



*Specialized in chemicals*

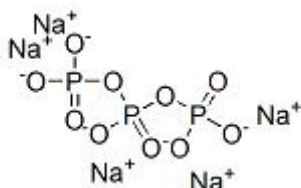
Hefei TNJ Chemical Industry Co.,Ltd.  
B911 Xincheng Business Center,  
Qianshan Rd. Hefei 230022 China  
Tel : (0086) 551 5418695  
Fax: (0086) 551 5418697  
Email: info@tnjchem.com  
Site: www.tnjchem.com

## Technical Data Sheet

# Sodium tripolyphosphate

### Product Information

Chemical Name	Sodium tripolyphosphate
CAS #	7758-29-4
EINECS	231-838-7
Formula	Na <sub>5</sub> O <sub>10</sub> P <sub>3</sub>
Molecular Weight	367.86
Synonyms	STPP; Sodium triphosphate pentabasic; Sodium triphosphate
Chemical Structure	



### Description

Sodium triphosphate (STP), also sodium tripolyphosphate (STPP), or tripolyphosphate (TPP), is an inorganic compound with formula Na<sub>5</sub>P<sub>3</sub>O<sub>10</sub>. It is the sodium salt of the polyphosphate penta-anion, which is the conjugate base of triphosphoric acid. Sodium tripolyphosphate is a white crystal powder with melting point at 622 °C. STPP is easily soluble in water. And aqueous solution appears acid. It is provided with remarkable chelating ability to some metal ions such as Ca<sup>2+</sup> and Mg<sup>2+</sup>, etc. But it easily absorbs moisture or water.

### Physical Properties

Melting point, °C	622
Appearance	White crystalline powder
Solubility	Soluble in water

### Specification

<u>Food Grade:</u>	
STPP content, %	95.2
P <sub>2</sub> O <sub>5</sub> content, %	57.2

Water insoluble, %	0.02
pH(1% solution)	9.6
Whiteness, %	92
Fluoride(as F), ppm	10
Arsenic(as As), ppm	0.9
Heavy metals(as Pb), ppm	3
Sulphate(as SO <sub>4</sub> <sup>2-</sup> ), %	0.036

Industry Grade:

Appearance	White granular powder
Sodium tripolyphosphate,%	94.5
P <sub>2</sub> O <sub>5</sub> ,%	57.5
pH(1% solution)	9.6
Fe,%	0.006
Whiteness	92
Insoluble matter,%	0.08
Apparent density	0.85

**Applications**

In food industry, Sodium tripolyphosphate is used as quality improver in the process of canned food, fruit juice drinks, foodstuffs from milk or soybeans. It may tender the meat in canned ham and soften the skin of horse bean in canned horse bean. It may also serves as a softener or densifier in foodstuff industry.

For industry use, it is tanning agent for leather making, auxiliary for dyeing. Additionally, it is used as an oil contamination resistance agent in paper production.

**Package**

It is packed with polythene bag as the inner layer, and a compound plastic woven bag as the outer layer. The net weight of each bag is 25kg.

*The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchant ability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall we be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if we has been advised of the possibility of such damages.*

**Hefei TNJ Chemical Industry Co.,Ltd.**

B911 Xincheng Business Center  
Qianshan Road, Hefei  
230022 Anhui  
China

Tel : (0086) 551 5418695  
Fax: (0086) 551 5418697  
Email: info@tnjchem.com  
Site: www.tnjchem.com