Autoinjectors are used in the case of intoxication with nerve paralytic agents of types G and V (Sarin, Soman, VX, etc.). They are applied by self-help or by another person if the affected person in not able to apply the autoinjector alone.

Autoinjectors are components of medical equipment for members of security forces. The design of the autoinjector is determined by the method of use and the required number of active substances.

### Two-Chamber Autoinjector Al2OA



# Composition of AI2OA

| First chamber:  | Obidoxime chloride (AChE reactivated)       | 220 mg / 2 ml |
|-----------------|---|---------------|
| Second chamber: | Atropine sulfate (anticholinergic medicine) | 2 mg / 2 ml   |

## **Technical Data**

| Length of autoinjector           | 140 mm |
|----------------------------------|--------|
| Maximum diameter of autoinjector | 21 mm  |
| Length of medicine pad           | 69 mm  |
| Maximum insert diameter          | 20 mm  |
| Lenght of the extended needle    | 20 mm  |
| Weight of autoinjektor           | 70 g   |
| Application time                 | <10 s  |
|                                  |        |

### NATO Stock Number (NSN): 6505-16-008-4361

### Manufactured according to Good Manufacturing Practice (GMP)

MB Pharma s.r.o. Lužická 1893/9, 120 00 Prague, Czech Republic mbpharma@mbph.cz www.mbph.cz

Al 1M aids people with severe pain wounds. It allows a dose of 10 mg (20mg), which will generally provide adequate analgesia for 70 kg (154 lb) for adults.

The onset of analgesia is usually within 5 to 20 minutes and the peak of analgesia is achieved in one hour.

## One-Chamber Autoinjector AI 1M



# Composition of AI 1M

First chamber: Morphine sulphate

20 mg / 2 ml

## **Technical Data**

| Length of autoinjector           | 140 mm |
|----------------------------------|--------|
| Maximum diameter of autoinjector | 21 mm  |
| Length of medicine pad           | 69 mm  |
| Maximum insert diameter          | 20 mm  |
| Lenght of the extended needle    | 20 mm  |
| Weight of autoinjektor           | 70 g   |
| Application time                 | <10 s  |

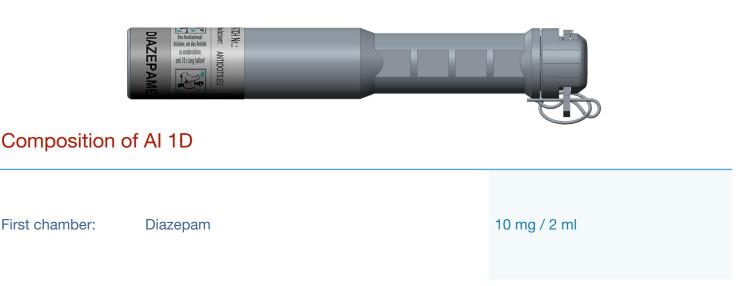
#### NATO Stock Number (NSN): 6505-16-007-5953

#### Manufactured according to Good Manufacturing Practice (GMP)

MB Pharma s.r.o. Lužická 1893/9, 120 00 Prague, Czech Republic mbpharma@mbph.cz www.mbph.cz

When people are intoxicated by nervous paralytic agents, diazepam should be given after administration of the atropine re-activator. Diazepam acts through GABA receptors in the central nervous system. The physiological effect of these receptors is a decrease in the CNS function. Diazepam is therefore used for symptomatic treatment that reduces convulsions and reduces acute respiratory insufficiency. It is also used as a remedy to reduce temporary anxiety, tension, stress and restlessness that can also be caused by OP poisoning.

## One-Chamber Autoinjector AI 1D



# **Technical Data**

| Length of autoinjector           | 140 mm |
|----------------------------------|--------|
| Maximum diameter of autoinjector | 21 mm  |
| Length of medicine pad           | 69 mm  |
| Maximum insert diameter          | 20 mm  |
| Lenght of the extended needle    | 20 mm  |
| Weight of autoinjektor           | 70 g   |
| Application time                 | <10 s  |
|                                  |        |

### NATO Stock Number (NSN): 6505-16-007-5953

### Manufactured according to Good Manufacturing Practice (GMP)

MB Pharma s.r.o. Lužická 1893/9, 120 00 Prague, Czech Republic mbpharma@mbph.cz www.mbph.cz

Al T is a perfect auto-injector replica with identical trigger mechanism. The drug cushion is replaced by a special draw-bar modelling the needle ejection mechanism.

The training can be repeatedly used at least 200 times.

## Training Autoinjector AI T



## Composition of AI T

Al T does not contain any chemical substances. It consist only of the mechanical system simulating the functionality.

## **Technical Data**

| Length of autoinjector           | 140 mm |
|----------------------------------|--------|
| Maximum diameter of autoinjector | 21 mm  |
| Length of medicine pad           | —      |
| Maximum insert diameter          | —      |
| Lenght of the extended needle    | _      |
| Weight of autoinjektor           | 70 g   |
| Application time                 | <10 s  |
|                                  |        |

### NATO Stock Number (NSN): 6910-16-AB8-7412

MB Pharma s.r.o. Lužická 1893/9, 120 00 Prague, Czech Republic mbpharma@mbph.cz www.mbph.cz

# **PROPHYLACTIC ANTIDOTE**

Prophylactic oral antidote PANPAL provides long-term protection against the effects of nerve paralytic substances. It brings prevention in case of failure of individual protective equipment (suit, mask, etc.). Its composition secures minimal side effects.

PANPAL is used by theNATO armies.

# **Oral Prophylactic Antidote PANPAL**



# Composition

The antidote is supplied in two cups containing preparations:

- PANPAL A white cylindrical tablet with a dividing groove active substances: benactyzine hydrochloride, trihexyphenidyl hydrochloride
- PANPAL B coated brown lenticular tablet active substance: pyridostigmine bromide

Package contains 30 tablets of PANPAL A and 30 tablets of PANPAL B.

# Indication

PANPAL is used for preventive administration before presumed exposure to nerve agents. It reduces the intensity of intoxication symptoms and improves the overall results of poisoning treatment. It is intended for persons at imminent risk of being affected by nerve agents, especially soman, and for persons who are to be sent to places infested with nerve agents to increase their protection in case of failure of the individual protection devices used. The onset of effect is within 15 - 30 min, the effect lasts 8 h.

#### Dosage:

The tablets are dosed together, one tablet of PANPAL A and one tablet of PANPAL B each time. Repeating the dose is possible at the earliest in 24 hours.

MB Pharma s.r.o. Lužická 1893/9, 120 00 Prague, Czech Republic mbpharma@mbph.cz www.mbph.cz