BALLISTOL
SINCE 1904

It works!

The BALLISTOL story

The world's most universal multi-purpose oil for households, workshops and industry

Content

History

Foundation and Development

BALLISTOL has been produced and sold worldwide since more than four generations. Originally developed for the imperial army as weapon maintenance oil, BALLISTOL soon became an indispensable household remedy in Germany, Austria and Switzerland. Millions of consumers have used and experimented with BALLISTOL, thus finding surprisingly many ways and cases of employing it, also with human beings and animals.

How BALLISTOL came into existence

In 1874 Friedrich Wilhelm Klever, a lawyer interested in the field of economy, founded the F.W. Klever Chemical Plant in Cologne, Germany. He began producing oils and grease on the basis of coal. To be independent of the delivery of raw materials, he bought a coal mine.

Around the turn of the 20th century the imperial army was in need of a universal oil, which was not only suitable for maintaining the metal parts of guns but also for the upkeep and preservation of wooden stocks and leather gear. Simultaneously, it had to serve the soldiers as a wound oil for minor injuries, lacerations and bruises.

It was Dr. Helmut Klever, then lecturer for chemistry at the Technical University of Karlsruhe and the son of the founder of the Chemical Plant, who succeeded in finding the formula for a special oil. He coined the name BALLISTOL by combining the technical term ballistics and the Latin word for oil oleum. Only after a short while BALLISTOL managed

to establish itself as a „wonder oil“ due to its incredible, often miraculous abilities. It was used by the German Army from 1905 to 1945. The brand name BALLISTOL survived all the historical turbulences of our century and became a standing expression, a technical term, for hunters, shooters, anglers and many more.

It is not exaggerated to claim that BALLISTOL has become a synonym for quality and versatility.

Nowadays

Weakened by two world wars, which only the subsidiary plant in Leverkusen, Germany, survived, the demise of the traditional brand name BALLISTOL was almost complete. Recognising the potential of the product and the brand name BALLISTOL, in 1973 young Chemist Dr. Heinrich Zettler dauntlessly took over the leadership of the company. He gradually built the company up again to a profitable and internationally operating brand name manufacturer. After becoming Managing Director, in 1989, together with his wife Herta, Dr. Heinrich Zettler was able to take over the company itself and transfer its ownership to the Zettler family. Since that time, the company has continually expanded, production has increased, and the product range has expanded to include more than 70 products. Dr. Heinrich Zettler resigned as Managing Director in 2006, handing the management of the company to his sons, Dr. Christian and Andreas Zettler. Traditional values, a down to earth approach and quality remain the company‘s primary focus, securing valuable jobs at the production location of Germany.

Characteristics

Ecology and environment protection

The aspect of ecology and the protection of our environment play an increasingly important part when people choose certain chemical technological products. Did you know that BALLISTOL has been the first quality oil for maintenance and body care, the environment friendly oil since it was invented back in 1904. The manufacturers of BALLISTOL ecological awareness, that is often cited today, was a foregone conclusion already more than 90 years ago.

BALLISTOL is based on a medicinally pure white oil. This kind of oil is used in the field of pharmacy as a component of medicaments that are taken by human beings. To man and animal as well as lower organisms it is absolutely non-toxic. As we also know today it does not contaminate water. When some oil gets into the soil it is decomposed by micro-organisms and integrated into natural circulation.

The active ingredients contained in BALLISTOL are to be found combined or uncombined with other elements in nature. Therefore they are decomposed in the course of natural circulation like all substances and compounds that have come into existence naturally. Consequently, they bear no ecological risks. Neither is there any kind of chlorinated hydrocarbon in BALLISTOL, nor are there any other components in it, which would be detrimental to our environment such as PCB's or dioxins.
Although sprays are objectionable in the eyes of environmentalists, we can't do without them in many fields of application. BALLISTOL Spray comes up to the demands on an environment friendly spray. It contains propane and butane as propellants and, in contrast to BALLISTOL oil, pure hydrocarbon to improve the atomising effect. Propane, butane and this solvent are decomposed in the lower atmosphere within a fortnight to carbon dioxide and water. These two elements are also components of the natural circulation.

Considering the problem subjects of packing materials and garbage, BALLISTOL again makes a positive contribution to protect the environment of our world. BALLISTOL has always been bottled in glass, which can easily be recycled. Plastic bottles would have to be out of a special synthetic material, which would aggravate the problem of overflowing garbage dumps or, even worse, plastic bottles would have to, be burnt, if you want to get rid of them. In larger quantities BALLISTOL is only available in metal containers, can or canister, never in plastic containers. These metals are also fully recyclable. The same is relevant to empty spray cans.

As you can see, BALLISTOL has been ecologically aware and environment-friendly for decades, which we hope is an additional reason for you why BALLISTOL remains or becomes number one for you.

Toxicology

In various feeding experiments with rabbits, guinea pigs and dogs it could be demonstrated that BALLISTOL does not have any acutely toxic properties. The test animals were given 2 grams per kilogram bodyweight, which did not cause even the least chronic health damage. This is not only true with single experiments but also with a series of experi-

ments that were carried out over a time span of seven days. It can also be asserted that little two-year-old children who erroneously drank out a 50 ml-bottle did not show any pathological symptoms apart from a little hangover like it appears after drinking too much alcohol. Within twelve hours the children were absolutely well again.

This observation coincides with the fact that a large number of huntsmen and shooters use BALLISTOL internally when they suffer from digestion problems or heartburn. Several reports maintain that even year-long use does not damage your health.
The disinfecting power of BALLISTOL has also been investigated. According to these investigations the bacterium staphylococcus auras is killed by undiluted BALLISTOL within three to ten minutes, whereas typhoid, paratyphoid, and tuberculosis germs cannot survive one minute. The coli bacillus was dead after three minutes.

Even old babies some day become young old men! Similar to living beings organic substances are also subject to a process of aging. The oxygen in the air, moisture, bacteria, and the ravages of time are detrimental to anybody and anything. Technical oils tend to be affected, too.

BALLISTOL and durability

But there are some gimmicks making it possible to slow down or to virtually stop the decay of oils. The formula of BALLISTOL incorporates some of these gimmicks in an ideal manner. Technical oils always consist of hydrocarbons which are moreover characterized by so-called double-bonds. These compounds are prone to the oxygen in the air, which changes the molecule and combines it to larger molecule units. Viscous and sticky lumps come into being, a process that is called resinifying (i.e. gumming up).

Exquisite, medicinal oils, as they are contained in BALLISTOL, however, are far less susceptible to this process. Moreover, there are so-called antioxidants (oxygen-seizing compounds) in BALLISTOL, which are also well-chosen natural substances. These anti-oxidants prevent BALLISTOL for many, many years from oxidation, i.e. decay. Many, many years here means at least two generations. The following little anecdote is meant to illustrate this.

One of our customers found half a bottle of BALLISTOL in the attic of his grandparents farmhouse. From the label it could be told that this bottle must have been produced sometime between 1922 and 1925. The oil in the old bottle was just a little darker than a freshly produced one. All physical and chemical data were identical with the ones of today‘s BALLISTOL. There were not the least signs of resinification. This was evidence enough to show that the alkaline special oil BALLISTOL had kept its original high quality for almost 80 years. And even more: chemical and physical structure, degree of purity, and reliability have remained the same for more than half a century, a period of time that brought mankind triumphs and defeats alike. We think it is justified to claim that a bottle of BALLISTOL is, even after three generations, far from being old.

BALLISTOL and resinification

Resinifying (or gumming up) denotes a chemical reaction during which organic compounds, e.g. unsaturated oils, form larger molecules until polymers come into being. The forming of these polymers occurs uncontrolledly, an omnium-gatherum of high-molecular compounds comes into existence, which, as a whole, are viscid, kind of brown and hardly soluble if you use regular solvents. In other terms, the sticky stuff arises which jams

mechanically moved parts, be it the lock or the trigger of a gun, be it the joint of some other fine-mechanical apparatus.

Things are different with BALLISTOL. BALLISTOL belongs to the group of alkaline oils, which, due to their chemical structure, do not tend to resinify anyway. If you spray BALLISTOL for example on a metal surface or on complicated fine-mechanical parts, then the natural solvents contained in BALLISTOL will vaporise in the course of time. What remains is a white, vaseline-like coat, which is both protection against corrosion and lubricant for moveable parts.

A long-term experiment proves this. We had a sworn authority on weapons and explosives store several rifles for us after the Second World War. The rifles were all well-preserved with BALLISTOL and wrapped in wax-coated paper. After twenty-five-years - so to say on the occasion of the silver jubilee - the sworn expert opened the wrappings for the first time. All rifles were free from any signs of corrosion, which was not surprising to us. After pulling through a dry tow, there were some trial shots. The rifle was fully intact although even the lock was wetted profoundly with BALLISTOL for storage. The protective white coating looked immaculate, no signs of resinification whatever.

The conclusion our customers and we are bound to draw: even if you want to preserve your gun or some other precision instrument for a whole human generation, BALLISTOL guarantees protection and incontestable functioning. BALLISTOL is to resinification like holy water to the devil.

Application areas

BALLISTOL for human and animal

There are innumerous fields of application for BALLISTOL in housekeeping and technology, but equally countless are the possibilities of using BALLISTOL with human beings and animals. This is kind of a delicate subject matter, because according to the law on pharmaceutical products we are not allowed to give hints at the medicinal use otherwise we would have to dub BALLISTOL a medicament. But then it could only be sold and bought at the chemist's as a prescription-free remedy.

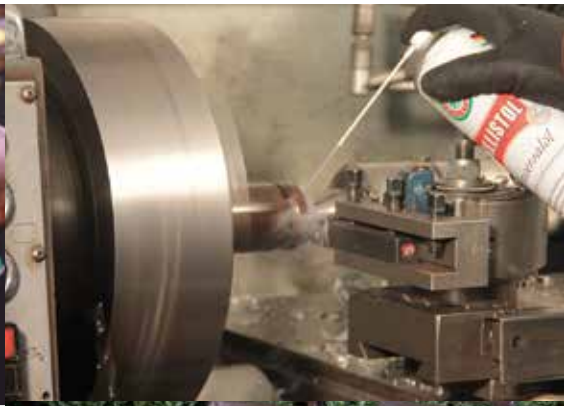
Therefore we'll refrain from giving any more advice on that subject and rely on our customers to recommend BALLISTOL to friends and acquaintances. In this connection some more information: around 40 years ago BALLISTOL was developed further to NEO-BALLISTOL, which is a registered medicament. NEO-BALLISTOL contains more essential oils than BALLISTOL, other components were omitted. So NEO-BALLISTOL does not have all the properties that are important for the care, maintenance and preservation of metal parts. Instead it is uniquely oriented towards remedial effects. Please read the relevant instructions for use for further information. Anyway, many huntsmen still use BALLISTOL against a number of discomforts, which are also listed up in the instructions for the use of NEO-BALLISTOL. This reliance is fully justified, because the production of BALLISTOL is as strictly controlled and supervised as it is customary with medicaments. Please mark, this statement is not relevant to BALLIS-

TOL Spray, which contains a solvent to avoid unwanted foam-building, and thus should neither be employed on human beings nor animals, not even externally.

In food and beverage producing industries

Many manufacturers of beverages, e.g. breweries, bottling plants of mineral waters, Coca Cola plants - use BALLISTOL for the maintenance and preservation of bottling - machines that get into contact with the product. Leading manufacturers of meat-processing machines and instruments have also been using BALLISTOL for comparable purposes for many years.

BALLISTOL consists of valuable natural substances of a purity equalled only by medicinal products. Tests have shown that it is toxicologically harmless. Consequently, there is no objection to using it for the maintenance and preservation of machinery in the field of food and beverage production. The non-volatile compounds contained in BALLISTOL are listed up in the appendices # 2-6 of the decree concerning the licence for admixtures in foods. After the volatile compounds have vanished, BALLISTOL is virtually neutral as far as taste and smell are concerned, that is to say even if some BALLISTOL should get into some food accidentally, the consumer would not become irritated.



BALLISTOL and plastics

All oil resistant plastics and lacquers are also resistant to BALLISTOL. This also applies to articles and apparatuses consisting of PVC, high-pressure polyethylene, Mipolam, Teflon® Hostaflon or phenolic resins. With foamed polymers or polystrol, sponge rubber and sealing-foam respectively you ought to be careful. BALLISTOL breaks foamed synthetic materials if it gets in contact with them.

As a rule of thumb it can be said that all those plastics or polymers are resistant to BALLISTOL which are also widely indifferent to technical oils. If there are any doubts, a resistance test should be made. We'd be glad to give you help and advice.

With window fittings and hinges

Anybody knows of the beautiful new doors and windows which begin to squeak and groan after just one year and which are no longer easily movable then. A few drops of BALLISTOL will suffice to make you forget that problem.

Hinges and metal joints remain very mobile, rust is kept off for a long time. Fittings keep their brand-new gloss. What is important for customers service and house builders is that BALLISTOL does not damage wood, plastics and aluminium. On the contrary, these materials remain maintained and preserved when treated with BALLISTOL.

Whether inside or outside, window- or door-fittings, hinges or joints, heavy gate locks or the finest cylinder locks:

BALLISTOL maintains, preserves, protects against corrosion and prevents from freezing; sliding parts remain easily movable.

BALLISTOL and gum

Beside many valuable natural substances there is a mineral oil in BALLISTOL which, in its purity, is only equalled by medicaments. Thus BALLISTOL will make all those kinds of gum hard and brittle which are not mineral oilresistant but only if the gum is exposed to BALLISTOL for a longer time at high temperatures. Oil-resistant gums are also resistant to BALLISTOL.

BALLISTOL and lacquers

Lacquers are synthetic materials, which build a network of polymers after coating and which show the desired properties according to their chemical structures.

To draw a conclusion from this, all those lacquers and varnishes are resistant to BALLISTOL which have a chemical structure similar to oil resistant polymers. Furthermore all high-quality lacs, lacquers, alkyde-resins and enamelled varnishes fall into this group. A filmy coat of BALLISTOL does not only keep varnished surfaces clean but also gives it a new shine and makes it water-repellent. As it is the case with the maintenance of gum, you should keep in mind that BALLISTOL is to be applied ultrathinly. This does not only save you money but it also prevents varnishes of a lower

quality from becoming dull. That would also be the case with all organic solvents and oils.

BALLISTOL and plant protection

As a 3% hydrous emulsion BALLISTOL can be sprayed on plants. You can make this emulsion by adding 30 ml of BALLISTOL to 1 litre of water. Don‘t forget to stir well. This lacteal emulsion can be employed by means of commercial atomizers. Blood lice and plant lice as well as mites and other small parasites die when they get into contact with this BALLISTOL emulsion. Bigger destructive insects are not affected however. This emulsion does not have the same radical effects as real insecticides but applying this emulsion is insofar of advantage as it is absolutely harmless to warmblooded animals and human beings and as there are no waiting-periods with useful plants.

In case of rankgrowth at trees, which is often referred to as tree-cancer, BALLISTOL is to be used undiluted. BALLISTOL is also well tried with larger surfaces of cut used instead of pitch.

Demands on the care of firearms

When firing a shot there are Temperatures of several hundred degrees centigrade and acid combustion gases under a pressure of up to 500 atmospheres, which provides the bullet with the necessary initial acceleration. These extreme conditions in the barrel foster wear and tear and corrosion extremely. On top of that all kinds of weather affect the outside of the weapon.

As a consequence from this a good gun oil must have the following characteristics:

1. It must be able to chemically neutralize acid residue in the barrel and the lock of the gun, which came into existence when the cartridge was fired.
2. It must be able to remove fouling and metal residue from the bullet in the barrel.
3. It must be able to protect the gun against corrosion inside as well as outside, corrosion caused by atmospheric influences.
4. It must be durable and it must not resinify.
5. It must be universal, i.e. the maintaining and preserving properties of the oil can also be used for the stock and the sling of the gun for instance.

Systematically considered, there are several methods possible on the one hand, removal of residue and preservation are carried out by employing different substances in two or more working-processes. On the other hand, the working processes can be combined in one product. Let‘s consider the former process first. At the beginning acid residue must be removed. An alkaline oil like BALLISTOL is perfect for this purpose. The neutralisation product out of the acid residue

and alkaline BALLISTOL is harmless. Remainders of gunpowder and tombac are dissolved by BALLISTOL. Due to its low surface tension BALLISOL reaches even the remotest corners, which cannot be reached otherwise BALLISTOL does not do any damage to the synthetic materials used in weapon making. The wooden stock is maintained and preserved by BALLISTOL, which is absorbed into the surface of the wood, thus preventing the stock from mould and fungus. Leather is cleaned, maintained, and preserved in the same way.

Due to a special corrosion-inhibiting compound BALLISTOL also protects against corrosion. It preserves the gun for a long time and prevents it from rusting, inside as well as outside. Especially advantageous is if you use BALLISTOL sparingly, i.e. a film of BALLISTOL on the gun is enough to protect it fully. In this way the sensitive browning also remains undamaged. The browning itself does not protect against corrosion, but is meant to underline the optical impression. Like any other oil BALLISTOL is emulsifiable with water. Even this emulsion has corrosion-preventing properties. The water will evaporate from this emulsion and what will remain is a protecting film of oil. Due to the chemical structure of the alkaline, oils they won't become sticky or resinify. Guns treated with BALLISTOL, for instance, have been stored for over twenty-five years in a cellar. They were only wrapped in wax coated paper. When they were unwrapped after so many years, no rust could be detected. The mechanical parts of the guns worked unobjectionably, which became clear during the series of trial shots which were carried out without cleaning the guns beforehand.

Then there are the so-called neutral oils, such as GUNEX. This kind of oil is not emulsifiable with water but it can creep between metal and water, which means it is an outstanding and durable protection against corrosion. This kind of oil, however, has one disadvantage. It cannot chemically neutralize the acid residue of deflagration sufficiently. The acid can only be partly removed by continual diluting the residue, which is done through repeated cleaning by means of a cleaning-rod and tow for example. Remainders of the noxious substances will stay back in the barrel in any case. Furthermore, metal deposits cannot be dissolved but only getting rid of them can be made easier due to the creeping-effect mentioned above. As neutral oils are solely used in the field of rust prevention, they lack the maintaining and preserving properties with wood and leather. In a nutshell, the advantage of the neutral oils e.g. GUNEX is that they can inhibit rust for a longer time, but their disadvantage is that they cannot be used otherwise effectively. What must be emphasized particularly with GUNEX is that it preserves bare brass surfaces excellently, which means only one treatment with GUNEX will keep the original yellow-golden glimmer for weeks and months. Of course, steel and iron are protected in the same way. Test objects had to undergo a process during which a salt solution was sprinkled on them for more than 100 hours; no stains of rust whatsoever. GUNEX also showed its outstanding properties in climate of condensation, where the tested objects remained undamaged even after thirty days.

As a matter of course, GUNEX is free from water-contaminating chlorinated hydrocarbons, which decompose in the barrel and attack lands and riflings in the course of time. Needless to say that BALLISTOL and GUNEX sprays are filled with evacuants that don't damage

the ozone layer.

In case of heavy duty use of the gun and in case of high demand on its precision, e.g. as it is with benchrest-shooters, it does not suffice to remove tombac and lead deposits by means of a gun oil. This is a case for ROBLA SOLO barrel cleaner, which can dissolve copper and brass extraordinarily well. Without attacking steel, nickel or chrome. The original precision of the gun will be fully reestablished if it was caused by residue in the barrel.

In the course of mounting-work at the gun it sometimes happens that the browning is impaired. Instead of taking the gun apart and subjecting it to a complete process of browning in the browning-bath, the gunmaker or the skilful layman, too, can resort to KLEVER Quick-browning. This is to be dabbed on the impaired spot which must be free from grease with a brush or a cotton-wool tip. Then let KLEVER Quickbrowning operate on the damaged spot for a little while, after that rinse with water. Finally spray some BALLISTOL or GUNEX on the newly browned spot and the repair work is perfectly finished in most cases. Contrarious to other products on the market a single browning will suffice to achieve the desired result.

Other products from our product range

Product	*Description*
Body care	
BALLISTOL Animal	Care oil for animals
NEO-BALLISTOL remedy home	For the treatment of the skin and wounds
Sting-Free*	Protection against mosquitoes and ticks
Sting-Free Animal*	for animals
Sting-Free KIDS*	for children over two months
Wellness bodycare oil	Relaxation and regeneration
Defence sprays	
Anti-Dog	CS/CN defence spray
Defenol-CS / KO-CS	CS defence spray
PEPPER-KO	Pepper defence spray
Technical products	
BALLISTOL resin remover	Cleaner
BALLISTOL H1 spray	Foodstuff oil
BALLISTOL Teflon® spray	Solid lubricant
Kamofix	Stove, oven and grill cleaner
Montage spray	Special lubrication for installations
Pluvonin	Impregnation spray
BALLISTOL ProTec	Premium rust protection
SEAL-film spray	Sealing spray
Silicone spray	Special lubricant for plastics
Startwonder	Engine start spray
USTA garage oil	Universal oil
Ustanol	Neural oil
BALLISTOL freeze spray	Cold spray
BALLISTOL dust-free	Compressed air spray
BALLISTOL multi purpose grease	Lithium soap grease
Gun care	
Airsoft-Gas	
BALSIN stockoil	Stock and wood care
GunCer	Gun tuning agent with ceramic additive
GUNEX	Gun oil and rust protection
GunTec	Gun oil and rust protection
GunTec plastic cleaner	Care for synthetic barrels
GunTec gun grease	Gun grease
KLEVER Quickbrowning	Cold browning
Robla cold degreaser	Cleaning agent, degreaser
Robla Solo MIL	Barrel cleaner
Robla black powder solvent	Cleaner for black powder guns
Scherell´s SCHAFTOL	Stock and wood care
SUCOL / SUCOLIN	Gun tow
Trophy bleaching	Bleaching agent
Vaseline gun grease	Gun grease

**Use Sting-Free safely! Please read the label and product information before using this product!*

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