



SAFETY DATA SHEET

MONOSODIUM PHOSPHATE

1. PRODUCT INFORMATION AND COMPANY IDENTIFICATION

Product Name: Monosodium Phosphate Powder
INCI Name: Sodium Dihydrogen Phosphate
CAS Number: 7558-80-7
Recommended Use: Mainly used as buffering agent, modifier, emulsifier

Company: Chemistry Connection
253 Sturgis Road
Conway, AR 72034
(501) 470-9689

Emergency Contact: Chemtrec: (800) 424-9300

2. HAZARD IDENTIFICATION

NFPA label for hazard identification

Hazard identification graphics



Hazard	Value	Description
◆ Health	2	under emergency conditions, can cause temporary incapacitation or residual injury
◆ Flammability	0	Materials that will not burn under typical fire conditions
◆ instability	0	Materials that are normally stable, even under fire conditions
◇ Special	-	Not applicable

Hazard classification according to GHS

Hazard classification according to GHS
Not applicable

HCS additional classification

Additional classification

None

Label elements

Hazard pictograms

Not applicable

Signal word

Not applicable

Hazard statements

Hazard statements

Not applicable

Precautionary statements

Prevention

Prevention

Not applicable

Response

Response

Not applicable

Storage

Storage

Not applicable

Disposal

Disposal

Not applicable

3. COMPOSITION/INFORMATION ON INGREDIENTS

INCI NAME	CAS NO.	CONCENTRATION (%)
Sodium dihydrogen phosphate	7558-80-7	98

4. FIRST AID MEASURES

Description of first aid measures

General advice

Immediate medical attention is required. Show this safety data sheet (SDS) to the doctor in attendance.

Eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician if felt uncomfortable.

Skin contact

Take off contaminated clothing and shoes immediately. Wash off with plenty of water for at least 15 minutes and consult a physician if felt uncomfortable.

Ingestion

Do not induce vomiting. Never give anything by mouth to 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.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

Symptoms may be delayed.

5. FIRE FIGHTING MEASURES

Extinguishing media

Suitable extinguishing media

Dry chemical, carbon dioxide, alcohol resistant foam etc.

Unsuitable extinguishing media

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

Specific hazards arising from the substance or mixture

Not combustible.

Not considered a significant fire risk, however containers may burn.

May produce carbon monoxide, carbon dioxide and other hazardous gases.

Advice for firefighters

As in any fire, wear self contained breathing apparatus and full protective gear.

Fire extinguishing work is done from the windward and the suitable fire extinguishing method according to the surrounding situation is used.

Uninvolved persons should evacuate to a safe place.

In case of fire in the surroundings, keep containers cool by spraying with water.
Eliminate all ignition sources if safe to do so.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures
Remove all sources of ignition. Ensure adequate ventilation.
Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.
Use personal protective equipment. Avoid breathing dust and contacting with skin and eyes.

Environmental precautions
Prevent further leakage or spillage if safe to do so.
Do not let product enter drains.

Methods and materials for containment and cleaning up
Remove all sources of ignition. Use spark proof tools and explosion proof equipment.
Absorb spilled material in dry sand or inert absorbent. In case of large amount of spillage, contain a spill by bunding.
Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations.

7. HANDLING AND STORAGE

Precautions for handling
Handling is performed in a well ventilated place.
Wear suitable protective equipment. Avoid contact with skin and eyes. Avoid inhalation of dust.
Keep away from heat/sparks/open flames/ hot surfaces.

Precautions for storage
Keep containers tightly closed.
Keep containers in a dry, cool and well ventilated place.
Keep away from heat/sparks/open flames/ hot surfaces.
Store away from incompatible materials such as oxidizing agents, reducing agents and other incompatible materials

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Occupational Exposure limit values

Component	Country/Region	Limit value Eight hours		Limit value Short term	
		ppm	mg/m ³	ppm	mg/m ³
Sodium dihydrogen phosphate 7558-80-7	Australia	-	-	-	-
	Denmark	-	-	-	-
	Germany (AGS)	-	-	-	-
	China	-	-	-	-

	South Korea	-	-	-	-
	USA(OSHA)	-	-	-	-

Biological limit values

Biological limit values

No information available

Monitoring methods

EN 14042 Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents

Engineering controls

Ensure adequate ventilation, especially in confined areas.

Ensure that eyewash stations and safety showers are close to the workstation location.

Use explosion proof electrical/ventilating/lighting/equipment.

Personal protection equipment

General requirement



Eye protection

Tightly fitting safety goggles (approved by EN 166(EU) or NIOSH (US)).

Hand protection

Protective gloves (such as butyl rubber) , approved by EN 374 (EU)

Respiratory protection

Use appropriate respirator if exposure limits are exceeded or if irritation or other symptoms are experienced. Recommended Filter type: low boiling organic solvent, Type AX, Brown, conforming to EN371

Skin and body protection

Wear fire/flame resistant/retardant clothing and antistatic boots

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical and chemical properties

Appearance	White columnar crystalline particles
Odor	No information available
Odor threshold	No information available
pH	4.4-4.5 (1% Solution)
Melting point/freezing point	> 600°C

Initial boiling point and boiling range	No information available
Flash point	Not applicable
Evaporation rate	No information available
Flammability (solid, gas)	Not flammable
Upper/lower explosive limits	Not applicable
Vapor pressure	Not applicable
Vapor density	No information available
Relative density	2 (20 water=1.0)
Solubility	Miscible with water
n octanol/water partition coefficient	No information available
Auto ignition temperature	No information available
Decomposition temperature	No information available
Viscosity	Not applicable

10. STABILITY AND REACTIVITY

Stability and reactivity

Reactivity

No information available

Chemical stability

Stable under proper operation and storage conditions

Possibility of hazardous reactions

When contact with strong reducing agent such as hydride, phosphate can easily produce flammable and toxic phosphine.

Conditions to avoid

Incompatible materials, heat, flame and spark.

Incompatible materials

Oxidizing agents, reducing agents etc.

Hazardous decomposition products

Carbon monoxide phosphorus compounds sodium oxide etc.

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Component	Cas No.	LD50 (Oral)	LD50 (Dermal)	LC50(Inhalation)
Sodium dihydrogen phosphate	7558-80-7	8290 mg/kg rat	> 2000 mg/kg rabbit	No information available

Others

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.

Respiratory or skin sensitization
Based on available data, the classification criteria are not met.

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

Carcinogenicity
Sodium dihydrogen phosphate is not identified as probable, possible or confirmed human carcinogen by IARC

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

STOT single exposure
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.

12. ECOLOGICAL INFORMATION

Toxicity

Component	Cas No.	Fish	Crustaceans	Algae
Sodium dihydrogen phosphate	7558-80-7	No information available	No information available	No information available

Others

Persistence and degradability
No information available

Bioaccumulative potential
No information available

Mobility in soil
No information available

Results of PBT and vPvB assessment
No information available

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 13.1 and 13.2

14. TRANSPORT INFORMATION

Label

Label

Not applicable

IMDG CODE

UN number

-

UN proper shipping name

NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Transport hazard class

-

Transport subsidiary hazard class

-

Packing group

-

Marine pollutant (Yes or no)

No

Special precautions for user

None

ICAO/IATA DG

UN number

-

UN proper shipping name
NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Transport hazard class

-

Transport subsidiary hazard class

-

Packing group

-

Special precautions for user

None

UN ADR

UN number

-

UN proper shipping name
NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Transport hazard class

-

Transport subsidiary hazard class

-

Packing group

-

Special precautions for user

None

Transport in bulk

Source	Ingredient	Pollution Category
Annex II of MARPOL 73 / 78 and the IBC code	Sodium dihydrogen phosphate	OS

15. REGULATORY INFORMATION

International chemical inventory

Component	EINECS	TSCA	DSL	IECSC	NZIoC	PICCS	KECI
Sodium dihydrogen phosphate	Listed	Listed	Listed	Listed	Listed	Listed	Listed

Chinese chemical inventory Sodium dihydrogen phosphate

Highly toxic chemicals directory
Not Listed

Dangerous chemicals directory used to manufacture exploder
Not Listed

National dangerous waste s directory annex A
Not Listed

Strict limits on the import and export of toxic chemicals directory in China
Not Listed

List of Import and Export of Controlled ODS in China
Not Listed

List of additives used in food containers and packaging materials in China
Not Listed

16. OTHER INFORMATION

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