





Electronic Wet Chemicals

Hydrogen Peroxide

Electronic Grade





European Standard Sales Specification

Solvay INTEROX® Electronic Grade Hydrogen Peroxide is manufactured in Bernburg, Germany. It is tailored to the needs of the electronic industry with a focus on the wet processing steps in the manufacture of semiconductor wafers.

| 5 | SEMI reference | Grade 1 | Grade 2 | Grade 3 | Grade 4 | Grade 5 |
|------------------------------|----------------|-------------|---------|---------|---------|----------|
| Parameter | | EG-ST* | EG-10 | EG-1 | Pico | PicoPlus |
| Assay | % by weight | 30 – 60 | 30 – 32 | 30 – 32 | 30 – 32 | 30 – 32 |
| Free acid | mg/kg (ppm) | 0.6 – 40 | - | - | - | _ |
| Stability | g/kg*h | - | 4 | 4 | 4 | 4 |
| TOC | mg/kg (ppm) | 3 – 30 | 10 | 10 | 10 | 10 |
| Chloride (CI) | | 200 – 1,000 | 200 | 200 | 30 | 30 |
| Nitrate (NO ₃) | | 500 -3,000 | 400 | 400 | 30 | 30 |
| Sulfate (SO ₄) | μg/kg (ppb) | 200 – 1,000 | 200 | 200 | 30 | 30 |
| Phosphate (PO ₄) | _ | 200 – 5,000 | 200 | 200 | 30 | 30 |
| Aluminium (Al) | | 10 – 100 | 10 | 1 | 0.1 | 0.01 |
| Antimony (Sb) | | 10 – 100 | 10 | 1 | 0.1 | 0.01 |
| Arsenic (As) | _ | 10 – 100 | 10 | 1 | 0.1 | 0.01 |
| Barium (Ba) | _ | - | 10 | 1 | 0.1 | 0.01 |
| Boron (B) | _ | 10 – 100 | 10 | 1 | 0.1 | 0.01 |
| Cadmium (Cd) | _ | - | 10 | 1 | 0.1 | 0.01 |
| Calcium (Ca) | _ | 10 – 100 | 10 | 1 | 0.1 | 0.01 |
| Chromium (Cr) | | 10 – 100 | 10 | 1 | 0.1 | 0.01 |
| Copper (Cu) | | 10 – 100 | 10 | 1 | 0.1 | 0.01 |
| Iron (Fe) | | 10 – 100 | 10 | 1 | 0.1 | 0.01 |
| Lead (Pb) | μg/kg (ppb) | 10 – 100 | 10 | 1 | 0.1 | 0.01 |
| Lithium (Li) | | _ | 10 | 1 | 0.1 | 0.01 |
| Magnesium (Mg) | | 10 – 100 | 10 | 1 | 0.1 | 0.01 |
| Manganese (Mn) | | 10 – 100 | 10 | 1 | 0.1 | 0.01 |
| Nickel (Ni) | | 10 – 100 | 10 | 1 | 0.1 | 0.01 |
| Potassium (K) | _ | 10 – 100 | 10 | 1 | 0.1 | 0.01 |
| Sodium (Na) | _ | 100 – 2,000 | 10 | 1 | 0.1 | 0.01 |
| Tin (Sn) | | 10 – 100 | 10 | 1 | 0.1 | 0.01 |
| Titanium (Ti) | | 10 – 100 | 10 | 1 | 0.1 | 0.01 |
| Vanadium (V) | | - | 10 | 1 | 0.1 | 0.01 |
| Zinc (Zn) | | 10 – 100 | 10 | 1 | 0.1 | 0.01 |

*EG-ST range includes stabilized as well as non-stabilized grades.

Solvay offers state of the art particle measurement as per customer specification.

Solvay INTEROX® Electronic Grade Hydrogen Peroxide is delivered in bulk, containers (IBC) or drums.

Please consult our MSDS for further information on storage, transport, and safe handling. Please visit www.solvaywetchemicals.com or contact your local supplier.

Solvay Chemicals International SA

Further information

Rue de Ransbeek, 310 Phone +32 2 264 2111 B 1120 Bruxelles (Belgium) Fax +32 2 264 1802

www.solvay.com

Storage



Hydrofluoric Acid

Electronic Grade





European Standard Sales Specification

Solvay Electronic Grade Hydrofluoric Acid is manufactured in Quzhou, China. It is tailored to the requirements of the electronic industry focusing on the wet etching processes in the front end manufacture of semiconductors and integrated circuits.

| SEI | MI reference | Grade 2 | | |
|------------------------------|--------------|---------|--|--|
| Parameter | | ULSI | | |
| Assay | % by weight | 49 – 51 | | |
| Chloride (CI) | | 5,000 | | |
| Nitrate (NO ₃) | µg/kg (ppb) | 3,000 | | |
| Sulfate (SO ₄) | | 5,000 | | |
| Phosphate (PO ₄) | | 1,000 | | |
| Aluminium (AI) | | 10 | | |
| Antimony (Sb) | | 10 | | |
| Arsenic (As) | | 10 | | |
| Barium (Ba) | | 10 | | |
| Boron (B) | | 10 | | |
| Cadmium (Cd) | | 10 | | |
| Calcium (Ca) | | 10 | | |
| Chromium (Cr) | | 10 | | |
| Copper (Cu) | | 10 | | |
| Iron (Fe) | | 10 | | |
| Lead (Pb) | µg/kg (ppb) | 10 | | |
| Lithium (Li) | | 10 | | |
| Magnesium (Mg) | | 10 | | |
| Manganese (Mn) | | 10 | | |
| Nickel (Ni) | | 10 | | |
| Potassium (K) | | 10 | | |
| Sodium (Na) | | 10 | | |
| Tin (Sn) | | 10 | | |
| Titanium (Ti) | | 10 | | |
| Vanadium (V) | | 10 | | |
| Zinc (Zn) | | 10 | | |

Storage

Solvay Hydrofluoric Acid Electronic Grade is delivered in containers (IBC) or drums.

Further information

Please consult our MSDS for further information on storage, transport, and safe handling. Please visit www.solvaywetchemicals.com or contact your local supplier.

Solvay Chemicals International SA

Rue de Ransbeek, 310 Phone +32 2 264 2111 B 1120 Bruxelles (Belgium) Fax +32 2 264 1802





Phosphoric Acid

Electronic Grade





European Standard Sales Specification

Solvay offers electonic grade Phosphoric Acid from its site in Bernburg, Germany. It is tailored to the needs of the electronic industry with a focus on the wet processing steps in the manufacture of semiconductor wafers.

| SEMI reference | | Grade 2 | |
|----------------------------|-------------|--------------------|--|
| Parameter | | Graue 2 | |
| Assay | % by weight | 79 – 81 84 – 86 | |
| Chloride (CI) | | 1 | |
| Fluoride (F) | , , | 1 | |
| Nitrate (NO ₃) | mg/kg (ppm) | 5 | |
| Sulfate (SO ₄) | | 12 | |
| Aluminium (Al) | | 500 | |
| Antimony (Sb) | | 3,500 | |
| Arsenic (As) | | 100 | |
| Barium (Ba) | | - | |
| Boron (B) | | - | |
| Cadmium (Cd) | | 450 | |
| Calcium (Ca) | | 1,100 | |
| Chromium (Cr) | | 200 | |
| Cobalt (Co) | | 50 | |
| Copper (Cu) | | 50 | |
| Iron (Fe) | , , , , , , | 700 | |
| Lead (Pb) | μg/kg (ppb) | 300 | |
| Lithium (Li) | | 100 | |
| Magnesium (Mg) | | 200 | |
| Manganese (Mn) | | 100 | |
| Nickel (Ni) | | 200 | |
| Potassium (K) | | 450 | |
| Sodium (Na) | | 500 | |
| Tin (Sn) | | - | |
| Titanium (Ti) | | 300 | |
| Vanadium (V) | | - | |
| Zinc (Zn) | | 400 | |

Storage

Solvay Phosphoric Acid Electronic Grade is delivered in containers (IBC) or drums.

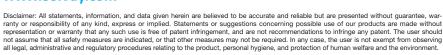
Further information

Please consult our MSDS for further information on storage, transport, and safe handling. Please visit www.solvaywetchemicals.com or contact your local supplier.

Solvay Chemicals International SA

Rue de Ransbeek, 310 Phone +32 2 264 2111 B 1120 Bruxelles (Belgium) Fax +32 2 264 1802









Europe

Solvay Fluor GmbH

Postfach 220 30002 Hannover, Germany Telephone: +49 511 857-0 Fax: +49 511 857-2146

North America

Solvay Fluorides, LLC

3737 Buffalo Speedway, Suite 800, Houston, TX 77098, USA Telephone: +1 713 525-6000

Fax: +1 713 525-7805

Asia/Pacific

Solvay

EWHA University Industry Building 4th Fl. 150, Bukahyun-ro, Soedaemun-ku Seoul 120-140 Korea Telephone:+82 2 2125 5306

Fax: +82 2 2125 5380

www.solvay.com www.solvaywetchemicals.com