

## SPECIFICATION

|                                                                             |
|-----------------------------------------------------------------------------|
| <b>Product Name:</b> Sodium Dihydrogen Phosphate Monohydrate Pure Grade     |
| <b>Chemical Formula:</b> $\text{NaH}_2\text{PO}_4 \cdot \text{H}_2\text{O}$ |
| <b>CAS Number:</b> 10049-21-5                                               |
| <b>Molecular Weight:</b> 137.99 g/mol                                       |
| <b>Appearance:</b> White or almost white crystalline powder                 |
| <b>Odor:</b> Odorless                                                       |

## Chemical Composition

| Parameter                  | Unit | Typical Value            |
|----------------------------|------|--------------------------|
| Identification             | -    | Should pass test         |
| Appearance of solution     | -    | Clear and colourless     |
| Assay (On anhydrous basis) | %    | NLT 98.0% and NMT 101.0% |
| Phosphate (On dried basis) | %    | Min. 58.0%               |
| PH (5% Solution)           | %    | 4.0 – 4.7                |
| Heavy metals               | PPM  | Max. 10 PPM              |
| Iron                       | PPM  | Max. 20 PPM              |
| Arsenic                    | PPM  | Max. 5 PPM               |
| Loss on drying at 105°C    | %    | Max. 1.0%                |
| Chloride                   | PPM  | 30                       |
| Arsenic                    | PPM  | Passes                   |
| Heavy metals               | PPM  | <1                       |

### **Physical Properties**

- Solubility: Soluble in water. Insoluble in ethanol. Insoluble in acetone.

### **Shelf Life & Storage**

- Shelf Life: 5 years from date of manufacture under recommended storage.  
- Storage Conditions: Store in a cool, dry, and well-ventilated place at 15–30°C. Keep the container tightly closed to protect from moisture and contamination. Store away from strong alkalis, strong oxidizing agents, and direct sunlight in the original, properly labeled container to maintain product quality and stability.

### **Applications**

- Use: Widely used as a buffering agent, pH adjuster, emulsifier, sequestrant, and source of phosphate in pharmaceutical, laboratory, food, and industrial applications. It helps maintain pH, improve formulation stability, enhance processing performance, and regulate acidity. It is commonly used in buffer solutions, analytical reagents, pharmaceutical formulations, water treatment, and food processing where appropriate for the product grade and regulatory requirements.  
- Dosage: Depends on the intended application, product formulation, and grade of the material.

### **Packaging**

- Standard Packing: 25 Kgs woven pp bag with inner liner or as per customer requirement.  
- Labeling: Product name, batch number, net weight, manufacture date, expiry date, and manufacturer details.  
\* Specifications are based on the manufacturer's provided specifications.