CHEMICALS AND MONOMERS

PRODUCT PORTFOLIO

MOLGROUP
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MOL Group is an integrated international oil and gas company, headquartered in Budapest, Hungary with a track record of over 100 years in the industry.

We operate in 35 countries and run 4 refineries and 2 petrochemicals plants under integrated Supply Trading & Optimization, STO. We hold a leading position in the petrochemical sector in the Central Eastern Europe region where we turn crude oil into a range of refined products for households, industrial and transportation use.

Our products include, among others, gasoline, diesel, heating oil, aviation fuel, lubricants, bitumen, sulphur and liquefied petroleum gas. In addition, we produce and sell other chemical co-products to chemical companies regionally as well as to oil companies worldwide.

Both of our petchem plants, MOL Petrochemicals and Slovnaft Petrochemicals, has many decades of experience in producing commodity polymers in competitive quality for the plastics processing industry. The products are fundamental for a wide range of industrial application and for the production of a huge number of consumer goods that are essential to our everyday lives.
Aromatic products including benzene, toluene, orthoxylene and xylene feature similar attributes. They are colourless, highly flammable and toxic liquids each with a characteristic odour. Aromatic products are applied across different industries mainly as solvents or feedstock in production of numerous goods, which, in fact, are widely used in our everyday lives.

MOL identified the importance of the aromatic products and provides them to a wide range of industries. Benzene is an essential chemical feedstock in the production of diverse intermediate products, e.g. polymer plastics, synthetic fibers, detergents and solvents. In contrast, Toluene is rather used as an industrial feedstock. It is consumed in the manufacture of toluene diisocyanate (TDI) used as a raw material for the polyurethane foams’ production. Toluene also serves as an octane booster in gasoline as well as a solvent for paints, paint thinners, silicone sealants, glues and many other organic compounds. If slower drying is required toluene is often substituted by xylene solvent. Xylene also acts as a degreasing agent and is applied in rubber, adhesives and leather industries, in the production of pesticides, as an intermediate in the manufacture of certain polymers, in petroleum distillation, and in histology laboratories. MOL also supplies the phthalic anhydride (PAN) production plants with Orthoxylene, second largest commercial isomer of xylene.

The major use for PAN is in plasticizers for PVC and thus, strongly tied to the housing market and unsaturated polyester resins – applied in manufacture of reinforced laminates for the construction and automobile industries as well as in alkyd resins used in solvent-based paints.

MOL being a trustworthy supplier of these highly dangerous substances strictly follows the safety requirements to prevent any incidents. Therefore, all our customers are provided with the “Material Safety Data Sheet (MSDS)” to have reliable instructions and information regarding hazards of the purchased product and their preventive measures.
Maleic anhydride (MSA, 2,5-furan-dion) is the anhydride of the simplest unsaturated dihydric carboxylic acid. It is a white, aromatic, crystalline, highly hygroscopic substance that is soluble in water while forming maleic acid. It also sublimates upon heating. Our most important customers using man are polyester and polyalkide resins’ manufacturers, producers of varnishes, plasticizers, copolymers and lubricants.

Maleic Anhydride is produced in MOL Danube Refinery in Százhalombatta, Hungary and sold in molten or solid (pastille) form. We deliver molten product in containers by insulated and heated road tank trucks. Hereby, minimum ordered volume is 1 truck load (ca. 19-24 tons net). In contrast, solid product can be transported either by rail tank or by road tank lorry. Minimum ordered volume is 1 ton, which equals 1 pallet. Pallets are packed in polyethylene bags of 25 kg each or in foil, a unit of 1000 kg each.

MOL’s special gasoline segment is based on three types of aliphatic solvents sub-grouped according to different boiling points: Dunasol (80/110, 150/200, 180/220), n-hexane and White Spirit 150/200.

Aliphatic gasoline fractions obtained in crude oil refining are subjected to aromatic removal process in a catalytic reaction. Dunasol is a solvent of low aromatics and sulfur contents. It can also be used as a grease or oil solvent. MOL offers three Dunasol types with increasing boiling points from 80°C - 220°C and thus, enables coverage of various industrial needs. Dunasol is used in lacquers, paints and waxy ointments productions as well as for cleaning oily surfaces.

In contrast, normal-hexane (C6 fraction containing minimum 55% of n-hexane, as well as iso- and cycloparaffins) is used primarily as a solvent of chemical reactions such as polymerisation of olefins catalysed by coordination complex compounds, as a pharmaceutical solvent, in the extraction of various vegetable oils, or in various adhesive compositions.

Maleic anhydride is a non-corrosive solvent with a mild hydrocarbon odour and a narrow boiling range of 150-200°C containing paraffin, naphthenic and aromatics. It is widely used as coatings and cleaning agents in the paint, ink, dry cleaning and rubber industries.
The paraffin usually appears white, odourless, tasteless, waxy, solid to the touch, water insoluble, but in organic solvents (ether, benzene, and some ester) can be easily dissolved. Its typical melting point is between 52 and 62 degrees.

Pure paraffin is a non-toxic material due to its chemical nature and represents an excellent electrical insulator. In contrast to the well-known paraffin wax, microcrystalline waxes are usually darker, viscous, denser and more flexible. They have higher melting points because of the higher molecular weight. Since over last 40 years MOL produces high quality macro, micro and intermediary waxes, which are widely used in candle and match productions, agriculture; rubber, cosmetic as well as food industries. Due to its slippery attribute paraffin was also adopted by sports industry for creating slippery surfaces of surfboards, skis, snowboards and skateboards. We sell our products all around the globe from Thailand to America, but our core market is concentrated on European countries.

We offer more than 40 different products (including waxes, gatsch-, petrolatum-, and foots oils). Moreover, macro and intermediary waxes are also available in extended quality, i.e. on request for these products FDA Certificates can be issued, while micro crystalline wax can be ordered in compliance with the European Food Chain regulation E905.
In order to be able to produce the highest quality Base oil and Wax products, MOL Group uses a very complex production chain in Danube Refinery which involves several processing steps. After crude distillation, atmospheric residue is sent to a vacuum distillation unit (VDU) which is used to separate the atmospheric residue into several feed streams or distillates.

Our conventional solvent processing uses selected solvents in physical processes to remove undesirable molecules (asphaltenes, aromatics, n-paraffins). Hydro processing is used to convert or remove the trace undesirables such as nitrogen, sulfur and multi-ring aromatics or to enhance base stock properties to make specialty, high quality products.

Base oil is the main component of lubricants. It can be used for motor oil as well as industrial oil production. Although, it is mainly applied in blending plants, in smaller quantities it is also consumed by the tire industry as well as in the bitumen and emulsion productions. Our base oils can be delivered either by road or rail tank cars, whereas minimum order amount lies at 24 metric tons.

MOL’s base oils always meet the latest international requirements in terms of performance properties, classes of viscosity and density.

Product quality requirements:

GROUP BASE OILS, CA. 20 SPECIFICATIONS:

- SN85, SN150, SN350, SN500
- Bright stock (BS90)
- Light oil
- Aromatic extract (TDAE)

Packaging: Minimum of 20 tons in tank cars
Distribution: road and rail tank cars Road, rail transport possible in Seller’s/Buyer’s RTC’s and in barge
Place of dispatch: Base oils are produced by MOL Group in Danube Refinery (Százhalombatta, Hungary)
Department for aliphatic, aromatic, and other chemical products
Email: Chemicals@MOL.hu

Department for base oil
Email: Baseoil@MOL.hu

Department for paraffin and micro crystalline wax
Email: Paraffin@MOL.hu

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