



# BALLISTOL

**The World's Most Universal  
Multi-Purpose Oil for House-  
holds, Workshops and Industry**

## *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 **t h e** first-quality oil for maintenance and body care, **t h e** environment- friendly oil since it was invented back in 1905 ? The manufacturers of **BALLISTOL** ecological awareness, that is often cited today, was a foregone conclusion already more than 80 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 are 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 keeping our country tidy. **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, be it 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 experiments 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 aureus 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.

## ***BALLISTOL** and Durability*

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.

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 characterised 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 70 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 with Man and Animal***

There are innumerable 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 **BALLISTOL-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 Hostafon 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.

## ***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 omniumgatherum 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.

## ***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**.

Thinly applied, however, **BALLISTOL** cleans and maintains all kinds of gum without doing any damage.

## ***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 warm-blooded 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. Reminders 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 2000**. 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. Reminders 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 2000** 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 2000** is that it preserves bare brass surfaces excellently, which means only one treatment with **GUNEX 2000** 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 2000** 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 2000** 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 2000** 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-Quick-Browning** operate on the damaged spot for a little while, after that rinse with water. Finally spray some **BALLISTOL** or **GUNEX 2000** 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.

**F. W. K L E V E R GmbH**  
**Hauptstraße 20**  
**D-84168 Aham / Germany**

**Tel. (0049)(0)8744 - 96 99 0**  
**Fax (0049)(0)8744 - 96 99 96**  
**e-mail: [klever\\_ballistol@t-online.de](mailto:klever_ballistol@t-online.de)**  
**<http://www.klever-ballistol.com>**

