

Material Safety Data Sheet

Report No.: SHA03-25096887-JC-01EnR2

Sample Name: Colored sand curing agent, aluminum dihydrogen
phosphate, high-temperature binder

Client: Shijiazhuang City Xinsheng Chemical Co.,Ltd

Warranty of

Design: GB/T 17519-2013、GB/T 16483-2008

Shanghai WEIPU Testing Technology Group Co., LTD.



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Complied by:

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Approved by:

黃夢

Issued Date:

2025-09-26

Material Safety Data Sheet**Colored sand curing agent, aluminum
dihydrogen phosphate,
high-temperature binder**

Version: V1.0

Report No.: SHA03-25096887-JC-01EnR2

Creation Date: 2025/09/23

Revision Date: 2025/09/26

Prepared according to GB/T 17519-2013 and GB/T 16483-2008*1 Identification of the chemical and supplier****Product identifier**

Product Name	Colored sand curing agent, aluminum dihydrogen phosphate, high-temperature binder
Cat No.	-
CAS No.	Not applicable
EC No.	Not applicable
Molecular Formula	Not applicable
Sample picture(s)	

Recommended use of the product and restrictions on use

Relevant identified uses	Please consult manufacturer.
Uses advised against	Please consult manufacturer.

Details of the supplier of the Safety Data Sheet

Name of the company	Shijiazhuang City Xinsheng Chemical Co.,Ltd
Address of the company	No. 8 Chang'an Road, Economic Development Zone, Xinle City, Hebei Province, China
Post code	050700
Telephone number	13292844379
Fax number	—
E-mail address	1521380894@qq.com

Emergency phone number

Emergency phone number	15232160175
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2 Hazard(s) identification

Emergency overview

Based on available data, no known hazards.

Hazard classification according to GHS

According to GB 30000 series standards, not classified as a hazardous chemical.

GHS Label elements

Hazard pictograms	Not applicable
Signal word	Not applicable

Hazard statements

Hazard statements	Not applicable
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Precautionary statements

◆ Prevention

Prevention	Not applicable
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◆ Response

Response	Not applicable
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◆ Storage

Storage	Not applicable
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◆ Disposal

Disposal	Not applicable
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Hazard description

◆ Physical and chemical hazards

	No information available
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◆ Health hazards

Inhaled	Inhalation of the product may produce adverse health effects or irritation of the respiratory tract following discomfort.
Ingestion	Accidental ingestion of the product may be harmful to the health of the individual.
Skin Contact	Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects.
Eye	This product may cause temporary discomfort following direct contact with the eye.

◆ Environmental hazards

	Please refer to 12th chapter of SDS.
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3 Composition/information on ingredients

Substance/mixture

	Mature		
Component	CAS No.	EC No.	Concentration (wt, %)
aluminum dihydrogen phosphate	13330-50-2	-	78-82
Water	7733-18-5	-	18-22

4 First-aid measures**Description of first aid measures**

General advice	Immediate medical attention is required. Show the safety data sheet (SDS) in the doctor to affordance.
Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
Skin contact	Take off contaminated clothes and shoes immediately. Wash with plenty of soap and water for at least 15 minutes and consult a physician if any discomfortable.
Ingestion	Never allow anything by mouth in an unconscious person. Call a physician or Poison Control Center immediately.
Inhalation	Move victim into fresh air. If breathing is difficult, give oxygen. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance. If not breathing, give artificial respiration and consult a physician immediately.
Protecting of first aiders	Ensure that medical personnel are aware of the substance involved. Take precautions to protect themselves and prevent spread of contamination.

Most important symptoms, acute and delayed

1	Substance accumulating in the human body, may occur and they cause some concern following repeated or long term occupational exposures.
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Advice for protecting the rescuer

1	Shut off all sources of ignition and ensure ventilation.
2	Avoid contact with skin and eyes.
3	Avoid inhalation of vapor or mist.
4	Use personal protective equipment including respirator.

Special note to the doctor

1	Treat symptomatically.
2	Symptoms may be delayed.

5 Fire-fighting measures**Extinguishing media**

Extinguishing media	Use extinguishing media suitable for surrounding area.
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Unsuitable extinguishing media

There is no restriction on the type of extinguisher which may be used.

Specific hazards arising from the substance or mixture

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|---|---|
| 1 | Development of hazardous combustion gases or vapor possible in the event of fire. |
| 2 | May expansion or decompose explosively when heated or involved in fire. |

Fire precautions and protective measures

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| 1 | As in any fire, wear self-contained breathing apparatus (MSHA/NIOSH approved or equivalent) and full protective gear. |
| 2 | Fight fire from a safe distance, with adequate cover. |
| 3 | Prevent fire extinguishing water from contaminating surface water or the ground water system. |

6 Accidental release measures
Personal precautions, protective equipment and emergency procedures

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| 1 | Use personal protective equipment, do not breathe gas/mist/vapour/spray. |
| 2 | Ensure adequate ventilation. Remove all sources of ignition. Take precautionary measures against static discharges. |
| 3 | Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. |

Environmental precautions

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| 1 | Prevent further leakage or spillage if safe to do so. |
| 2 | Discharge into the environment must be avoided. |

Methods and materials for containment and cleaning up

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| 1 | Cut off the source of the leak as much as possible. |
| 2 | Keep leaks in a ventilated place. |
| 3 | Absorb spilled material in dry sand or inert absorbent. In case of large amount of spillage, contain a spill by bunding. |
| 4 | Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment. |
| 5 | Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container. |

Preventive measures to prevent secondary disasters

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| 1 | Eliminate ignition sources and prevent leaks from entering sewers and basements. |
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7 Handling and storage
Handling

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| 1 | Handling is performed in a well ventilated place. |
| 2 | Wear suitable protective equipment. |
| 3 | Avoid contact with skin and eyes. |
| 4 | Keep away from heat/sparks/open flames/ hot surfaces. |

Storage

1	Keep containers tightly closed.
2	Keep containers in a dry, cool and well-ventilated place.
3	Keep away from heat/sparks/open flames/hot surfaces.
4	Store away from incompatible materials and foodstuff containers.

8 Exposure controls/personal protection

Control parameters

◆ Occupational Exposure limit values

Occupational Exposure limit values	No relevant regulations
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◆ Biological limit values

Biological limit values	No relevant regulations
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◆ Monitoring methods

1	EN 14042 Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents.
2	GBZ/T 300 and GBZ/T 160 series standard Determination of toxic substances in workplace air.

Engineering controls

1	Ensure adequate ventilation, especially in confined areas.
2	Ensure that eyewash stations and safety showers are close to the workstation location.
3	Use explosion-proof electrical/ventilating/lighting/equipment.
4	Set up emergency exit and necessary risk-elimination area.

Personal protection equipment

General requirement	No special requirements, please see the description below.
Eye protection	In general situation, eye protection is not needed. In the production process, when contacting with vapour or dust, tightly fitting safety goggles.
Hand protection	In general situation, hand protection is not needed.
Respiratory protection	In general situation, respiratory protection is not needed. If exposure limits are exceeded or if irritation or other symptoms are experienced, wear dust proof mask or gas defence mask.
Skin and body protection	In general situation, skin and body protection are not needed.

9 Physical and chemical properties

Physical and chemical properties

Appearance	Colorless Transparent Liquid
Odor	No obvious smell
Odor threshold	No information available

pH	No information available
Melting point/freezing point(°C)	No information available
Initial boiling point and boiling range(°C)	No information available
Flash point(Closed cup,°C)	Not applicable
Evaporation rate	Not applicable
Flammability	No information available
Upper/lower explosive limits[% (v/v)]	Upper limit: No information available; Lower limit: No information available
Vapor pressure	Not applicable
Vapor density(Air = 1)	Not applicable
Relative density(Water=1)	No information available
Solubility	No information available
n-octanol/water partition coefficient	No information available
Auto-ignition temperature(°C)	No information available
Decomposition temperature(°C)	No information available
Kinematic viscosity	Not applicable

10 Stability and reactivity

Stability and reactivity

Reactivity	Contact with incompatible substances can cause decomposition or other chemical reactions.
Chemical stability	Stable under proper operation and storage conditions.
Possibility of hazardous reactions	In contact with active metals (alkali metals, Na, Ca etc.) causes a reaction and release hydrogen.
Conditions to avoid	Incompatible materials, heat, flame and spark.
Incompatible materials	Alkali, sodium, calcium, and other active metal, halogen, metal oxide, nonmetal oxide, acyl halide and metal phosphide.
Hazardous decomposition products	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11 Toxicological information

Acute toxicity

Acute toxicity	No information available
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Carcinogenicity

Component	List of carcinogens by the IARC Monographs	Report on Carcinogens by NTP
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aluminum dihydrogen phosphate	Not Listed	Not Listed
Water	Not Listed	Not Listed

Others

Colored sand curing agent, aluminum dihydrogen phosphate, high-temperature binder	
Skin corrosion/irritation	Based on available data, the classification criteria are not met
Serious eye damage/irritation	Based on available data, the classification criteria are not met
Skin sensitization	Based on available data, the classification criteria are not met
Respiratory sensitization	Based on available data, the classification criteria are not met
Reproductive toxicity	Based on available data, the classification criteria are not met
STOT-repeated exposure	Based on available data, the classification criteria are not met
Aspiration hazard	Based on available data, the classification criteria are not met
Germ cell mutagenicity	Based on available data, the classification criteria are not met

12 Ecological information

Acute aquatic toxicity

Component	Fish	Crustaceans	Algae or other aquatic plants
aluminum dihydrogen phosphate	LC ₅₀ : > 100mg/L (96h)(Fish)	EC ₅₀ : > 100mg/L (48h)(Crustaceans)	ErC ₅₀ : > 100mg/L (72h)(Algae)

Chronic aquatic toxicity

Component	Fish	Crustaceans	Algae or other aquatic plants
aluminum dihydrogen phosphate	NOEC: 4.7mg/L(Fish)	No information available	No information available

Persistence and degradability

Persistence and degradability	No information available
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Bioaccumulative potential

Bioaccumulative potential	No information available
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Mobility in soil

Mobility in soil	No information available
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Results of PBT and vPvB assessment

Component	Results of PBT and vPvB assessment [according to (EC) No 1907/2006]
aluminum dihydrogen phosphate	Not applicable

Water	Insufficient information, temporarily unable to evaluate
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13 Disposal considerations

Disposal considerations

Waste chemicals	Before disposal should refer to the relevant national and local laws and regulation. Recommend the use of incineration disposal.
Contaminated packaging	Containers may still present chemical hazard when empty. Keep away from hot and ignition source of fire. Return to supplier for recycling if possible.
Disposal recommendations	Refer to section waste chemicals and contaminated packaging.

14 Transport information

Label and Mark

Transporting Label	Not applicable
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IMDG-CODE

IMDG-CODE	NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS
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IATA-DGR

IATA-DGR	NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS
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JT/T 617-2018

UN-ADR	NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS
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Others

Methods of packing	Packaging as recommended by manufacturer.
Precautions for transport	Transport vehicles should be equipped with the appropriate variety and quantity of fire equipment and emergency equipment leakage during transport. Before transport, should be preceded by checking whether container integrity, sealing. The transport unit must be placarded and marked in accordance with relevant transporting requirements.

15 Regulatory information

International chemical inventory

Component	A	B	C	D	E	F	G	H	I	J	K	L	M
aluminum dihydrogen phosphate	√	√	√	√	√	√	√	√	√	×	×	√	√
Water	√	√	√	√	√	√	√	√	√	√	√	√	√

- 【A】 China Inventory of Existing Chemical Substances(IECSC)
- 【B】 European Inventory of Existing Commercial Chemical Substances(EC inventory)
- 【C】 United States Toxic Substances Control Act Inventory(TSCA)
- 【D】 Canadian Domestic Substances List(DSL)
- 【E】 New Zealand Inventory of Chemicals(NZIoC)
- 【F】 Philippines Inventory of Chemicals and Chemical Substances(PICCS)
- 【G】 Korea Existing Chemicals Inventory(KECL)
- 【H】 Australian. Inventory of Industrial Chemical (AIICS)
- 【I】 Japan Inventory of Existing & New Chemical Substances(ENCS)
- 【J】 Thailand Existing Chemicals Inventory(TECI)
- 【K】 Mexico National Inventory of Chemical Substances (INSQ)
- 【L】 Russia Inventory of Existing Substances(DRAFT)
- 【M】 Inventory of Existing Chemical Substances in Taiwan, China (TCSI)

List of Chemical Substances under International Conventions

Component	A	B	C
aluminum dihydrogen phosphate	x	x	x
Water	x	x	x

- 【A】 The Montreal Protocol on Substances that Deplete the Ozone Layer
- 【B】 Stockholm Convention on Persistent Organic Pollutants (POPs)
- 【C】 Rotterdam Convention on the prior informed consent procedure for certain hazardous chemicals and pesticides international trade

Chinese chemical inventory

Component	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
aluminum dihydrogen phosphate	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Water	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x

- 【A】 Catalog of Hazardous Chemicals(2015 Edition), Notice 5th 2015, the former China State Administration of Work together with the Ministry of Industry and Information Technology, etc.
- 【B】 List of Toxic Chemicals Restricted in China, Notice 32nd 2023, the Ministry of Ecology and Environment, Ministry of Commerce, General Administration of Customs.
- 【C】 List of Ozone Depletion Chemicals Controlled to be Imported/Exported in China (2021) , Decree No. 50 of Ministry of Ecology and environment of PRC in 2021.
- 【D】 Catalog of Hazardous Chemicals for Priority Management (First and Second batches) , Notice 95th, 2011, Notice 12th 2013, China State Administration of Work Safety.
- 【E】 Catalog of Hazardous Chemicals for Environmental Management, Notice 33th 2014, The former Ministry of Environmental Protection.
- 【F】 List of Various Monitoring Chemicals, 52th 2020, the Ministry of Industry and Information Technology.
- 【G】 List of Priority Controlled Chemicals (the First batch), 83th 2017, the former Ministry of Environmental Protection of Industry and Information Technology, the former National Health And Family Planning Commission.
- 【H】 Catalog of Specially Controlled Hazardous Chemicals (First Edition), 1st 2020, the Ministry of Emergency Management, Ministry of Industry and Information Technology, Ministry of Public Security, Ministry of Transport.
- 【I】 List of Toxic and Hazardous Water Pollutants (First and Second Batch), Ministry of Ecology and Environment Announcement [2019] No. 28 and [2025] No. 15.
- 【J】 Catalog of Highly Toxic Chemicals, Notice 142th 2003, the former Ministry of Health of P.R.China.
- 【K】 Dangerous Chemicals Directory Used to Manufacture Explosives (2017 Edition), Notice 11th May. 2017, Ministry of Public Security of P.R.China.
- 【L】 Catalogue of Narcotic Drugs and Psychotropic Drugs for Pharmaceutical Use, National Medical Products Administration Announcement No. 55 of 2025.
- 【M】 Decree No. 445 of the State Council in 2005 and its amendment announcement.
- 【N】 Catalog of Import and Export Management of Precursor Chemicals, 7th 2006, the Ministry of Commerce.
- 【O】 International Verification of Precursor Chemicals Management Catalog, 8th 2006, the Ministry of Commerce, Ministry of Public Security.

Note:

- "√" Indicates that the substance included in the regulations.
- "x" No data or not included in the regulations.

16 Other information

Information on revision

Creation Date	2025/09/23
Revision Date	2025/09/26
Reason for revision	-

Reference

- [1] IPCS: The International Chemical Safety Cards (ICSC), website: <http://www.ilo.org/dyn/icsc/showcard.home>.
- [2] IARC, website: <http://www.iarc.fr/>.
- [3] OECD: The Global Portal to Information on Chemical Substances, website: <https://www.chemportal.org/chemportal>.
- [4] CAMEO Chemicals, website: <http://cameochemicals.noaa.gov/search/simple>.
- [5] NLM: ChemIDplus, website: <http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp>.
- [6] EPA: Integrated Risk Information System, website: <http://cfpub.epa.gov/iris/>.
- [7] U.S. Department of Transportation: ERG, website: <http://www.phmsa.dot.gov/hazmat/library/erg>.
- [8] Germany GESTIS-database on hazard substance, website: <http://gestis-en.itrust.de/>.

Abbreviations and acronyms

CAS	Chemical Abstracts Service	UN	The United Nations
PC-STEL	Short term exposure limit	OECD	Organization for Economic Co-operation and Development
PC-TWA	Time Weighted Average	IMDG-CODE	International Maritime Dangerous Goods CODE
MAC	Maximum Allowable Concentration	IARC	International Agency for Research on Cancer
DNEL	Derived No Effect Level	ICAO	International Civil Aviation Organization
PNEC	Predicted No Effect Concentration	IATA	International Air Transportation Association
NOEC	No Observed Effect Concentration	ACGIH	American Conference of Governmental Industrial Hygienists
LC ₅₀	Lethal Concentration 50%	NFPA	National Fire Protection Association
LD ₅₀	Lethal Dose 50%	NTP	National Toxicology Program
EC ₅₀	Effective Concentration 50%	PBT	Persistent, Bioaccumulative, Toxic
EC _x	Effective Concentration X%	vPvB	very Persistent, very Bioaccumulative
P _{OW}	Partition coefficient Octanol: Water	CMR	Carcinogens, mutagens or substances toxic to reproduction
BCF	Bioconcentration factor	RPE	Respiratory Protective Equipment
ED	Endocrine disruptor		

Disclaimer

This Safety Data Sheet (SDS) was prepared according to GB/T 16483-2008 and GB/T 17519-2013. The data included was derived from international authoritative database and provided by the enterprise. Other information was based on the present state of our knowledge. We try to ensure the correctness of all information. However, due to the diversity of information sources and the limitations of our knowledge, this document is only for user's reference. Users should make their independent judgment of suitability of this information for their particular purposes. We do not assume responsibility for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product.

This report, with the component information modified by the client, replaces the original report number: SHA03-25096887-JC-01EnR1. The original report is invalid.

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