through authorised waste disposal channels in accordance with national and local requirements. Avoid discharge of concentrated residues into drains.
Contaminated packaging	Dispose of contaminated containers in accordance with applicable waste regulations. Do not reuse without appropriate cleaning.

Transport & reference

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14 TRANSPORT INFORMATION

Mode	UN no.	UN proper shipping name	Hazard class	Packing group	Environmental hazards
ADR/RID	-	Not regulated	-	-	No
IMDG	-	Not regulated	-	-	No
IATA	-	Not regulated	-	-	No

15 REGULATORY INFORMATION

Safety, health and environmental regulations / legislation	Regulation (EC) No. 1907/2006 (REACH) and Regulation (EC) No. 1272/2008 (CLP). Disodium hydrogen phosphate dihydrate: CAS 10028-24-7, EC 231-448-7. No hazardous CLP labelling required.
Environmental hazards	Not classified as hazardous to the aquatic environment under CLP.
Chemical safety assessment	No product-specific chemical safety assessment available.

16 OTHER INFORMATION

Key to abbreviations and acronyms

STOT-SE	Specific Target Organ Toxicity - Single Exposure
STOT-RE	Specific Target Organ Toxicity - Repeated Exposure
PBT	Persistent Bioaccumulative and Toxic
vPvB	very Persistent very Bioaccumulative and toxic
ADR	European Agreement concerning the international carriage of Dangerous goods by Road
CAS	Chemical Abstracts Service
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime code for Dangerous Goods
REACH	Registration, Evaluation, Authorization and restriction of Chemicals
RID	Regulations concerning the International transport of Dangerous goods by rail