

## Detrex<sup>®</sup> NF/EP/JP 22°

22° Baume NF/EP/JP Grade Hydrochloric Acid

CAS No. 7647-01-0

| <u>NF Parameter</u>        | <u>Specification*</u> | <u>Detrex Typical</u> |
|----------------------------|-----------------------|-----------------------|
| Identification             | Passes Test           | Passes Test           |
| Assay                      | 34.2 – 36.2%          | 35.2%                 |
| Residue on Ignition        | 0.008%                | < 0.001%              |
| Bromide or Iodide          | Passes Test           | Passes Test           |
| Free Bromine or Chlorine   | Passes Test           | Passes Test           |
| Sulfate                    | Passes Test           | Passes Test           |
| Sulfite (SO <sub>3</sub> ) | Passes Test           | Passes Test           |

\*Meets USP40-NF35 specifications, US Pharmacopeia Convention

\*All analytical testing is performed in accordance with the monograph requirements or with validated alternative test methods.

| <u>EP Parameter</u>    | <u>Specification*</u>            | <u>Detrex Typical</u> |
|------------------------|----------------------------------|-----------------------|
| Assay                  | 34.2 – 36.2%                     | 35.2%                 |
| Identification A       | The solution is strongly acidic. | Passes Test           |
| Identification B       | Gives a reaction of chlorides.   | Passes Test           |
| Identification C       | Complies with limits of assay.   | Passes Test           |
| Free Chlorine          | NMT 4 ppm                        | < 1 ppm               |
| Sulfates               | NMT 20 ppm                       | < 0.3 ppm             |
| Residue on Evaporation | 0.01% max                        | < 0.001%              |

\*Meets European Pharmacopoeia 9.2 Specifications

\*All analytical testing is performed in accordance with the monograph requirements or with validated alternative test methods.

| <u>JP Parameter</u> | <u>Specification*</u> | <u>Detrex Typical</u> |
|---------------------|-----------------------|-----------------------|
| Assay               | 34.2 – 36.2%          | 35.2%                 |
| Identification 1    | Passes Test           | Passes Test           |
| Identification 2    | Passes Test           | Passes Test           |
| Sulfate             | Passes Test           | Passes Test           |
| Sulfite             | Passes Test           | Passes Test           |
| Bromine or Chlorine | Passes Test           | Passes Test           |
| Bromide or Iodide   | Passes Test           | Passes Test           |
| Heavy Metals        | NMT 5 ppm             | < 0.001 ppm           |
| Arsenic             | NMT 1 ppm             | < 0.001 ppm           |
| Mercury             | NMT 0.04 ppm          | < 0.001 ppm           |
| Residue on Ignition | NMT 100 ppm           | < 1 ppm               |

\*Meets Japanese Pharmacopoeia 17<sup>th</sup> Edition Specifications

\*All analytical testing is performed in accordance with the monograph requirements or with validated alternative test methods.