

## MATERIAL SAFETY DATA SHEET

### MONOSODIUM PHOSPHATE (MSP)

#### SECTION 1: CHEMICAL PRODUCT & COMPANY IDENTIFICATION

Date of Issue: 27/09/03

Rev-02

1.1 Product Detail	
1.1.1 Product name	1. Monosodium Phosphate - Anhydrous 2. Monosodium Phosphate - Dihydrate
1.1.2 Chemical name	1. Monosodium Phosphate - Anhydrous 2. Monosodium Phosphate - Dihydrate
1.1.3 Chemical formula	1. $\text{NaH}_2\text{PO}_4$ 2. $\text{NaH}_2\text{PO}_4 \cdot 2\text{H}_2\text{O}$
1.2 Company	Aditya Birla Chemicals 77 Moo 6 Soi Sukhaphiban 1, Poochao Saming Prai Road, Samrong, Phrapradaeng, Samutprakarn 10130 Telephone: +66 (0) 2396 1715-6, 2748 5173 – 4 Fax: +66 (0) 2398 0774 E-mail: <a href="mailto:mktg@thaipoly.co.th">mktg@thaipoly.co.th</a> Website: <a href="http://www.thaipoly.com">www.thaipoly.com</a>
1.3 Emergency	Telephone: +66 (0) 2396 1715 - 6, 2748 5173 – 4

#### SECTION 2: COMPOSITION

2.1 Ingredients	1. Monosodium Phosphate Anhydrous $\text{NaH}_2\text{PO}_4$ 2. Monosodium Phosphate Dihydrate $\text{NaH}_2\text{PO}_4 \cdot 2\text{H}_2\text{O}$
2.2 CAS Number	7758-80-7 (Anhydrous) 13472-35-0 (Dihydrate)

#### SECTION 3: HAZARDS

3.1 No known hazards
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### **SECTION 4: FIRST AID MEASURES**

4.1 Eye Contact	None required.
4.2 Skin contact	None required.
4.3 Inhalation / Ingestion	If any symptoms follow ingestion or inhalation, obtain medical advice.

### **SECTION 5: FIRE-FIGHTING MEASURES**

5.1 Governed by other materials present. No special fire-fighting equipment or measures required.

### **SECTION 6: ACCIDENTAL RELEASE MEASURES**

6.1 Sweep up spillage and recover/recycle if possible. Otherwise place in a fiber keg or paper sack and dispose as industrial waste.

### **SECTION 7: HANDLING & STORAGE**

7.1 Handling	Minimize dust formation.
7.2 Storage	1. Protect from contamination. 2. Store in original, unopened package in clean, cool, dry place. 3. Store one pallet high to avoid compaction.

### **SECTION 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION**

8.1 Regulations	None
8.2 Air contamination limits	None listed

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### **SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

9.1 Form	powder or granules
9.2 Colour	White
9.3 Odour	None
9.4 Change in physical state	Monosodium Phosphate (dihydrate) loses water between 40°C and 70°C to form the anhydrous salt which loses water at 180°C to give a residual solid melting at 600°C
9.5 Bulk Density	0.6 - 0.9 g/ml.
9.6 Vapour pressure	Not applicable
9.7 Viscosity	Not applicable
9.8 Solubility	83 g anhydrous salt per 100 g water at 22 °C
9.9 pH Value	4.5 at 20°C (1% solution)
9.10 Flash point	Not applicable
9.11 Ignition temperature	Does not burn or help other materials to burn
9.12 Explosion limits	Not relevant

### **SECTION 10: STABILITY AND REACTIVITY**

10.1 Thermal decomposition	Loses water, finally forming sodium metaphosphate glass
10.2 Hazardous thermal decomposition products	None
10.3 Hazardous reactions	None

### **SECTION 11: TOXICOLOGICAL INFORMATION**

11.1 When of sufficient purity is classed as GRAS (generally recognised as safe) by FDA (182/6085) in USA. Sodium and phosphate ions are normal constituents of the human body. The material is listed as a permitted food additive in the MAFR Regulations 1980.
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### SECTION 12: ECOLOGICAL INFORMATION

12.1 Ecological effects	Orthophosphate may act as a plant nutrient and precipitate heavy metals.
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### SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Sweep up spillage and recover/recycle if possible. Otherwise place in a fiber keg or paper sack and dispose as industrial waste.
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### SECTION 14: TRANSPORT INFORMATION

14.1 Not classified as a substance hazardous for transport.
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### SECTION 15: REGULATORY INFORMATION

15.1 Not classified as a substance hazardous for supply
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### SECTION 16: OTHER INFORMATION

16.1 This product may be used in the following applications
16.1.2 Phosphatizing in metal treatment
16.1.3 pH buffer in evaporated milk, acid type cleaners, toothpaste, etc.
16.1.4 Emulsifier and stabilizer in dairy product
16.1.5 Preservative for seafood
16.1.6 Phosphate nutrient in animal feed
16.1.7 Precipitant for polyvalent metal ions in boiler water treatment
16.1.8 Source of phosphate for micro-organisms in effluent treatment
16.1.9 Resin curing
16.1.10 Vitreous enamel frits

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