

SAFETY DATA SHEET

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)

Issue Date 28-Oct-2015

Revision Date 14-Feb-2023

Version 1.9

Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product Code(s)	1429525
Product Name	Sodium Pyrophosphate, Crystal
CAS No	7722-88-5
EC No (EU Index No)	231-767-1
Formula	Na4P2O7
Molecular weight	265.9 g/mole
1.2. Relevant identified uses of the s	substance or mixture and uses advised against
Recommended Use	Laboratory Use.
Uses advised against	Consumer use

1.3. Details of the supplier of the safety data sheet

Supplier

HACH UK Laser House Ground Floor, Suite B Waterfront Quay, Salford Quays GB - Manchester, M50 3XW Tel. +44 (0) 161 872 1487 info-uk@hach.com

HACH Ireland Unit 34 GB Business Park Little Island IRL-Co. Cork T45 H681 Tel. +353 (0)146 02 522 info-ie@hach.com

1.4. Emergency telephone number

UK: Poison Control Center Mainz: Tel: +49 (0) 6131 19240 - 24 hour emergency service IE: National Poisons Information Centre (NPIC) 01 809 2566 (24/7)

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)
Specific target organ toxicity — single exposure	Category 3 - (H335)

2.2. Label elements

EC-Label 231-767-1 CAS No 7722-88-5 Contains Tetrasodium pyrophosphate



Signal word Warning

Hazard statements

H319 - Causes serious eye irritation H335 - May cause respiratory irritation

Precautionary Statements - EU (§28, 1272/2008) P261 - Avoid breathing dust/fume/gas/mist/vapours/spray

P264 - Wash face, hands and any exposed skin thoroughly after handling

P271 - Use only outdoors or in a well-ventilated area

P280 - Wear eye protection/ face protection

P403 + P233 - Store in a well-ventilated place. Keep container tightly closed

P312 - Call a POISON CENTER or doctor if you feel unwell

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

P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

P501 - Dispose of contents/ container to an approved waste disposal plant

2.3. Other hazards

No information available.

PBT & vPvB

This mixture contains no substance considered to be persistent, bioaccumulating or toxic (PBT)

This mixture contains no substance considered to be very persistent nor very bioaccumulating (vPvB)

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Chemical name	CAS No. EC No. Index No.	Weight-%	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Specific concentration limit (SCL)	M-Factor	M-Factor (long-term)
Tetrasodium pyrophosphate	7722-88-5 231-767-1	100%	Eye Irrit. 2 - H319 STOT SE 3 - H335	-	-	-

Chemical name	CAS No. EC No. Index No.	Weight-%	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Specific concentration limit (SCL)	M-Factor	M-Factor (long-term)
	-					

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

Acute Toxicity Estimate

If LD50/LC50 data is not available or does not correspond to the classification category, then the appropriate conversion value from CLP Annex I, Table 3.1.2, is used to calculate the acute toxicity estimate (ATEmix) for classifying a mixture based on its components

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50 - 4 hour - dust/mist - mg/L		Inhalation LC50 - 4 hour - gas - ppm
Tetrasodium pyrophosphate 7722-88-5	2980 mg/kg	> 2000 mg/kg	None reported	None reported	None reported

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. IF exposed or concerned: Get medical advice/attention.			
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 doctor.			
Ingestion	Do NOT induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person. Call a doctor.			
Self-protection of the first aider	Avoid contact with skin, eyes or clothing. Wear personal protective clothing (see section 8).			
4.2. Most important symptoms and	effects, both acute and delayed			
Symptoms	May cause redness and tearing of the eyes. Burning sensation.			
4.3. Indication of any immediate medical attention and special treatment needed				
Note to doctors	Treat symptomatically.			

Section 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable Extinguishing Media Use extinguishing measures that are appropriate to local circumstances and the

	surrounding environment.
Unsuitable extinguishing media	No information available.
5.2. Special hazards arising from the	ne substance or mixture
Specific hazards arising from the chemical	Thermal decomposition can lead to release of irritating and toxic gases and vapours.
Hazardous combustion products	Phosphorus oxides. Sodium 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. Use personal protection equipment.
Additional information	Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

Section 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions	Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas. Avoid contact with skin, eyes or clothing.			
For emergency responders	Use personal protection recommended in Section 8.			
6.2. Environmental precautions				
Environmental precautions	Should not be released into the environment. See Section 12 for additional Ecological Information.			
6.3. Methods and material for conta	inment and cleaning up			
Methods for containment	Prevent further leakage or spillage if safe to do so.			
Methods for cleaning up	Take up mechanically, placing in appropriate containers for disposal. Avoid creating dust.			
Prevention of secondary hazards	Clean contaminated objects and areas thoroughly observing environmental regulations.			
6.4. Reference to other sections				
Reference to other sections	See section 8 for more information. See section 13 for more information.			

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 contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Ensure adequate ventilation. Avoid breathing vapours or mists. In case of insufficient ventilation, wear suitable respiratory equipment.
General hygiene considerations	Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Avoid creating dust.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions

Keep containers tightly closed in a dry, cool and well-ventilated place.

7.3. Specific end use(s)

Specific use(s) Risk Management Methods (RMM)

Analytical reagent. The information required is contained in this Safety Data Sheet.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Exposure Limits

Chemical name	European Union	United Kingdom	Ireland
Tetrasodium pyrophosphate	-	TWA: 5 mg/m ³	TWA: 5 mg/m ³
7722-88-5		STEL: 15 mg/m ³	STEL: 15 mg/m ³

Derived No Effect Level (DNEL)	No information available.
Predicted No Effect Concentration (PNEC)	No information available.
Additional information	No information available.
8.2. Exposure controls	
Engineering controls	Technical measures and appropriate working operations should be given priority over the use of personal protective equipment. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
Personal protective equipment Eye/face protection	Wear safety glasses with side shields (or goggles).
Hand protection	Wear suitable gloves. Barrier creams may help to protect the exposed areas of skin. Gloves must be inspected prior to use. The selected protective gloves have to satisfy the specifications of EU Directive 2016/425 and the standard EN 374-1:2016 derived from it. Chemical resistant gloves made of butyl rubber or nitrile rubber category III acco.

	Gloves					
Duration of contact	PPE - Glove material	Glove thickness	Break through time			
Short term	Wear protective nitrile rubber gloves	0,11 mm	480 minutes			
Long term (repeated)	Wear protective nitrile rubber gloves	0,11 mm	480 minutes			
Skin and body protection	Wear suitable protective clothing.					
Respiratory protection	Ensure adequate ventilation. No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required. Wear breathing apparatus if exposed to vapours/dusts/aerosols.					
General hygiene considerations	Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Avoid creating dust.					

Environmental exposure controls D

Do not allow into any sewer, on the ground or into any body of water.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical state Solid

Colour white

Odour Odourless

Property	Values	Remarks • Method
Molecular weight	265.9 g/mole	
рН	5.5	
Melting point / freezing point	988 °C / 1810.4 °F	
Initial boiling point and boiling range	No data available	
Evaporation rate	Not applicable	
Vapour pressure	Not applicable	
Relative vapor density	No data available	
Specific Gravity	2.53	
Partition coefficient	No data available	
Soil Organic Carbon-Water Partition Coefficient	No data available	
Autoignition temperature	No data available	
Decomposition temperature	No data available	
Dynamic viscosity	Not applicable	
Kinematic viscosity Relative density	Not applicable	

Solubility(ies)

Water solubility

Water solubility classification	Water solubility	Water Solubility Temperature
Completely soluble	67000 mg/L	25 °C / 77 °F

Solubility in other solvents

Chemical Name	Solubility classification	<u>Solubility</u>	Solubility Temperature
None reported	No information available	No data available	No information available

Metal Corrosivity

Steel Corrosion Rate	Not applicable
Aluminum Corrosion Rate	Not applicable

Explosive properties				
Upper explosion limit Lower explosion limit	No data available No data available			
Flammable properties				
Flash point	Not applicable			
Flammability				
Upper flammability limit: Lower flammability limit	No data available No data available			
Oxidising properties	No data available.			
Bulk density	No data available			
9.2. Other information				
No information available.				
S	ection 10: STABILITY AND REACTIVITY			
10.1. Reactivity				
Reactivity	No information available.			
10.2. Chemical stability				
Stability	Stable under normal conditions.			
10.3. Possibility of hazardous reacti	ons			
Possibility of hazardous reactions	None under normal processing.			
10.4. Conditions to avoid				
Conditions to avoid	None known based on information supplied.			
10.5. Incompatible materials				
Incompatible materials	None known based on information supplied.			
10.6. Hazardous decomposition pro	ducts			
Hazardous Decomposition Products	Phosphorus oxides.			
Sec	tion 11: TOXICOLOGICAL INFORMATION			
11.1. Information on toxicological ef	ifects			

<u>Acute toxicity</u> Based on available data, the classification criteria are not met

Mixture If available, see ingredient data below. Test data reported below. Substance

BE / EGHS

Oral Exposure Route:

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Tetrasodium	Rat	2980 mg/kg	None reported	None reported	RTECS
pyrophosphate	LD50				

Dermal Exposure Route:

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Tetrasodium pyrophosphate	Rabbit LD50		None reported	None reported	RTECS

Acute Toxicity Estimate (ATE)

Not applicable The following values are calculated based on chapter 3.1 of the GHS document

Skin corrosion/irritation

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

Mixture

Substance

Test data reported below.

If available, see ingredient data below.

Chemical name	Test method	Species	Reported dose	Exposure time	Results	Key literature references and sources for data
Tetrasodium pyrophosphate	Patch test	Rabbit	500 mg	None reported	Not corrosive or irritating to skin	ECHA

Serious eye damage/eye irritation

Classification based on data available for ingredients. Causes serious eye irritation.

Mixture

Substance

Test data reported below.

If available, see ingredient data below.

Chemical na	me Test n	nethod Specie	es Reported dose	Exposure time	Results	Key literature references and sources for data
Tetrasodiu pyrophosph		e Test Rabb	it 95 mg	4 hours	Corrosive to eyes	ECHA

Respiratory or skin sensitisation

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

Mixture If available, see ingredient data below.

Substance No data available.

STOT - single exposure

 May cause respiratory irritation.

 Mixture
 If available, see ingredient data below.

 Substance
 No data available.

<u>STOT - repeated exposure</u> Based on available data, the classification criteria are not met.

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Mixture	If available, see ingredient data below.
Substance	No data available.
<u>Germ cell mutagenicity</u> Based on available data, the classific	ation criteria are not met.
Mixture invitro Data	If available, see ingredient data below.
Substance invitro Data	No data available.
Mixture invivo Data	If available, see ingredient data below.
Substance invivo Data	No data available.
<u>Carcinogenicity</u> Based on available data, the classific	ation criteria are not met.
Mixture	If available, see ingredient data below.
Substance	No data available.
<u>Reproductive toxicity</u> Based on available data, the classific	ation criteria are not met.
Mixture	No data available.
Substance	No data available.
Aspiration hazard Based on available data, the classific	ation criteria are not met.
11.2 Information on other hazards Other dangerous properties can not b	e excluded. Handle in accordance with good industrial hygiene and safety practice.
11.2.1. Endocrine disrupting prop Endocrine disrupting properties	erties No information available.
11.2.2. Other information Other adverse effects	No information available.
S	Section 12: ECOLOGICAL INFORMATION
<u>12.1. Toxicity</u>	
Ecotoxicity	Based on available data, the classification criteria are not met.
Mixture	
Acute aquatic toxicity:	If available, see ingredient data below.
Aquatic Chronic Toxicity:	If available, see ingredient data below.
<u>Substance</u>	
Acute aquatic toxicity:	No data available.

Aquatic Chronic Toxicity:

Test data reported below.

Fish:

Chemical name	Exposure time	Species	Endpoint type	Reported dose	Key literature references and sources for data
Tetrasodium pyrophosphate	48 hours	Leuciscus idus	LC	1500 mg/L	IUCLID

12.2. Persistence and degradability

Mixture	No data available.		
12.3. Bioaccumulative potential			
Mixture:	No data available.		
Partition coefficient	No data available		
<u>12.4. Mobility in soil</u>			
Soil Organic Carbon-Water Partition Coefficient	No data available		

12.5. Results of PBT and vPvB assessment

The components in this formulation do not meet the criteria for classification as PBT or vPvB.

Chemical name	PBT and vPvB assessment
Tetrasodium pyrophosphate	The substance is not PBT / vPvB

12.6. Endocrine disrupting properties

Endocrine Disruptor Information: This product does not contain any known or suspected endocrine disruptors

12.7. Other adverse effects

No information available.

Ozone: Not applicable

Ozone depletion potential (ODP): No information available

Section 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Advice on Disposal		
Waste from residues/unused productsDispose of in accordance with local regulations. Dispose of waste in accordance environmental legislation.		
Waste disposal number of waste from residues/unused products		
160506	WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals; hazardous waste.	

Waste disposal number of used product

160506	WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals; hazardous waste.
Contaminated packaging	Dispose of contents/containers in accordance with local regulations.
Other Information	Waste codes should be assigned by the user based on the application for which the product was used.

Section 14: TRANSPORT INFORMATION

IMDG

14.1 UN number or ID number	Not regulated
14.2 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	See section 6-8 for more information
14.7. Transport in bulk according to	Not applicable
Annex II of MARPOL and the IBC	
Code	
ADR	
14.1 UN number or ID number	Not regulated
	-
14.2 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	See section 6-8 for more information
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ΙΑΤΑ	Not regulated
14.1 UN number or ID number	Not regulated
	0
14.2 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	See section 6-8 for more information

Additional information

There is a possibility that this product could be contained in a reagent set or kit composed of various compatible dangerous goods. If the item is not in a reagent set or kit, the classification given above applies.

If the item is part of a reagent set or kit the classification would change to the following:

UN3316 Chemical Kit, Hazard Class 9, Packing Group II or III.

If the item is not regulated, the Chemical Kit classification does not apply.

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

Authorisations and/or restrictions on use:

This product does not contain substances subject to authorisation (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)

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

Germany

Water hazard class (WGK)

slightly hazardous to water (WGK 1)

International Inventories	
EINECS/ELINCS	Complies
TSCA	Complies
DSL/NDSL	Complies
ENCS	Complies
IECSC	Complies
KECL - Existing substances	Complies
PICCS	Complies
AICS	Complies

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances TSCA - United States Toxic Substances Control Act Section 8(b) Inventory DSL/NDSL - Canadian Domestic Substances List/Non-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

AICS - Australian Inventory of Chemical Substances

15.2. Chemical safety assessment

Chemical Safety Report

Chemical safety assessments for substances in this mixture were not carried out.

Section 16: OTHER INFORMATION

Issue Date 28-0	Oct-2015
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Revision Date 14-Feb-2023

Revision Note

bte New SDS, SDS sections updated, 3, 9, 11, 12.

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

Legend

**	Hazard Designation
ADN	Accord européen relatif au transport international des marchandises dangereuses par voies
	de navigation intérieure
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
CAS	Chemical Abstracts Service Number
Ceiling	Maximum limit value
CLP	Classification, Labelling and Packaging of substances and mixtures [Regulation (EC) No.
	1272/2008]
DNEL	Derived No Effect Level (DNEL)
EC	European Community
ECHA	ECHA (The European Chemicals Agency)
EC50	Effective Concentration to 50% of a test population
EEC	European Economic Community
EN	European Standard
IMDG	International Maritime Dangerous Goods (IMDG)
IATA	International Air Transport Association (IATA)
IATA-DGR	International Air Transport Association - Dangerous Goods Regulations
ICAO	International Civil Aviation Organization
ICAO-TI	International Civil Aviation Organization - Technical Instructions
IUCLID	IUCLID (The International Uniform Chemical Information Database)
GHS	Globally Harmonized System of Classification and Labelling of Chemicals
LOAEL	Lowest observed adverse effect level
LOAEC	Lowest observed adverse effect concentration
LC50	Lethal Concentration to 50% of a test population
LD50	Lethal Dose to 50% of a test population (Median Lethal Dose)
LOLI	LOLI (List of Lists - An International Chemical Regulatory Database)
MAK	Maximale Arbeitsplatz-Konzentration, a German expression corresponding to threshold limit
	value, which relates to safe daily exposure levels to chemical substances
NOAEL	NOAEL (No observed adverse effect level)
NOAEC	No observed adverse effect concentration
OSHA	OSHA (Occupational Safety and Health Administration of the US Department of Labour)
PEC	Predicted Effect Concentration
PNEC	Predicted No Effect Concentration (PNEC)
PBT	Persistent, Bioaccumulative, and Toxic (PBT) Chemicals
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals [Regulation (EC) No.
	1907/2006])
RID	Règlement international concernant le transport des marchandises dangereuses par chemin
	de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
RTECS	RTECS (Registry of Toxic Effects of Chemical Substances)
TWA	TWA (time-weighted average)
SKN*	Skin designation
SKN+	Skin sensitisation
STEL	STEL (Short Term Exposure Limit)
STOT	Specific Target Organ Toxicity
STOT RE	Specific target organ toxicity — repeated exposure
STOT SE	Specific target organ toxicity — single exposure
SVHC TLV	Substances of Very High Concern Threshold Limit Value
TRGS	Technical rules for hazardous substances, Germany
TSCA	Toxic Substances Control Act
UN	United Nations
vPvB	very persistent and very bioaccumulative
VOC	Volatile organic compounds
AwsV	Administrative regulation of water polluting substances, Germany
	. Contains and regulation of water policing substances, Containy

Key literature references and sources for data See Section 11: TOXICOLOGICAL INFORMATION See Section 12: ECOLOGICAL INFORMATION

Classification procedure

Classification according to Regulation (EC) No. 1272/2008 [CLP]	Method Used
Acute oral toxicity	Calculation method
Acute dermal toxicity	Calculation method
Acute inhalation toxicity - gas	Calculation method
Acute inhalation toxicity - Vapour	Calculation method
Acute inhalation toxicity - dust/mist	Calculation method
Skin corrosion/irritation	Calculation method
Serious eye damage/eye irritation	Calculation method
Respiratory sensitisation	Calculation method
Skin sensitisation	Calculation method
Mutagenicity	Calculation method
Carcinogenicity	Calculation method
Reproductive toxicity	Calculation method
STOT - single exposure	Calculation method
STOT - repeated exposure	Calculation method
Acute aquatic toxicity	Calculation method
Chronic aquatic toxicity	Calculation method
Aspiration toxicity	Calculation method
Ozone	Calculation method

Training Advice

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

Restrictions on use

For Laboratory Use Only.

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

End of Safety Data Sheet