

**SECTION 1 : Identification of the substance/mixture and of the company/undertaking****1.1 Product identifier**

Product name / trade name : Trisodiumphosphate  
Substance name : trisodium orthophosphate, dodecahydrate  
REACH registration number : 01-211948900-32-0002  
EC-No. : 231-509-8  
CAS- No. : 10101-89-0

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

Recommended use : raw material for industry

**1.3 Details of the supplier of the safety data sheet**

Company : Brouwland bv  
Address : Korpelsesteenweg 86  
3581 Beverlo  
BE  
Telephone : +32 11 40 14 07  
E-mail address (non-Emergency and product Inquiry) : info@brouwland.com  
Additional information available from : www.brouwland.com

**1.4 Emergency telephone number**

Belgian Antipoison centre: +32 70 245 245

**SECTION 2: Hazards identification****2.1 Classification of the substance or mixture****Classification (REGULATION (EC) No 1272/2008)**

Skin irritation, category 2 : H315: causes skin irritation  
Eye irritation category 2 : H319: causes serious eye irritation.  
Specific target organ toxicity – single exposure, category 3 : H335: may cause respiratory irritation

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**2.2 Label element****Labelling (REGULATION (EC) No 1272/2008)**

Hazard pictogram

:



GHS07

Signal word

: Warning

Hazard statements

: H315 Causes skin irritation.  
 H319 Causes serious eye irritation.  
 H335 May cause respiratory irritation.

Precautionary statements

: **Prevention:**

P261 Avoid breathing dust/fume/gas/mist/vapours/spray  
 P264 Wash skin thoroughly after handling.  
 P280 Wear protective gloves/eye protection/ face protection.

**Response:**

P304+P340+P312 IF INHALED: remove person to fresh air and keep comfortable for breathing call a POISON CENTER/doctor if you feel unwell.

P337+P313 If eye irritation persists: get medical advice/ attention.

**Storage:**

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

**2.3 Other hazards**

This substance/mixture contains no components considered to be either persistent, bio accumulative And toxic (PBT), or very persistent and very bio accumulative (vPvB) at levels of 0.1% or higher.

**SECTION 3 : Composition/information on ingredients****3.1 Substances**

Substance name : trisodium orthophosphate, dodecahydrate

REACH registration number : 01-2119489800-32-0002

Chemical nature : inorganic

**Hazardous components**

Chemical name	CAS-No. EC-No.	Concentration (% w/w)
Trisodium orthophosphate, Dodecahydrate	1010-89-0 231-509-8	>=90-<=100

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**SECTION 4 : First aid measures****4.1 Description of first aid measures**

General advice	: Move out of dangerous area consult a physician. Show this safety data sheet to the doctor to in attendance. Do not leave the victim unattended.
In case of eye contact	: Protect unharmed eye. Keep eye wide open while rinsing. If eye irritation persists, consult a specialist.
In case of skin contact	: Take off contaminated clothing and shoes immediately. Wash off With plenty of water. If symptoms persist, call a physician.
if inhaled	: Move to fresh air. If symptoms persist, call a physician.
If swallowed	: Never give anything by mouth to an unconscious person. If symptoms persist call a physician.

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

Risks	: causes skin irritation. Causes serious eye irritation. May cause respiratory irritation
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**4.3 Indication of immediate medical attention and special treatment needed, if necessary**

Treatment: For specialist advice physicians should contact the poisons Information service.

**SECTION 5: Firefighting measures****5.1 Extinguishing media**

Suitable extinguishing media: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**5.2 Special hazards arising from the substance or mixture**

Specific hazards during firefighting : Do not use a solid water stream as it may scatter and spread fire.

**5.3 Advice for firefighters**

Special protective equipment necessary for firefighters : wear self- contained breathing apparatus for firefighting If necessary.

Further information : In the event of fire and/or explosion do not breathe fumes.

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**SECTION 6 : Accidental release measures****6.1 Personal precautions, protective equipment and emergency procedures**

Personal precautions : Use personal protective equipment.

**6.2 Environmental precautions**

Environmental precautions : Try to prevent the material from entering drains or water courses.

**6.3 Methods and material for containment and cleaning up**

Methods for cleaning up : Keep in suitable, closed containers for disposal.

**6.4 Reference to other sections**

For personal protection see section 8.

**SECTION 7: Handling and storage****7.1 Precautions for safe handling**

Advice on protection against fire and explosion : normal measures for preventive fire protection.

Advice on safe handling: :  
Do not breathe vapours/dust. Avoid contact with skin and eyes. For personal protection see section 8. Smoking , eating and drinking should be prohibited in the application area. Provide sufficient air exchange and/ or exhaust in work rooms. Avoid formation of dust and aerosols keep away from fire sparks and heated surfaces.

Hygiene measures : avoid contact with skin, eyes and clothing. When using do not eat or drink. When using do not smoke.

**7.2 Conditions for safe storage, including any incompatibilities**

Requirements for storage : Store in original container. Keep tightly closed. Keep in a dry, cool and well- ventilated place.  
Areas and containers

Advice on common storage : No special restrictions on storage with other products:

Other data : Stable under recommended storage conditions.

**7.3 Specific end use(s)**

For further information, refer to the product technical data sheet.

**SECTION 8 : Exposure controls/personal protection****8.1 Control parameters**

Contains no substances with occupational exposure limit values.



**Derived no effect level (DNEL) according to regulation (EC) no. 1907/2006:**

Substance name	End use	Exposure routes	Potential health effects	
Trisodium orthophosphate, dodecahydrate	Workers	Inhalation	Lang- term exposure, systemic effects	4.07 mg/m <sup>3</sup>
	Consumers	Inhalation	Long-term exposure, systemic effects	3.04 mg/m <sup>3</sup>

**8.2 Exposure controls**

**Personal protective equipment**

- Eye/face protection : Safety glasses with side -shields
- Hand protection : Polyvinyl alcohol or nitrile-butyl-rubber gloves the selected
- Remarks protective : gloves have to satisfy the specifications of EU directive 89/686/EEC and the standard EN 374 derived from it. The suitability for a specific workplace should be discussed with the producers of the protective gloves.
- Skin protection : Dust impervious protective suit
- Respiratory protection : No personal respiratory protective equipment normally required.
- Protective measures : Avoid contact with skin do not breathe dust. When using do not eat drink or smoke.
- Hygiene measures : avoid contact with skin, with eyes and clothing. When using do not eat or drink. When using do not smoke.

**SECTION 9: Physical and chemical properties**

**9.1 Information on basic physical and chemical properties**

- Appearance (from) : crystalline
- Colour : colourless
- Odour : odourless
- pH (10 g/l, 20°C) : 11.8 – 12.0
- melting point/range : 75 °C
- boiling point/boiling range : no data available
- flash point : not applicable
- flammability (solid, gas) : not expected to form explosive dust-air mixtures.
- Water solubility : 200 g/l ( 20 °C)
- Bulk density ( 20 °C) : 900 kg/m<sup>3</sup>
- Explosive properties : regulatory information: not explosive international transport regulations: not explosive
- corrosive to metals : not corrosive to metals

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**9.2 Other information**

No data available

**SECTION 10 : Stability and reactivity****10.1 Reactivity**

Reactivity : no dangerous reaction known under conditions if normal use.

**10.2 Chemical stability**

Chemical stability : the product is chemically stable.

**10.3 Possibility of hazardous reactions**

Possibility of hazardous reactions : stable under recommended storage conditions.

No dangerous reaction known under conditions of normal use.

**10.4 Conditions to avoid**

Conditions to avoid : no data available

**10.5 Incompatible materials**

Materials to avoid : none known.

**10.6 Hazardous decomposition products**

No hazardous decomposition products are known.

**SECTION 11 : Toxicological information****11.1 information on toxicological effects****Acute toxicity**

Not classified based on available information.

**Components:**

Trisodium orthophosphate, dodecahydrate:

Acute oral toxicity : LD50 (rat, female): > 2,000 mg/kg  
Fixed dose method, GLP: yesAcute inhalation toxicity : LC50 ( 4 h, rat male and female): >0.83 mg/l (dust/mist)  
Assessment: the substance or mixture has no acute inhalation toxicity  
OECD test guideline 403 GLP: yes an LC50/inhalation/4h/rat could not be determined because no mortality of rats was observed at the maximum achievable concentration.Acute dermal toxicity : LD50 ( rat male and female): >2,000 mg/kg  
Assessment; the substance or mixture has no acute dermal toxicity OECD test guideline 402, GLP : yes.

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**Skin corrosion/irritation**

Causes skin irritation

**Components:****Trisodium orthophosphate, dodecahydrate:**

Rabbit : skin irritation

Serious eye damage/eye irritation

Causes serious eye irritation.

**Components:**

Trisodium orthophosphate, dodecahydrate:

Rabbit : irritation to eyes, reversing within 21 days

**Respiratory or skin sensitisation**

Skin sensitisation: not classified based on available information.

Respiratory sensitisation: not classified based on available information/

**Components:**

Trisodium orthophosphate, dodecahydrate:

Mouse : did not cause sensitisation on laboratory animals.

**Carcinogenicity**

Not classified based on available information.

**Germ cell mutagenicity**

Not classified based on available information

**Reproductive toxicity**

Not classified based on available information.

**STOT -single exposure**

May cause respiratory irritation.

**Components:**

Trisodium orthophosphate, dodecahydrate:

Assessment: the substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with respiratory tract irritation.

**STOT – repeated exposure**

Not classified based on available information

**Aspiration toxicity**

Not classified based on available information.

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**SECTION 12 : Ecological information****12.1 Toxicity****Components:**

Trisodium orthophosphate, dodecahydrate:

Toxicity to fish : LC50 ( Oncorhynchus mykiss ( rainbow trout), 96h): &gt;100 mg/l OECD test guideline 203

Toxicity to daphnia and other aquatic invertebrates : EC50 (daphnia magna (water flea), 48 h): &gt;100mg/l OECD test guideline 202

Toxicity to algae : EC50 (desmodesmus subspicatus (green algae), 72 h) &gt; 100 mg/l OECD test guideline 201

**12.2 Persistence and degradability**

No data available

**12.3 Bioaccumulative potential**

No data available

**12.4 Mobility in soil**

No data available

**12.5 Results of PBT and vPvB assessment****Product:**

Assessment : this substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 01% or higher.

**12.6 Other adverse effects**

No data available

**SECTION 13: Disposal considerations****13.1 Waste treatment methods**

Waste from residues (product):

Do not contaminate ponds waterways or ditches with chemical or used container. Dispose of wastes in an approved waste disposal facility.

Contaminated packaging: empty remaining contest dispose of as unused product.

**SECTION 14 : Transport information****14.1 UN number**Not regulated as a dangerous good

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**14.2 UN proper shipping name**

Not regulated as a dangerous good

**14.3 Transport hazard class(es)**

Not regulated as a dangerous good

**14.4 Packing group**

Not regulated as a dangerous good

**14.5 Environmental hazards**

Not regulated as a dangerous good

**14.6 Special precautions for user**

Not applicable

**14.7 Transport in bulk according to Annex II of marpol and the IBC code**

Not applicable for product as supplied.

**SECTION 15 : Regulatory information****15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

Regulation (EC) no 649/2012 of the European parliament : not applicable  
And the council concerning the export and import  
Of dangerous chemicals

REACH candidate list of substance of very high concern : not applicable  
For authorisation (article 59).

Regulation (EC) no 1005/2009 on substances that : not applicable  
Deplete the ozone layer

Regulation (EC) no 850/2004 on persistent organic pollutants : not applicable

Seveso III: directive 2012/18/EU of the European parliament and of the council on the control of major-accident hazards involving dangerous substances.

**Labelling**

Symbol(s) : Xi

Risk phrase(s) : R36/37/38 irritating to eyes, respiratory system and skin.

Safety phrase(s) : S22 do not breathe dust.  
S26 in case of contact with eyes, rinse immediately with plenty of water  
and seek medical advice.  
S37 wear suitable gloves  
S60 this material and its container must be disposed of as hazardous  
waste.

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**15.2 Chemical safety assessment**

No data available

**SECTION 16 : Other information****Full text of other abbreviations**

Eye irrit. - Eye irritation ; Skin irrit - Skin irritation

STOT SE - Specific target organ toxicity single exposure

AND - European agreement concerning the international carriage of dangerous goods by inland waterways.

ADR - European agreement concerning the international carriage of dangerous goods by road.

AICS - Australian inventory of chemical substances.

ASTM - American society for the testing of materials bw body weight.

CLP - Classification Labelling Packing Regulation (EC) no 1272/2008.

CMR - carcinogen mutagen or reproductive toxicant.

DIN - standard of the German institute for standardisation.

DSL- Domestic Substances List (Canada).

ECHA -European chemical agency EC-number European community number.

ECx - concentration associated with x% response ; ELx- Loading rate associated with x% response

EmS - Emergency schedule.

ENCS- Existing and New chemical substances (Japan).

ErCx - concentration associated with x% growth rate response.

GHS - Globally harmonized System.

GLP- Good laboratory practice.

IARC - International Agency for Research on Cancer.

IATA - International Air Transport Association.

IBC - international code for construction and equipment of ships carrying dangerous chemicals in bulk.

IC50 - half maximal inhibitory concentration.

ICAO - International civil aviation organization of goods.

IMO - International Maritime Organization.

ISHL - Industrial safety and health law (Japan).

ISO - international maritime organization for standardization.

KEACI - Korea existing chemicals inventory.

Marpol - international convention for the prevention of pollution from ships.

n.o.s - not otherwise specified.

NO(A)EC - no obsved (adverse) effect concentration; NO(A)El - no obbseverd (adverse) effect level.

NOELR - no obdverable effect loading rate.

NZIoC - New Zealand inventory of chemical safety and pollution prevention.

PBR - persistent bioacumlative and toxic substance.

PICCS - Philippines inventory of chemicals and chemicals substances.

(q)SAR - (quantitave) structure activity relationship.

REACH - Regulation (EC) no 1907/2006 of the European parliament and of the council concerning the registration, evaluation, authorisation and restriction of chemicals.

rRID - regulations concerning the international carriage of dangerous goods by rail.

SADT - self-accelerating decomposition temperature.

SDS - safety data sheet.

TCSI - Taiwan chemical substance inventory TRGS technical rule for hazardous substances.

TSCA - toxic substances control act (United States).

UN - united nations.

vPvB - very persistent and very bioaccumulative.

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