

CERTIFICATE OF ANALYSIS

Product Name: delta-Valerolactone

Chemical Name: δ -Valerolactone ; Tetrahydro-2H-2-pyranone

TEST ITEMS 项目	SPECIFICATION 标准	RESULTS 结果
Appearance	Colorless transparent liquid	Conforms
chroma	APHA \leq 100	<30
Acid value	\leq 0.3mgKOH/g	0.2mgKOH/g
Moisture	\leq 0.15%	0.07%
REFRACTIVE INDEX	1.456 ~1.459 (20°C)	1.550
Assay	\geq 99.0%	99.68%

Chemwill Asia co.,Ltd is one of the leading **manufacturer in CHINA.**

Our main production base is located in **Xuzhou industry park**. We produce a wide range of organics including Basic chemicals , Fine chemicals, Active pharmaceutical ingredients(APIs), Veterinary, Indole derivatives, Aromatics, Fluorine, Boronic acids, organocatalysts, chiral building blocks, **heterocyclic** compounds. We are certified both to the **ISO 9001** and **ISO 14001** Standards, have a safety management system in place.

Our R&D team masters **core technology** for **process-design** of target building block as well as **Tailor-made fine chemicals**. Our manufactory specialised in extreme temperature conditions (-100°C to +300°C), hydrogenations reaction under high pressure, **suzuki coupling reaction**, photochemical reaction, Mitsunobu reactions, enantioselective reactions and asymmetric synthesis.

Think Chemistry,Think CHemWill



Factory Plant Address:

High-Tech Industrial park,Chemical Economical Development Zone,Xuzhou, Jiangsu-Province, P.R.China

Shanghai office: (Export Department)

Address: 16FL., INDUSTRY & COMMERCIAL BUILDING, NO.45 YAN'AN ROAD(E), 200002, SHANGHAI, CHINA

Ms Mary Chi - Sales manager

Website: <http://www.chemwill.com>

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ethical commitment to quality control and quality assurance systems firmly based on ISO standard. QA and QC used in the whole process of raw material control, process control and finished product quality inspection. Our company has passed the ISO9001:2008. We have flexible payment terms with all of our clients: Various payment terms such as L/C, D/P, D/A and T/T will be accepted. We've been authorized the import&export qualification by the government and also has passed the "iso 9001-2008 quality management system" certification. Our company has strong R&D ability and production experience to provide the customers new APIs. We specialize in developing innovative processes for the synthesis of a wide range of products. We also undertake custom synthesis and contract manufacturing. We always stand on the quality of product as our life, develop in the direction of customers requirement and aim at creating greater value for customers. Innovation and honesty, we will make common development with the masses of customers at home and abroad hand in hand by our best service. The aim of QDSigma is a quality policy that "elements in the system all have been satisfied, personnel has been trained; every batch of material is checked, each procedure guarantees the quality; every bag of our products is top grade, service is thoughtful all the time, quality and reputation to increase market share and promote enterprise development. The quality, colors and forms of our products have reached a high level in related chemical industry, which relies on characteristic and advanced processing technology and it has gained a high and reliable reputation from customers at both quality and services. The aim of QDSigma is a quality policy that "elements in the system all have been satisfied, personnel has been trained; every batch of material is checked, each procedure guarantees the quality; every bag of our products is top grade, service is thoughtful all the time, quality and reputation to increase market share and promote enterprise development. The quality, colors and forms of our products have reached a high level in related chemical industry, which relies on characteristic and advanced processing technology and it has gained a high and reliable reputation from customers at both quality and services. Our concept, 1. client is first. 2. credibility is the most important. 3. quality control is our life. 4. great sense of responsibility. 5. we will be responsible for not only our products, our clients, also the society. The corporation's slogan: reliable, professional, cooperative and innovative. The corporation's philosophy: widely absorb different excellent views and ideas from all over the world. The corporation's destination: we will constantly strive to supply customers with new and high-tech products and will keep the leadership in the field. Think Chemistry, Think CHEMWill.