

CAUSTIC SODA LIQUID & FLAKES AND HYDROCHLORIC ACID

| Sr. | Description/Specifications | Quantity (Tons) |
|-----|---|--|
| 1. | Sodium Hydroxide Liquid form 100% based Commercial grade | Quantity required: 2,000.00 Tons (Concentration: 100%) |
| 2. | Sodium Hydroxide Liquid form 50% based Concentration: 50% \pm 0.5 Commercial grade Detailed specifications as per enclosed Annexure-A | Quantity required: 4,000.00 Tons |
| | | Quantity required on as and when basis 30 x 03 = 90.00 Tons 10 x 05 = 50.00 Tons |
| | | Total quantity required: 4,140.00 Tons |
| 3. | Hydrochloric acid Concentration: 35% \pm 1.0% Commercial grade Detailed specifications as per enclosed Annexure-A | Quantity required 6,220.00 Tons |
| | | Quantity required on as and when basis 26 x 05 = 130.00 Tons |
| | | Total quantity required: 6,350.00 Tons |
| 4. | Sodium hydroxide flakes Commercial grade | Total quantity required: 1,070.00 Tons |
| | Purity: 99% \pm 0.5 Detailed specifications as per enclosed Annexure-B | Quantity required: 1,000.00 Tons |
| | Purity: 98% \pm 1.0 Detailed specifications as per enclosed Annexure-C | Quantity required: 70.00 T |

Important Note:

- i. Prices will remain fixed for whole tenure of the contract
- ii. Kindly mention total quantity in one batch of shipment for serial no 01 to 03.
- iii. Bags must be placed in palletized packing i.e. 01 MT/ pallet for item at serial no 04
- iv. Make and country of origin should be clearly mentioned in quotation.

Specification of Caustic Soda (50 % Liquid)

Chemical Identification

| Chemical Name | Commercial grade Sodium hydroxide (NaOH) |
|---------------------------------|--|
| Concentration | 50% \pm 0.5 |
| Grade | Commercial |
| Specific gravity | 1.52 |
| Physical Appearance | Colorless or slightly greenish liquid. |
| Na ₂ CO ₃ | 0.5 % W/W (max) |
| NaCl | 0.02 % W/W (max.) |
| NaClO ₃ | 0.01 % W/W (max.) |
| Na ₂ SO ₄ | 0.005 % W/W (max.) |
| Iron | Less than 10 PPM |
| Silica | Less than 20 PPM |
| K content | Less than 5 ppm |
| Ca content | Less than 5 ppm |

Specification of Hydrochloric Acid (34 % Liquid)

Chemical Identification

| Chemical Name | Commercial grade Hydrochloric Acid (HCl) |
|---------------------|--|
| Concentration | 35% \pm 1.0 |
| Physical Appearance | Colorless or slightly yellow |
| Specific Gravity | 1.163- 1.173 @ 20 °C for normal grade |
| Free chlorine | 5 PPM (max) |
| Boiling Point | 75 °C (33 % solution) |
| Freezing point | -40 °C (33 % solution) |
| Ca content | Less than 10 PPM |
| Na content | Less than 15 PPM |
| Fe content | Less than 1 PPM |
| K Content | Less than 5 ppm |

Specification of NaOH Flakes (99%)Chemical Identification

| | |
|---------------------------------|---|
| Chemical Name | Commercial grade Sodium hydroxide (NaOH) |
| Chemical Formula | NaOH |
| Molecular Weight | 40 |
| Purity | 99% \pm 0.5 |
| Grade | Commercial |
| Na ₂ CO ₃ | 0.01 % W/W (max) |
| NaCl | 0.01 % W/W (max.) |
| NaClO ₃ | 0.01 % W/W (max.) |
| Na ₂ SO ₄ | 0.005 % W/W (max.) |
| Iron | Less than 10 PPM |
| Silica | Less than 20 PPM |
| K content | Less than 5 ppm |
| Ca content | Less than 5 ppm |
| Mg content | Less than 5 ppm |
| Packing | Polypropylene bag with polyethylene liner |
| Shelf Life | 5-6 year |

**Sample should be provided with quotation including analysis report with relevant literature also.

P# 6/6

Annexure - C

SPECIFICATION OF CAUSTIC SODA FLAKES

| Sr. No. | DISCRIPTION | QTY. REQUIRED |
|------------|---|------------------|
| 1. | <p><u>CAUSTIC SODA FLAKES</u></p> <ul style="list-style-type: none">• Chemical Name Sodium Hydroxide (NaOH)• Physical form: flakes• Purity = 98% \pm 1%• Packing = 25 Kg/poly bag• Weather protected <p>Note: Bags must be placed in palletized packing (1 M. Ton/pallet)</p> | 0.00 Tons |