

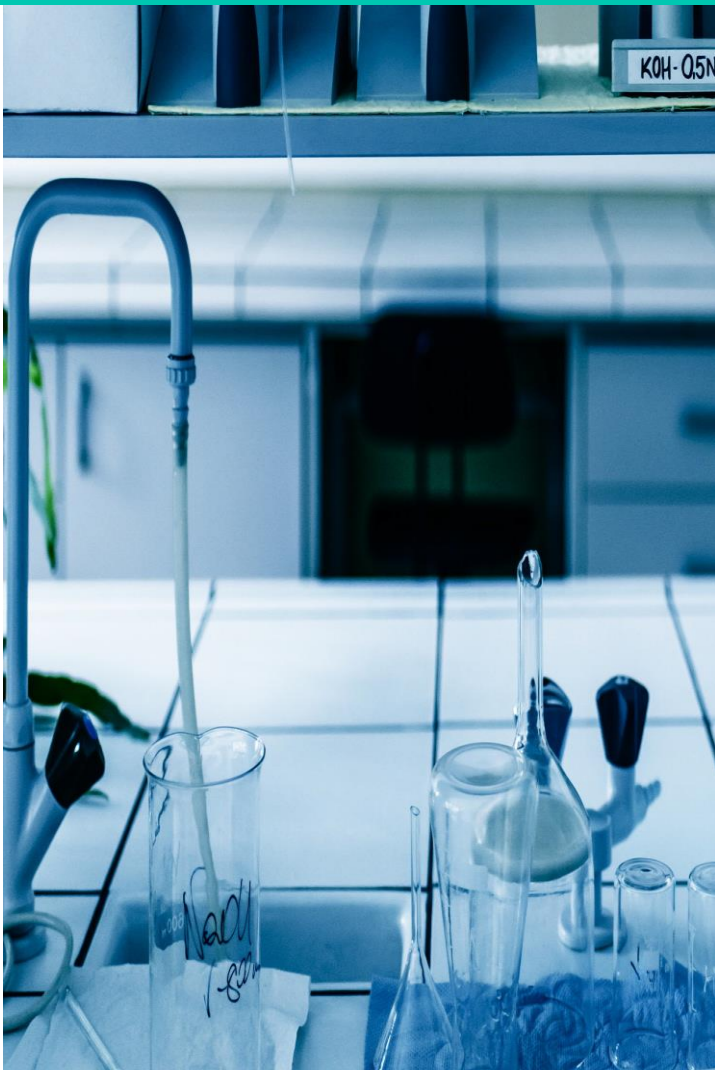
FORMULATION & TOLLING





R&D CAPABILITY

Our laboratory is a unit employing experienced specialists in creative recipe preparation, chemical synthesis and testing. Moreover, they are deeply experienced in selection of surfactants, adjuvants and definition of the formulation process. Apart from that we employ professionals conducting the analytical and testing work in our lab. We advise our clients on the selection of the best chemicals and additives. We also guide them through the production process.



The Quality Control Laboratory of QUEMETICA S.A. is dedicated to control all quality parameters of products manufactured in our plant. It works in accordance to requirements within the **PN-EN ISO/IEC 17025 standard**. That means it has the **PCA accreditation certificate No. AB 663**.

The company has a R&D department responsible for technology and development the composition of new products. It also provides technology services for its own parent unit as well as for the external customers.

As a part of R&D there is an analytical laboratory dedicated to developing new analytical methods and conducting research and tests of new plant protection products.

Regarding considerable complexity of every testing process, we strongly believe that high quality must refer to all of its elements, considering in particular:

- proper work organization,
- used test methods,
- measuring and testing equipment,
- obtained test results, method of their determination as well as preparation of the test report.

In the Laboratory we pay special attention to cooperation with our customers. Properly adapted procedures ensure that the conducted tests are reliable, independent and that the test results are credible.

Our strengths:

- Wide range of analytical works includes:
 - Analytical test of plant protection product, technical material of active substances, as well as other substances and chemical products, tests of water, wastes and soils
 - measurement of: noise, luminance, emission of dusts and chemical substances
- modern laboratory equipment
- wide range of analytical experience
- short test making terms
- competitive cost of analyses
- continuous internal and external test quality control system



Our processes are set in accordance with the standards set by the Integrated Management System PN-EN ISO 9001, PN-EN ISO 14001, PN-N- 18001.

QUEMETICA GLP

There is also a GLP (Good Laboratory Practice) Laboratory – QUEMETICA GLP, certified by Biuro ds. Substancji Chemicznych – **CERTIFICATE no 12/2023/DPL**



QUEMETICA GLP Laboratory provides a wide range of analytical tests required in the process of registration of active substances (A.S.) and plant protection products (PPP).

We determine the content of active substances, significant and relevant impurities in technical material (TC) as part of five-batch tests.

We also test ready-made formulations of PPP in the scope of their physicochemical properties, the content of active substances and significant impurities.

We constantly follow OECD, CIPAC guidelines and EU legal acts to ensure that our research is reliable and irrefutable, and therefore recognized by experts participating in the process of assessing documentation and registering of PPP.

Each study in the GLP system is performed by a team of specialists under the supervision of the study manager and finalized with a final report, prepared in accordance with applicable guidelines and assessed by internal experts.

The laboratory develops and validates its own instrumental methods.

At the client's request, the laboratory provides qualitative and quantitative analyzes of products, outside the GLP system, in order to initially characterize the product.

In our company, we are guided by professionalism and professional ethics, and confidentiality and data security are our standard. Upon request, we can sign an individual confidentiality agreement.

Large and flexible tolling capability

SYNTHESIS & PRODUCTION

QUEMETICA operates a **large production facility** in South-Eastern Poland that is capable of:

- synthesis of phenoxyacids: MCPA, MCPP-P
- formulation of MCPA and MCPP-P salts on-site: Na, K, IPA, DMA,
- synthesis of esters MCPA-2EH, MCPP-P-2EH and 2,4-D-2EH
- formulation of glyphosate salts on-site: Glyphosate-IPA,
- production of crop protection product in different types of formulation: SL, SC, SE, EC, EW, OD, FS,
- production of sulphur based fungicides,

There is no other formulator in Poland capable of manufacturing above 100 Thousand liters of formulations per type. The facility size gives us required speed and flexibility in reacting to our customers' needs.

Our services are reasonably priced – thanks to the competitive labour costs in Poland. Still, our long history leads to acquired knowledge and experience in manufacturing highest quality products – we cooperate with the largest players in the crop protection business.

We are capable of EC form production that requires special production measures and equipment (EX-proof installation).

Active	Daily capacity, Tones	Annual capacity, Tones
MCPA, MCPP-P	18	5 400
Esters of MCPA, MCPP-P, 2,4-D	3	900
Glyphosate based formulations	50	15 000

FORMULATION	Daily capacity, Tonnes	Annual capacity, Tonnes
2 lines for EC/EW/SL Products	21	5 000
SC/OD Herbicides	8,6	2300
SC/FS Fungicides	4,8	1 300

Individual technology lines are dedicated for production of plant protection products in the form of: Soluble concentrate (SL), Emulsifiable concentrate (EC), Emulsion, oil in water (EW), Suspension concentrate (SC), Suspo-emulsion (SE), Oil dispersion (OD), Flowable concentrate for seed treatment (FS).

Formulation services of plant protection products as straight formulation as well as formulation based on mixture of active substances can also be provided for other companies in the scope as follow:

SL: acetamiprid, bentazone, chlormequat chloride, clopyralid, dicamba, etephon, glyphosate (IPA, K salts), imazamox, imazalil, MCPA (Na, K, IPA, DMA salts), MCPP-P (Na, K, IPA, DMA salts), mepiquat chloride, metconazole, picloram, MCPA+Dicamba, MCPA+MCPP-P+Dicamba, MCPA+glyphosate

EC: cypermethrin, clethodim, clomazone, difenoconazole, diclofop-methyl, deltamethrin, flurochloridone, fluroxypyr and fluroxypyr-meptyl, fluazifop-p-butyl, MCPA-2EH, 2,4-D-2EH, trinexapac ethyl, pendimethalin, pinoxaden, prosulfocarb, pyriproxyfen, quizalofop-p-ethyl, S-metolachlor, prothioconazole, pinoxaden, prosulfocarb,

SC: azoxystrobin, bifenox, chlorotoluron, deltamethrin, diflufenican, difenoconazole+paclobutrazole, dodine, dimethomorph, ethofumesate, flufenacet, mesotrione, metamitron, metazachlor, metribuzin, napropamide, pendimethalin, phenmedipham, quinmerac, sulphur, sulcotrione, tebuconazole, terbuthylazine,

EW: fenoxaprop-p-ethyl, tebuconazole, prothioconazole, deltamethrin, MCPA+Clopyralid+Fluroxypyr-meptyl

OD: nicosulfuron, mesotrion+nicosulfuron,

SE: Clomazone+metazachlor, 2,4-D+florasulam, florasulam+fluroxypyr,

FS: tebuconazole, triticonazole, fludioxonil,

The list above includes most common actives that are well known to us.

The possibility of production based on other active substances and combinations thereof can be an considered individually.

Large and flexible tolling capability

Flexible packaging in terms of size thanks to speedy and modern production and filling lines

EC/EW Form	Capacity Liters / 8 h
Bottle v'1 ltr	5 400 ltr
Canister v'5 ltr	10 800 ltr
Canister v'10 ltr	12 000 ltr

SL Form	Capacity Liters / 8 h
Bottle v'1 ltr	12 600 ltr
Canister v'5 ltr	33 000 ltr
Canister v'10 ltr	44 500 ltr
Canister v'20 ltr	12 800 ltr

SC/FS/OD Form	Capacity Liters / 8 h
Bottle v'1 ltr	3 600 ltr
Canister v'5 ltr	8 700 ltr
Canister v'10 ltr	8 600 ltr

We are a manufacturer of HDPE and PE/PA packaging with a capacity of v'1 ltr; v'5 ltr and v'10 ltr

HDPE or PE/PA Canisters	Packing Capacity pcs./ 24 h
Bottle v'1 ltr	16 000 pcs.
Canister v'5 ltr	6 300 pcs.
Canister v'10 ltr	5 400 pcs.

FAST DELIVERY AND LOWER TRANSPORTATION COSTS



- Location right next to the A4 highway allows us to transport goods to Western and Eastern Europe quickly and efficiently – in the end of the day saving you both time and money.
- We support our customers in adapting to the ever-changing market conditions requiring supply chain flexibility by providing storage solutions.
- We cooperate with local and cost efficient forwarding companies owning modern transport fleet – improving the punctuality and cost efficiency of our deliveries.

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