

# AGC

Your Dreams, Our Challenge

## Fine Chemicals



### Chiba Factory

Laboratory, pilot plant, cMGP multi-purpose plant, fluoro-multipurpose plant and finishing process facility for pharmaceutical compounds.

### Wakasa AGC Chemicals Ltd. (Subsidiary)

OBAMA Factory  
KAMINAKA Factory



### cGMP Multi-purpose Plant

SUS and Hastelloy glass lined reactors from 0.1 to 6m<sup>3</sup> capacity are configured to produce a variety of products in quantities from 10kg to several tonnes.

AGC is able to carry out reactions under high pressure (4.5 MPa) or at low temperatures in Hastelloy reactors of 0.1 and 1m<sup>3</sup>. Products are discharged into a fluororesin (PTFE) lined centrifuge (diameter 600mm) or a stainless steel filter dryer (1m<sup>3</sup>) and then into a conical dryer or a vibrating vacuum dryer for final processing. All this finishing equipment is located in a clean room.

### Environmental Certification

AGC's Chiba plant is registered to ISO 14001.

### Synthetic Organic Chemistry

- Fluorination (HF, Balz-Schiemann, TFEDMA, FAR, F<sub>2</sub>, CoF<sub>3</sub>)
- Chlorination, Iodination, Bromination
- Friedel-Craft Reaction, Grignard Reaction, Suzuki Coupling
- Phosgenation
- Low Temperature Reaction (-100°C)
- Hydrogenation (up to 4.5 MPa)
- Peptides

### Biochemistry

- Enzymatic Reaction
- Proteins Reduction by Recombinant Cells

### Active Pharmaceutical Ingredients (API)

- Bulk Actives for Use in Injections
- Spray Dryer Finishing Process
- Highly Potent Bulk Actives



cGMP plant, Chiba



cGMP plant reactors

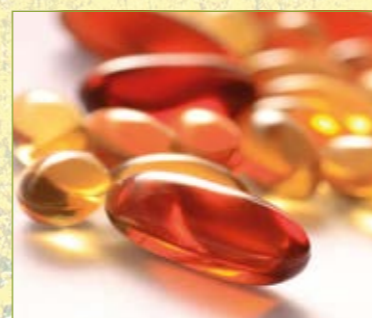


### AGC Fine Chemicals

AGC has a unique position as a producer of pharmaceutical and agricultural fine chemicals with a particular expertise in fluorine chemistry. AGC has more than twenty years experience in this field and the range of products has widened considerably as a result. As well as providing various fluorinated compounds such as fluoroanilines, fluorobenzoic acid and fluoroquinolones, AGC also supplies more advanced intermediates and bulk pharmaceuticals.

AGC owns a multi-purpose cGMP plant for the manufacture of API's (Active Pharmaceutical Ingredients) and intermediates. This facility has been substantially extended and its capacity increased to meet customers' needs.

AGC focuses constantly on the development of innovative chemicals whilst at the same time respecting the natural environment around us.



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The logo consists of the letters 'AGC' in a bold, white, sans-serif font. A small red square is positioned at the top right corner of the letter 'C'.**For fluoropolymer & fluoroelastomer enquiries:**

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