

1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND OF THE COMPANY / UNDERTAKING

Product identifier: Trisodium Phosphate
Sodium Phosphate, Tribasic
Trisodium Orthophosphate
Trisodium orthophosphate

CAS: 7601-54-9

EC: 231-509-8

Index: Non-applicable

REACH: 01-2119489800-32-XXXX

Other means of identification: Non-applicable

Relevant identified uses of the substance or mixture and uses advised against:

Relevant uses: Chemical industry. For professional user/industrial user only.

Uses advised against: All uses not specified in this section or in section 7.3.

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2. HAZARDS IDENTIFICATION

Classification of the substance or mixture:

CLP Regulation (EC) No 1272/2008: Classification of this product has been carried out in accordance with CLP Regulation (EC) No 1272/2008.

Eye Irrit. 2: Eye irritation, Category 2, H319
Skin Irrit. 2: Skin irritation, Category 2, H315
STOT SE 3: Respiratory tract toxicity, single exposure, Category 3, H335

Label elements:

CLP Regulation (EC) No 1272/2008:

Warning:



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Hazard statements: Eye Irrit. 2: H319 - Causes serious eye irritation.
Skin Irrit. 2: H315 - Causes skin irritation.
STOT SE 3: H335 - May cause respiratory irritation.

Precautionary statements: P264: Wash thoroughly after handling.
P271: Use only outdoors or in a well-ventilated area.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352: IF ON SKIN: Wash with plenty of water.
P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P403+P233: Store in a well-ventilated place. Keep container tightly closed.
P501: Dispose of contents/container in accordance with regulations on hazardous waste or packaging and packaging waste respectively.

Other hazards: Product fails to meet PBT/vPvB criteria.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Substance:

Chemical description: Chemical substance

Components:

In accordance with Annex II of Regulation (EC) No 1907/2006 (point 3), the product contains:

Identification	Chemical name/Classification	Concentration
CAS: 7601-54-9	Trisodium orthophosphate - Self-classified	100%
EC: 231-509-8	Regulation 1272/2008 Eye Irrit. 2: H319;	
Index: Non-applicable	Skin Irrit. 2: H315;	
REACH: 01-2119489800-32-XXXX	STOT SE 3: H335- Warning	

To obtain more information on the hazards of the substances consult sections 11, 12 and 16.

Mixture: Non-applicable.

4. FIRST AID MEASURES

Description of first aid measures: The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

By inhalation: Remove the person affected from the area of exposure, provide with fresh air and keep at rest. In serious cases such as cardiorespiratory failure, artificial resuscitation techniques will be necessary (mouth to mouth resuscitation, cardiac massage, oxygen supply, etc.) requiring immediate medical assistance.

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By skin contact: Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact: Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, in which case this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration: Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

Most important symptoms and effects, both acute and delayed: Acute and delayed effects are indicated in sections 2 and 11.

Indication of any immediate medical attention and special treatment needed: Non-applicable.

5. FIRE-FIGHTING MEASURES

Extinguishing media:

Suitable extinguishing media: Product is non-flammable under normal conditions of storage, handling and use. In the case of combustion as a result of improper handling, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems.

Unsuitable extinguishing media: Non-applicable

Special hazards arising from the substance or mixture: As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

Advice for firefighters: Depending on the magnitude of the fire it may be necessary to use full protective clothing and self-contained breathing apparatus (SCBA). Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit) in accordance with Directive 89/654/EC.

Additional provisions: Act in accordance with the Internal Emergency Plan and the Information Sheets on actions to take after an accident or other emergencies. Eliminate all sources of ignition. In case of fire, cool the storage containers and tanks for products susceptible to combustion, explosion or BLEVE as a result of high temperatures. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:

Sweep up and shovel product or collect by other means and place in container for reuse (preferred) or disposal.

[cont...]

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Environmental precautions: This product is not classified as hazardous to the environment. Keep product away from drains, surface and ground water.

Methods and material for containment and cleaning up:

It is recommended: Sweep up and shovel product or collect by other means and place in container for reuse (preferred) or disposal.

Reference to other sections: See sections 8 and 13.

7. HANDLING AND STORAGE

Precautions for safe handling:

Precautions for safe manipulation: Comply with the current legislation concerning the prevention of industrial risks. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

Technical recommendations for the prevention of fires and explosions: Due to its inflammable nature, the product does not present a fire risk under normal conditions of storage, handling and use.

Technical recommendations to prevent ergonomic and toxicological risks: Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

Technical recommendations to prevent environmental risks: It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3).

Conditions for safe storage, including any incompatibilities:

Technical measures for storage:

Minimum Temp.: 2 °C

Maximum Temp.: 35 °C

Maximum time: 24 Months

General conditions for storage: Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

Specific end use(s): Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters:

Substances whose occupational exposure limits have to be monitored in the workplace:

Nuisance dust: Inhalable dust 10 mg/m³ // Respirable dust 4 mg/m³

DNEL (Workers):

Identification

Trisodium orthophosphate

CAS: 7601-54-9

EC: 231-509-8

Short exposure

Systemic

Non-applicable

Non-applicable

Non-applicable

Local

Non-applicable

Non-applicable

Non-applicable

Long exposure

Systemic

Non-applicable

Non-applicable

17.87 mg/m³

Local

Non-applicable

Non-applicable

Non-applicable

[cont...]

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DNEL (General population):

Identification

		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
Trisodium orthophosphate	Oral	Non-applicable	Non-applicable	Non-applicable	Non-applicable
CAS: 7601-54-9	Dermal	Non-applicable	Non-applicable	Non-applicable	Non-applicable
EC: 231-509-8	Inhalation	Non-applicable	Non-applicable	7.66 mg/m ³	Non-applicable



PNEC: Non-applicable

Exposure controls:



General security and hygiene measures in the workplace:

As a preventative measure it is recommended to use basic Personal Protective Equipment, with the corresponding <<CE marking>> in accordance with Regulation (EU) 2016/425. For more information on Personal Protective Equipment (storage, use, cleaning, maintenance, class of protection...) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation which needs some specification from the labour risk prevention services as it is not known whether the company has additional measures at its disposal.



Respiratory protection:

Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory respiratory tract protection	Filter mask for gases, vapours and particles		EN 149:2001+A1:2009 EN 405:2002+A1:2010	Replace when an increase in resistance to breathing is observed and/or a smell or taste of the contaminant is detected.

Specific protection for the hands:

Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory hand protection	Protective gloves against minor risks			Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional users/industrials, we recommend using CE III gloves in line with standards EN 420:2004+A1:2010 and EN ISO 374-1:2016+A1:2018

Ocular and facial protection:

Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory face protection	Panoramic glasses against splash/projections.		EN 166:2002 EN ISO 4007:2018	Clean daily and disinfect periodically according to the manufacturer's instructions. Use if there is a risk of splashing.

[cont...]


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Body protection:

Pictogram	PPE	Labelling	CEN Standard	Remarks
	Work clothing			Replace before any evidence of deterioration. For periods of prolonged exposure to the product for professional/industrial users CE III is recommended, in accordance with the regulations in EN ISO 6529:2013, EN ISO 6530:2005, EN ISO 13688:2013, EN 464:1994.
	Anti-slip work shoes		EN ISO 20347:2012	Replace before any evidence of deterioration. For periods of prolonged exposure to the product for professional/industrial users CE III is recommended, in accordance with the regulations in EN ISO 20345:2012 y EN 13832-1:2007

Additional emergency measures:

Emergency measure	Standards	Emergency measure	Standards
 Emergency shower	ANSI Z358-1 ISO 3864-1:2011, ISO 3864-4:2011	 Eyewash stations	DIN 12 899 ISO 3864-1:2011, ISO 3864-4:2011

Environmental exposure controls: In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D.

Volatile organic compounds:

With regard to Directive 2010/75/EU, this product has the following characteristics:

V.O.C. (Supply):	0 % weight
V.O.C. density at 20 °C:	0 kg/m ³ (0 g/L)
Average carbon number:	Non-applicable
Average molecular weight:	Non-applicable

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties: For complete information see the product datasheet.

Appearance:

Physical state at 20 °C:	Solid
Appearance:	Powdery
Colour:	White
Odour:	Odourless
Odour threshold:	Non-applicable *

Volatility:

Boiling point at atmospheric pressure:	Non-applicable *
Vapour pressure at 20 °C:	Non-applicable *
Vapour pressure at 50 °C:	Non-applicable *
Evaporation rate at 20 °C:	Non-applicable *

[cont...]

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Product description:

Density at 20 °C:	2536 kg/m ³
Relative density at 20 °C:	2.536
Dynamic viscosity at 20 °C:	Non-applicable *
Kinematic viscosity at 20 °C:	Non-applicable *
Kinematic viscosity at 40 °C:	Non-applicable *
Concentration:	Non-applicable *
pH:	>11 - 12 (at 50 %)
Vapour density at 20 °C:	Non-applicable *
Partition coefficient n-octanol/water 20 °C:	Non-applicable *
Solubility in water at 20 °C:	>650 kg/m ³
Solubility properties:	Highly water-soluble
Decomposition temperature:	Non-applicable *
Melting point/freezing point:	Non-applicable *
Explosive properties:	Non-applicable *
Oxidising properties:	Non-applicable *

Flammability:

Flash Point:	Non-applicable
Heat of combustion:	Non-applicable *
Flammability (solid, gas):	Non-applicable *
Autoignition temperature:	Non-applicable *
Lower flammability limit:	Non-applicable *
Upper flammability limit:	Non-applicable *

Explosive:

Lower explosive limit:	Non-applicable *
Upper explosive limit:	Non-applicable *

Other information:

Surface tension at 20 °C:	Non-applicable *
Refraction index:	Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

10. STABILITY AND REACTIVITY

Reactivity: No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

Chemical stability: Chemically stable under the conditions of storage, handling and use.

Possibility of hazardous reactions: Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

[cont...]

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Conditions to avoid:

Applicable for handling and storage at room temperature:

Shock and friction	Contact with air	Increase in temperature	Sunlight	Humidity
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable

Incompatible materials:

Acids	Water	Oxidising materials	Combustible materials	Others
Avoid strong acids	Not applicable	Not applicable	Not applicable	Not applicable

Hazardous decomposition products: See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products.

Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO₂), carbon monoxide and other organic compounds.

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects: The experimental information related to the toxicological properties of the product itself is not available

Dangerous health implications: In case of exposure that is repetitive, prolonged or at concentrations higher than the recommended occupational exposure limits, adverse effects on health may result, depending on the means of exposure:

Ingestion (acute effect):

Acute toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for consumption. For more information see section 3.

Corrosivity/Irritability: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.

Inhalation (acute effect):

Acute toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for inhalation. For more information see section 3.

Corrosivity/Irritability: Causes irritation in respiratory passages, which is normally reversible and limited to the upper respiratory passages.

Contact with the skin and the eyes (acute effect):

Contact with the skin: Produces skin inflammation.

Contact with the eyes: Produces eye damage after contact.

CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.

IARC: Non-applicable

Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3. [cont...]

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Sensitizing effects:

Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.

Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Specific target organ toxicity (STOT) - single exposure: Causes irritation in respiratory passages, which is normally reversible and limited to the upper respiratory passages.

Specific target organ toxicity (STOT)-repeated exposure: Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Aspiration hazard: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

Other information: Non-applicable.

Specific toxicology information on the substances:

Identification	Acute toxicity	Genus
Trisodium orthophosphate	LD50 oral >2000 mg/kg	
CAS: 7601-54-9	LD50 dermal >2000 mg/kg	
EC: 231-509-8	LC50 inhalation >5 mg/L	

12. ECOLOGICAL INFORMATION

Contains phosphates. Excessive discharge may cause eutrophication.

Toxicity: Not available.

Persistence and degradability: Not available.

Bioaccumulative potential: Not available.

Mobility in soil: Not available.

Results of PBT and vPvB assessment: Product fails to meet PBT/vPvB criteria.

Other adverse effects: Not described.

[cont...]

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13. DISPOSAL CONSIDERATIONS

Waste treatment methods:

Code	Description	Waste class (Regulation (EU) No 1357/2014)
	It is not possible to assign a specific code, as it depends on the intended use by the user	Dangerous

Type of waste (Regulation (EU) No 1357/2014): HP5 Specific Target Organ Toxicity (STOT)/Aspiration Toxicity.
HP4 Irritant skin irritation and eye damage.

Waste management (disposal and evaluation):

Consult the authorized waste service manager on the assessment and disposal operations in accordance with Annex 1 and Annex 2 (Directive 2008/98/EC, The Waste Regulations 2011, 2011 No. 988). As under 15 01 (2014/955/EU) of the code and in case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommend disposal down the drain. See paragraph 6.2.

Regulations related to waste management:

In accordance with Annex II of Regulation (EC) No 1907/2006 (REACH) the community or state provisions related to waste management are stated.

Community legislation: Directive 2008/98/EC, 2014/955/EU, Regulation (EU) No 1357/2014.

14. TRANSPORT INFORMATION

Transport of dangerous goods by land:

With regard to ADR 2019 and RID 2019:

UN number:	Non-applicable
UN proper shipping name:	Non-applicable
Transport hazard class(es):	Non-applicable
Labels:	Non-applicable
Packing group:	Non-applicable
Environmental hazards:	No
Special precautions for user:	
Special regulations:	Non-applicable
Tunnel restriction code:	Non-applicable
Physico-Chemical properties:	Non-applicable
Limited quantities:	Non-applicable

Transport in bulk according to Annex II of Marpol and the IBC Code: Non-applicable

[cont...]

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Transport of dangerous goods by sea:

With regard to IMDG 39-18:

UN number: Non-applicable

UN proper shipping name: Non-applicable

Transport hazard class(es): Non-applicable

Labels: Non-applicable

Packing group: Non-applicable

Marine pollutant: No

Special precautions for user:

Special regulations: Non-applicable

EmS Codes:

Physico-Chemical properties: See Section 9

Limited quantities: Non-applicable

Segregation group: Non-applicable

Transport in bulk according to Annex II of Marpol and the IBC Code: Non-applicable

Transport of dangerous goods by air:

With regard to IATA/ICAO 2020:

UN number: Non-applicable

UN proper shipping name: Non-applicable

Transport hazard class(es): Non-applicable

Labels: Non-applicable

Packing group: Non-applicable

Environmental hazards: No

Special precautions for user:

Physico-Chemical properties: See Section 9

Transport in bulk according to Annex II of Marpol and the IBC Code: Non-applicable

15. REGULATORY INFORMATION

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

Candidate substances for authorisation under the Regulation (EC) No 1907/2006 (REACH): Non-applicable

Substances included in Annex XIV of REACH ("Authorisation List") and sunset date: Non-applicable

Regulation (EC) No 1005/2009, about substances that deplete the ozone layer: Non-applicable

Article 95, REGULATION (EU) No 528/2012: Non-applicable

REGULATION (EU) No 649/2012, in relation to the import and export of hazardous chemical products: Non-applicable

Seveso III: Non-applicable

Limitations to commercialisation and the use of certain dangerous substances and mixtures (Annex XVII REACH, etc ...): Non-applicable

Specific provisions in terms of protecting people or the environment:

It is recommended to use the information included in this safety data sheet as a basis for conducting workplace-specific risk assessments in order to establish the necessary risk prevention measures for the handling, use, storage and disposal of this product. [cont...]

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Other legislation: The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009 (CDG 2009), SI 2009 No 1348 The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment (Amendment) Regulations 2011, 2011 No. 1885 Control of Substances Hazardous to Health Regulations 2002 (as amended) EH40/2005 Workplace exposure limits The Waste Regulations 2011, 2011 No. 988.

Chemical safety assessment: The supplier has not carried out evaluation of chemical safety.

Note: The regulatory information given above only indicates the principal regulations specifically Applicable to the product described in the safety data sheet. The user's attention is drawn to the possible existence of additional provisions which complete these regulations. Refer to all applicable national, international and local regulations or provisions.

16. OTHER INFORMATION

Legislation related to safety data sheets: This safety data sheet has been designed in accordance with ANNEX II-Guide to the compilation of safety data sheets of Regulation (EC) No 1907/2006 (Regulation (EC) No 2015/830).

Modifications related to the previous Safety Data Sheet which concerns the ways of managing risks.: Non-applicable

Texts of the legislative phrases mentioned in section 2:

H315: Causes skin irritation.

H335: May cause respiratory irritation.

H319: Causes serious eye irritation.

Texts of the legislative phrases mentioned in section 3:

The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3.

CLP Regulation (EC) No 1272/2008: Eye Irrit. 2: H319 - Causes serious eye irritation.

Skin Irrit. 2: H315 - Causes skin irritation.

STOT SE 3: H335 - May cause respiratory irritation.

Legal disclaimer:

The information contained in this SDS does not constitute a risk assessment, and should not replace the user's own assessment of risks as required by other health and safety legislation. This advice is given by Nexchem Ltd who accept no legal liability for it except otherwise provided by law. The information contained herein is based on the present state of our knowledge and is intended to describe our products from the point of view of safety requirements. It should not therefore be construed as guaranteeing specific properties.