



SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Revision date 25-May-2023

Supersedes Date: 06-Oct-2021

Revision Number 3.2

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product Name	Sodium Acid Pyrophosphate Sodium Pyrophosphate, acid
Product Code(s)	BK1230
REACH registration number	01-2119489793-19
EC No (EU Index No)	231-835-0
CAS No	7758-16-9
Unique Formula Identifier (UFI)	UFI not available (exempted according to Regulation (EU) 2017/542 – Annex VIII, Part A, section 2.2 (1) and/or (2) and/or not falling under Art. 45 of Regulation (EC) No 1272/2008).
Synonyms	Sodium acid pyrophosphate Disodium dihydrogenpyrophosphate SAPP SP Disodium diphosphate
Pure substance/mixture	Substance

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

Recommended use	Food additive Formulation additive Special phosphate Feed additives
Uses advised against	Uses other than those recommended.

1.3. Details of the supplier of the safety data sheet

Supplier

BK Giulini GmbH
Am Hafen 2
D-68526 Ladenburg, Germany
www.icl-group.com
Tel: +49 6203 / 77-0
Fax: +49 620377-7256
e-mail: msdsinfo@icl-group.com

1.4. Emergency telephone number

Europe	+49 6203 77 7141
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SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

Serious eye damage/eye irritation	Category 2 - (H319)
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2.2. Label elements



Signal word
Warning

Hazard statements

H319 - Causes serious eye irritation

Precautionary Statements - EU (§28, 1272/2008)

P264 - Wash thoroughly after handling

P280 - Wear protective gloves/protective clothing/eye protection/face protection

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P337 + P313 - If eye irritation persists: Get medical advice/attention

2.3. Other hazards

This product contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at concentrations of $\geq 0.1\%$.

Endocrine Disruptor Information

Chemical name	EU - REACH (1907/2006) - Article 59(1) - Candidate List of Substances of Very High Concern (SVHC) for Authorisation	EU - REACH (1907/2006) - Endocrine Disruptor Assessment List of Substances
Disodium dihydrogendiphosphate	-	-

Chemical name	Endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100(3) or Commission Regulation (EU) 2018/605(4)
Disodium dihydrogendiphosphate	-

SECTION 3: Composition/information on ingredients

3.1 Substances

Chemical name	EC No (EU Index No)	CAS No	Weight-%	Index No	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Specific concentration limit (SCL)	M-Factor	M-Factor (long-term)	REACH registration number
Disodium dihydrogendiphosphate	231-835-0	7758-16-9	≥ 95	-	Eye Irrit. 2 (H319)	-	-	-	01-211948 9793-19

Full text of H- and EUH-phrases: see section 16

Acute Toxicity Estimate
No information available

Chemical name	Oral LD50 mg/kg	Dermal LD50 mg/kg	Inhalation LC50 - 4 hour - dust/mist - mg/L	Inhalation LC50 - 4 hour - vapor - mg/L	Inhalation LC50 - 4 hour - gas - ppm
Disodium dihydrogendiphosphate 7758-16-9	-	-	-	-	-

This product does not contain candidate substances of very high concern at a concentration $\geq 0.1\%$ (Regulation (EC) No. 1907/2006 (REACH), Article 59)

SECTION 4: First aid measures

4.1. Description of first aid measures

General advice	Show this safety data sheet to the doctor in attendance.
Inhalation	Remove to fresh air. (Call a physician if symptoms occur).
Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area. Get medical attention if irritation develops and persists.
Skin contact	Wash skin with soap and water. In the case of skin irritation or allergic reactions see a physician.
Ingestion	Clean mouth with water and drink afterwards plenty of water Never give anything by mouth to an unconscious person Do NOT induce vomiting Consult a physician if necessary
Self-protection of the first aider	Avoid contact with eyes. Use personal protective equipment as required.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms	Burning sensation. May cause redness and tearing of the eyes.
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4.3. Indication of any immediate medical attention and special treatment needed

Note to physicians	Treat symptomatically and supportively.
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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable Extinguishing Media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
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5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the chemical	May emit toxic and irritating fumes under fire conditions.
Hazardous combustion products	Phosphorus oxides.

5.3. Advice for firefighters

Special protective equipment and precautions for fire-fighters	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Cool containers with water spray. Contain runoff to prevent entry into water or drainage systems.
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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions	Avoid contact with skin, eyes or clothing. Use personal protective equipment as required. Avoid generation of dust.
Other information	Refer to protective measures listed in Sections 7 and 8.

6.2. Environmental precautions

Environmental precautions	Should not be released into the environment. See Section 12 for additional Ecological Information.
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6.3. Methods and material for containment and cleaning up

Methods for containment	Prevent further leakage or spillage if safe to do so.
Methods for cleaning up	Pick up and transfer to properly labeled containers.

6.4. Reference to other sections

Reference to other sections	See section 8 for more information. See section 13 for more information.
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SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling	Handle in accordance with good industrial hygiene and safety practice. Avoid generation of dust. Provide appropriate exhaust ventilation at places where dust is formed.
General hygiene considerations	Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Avoid breathing dust/fume/gas/mist/vapors/spray. Wash thoroughly after handling. When using do not eat, drink or smoke.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions	Keep containers tightly closed in a dry, cool and well-ventilated place.
German storage class (TRGS 510)	Storage class 13 - Non-combustible solids that cannot be assigned to any of the above storage classes

7.3. Specific end use(s)

Specific use(s)	See Section 1.2 for more information.
Risk Management Methods (RMM)	The information required is contained in this Safety Data Sheet.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure Limits

This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Chemical name	European Union	Austria	Belgium	Bulgaria	Croatia
Disodium dihydrogendiphosphate 7758-16-9	-	-	-	-	-
Chemical name	Cyprus	Czech Republic	Denmark	Estonia	Finland
Disodium dihydrogendiphosphate 7758-16-9	-	-	-	-	-
Chemical name	France	Germany TRGS	Germany DFG	Greece	Hungary
Disodium dihydrogendiphosphate 7758-16-9	-	-	-	-	-
Chemical name	Ireland	Italy MDLPS	Italy AIDII	Latvia	Lithuania
Disodium dihydrogendiphosphate 7758-16-9	-	-	-	-	-
Chemical name	Luxembourg	Malta	Netherlands	Norway	Poland
Disodium dihydrogendiphosphate 7758-16-9	-	-	-	-	-
Chemical name	Portugal	Romania	Slovakia	Slovenia	Spain
Disodium dihydrogendiphosphate 7758-16-9	-	-	-	-	-
Chemical name	Sweden		Switzerland		United Kingdom
Disodium dihydrogendiphosphate 7758-16-9	-		-		-

Biological occupational exposure limits No relevant information available.

DNELs for workers

Chemical name	Acute - local effects	Acute - systemic effects	Long term Local effects	Long term systemic effects
Disodium dihydrogendiphosphate 7758-16-9	-	-	-	17.63 mg/m ³ (inhalation)

DNELs for the general population

Chemical name	Acute - local effects	Acute - systemic effects	Long term Local effects	Long term systemic effects
Disodium dihydrogendiphosphate 7758-16-9	-	-	-	4.35 mg/m ³ (inhalation)

Predicted No Effect Concentration (PNEC)

Chemical name	Water	Sediment	Soil	Impact on Sewage Treatment	Oral
Disodium dihydrogendiphosphate 7758-16-9	-	-	-	-	-

8.2. Exposure controls

Engineering controls Eyewash stations
Showers
Ventilation systems

Personal protective equipment

Eye/face protection Tight sealing safety goggles.

Respiratory protection Use appropriate respiratory protection
Dust mask according to DIN EN 140 or 149 (FFP1 or FFP2)

Hand protection Wear suitable gloves
Butyl rubber
Nitrile rubber
Natural rubber
Fluorocarbon rubber (Viton)
Neoprene gloves
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

Gloves			
Duration of contact	PPE - Glove material	Glove thickness	Break through time
Short term	Nitrile rubber	>=0.5 mm	>30 minutes
Long term (repeated)	Butyl rubber	>=0.7 mm	>480 minutes
Long term (repeated)	Fluorocarbon rubber (Viton)	>=0.7 mm	>480 minutes

Skin and body protection Wear suitable protective clothing. Lightweight protective clothing.

General hygiene considerations Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection.
Avoid breathing dust/fume/gas/mist/vapors/spray. Wash thoroughly after handling. When using do not eat, drink or smoke.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state Solid
Appearance Powder
Color White
Odor Odorless.

Property	Values	Remarks • Method
Melting point / freezing point	> 450 °C	None known
Boiling point / boiling range	No data available	None known
Flammability (solid, gas)	No data available	Not flammable
Flammability Limit in Air		None known
Upper flammability or explosive limits	No data available	

Lower flammability or explosive limits	No data available	
Flash point	No data available	Not flammable
Autoignition temperature	No data available	None known
Decomposition temperature		None known
pH	No data available	None known
pH (as aqueous solution)	3.8-4.4	solution (10 %)
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known
Water solubility	130-170 g/l @ 20°C	None known
Solubility(ies)	No data available	None known
Partition coefficient	No data available	None known
Vapor pressure	No data available	None known
Relative density	No data available	None known
Bulk density	~1000 kg/m ³	
Liquid Density	No data available	
Vapor density	No data available	None known
Particle characteristics		
Particle Size	No information available	
Particle Size Distribution	No information available	

9.2. Other information

9.2.1. Information with regard to physical hazard classes

Explosive properties	Not explosive.
Flammable solids	Not flammable
Oxidizing properties	Not oxidising

9.2.2. Other safety characteristics

No information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	No reactive hazards known/expected.
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10.2. Chemical stability

Stability	Stable under normal conditions.
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Explosion data

Sensitivity to mechanical impact	None.
Sensitivity to static discharge	None.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	None under normal processing. Exothermic reactions with alkalis (lyes).
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10.4. Conditions to avoid

Conditions to avoid	Very hygroscopic; protect from moisture.
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10.5. Incompatible materials

Incompatible materials	None known based on information supplied.
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10.6. Hazardous decomposition products

Hazardous decomposition products	Phosphorus oxides.
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SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Information on likely routes of exposure

Product Information

Inhalation	May cause irritation of respiratory tract.
Eye contact	Causes serious eye irritation. May cause redness, itching, and pain.
Skin contact	Prolonged contact may cause redness and irritation.
Ingestion	Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms	May cause redness and tearing of the eyes.
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Numerical measures of toxicity

Acute toxicity

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Disodium dihydrogendiphosphate	LD50: >2000 mg/kg (rat, WoE), ATE: 2300 mg/kg (mouse)	>2000 mg/kg (rat, OECD 402)	>0.58 mg/L (rat, OECD 403)

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation	Based on available data, the classification criteria are not met.
Serious eye damage/eye irritation	Causes serious eye irritation. Classification based on data available for ingredients.
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 Based on available data, the classification criteria are not met. The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical name	ACGIH	IARC	NTP	European Union
Disodium dihydrogendiphosphate	-	-	-	-

Reproductive toxicity	Based on available data, the classification criteria are not met.
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STOT - single exposure	Based on available data, the classification criteria are not met.
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STOT - repeated exposure Based on available data, the classification criteria are not met

Aspiration hazard Not applicable.

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

Endocrine disrupting properties No endocrine disrupting properties are known.

11.2.2. Other information

Other adverse effects No information available.

SECTION 12: Ecological information

12.1. Toxicity

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

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Disodium dihydrogendiphosphate	EC50: >100 mg/L (72h, Desmodesmus subspicatus, OECD 201, read across)	LC50: >100 mg/L (96h, Oncorhynchus mykiss, OECD 203, read across)	EC50: >1000 mg/L (3h, Activated sludge, OECD 209, read across)	EC50: >100 mg/L (48h, Daphnia magna, EPA OTS 797.1300, read across)

12.2. Persistence and degradability

Persistence and degradability Not relevant for inorganic salts.

12.3. Bioaccumulative potential

Bioaccumulation Not relevant for inorganic salts

Chemical name	Partition coefficient
Disodium dihydrogendiphosphate	-

12.4. Mobility in soil

Mobility in soil No information available.

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment

Chemical name	PBT and vPvB assessment
Disodium dihydrogendiphosphate	PBT assessment does not apply

12.6. Endocrine disrupting properties

Endocrine disrupting properties No endocrine disrupting properties are known.

12.7. Other adverse effects

The product should not get in high quantities into waste water because it may act as a plant nutrient and cause eutrophication.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste from residues/unused products	Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.
Contaminated packaging	Dispose of contents/containers in accordance with local regulations.

SECTION 14: Transport information

IATA

14.1 UN number or ID number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user	
Special Provisions	None

IMDG

14.1 UN number or ID number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Marine pollutant	Not applicable
14.6 Special precautions for user	
Special Provisions	None
14.7 Maritime transport in bulk according to IMO instruments	No information available

ADR/RID/ADN

14.1 UN number or ID number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user	
Special Provisions	None

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

Authorizations and/or restrictions on use:

This product does not contain substances subject to authorization (Regulation (EC) No. 1907/2006 (REACH), Annex XIV) This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

Chemical name	Restricted substance per REACH Annex XVII	Substance subject to authorization per REACH Annex XIV
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Disodium dihydrogendiphosphate - 7758-16-9	-	-
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REGULATION (EU) 2019/1148 on the marketing and use of explosives precursors

Not applicable

Persistent Organic Pollutants

Not applicable

Dangerous substance category per Seveso Directive (2012/18/EU)

Non-controlled

Ozone-depleting substances (ODS) regulation (EC) 1005/2009

Not applicable

International Inventories

GHS hazardous component CAS registry numbers appearing in section 3 may differ from substances appearing in section 15 due to country or regional chemical inventory coverage requirements, however, remain in compliance with the inventory
Products that are used as food additives are exempt from listing in international chemical inventories

For further details on the regulatory status for this product in a specific country, please send your inquiry to the following email address: msdsinfo@icl-group.com

TSCA	Listed or exempted
DSL	Listed or exempted
ENCS	Listed or exempted
IECSC	Listed or exempted
KECL	Listed or exempted
PICCS	Listed or exempted
TCSI	Listed or exempted
AIIC	Listed or exempted
NZIoC	Not Listed
NCI	Listed or exempted
NSQ	Listed or exempted
TECI	Listed or exempted

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL - Canadian Domestic Substances List
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
TCSI - Taiwan Chemical Substance Inventory
AIIC - Australian Inventory of Industrial Chemicals
NCI - Vietnam National Chemicals Inventory
NSQ - Mexico National Inventory of Chemical Substances
NZIoC - New Zealand Inventory of Chemicals
TECI - Thailand Inventory FDA Existing Chemicals

15.2. Chemical safety assessment

Chemical Safety Report

A Chemical Safety Assessment has been carried out for this substance. Exposure scenario available.

SECTION 16: Other information

Key or legend to abbreviations and acronyms used in the safety data sheet

Full text of H-Statements referred to under section 3

H319 - Causes serious eye irritation

SVHC: Substances of Very High Concern for Authorization:

PBT: Persistent, Bioaccumulative, and Toxic (PBT) Chemicals

vPvB: Very Persistent and very Bioaccumulative (vPvB) Chemicals

Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA TWA (time-weighted average)

STEL

STEL (Short Term Exposure Limit)

Ceiling Maximum limit value

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Skin designation

Key literature references and sources for data used to compile the SDS

Agency for Toxic Substances and Disease Registry (ATSDR)

U.S. Environmental Protection Agency ChemView Database

European Food Safety Authority (EFSA)

EPA (Environmental Protection Agency)

Acute Exposure Guideline Level(s) (AELG(s))

U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act

U.S. Environmental Protection Agency High Production Volume Chemicals

Food Research Journal

Hazardous Substance Database

International Uniform Chemical Information Database (IUCLID)

Japan GHS Classification

Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)

NIOSH (National Institute for Occupational Safety and Health)

National Library of Medicine's ChemID Plus (NLM CIP)

National Library of Medicine's PubMed database (NLM PUBMED)

National Toxicology Program (NTP)

New Zealand's Chemical Classification and Information Database (CCID)

Organization for Economic Co-operation and Development Environment, Health, and Safety Publications

Organization for Economic Co-operation and Development High Production Volume Chemicals Program

Organization for Economic Co-operation and Development Screening Information Data Set

World Health Organization

Prepared By

HERA
telephone: +/972-8-6297835
e-mail: msdsinfo@icl-group.com
www.icl-group.com

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25-May-2023

Revision Note

The symbol (***) in the margin of this SDS indicates that this line has been revised

Training Advice

Adequate training is required before industrial or professional use

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

Although the information and recommendations set forth herein (hereinafter 'information') are presented in good faith and believed to be correct as of the date hereof, we make no representations as to the completeness or accuracy thereof. Information is supplied to you upon the condition that the persons receiving the information will make their own determination as to its safety and suitability for their purposes prior to use. In no event will we be responsible for damages of any nature whatsoever resulting from the use of or reliance upon the information. In addition, we shall not be liable for any damage or injury resulting from abnormal use, from any failure to adhere to recommended practices or from any hazards inherent in the nature of the product.

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End of Safety Data Sheet