

# Fine Chemistry & Custom Manufacturing

**saltigo**  
customized competence

A company of the  
**LANXESS**  
Group



THIS IS WHAT  
SETS US APART  
AS A CUSTOM  
MANUFACTURING  
PROVIDER

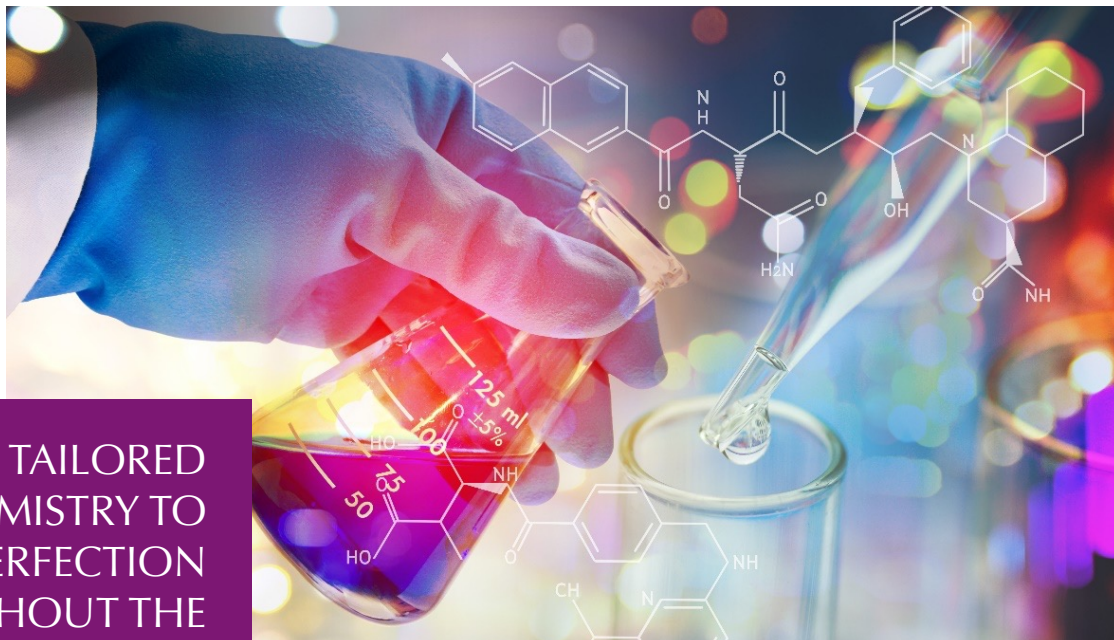
## Your partner for custom manufacturing – Tailored solutions & maximum efficiency

Saltigo stands for high-quality custom manufacturing and cutting-edge process development in chemicals. As a 100% subsidiary of the specialty chemicals company LANXESS, we have been a trusted partner for a wide variety of industries, including the agrochemical, pharmaceutical, specialty chemical, polymer and electronic industries since 2006.

You benefit from:

- **Broad & versatile technology portfolio**  
Combining proven expertise with proprietary, innovative processes
- **World-class process development center**  
Driving efficiency and innovation for your projects
- **Integrated production infrastructure**  
Seamlessly connected within the CHEMPARK network
- **Strong procurement network**  
Ensuring resilient and secure supply chains
- **Efficient project management**  
Transparent processes with real-time updates for maximum planning reliability
- **IP protection**  
Confidentiality and IP protection are at the heart of everything we do – your ideas stay yours

With a global presence, cutting-edge technology, and lots of active projects, we empower our customers to gain a competitive edge and achieve sustainable market success.



TAILORED  
CHEMISTRY TO  
PERFECTION  
THROUGHOUT THE  
ENTIRE PRODUCT  
LIFE CYCLE

Your vision, our expertise!  
Saltigo is there for you

#### Comprehensive solutions for every step of your project

At Saltigo, we offer end-to-end services that support you at every stage, from process scouting to large-scale production. Our solutions are designed to optimize efficiency, ensure quality and guarantee safety.

- **Process Scouting**

Identifying the best solutions and partners for your needs

- **Process Research**

Optimizing synthesis routes, evaluating state of the art methods e.g. flow chemistry and providing lab samples

- **Process Development**

From lab to large-scale production, leveraging DoE, Lean Six Sigma and advanced analytics

- **Pilot Plant Operation**

Scalable, flexible production with state-of-the-art technologies for complex processes

- **Commercial Production**

Reliable, large-scale manufacturing with consistent quality, regulatory compliance, and tailored supply chain solutions

This broad array of technologies and capabilities allows us to meet the most challenging chemical processes and production needs with flexibility and precision.

**saltigo**  
customized competence

More about Saltigo Service Offer:





## CHALLENGING CHEMICALS & TECHNOLOGIES IN PROCESS DEVELOPMENT AND MANUFACTURING

Our versatile technology base enables complex syntheses across various scales, supported by broad permits, a wide range of technologies, and a diverse mix of equipment and materials – perfectly tailored to meet the needs of your industry. Here are just a few examples:

### Challenging reagents

- Phosgene
- Hydrazine, methyl hydrazine
- Ethylene oxide
- Complex hydrides
- Fluorinations with HF and Halex reactions
- Carbon monoxide
- Methyl Chloride
- Dimethylsulfate

### Basis technologies

- High-pressure hydrogenation up to 200bar
- Friedel-Crafts reaction
- Oxidation & reduction
- Bromination
- Chlorination with e.g. Cl<sub>2</sub>, PCl<sub>3</sub>, PCl<sub>5</sub>, POCl<sub>3</sub>, SOCl<sub>2</sub>
- Nitration
- Sulfonation
- Advanced distillation with up to 120 theoretical plates
- Emulsion polymerization

### Cutting-edge

- Cross-coupling technologies
- Buchwald CN-coupling
- Asymmetric catalytic hydrogenation
- Transfer hydrogenation
- Enzymatic reactions
- Chiral resolution
- Metathesis
- Cryochemistry (-100 °C)
- Flow chemistry
- Grignard reactions



SALTIGO  
CONVINCES  
WITH POWERFUL  
NETWORK &  
OWN INNOVATIVE  
PRODUCTS

## Your strategic outsourcing partner

### Benefit from outsourcing your products

- Access to advanced technologies & expertise
- Flexible capacity & risk management
- Accelerated time-to-market and cost savings

### Chemical park integration & excellent network

- Excellent infrastructure including raw material supply via pipeline
- Broad recycling capacities, waste water treatment, incineration and landfill on site
- 10 connected plants in Germany
- Process development & analytics located next door

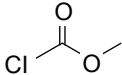
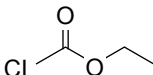
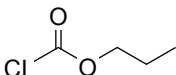
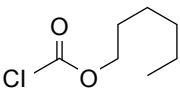
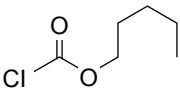
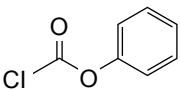
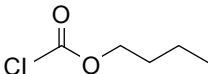
### Quality, compliance & safety without compromise

- ISO quality system (9001, 14001, 50001, 17025) as well as IPEC GMP
- Reliable high quality, excellent track record for audits & inspections
- High safety standards

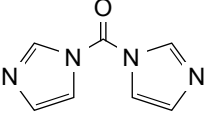
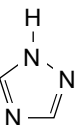
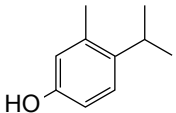
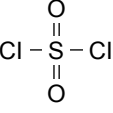
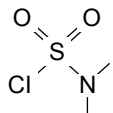
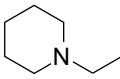
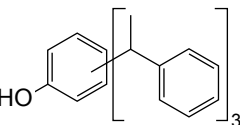
### Saltigo has its own highly innovative product range

Beyond custom manufacturing, we offer innovative solutions to industrial customers.

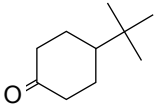
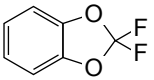
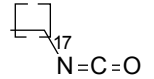
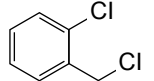
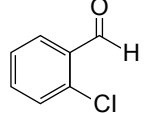

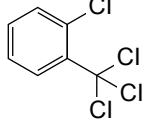
- Fine Chemical Intermediates
- Saltidin®/Icaridin insect-repellent

Structure	Identification	Characteristics	Main applications
<i>Phosgene derivatives</i>			
	Methyl chloroformate MCF, Methyl chlorocarbonate, Chloroformic acid methyl ester CAS Reg. No. 79-22-1 TSCA: Active	Assay: min. 99.0% by area Appearance: colorless to pale yellow liquid Packaging: ISO tank	Organic reagent for introduction of the methoxycarbonyl group, synthesis of carbonates, carbamates, anhydrides etc.
	Ethyl chloroformate ECF, Ethyl chlorocarbonate, Chloroformic acid ethyl ester CAS Reg. No. 541-41-3 TSCA: Active	Assay: min. 98.5% by area Appearance: colorless to pale yellow liquid Packaging: 160 kg drum, ISO tank	Organic reagent for introduction of the ethoxycarbonyl group, synthesis of carbonates, carbamates, anhydrides etc.
	n-Propyl chloroformate* nPCF, n-Propyl chlorocarbonate, Chloroformic acid propyl ester CAS Reg. No. 109-61-5 TSCA: Active	Assay: min. 98.0% by area Appearance: colorless to pale yellow liquid Packaging: ISO tank	Organic reagent for introduction of the n-propoxycarbonyl group, synthesis of carbonates, carbamates, anhydrides etc.
	n-Hexylchloroformate* HCF, n-Hexyl-chlorocarbonate, Chloroformic acid, hexyl ester CAS Reg. No. 6092-54-2 TSCA: Active	Assay: min. 96.0% Appearance: clear colorless to yellow liquid Packaging: 190 kg drum	Organic reagent for introduction of the n-hexyloxycarbonyl group, synthesis of carbonates, carbamates, anhydrides etc.
	n-Pentylchloroformate* n-Pentylchlorocarbonate, Chloroformic acid pentyl ester CAS Reg. No. 638-41-5 TSCA: Active	Assay: min. 98.5% by area Appearance: colorless liquid Packaging: ISO tank	Organic reagent for introduction of the n-pentoxycarbonyl group, synthesis of carbonates, carbamates, anhydrides etc.
	Phenyl chloroformate* Phenyl chlorocarbonate, Chloroformic acid phenyl ester CAS Reg. No. 1885-14-9 TSCA: Active	Assay: min. 99.0% by area Appearance: colorless to pale colored liquid Packaging: 220 kg drum, ISO tank	Mining industry, flotation agents and depressants, automotive industry
	n-Butylchloroformate* Butyl chlorocarbonate, Chloroformic acid butyl ester CAS Reg. No. 592-34-7 TSCA: Active	Assay: min. 99.0% by area Appearance: clear, colorless to slightly yellowish liquid Packaging: ISO tank	Mining industry, flotation agents and depressants, automotive industry

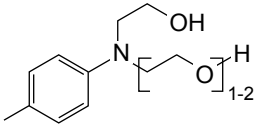
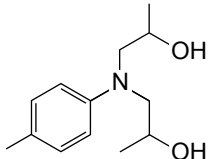
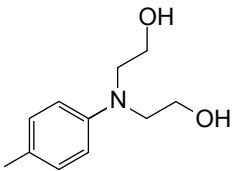
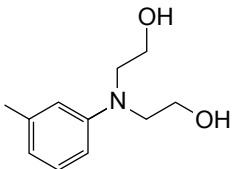
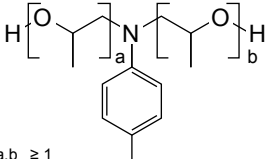
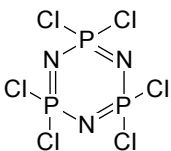
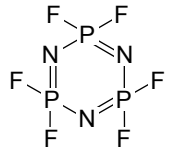
\*on request

Structure	Identification	Characteristics	Main applications
<b>Phosgene derivatives</b>			
	Carbonyldiimidazole* 1,1'-Carbonyl-bis(imidazole), CDI, CBI CAS Reg. No. 530-62-1 TSCA: Active	Assay: min. 98.0% by area Appearance: white to pale colored solid Packaging: 10 kg drum, 20 kg drum, 50 kg drum	Versatile organic reagent, safer-to-handle phosgene equivalent, activator for carboxylic acids etc.
<b>Triazole</b>			
	1,2,4-Triazole CAS Reg. No. 288-88-0 TSCA: Active	Assay: min. 99.5% by area Appearance: white to pale yellow flakes Packaging: Big Bag and drums	Intermediate for agrochemicals, pharmaceuticals and other fine chemicals
<b>Other Reagents and Building Blocks</b>			
	p-Thymol* 4-Isopropyl-3-methylphenol CAS Reg. No. 3228-02-2	Assay: min. 99.8 % Appearance: white solid material Packaging: 60 kg drum	Antibactericide & Preservative for Oral & Personal Care
	Sulfuryl Chloride*, Sulphuryl Chloride, Sulfurylchloride, Sulfonylchloride CAS Reg. No. 7791-25-5 TSCA: Active	Assay: min. 99.0% by area Appearance: Clear, yellowish liquid Packaging: ISO tank, 300 kg drum, 181.5 kg drum	Intermediate in the production of dyes, pesticides, and pharmaceutical
	Dimethylaminosulfonyl chloride* N,N-Dimethylaminosulfonyl chloride CAS Reg. No. 13360-57-1 TSCA: Active	Assay: min. 98.0% by area Appearance: Yellowish to green liquid Packaging: 250 kg drum	Reagent for the introduction of the N,N-dimethylsulfonyl group
	N-Ethylpiperidine* 1-Ethylpiperidine CAS Reg. No. 766-09-6 TSCA: Active	Assay: min. 99.6% by area Appearance: colorless to light yellow liquid Packaging: 160 kg rolling channel drum, rail tanker, ISO tank	Building block, sterically hindered base, tertiary amine
	Tristyrenated Phenol* Reaction mass of 2,6-bis(1-phenylethyl)phenol and 2,4,6-tris(1-phenylethyl)phenol EC no: 701-171-0 TSCA: Active	Assay: 60 - 75% Appearance: Colorless to pale yellow, highly viscous liquid Packaging: 200 kg rolling channel drum, ISO tank	Intermediate for production of surfactants

\*on request

Structure	Identification	Characteristics	Main applications
<b>Other Reagents and Building Blocks</b>			
	4-tert-Butylcyclohexanone* CAS Reg. No. 98-53-3 TSCA: Active	Assay: min. 99.0 % Appearance: At room temperature colorless to light yellowish crystals. At temperatures > 45 °C colorless to yellowish clear liquid. Packaging: ISO tank and drums	Intermediate for agrochemicals, pharmaceuticals, fine chemicals, flavors, fragrances, polymers, coatings, and lithium battery additives
	2,2-Difluoro-1,3-benzodioxole* CAS Reg. No. 1583-59-1 TSCA: Active	Assay: min. 98.0% Appearance: Colorless to yellow liquid. Packaging: ISO tank	Intermediate for agrochemicals, pharmaceuticals and other fine chemicals
	STI 97, Stearyl Isocyanate, Octadecyl Isocyanate CAS 112-96-9 TSCA: Active	Assay: min. 97.0% Appearance: Semitransparent liquid or colorless solidified melt Packaging: 150 kg drums	Release agent for adhesives, polyamide coatings, hot melt inks, textile applications
	o-Chlorobenzylchloride* oCBC, 2-Chlorobenzylchloride CAS Reg. No. 611-19-8 TSCA: Active	Assay: min. 99.0% by area Appearance: Clear to pale yellow liquid Packaging: ISO tank	Intermediate for agrochemicals, pharmaceuticals and other fine chemicals
	2-Chlorobenzaldehyde*, o-CBA, o-Chlorobenzaldehyde, 1-Chloro-2-formylbenzene CAS Reg. No. 89-98-5 TSCA: Active	Assay: min. 99.0% Appearance: Clear, colorless to pale yellow liquid Packaging: ISO tank	Intermediate in the production of dyes, pesticides, and pharmaceutical
	Bromochloromethane* CAS Reg. No. 74-97-5 TSCA: Active	Assay: min. 95% Appearance: clear, colorless to yellowish liquid	Reagent for cyclopropanation reactions
	2-Chlorobenzotrichloride* CAS Reg. No. 2136-89-2 TSCA: Active	Assay: min. 99.2% by area Appearance: Colorless to weakly yellow liquid and/or solidified melt	Intermediate for production of pharmaceuticals and fine chemicals

\*on request

Structure	Identification	Characteristics	Main applications
<b>Polymer Additives and Functional Products</b>			
	Accelerator PT25E/2* Reaction mass of 2,2'-[(4-methylphenyl) imino]bisethanol und 2-[[2-(2-hydroxyethoxy)ethyl] (4-methylphenyl)amino]-ethanol EC: 911-490-9	Appearance: light yellow to brown viscous liquid Packaging: 200 kg rolling channel drum; 1000 kg IBC, 25 kg steel can	Polyetheramine-based plasticizer for chloro- ethylene-based polymers; emulsifier for butadiene emulsion polymerization
	Dipropoxy-p-toluidine* Diisopropanol-p-toluidine,N,N- Bis(2-hydroxypropyl)-p-toluidine CAS Reg. No. 38668-48-3 TSCA: Active	Assay: min. 96.0% Appearance: pale yellow, solidified melt Packaging: 25 or 50 kg steel can, 190 kg steel drum	Curing agent for epoxy resins
	N,N-Dihydroxyethyl-p-toluidine* DEPT, N-(p-Tolyl)-dietha- nolamine, Diethylol-p-toluidine CAS Reg. No. 3077-12-1 TSCA: Active	Assay: min. 97.0% Appearance: pale to yellow-brown, liquid or solidified melt Packaging: 25 kg steel can, 200 kg steel drum	Curing agent for epoxy resins
	N,N-Dihydroxyethyl-m-toluidine* N,N-Dioxyethyl-m-toluidine, Diethylol-m-toluidine, N-(m- To-lyl)-diethanolamine CAS Reg. No. 91-99-6 TSCA: Active	Assay: min. 96.0% Appearance: white to light beige solid or solidified melt Packaging: 25 kg steel can, 190 kg steel drum	Curing agent for epoxy resins
 a,b ≥ 1 a+b = approx. 3.9 range 2...8 average molecular weight: 333,2g/mol	TP SGO 01661ff; "liquid DPPT", Poly[oxy(methyl-1,2-ethanediyl)], α,α'-[[[4-methylphenyl]imino] bis(methyl-2,1-ethanediyl)]bis(ω- hydroxy- CAS Reg.No. 3064365-88-1	Appearance: yellow to brown viscous liquid	Curing agent for epoxy resins, liquid version of Dipropoxy-p-toluidine
<b>Phosphazene</b>			
	Hexachlorocyclo-triphosphazene (HCCP)* CAS Reg. No. 940-71-6	Assay: min. 96.0% by area Appearance: white to almost white solid Lab samples available	Intermediate for additives, and electronic chemicals
	Hexafluorocyclotri-phosphazene (HFCP)* CAS Reg.No.15599-91-4	Assay: min. 99 % by area Appearance: white colorless solid to clear liquid Lab samples available	Additive, intermediate for additives, and electronic chemicals

\*on request



SALTIGO AS PART  
OF LANXESS  
ACTIVELY  
CONTRIBUTES  
ACHIEVING  
CLIMATE GOALS

## Climate neutral 2040

The chemical industry in Europe aims to be climate neutral by 2050. LANXESS' objective is to outpace that goal by a decade, achieving climate-neutral status by 2040.

LANXESS is already well on its way:

From 2004 - 2018, LANXESS cut their greenhouse gas emissions in half and will strive to do so again before 2030.

## We have a clear roadmap

- Sustainability at the core of our strategy
- Creating measurable benefits for customers and society
- Supporting a sustainable economy with activities and products

### Net zero value chain:

## Reducing and neutralizing scope 3 emissions

- Make use of sustainable raw materials
- Transition to green logistics
- Offer low carbon and climate-neutral products

“WE AIM TO CONSTANTLY IMPROVE THE SUSTAINABILITY PERFORMANCE OF OUR PRODUCT PORTFOLIO. HERE, IT IS IMPORTANT TO UNDERSTAND AND ACCOUNT FOR THE UPSTREAM VALUE CHAIN AS WELL.”

DR. CHRISTOPH SCHAFFRATH,  
HEAD OF MARKETING & SALES



### Customized. Reliable. Sustainable.

At Saltigo, we are committed to reducing Scope 1, 2 and 3 emissions as well through technological innovations, energy efficiency, renewable electricity, process optimization at our sites and sourcing green raw materials.

Upon request, we offer products with a reduced Product Carbon Footprint (PCF) up to net-zero emissions.

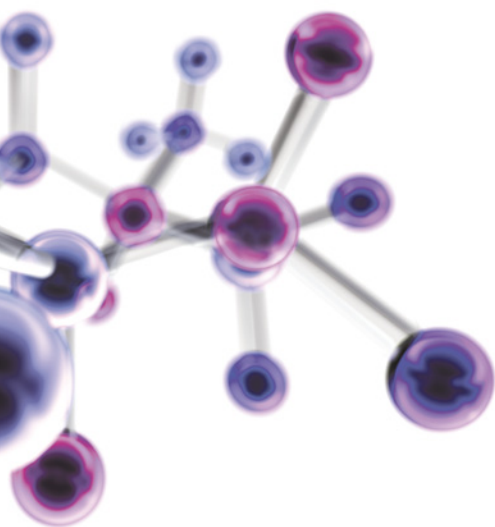
Saltigo uses the LANXESS Product Carbon Footprint Engine with a certified calculation method according to the standards of the TfS initiative, which helps our customers to further actively shape the transformation to a more sustainable future.

#### Our commitment to sustainability



#### Recognition in ratings and indices





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For more information and enquiries regarding our Fine Chemical Intermediates please contact:

[fci@saltigo.com](mailto:fci@saltigo.com)



**Health and Safety Information:** Appropriate literature has been assembled which provides information concerning the health and safety precautions that must be observed when handling the LANXESS products mentioned in this publication. For materials mentioned which are not LANXESS products, appropriate industrial hygiene and other safety precautions recommended by their manufacturers should be followed. Before working with any of these products, you must read and become familiar with the available information on their hazards, proper use and handling. This cannot be overemphasized. Information is available in several forms, e.g., material safety data sheets, product information and product labels. Consult your LANXESS representative in Germany or contact the Regulatory Affairs and Product Safety Department of LANXESS Deutschland GmbH or – for business in the USA – the LANXESS Corporation Product Safety and Regulatory Affairs Department in Pittsburgh, PA, USA.

**Regulatory Compliance Information:** Some of the end uses of the products described in this publication must comply with applicable regulations, such as the FDA, BfR, NSF, USDA, and CPSC. If you have any questions on the regulatory status of these products, contact – for business in the USA – the LANXESS Corporation Regulatory Affairs and Product Safety Department in Pittsburgh, PA, USA or for business outside US the Regulatory Affairs and Product Safety Department of LANXESS Deutschland GmbH in Germany.

The manner in which you use and the purpose to which you put and utilize our products, technical assistance and information (whether verbal, written or by way of production evaluations), including any suggested formulations and recommendations are beyond our control. Therefore, it is imperative that you test our products, technical assistance and information to determine to your own satisfaction whether they are suitable for your intended uses and applications. This application-specific analysis must at least include testing to determine suitability from a technical as well as health, safety, and environmental standpoint. Such testing has not necessarily been done by us. Unless we otherwise agree in writing, all products are sold strictly pursuant to the terms of our standard conditions of sale. All information and technical assistance is given without warranty or guarantee and is subject to change without notice. It is expressly understood and agreed that you assume and hereby expressly release us from all liability, in tort, contract or otherwise, incurred in connection with the use of our products, technical assistance, and information.

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