SECTION 1: Identification of the substance/mixture

1.1. Product identifier
Product form: Substance
Substance name: Trisodium Phosphate
Formula: \( \text{Na}_3\text{PO}_4 \)
Molecular weight: 163.94 g/mol
CAS No.: 7601-54-9
Product code: LW-TSP
Synonyms: Sodium Phosphate Tribasic

1.2. Relevant identified uses of the substance or mixture and uses advised against
Use of the substance/mixture: Laboratory chemicals, Synthesis of substances

1.3. Emergency telephone number
Emergency number: 1.800.424.9300 (USA)
+1.703.527.3887 (INT)

SECTION 2: Hazards Identification

2.1. Classification of the substance or mixture
GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)
Skin irritation (Category 2), H315
Eye irritation (Category 2A), H319
Specific target organ toxicity - single exposure (Category 3), Respiratory system, H335
For the full text of the H-Statements mentioned in this Section, see Section 16.

2.2. GHS Label elements, including precautionary statements
Pictogram: ⚠️
Signal word: Warning
Hazard statement(s)
H315: Causes skin irritation.
H319: Causes serious eye irritation.
H335: May cause respiratory irritation.
Precautionary statement(s)
P261: Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P264: Wash skin thoroughly after handling.
Trisodium Phosphate
Safety Data Sheet
according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

P271 : Use only outdoors or in a well-ventilated area.
P280 : Wear protective gloves/ eye protection/ face protection.
P302 + P352 : IF ON SKIN: Wash with plenty of soap and water.
P304 + P340 : IF INHALED: Remove victim to fresh air and keep at rest in a position 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.
P312 : Call a POISON CENTER or doctor/ physician if you feel unwell.
P321 : Specific treatment (see supplemental first aid instructions on this label).
P332 + P313 : If skin irritation occurs: Get medical advice/ attention.
P337 + P313 : If eye irritation persists: Get medical advice/ attention.
P362 : Take off contaminated clothing and wash before reuse.
P403 + P233 : Store in a well-ventilated place. Keep container tightly closed.
P405 : Store locked up.
P501 : Dispose of contents/ container to an approved waste disposal plant.

2.3. Hazards not otherwise classified (HNOC) or not covered by GHS
none

SECTION 3: Composition/information on ingredients

3.1. Substances
Formula : Na₃PO₄
Synonyms : Trisodium Orthophosphate
Molecular Weight : 163.94 g/mol
CAS-No. : 7601-54-9

<table>
<thead>
<tr>
<th>Hazardous components</th>
<th>Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trisodium orthophosphate</td>
<td>Skin Irrit. 2; Eye Irrit. 2A; STOT SE 3; H315, H319, H335</td>
<td>90 - 100 %</td>
</tr>
</tbody>
</table>

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: Description of first aid measures
4.1. Description of first aid measures

General advice: Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

First-aid measures after inhalation: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

First-aid measures after skin contact: Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

First-aid measures after eye contact: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

First-aid measures after ingestion: Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2. Most important symptoms and effects, both acute and delayed
The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11.

4.3. Indication of any immediate medical attention and special treatment needed
No data available

SECTION 5: Firefighting measures

5.1. Extinguishing media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2. Special hazards arising from the substance or mixture
Oxides of phosphorus, Sodium oxides.

5.3. Advice for firefighters
Wear self-contained breathing apparatus for fire-fighting if necessary.

5.4. More Information
No data available.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.
For personal protection see section 8.

6.2. Environmental precautions
Do not let product enter drains.

6.3. Methods and material for containment and cleaning up
Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

6.4. Reference to other sections
For disposal see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Further processing of solid materials may result in the formation of combustible dusts. The potential for combustible dust formation should be taken into consideration before additional processing occurs.

Provide appropriate exhaust ventilation at places where dust is formed.
For precautions see section 2.2.

7.2. Conditions for safe storage, including any incompatibilities
Keep container tightly closed in a dry and well-ventilated place.
Moisture sensitive.

7.3. Specific end use(s)
Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters
Components with workplace control parameters

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No.</th>
<th>Value</th>
<th>Control parameters</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trisodium orthophosphate</td>
<td>7601-54-9</td>
<td>STEL</td>
<td>5 mg/m³</td>
<td>USA. Workplace Environmental Exposure Levels (WEEL)</td>
</tr>
</tbody>
</table>

8.2. Exposure controls
Appropriate engineering controls: Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

8.3. Personal protective equipment
Eye protection: Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin Protection: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of
contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Aldrich - 342483 Page 4 of 7

Full contact
Material: Nitrile rubber
Minimum layer thickness: 0.11 mm
Break through time: 480 min
Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M)

Splash contact
Material: Nitrile rubber
Minimum layer thickness: 0.11 mm
Break through time: 480 min
Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Body protection
: Impervious clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection
: For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Environmental exposure controls
: Do not let product enter drains.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance
: Form: crystalline
Color: white

Odor: no data available
Odor Threshold: No data available
pH: 11 at 20 °C (68 °F)
Melting point/freezing point: Melting point/range: 189.5 °C (373.1 °F) - dec.
Initial boiling point and boiling range: 75 °C (167 °F) - Decomposes before melting.
Flash point: No data available
Evaporation rate: No data available
Flammability (solid, gas): No data available
Upper/lower flammability or explosive limits: No data available
Vapor pressure: No data available
Vapor density: No data available
Relative density: No data available
Water solubility: 121 g/l at 20 °C (68 °F)
Partition coefficient: n-octanol/water: No data available
Auto-ignition temperature: No data available
Decomposition temperature: 75 °C (167 °F) - Decomposes before melting.
Viscosity: No data available
Explosive properties: No data available
Oxidizing properties: No data available

9.2. Other safety information
Surface tension: no data available

SECTION 10: Stability and reactivity

10.1. Reactivity
No data available

10.2. Chemical stability
Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions
No data available

10.4. Conditions to avoid
no data available

10.5. Incompatible materials
10.6. **Hazardous decomposition products**

Other decomposition products - no data available

In the event of fire: see section 5

---

**SECTION 11: Toxicological information**

**11.1. Information on toxicological effects**

**Acute toxicity**
- no data available
  - Inhalation: no data available
  - Dermal: no data available
  - no data available

**Skin corrosion/irritation**
- Skin - rabbit
  - Result: Irritating to skin.

**Serious eye damage/irritation**
- Eyes - rabbit
  - Result: Moderate eye irritation

**Respiratory or skin sensitization**
- no data available

**Germ cell mutagenicity**
- no data available

**Carcinogenicity**

Human carcinogen. May cause cancer by inhalation.

**IARC:**
- No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**ACGIH:**
- No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

**NTP:**
- No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

**OSHA:**
- No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

**Reproductive toxicity**
- no data available

**Specific target organ toxicity (single exposure)**
- No data available

**Specific target organ toxicity (repeated exposure)**
- Inhalation - May cause respiratory irritation.
Trisodium Phosphate
Safety Data Sheet
according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Aspiration hazard: No data available
Additional Information: RTECS: TC9490000
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

SECTION 12: Ecological information

12.1. Toxicity
Toxicity to fish: static test LC50 - Leuciscus idus melanotus - 160 mg/l - 48 h
Toxicity to daphnia and other aquatic invertebrates: Immobilization EC50 - Daphnia magna (Water flea) - 162.2 mg/l - 48 h (OECD Test Guideline 202)

12.2. Persistence and degradability: No data available
Biodegradability: aerobic - Exposure time 20 d
Result: 89 % - Readily biodegradable

12.3. Bioaccumulative potential: No data available

12.4. Mobility in soil: No data available

12.5. Results of PBT and vPvB assessment: PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6. Other adverse effects: No data available

SECTION 13: Disposal considerations

13.1. Waste treatment methods
Product: Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.
Contaminated Packaging: Dispose of as unused product.

SECTION 14: Transport information

DOT (US)
Not dangerous goods

IMDG
Not dangerous goods

IATA
Not dangerous goods
SECTION 15: Regulatory information

SARA 302 Components
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components
SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards
Acute Health Hazard

Massachusetts Right To Know Components
Trisodium orthophosphate    CAS-No.    Revision Date
7601-54-9                    2007-03-01

Pennsylvania Right To Know Components
Trisodium orthophosphate    CAS-No.    Revision Date
7601-54-9                    2007-03-01

New Jersey Right To Know Components
Trisodium orthophosphate    CAS-No.    Revision Date
7601-54-9                    2007-03-01

California Prop. 65 Components
This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

SECTION 16: Other information

Full text of H-Statements referred to under sections 2 and 3.

Eye Irrit.    :    Eye irritation
H315    :    Causes skin irritation.
H319    :    Causes serious eye irritation.
H335    :    May cause respiratory irritation.
Skin Irrit.    :    Skin irritation
STOT SE    :    Specific target organ toxicity - single exposure

HMIS Rating
Health Hazard    :    2
Chronic Health Hazard    :    *
Flammability    :    0
Trisodium Phosphate
Safety Data Sheet
according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Physical Hazard : 0

NFPA Rating
Health hazard : 2
Fire Hazard : 0
Reactivity Hazard : 0

Further Information
Information in this SDS is from available published sources and is believed to be accurate. No warranty, express or implied, is made and Loudwolf Holdings Ltd. assumes no liability resulting from the use of this SDS. The user must determine suitability of this information for his/her application.