INSECT REPELLENT
CLOTHING APPLICATION

MIL - I - 12123 D

FORMULA M-1960

1 GALLON

DSA-400-74-C-6879

C-12/74 MFD-12/74 LOT C-2917

OCTAGON PROCESS INC.
596 RIVER ROAD, EDgewater, NEW JERSEY 07020

INSECT REPELLENT, CLOTHING APPLICATION (FORMULA M-1960)
MILITARY SPECIFICATION MIL-I-12123D
NET: 1 GALLON

ACTIVE INGREDIENTS:
- 2-Butyl-2-Ethyl-1, 3-Propanediol
- Benzyl Benzoate
- N-Butyl Acetanilide

INERT INGREDIENTS:
- Polyoxyethylene (20) sorbitan monooleate

CAUTION:
KEEP OUT OF THE REACH OF CHILDREN

CAUTION: HARMFUL IF SWALLOWED. CONCENTRATE CAUSES SKIN IRRITATION. MAY CAUSE EYE IRRIGATION. WASH AFTER HANDLING. DO NOT REUSE EMPTY DRUM. DESTROY IT BY PERFORATING OR CRUSHING OR DISCARD IN A SAFE PLACE AWAY FROM WATER SUPPLIES.

DIRECTIONS FOR USE

To impregnate clothing for protection against mites, fleas, ticks, mosquitoes, and leeches.

For hand impregnation. Caution: The tropical cotton uniform absorbs larger amounts of repellent than the standard cotton or woolen uniforms. For this reason, it is necessary to vary both the concentration and the amount of the stock solution applied to the tropical uniforms. The following table gives the directions for stock solutions and the amount to be used for each type of uniform. It is essential that these directions be followed to insure adequate protection and prevent contamination.

PREPARATION AND USE OF STOCK SOLUTION

Woolen or standard cotton uniforms. Add one part M-1960 concentrate (by weight) with eleven parts water (by volume) and mix thoroughly. Apply mixture at a rate of 3.5 pints of stock solution per uniform (shirt or jacket trousers, and socks).
Tropical cotton uniforms. Add one part M-1960 concentrate (by volume) with four parts water (by volume) and mix thoroughly. Apply mixture at the rate of 2.5 pints per uniform (jacket, trousers, and socks).

After preparation, the stock emulsion should be stirred occasionally to maintain the emulsion. Place one or more uniforms in a container and thoroughly wet it with the required quantity of mixed stock solution. Remove clothing from container and wring out excess emulsion. Do not re-use emulsion not absorbed by the uniform. Place uniform on a flat surface to dry. Do not wear uniforms until completely dry. Subsequent re-impregnations should be carried out as described above.

For machine impregnation. Clothing can be impregnated with M-1960 emulsions after washing or thoroughly wetting in fixed laundries or mobile laundry units. The procedure for impregnation and any subsequent re-impregnations is as follows:

Standard cotton uniforms. Add 1½ gallons of concentrate to 4 gallons of water heated to approximately 100°F, and mix thoroughly. This quantity of emulsion will impregnate 60 pounds dry weight of cotton uniforms (20 fatigue or combat jackets and 20 fatigue or combat trousers). After the last rinse or after clean clothing is thoroughly wet, drain the washer and roll for 2 minutes to remove excess water from the clothing and to insure complete drainage of the reservoir. Add the prepared emulsion and roll for 5 minutes. Drain washer and remove clothing for drying. Extract for 3 minutes and tumble dry for 10 minutes at 200°F.

Wool uniform. Add 3 quarts of concentrate to 4 gallons of water heated to approximately 100°F, to impregnate 60 pounds dry weight of wool uniforms (14 shirts and 14 trousers). Impregnate as described for cotton clothing with the exception that drying should be carried out at not over 140°F.

Tropical cotton uniform. The process for treating tropical uniforms is the same as that for standard cotton uniforms except that five gallons of M-1960 concentrate with no water is used for 22 uniforms.

PRECAUTION: Untreated shorts should be worn under treated uniforms to prevent any possible skin irritation in the groin. Caps, when treated, should be held by the visor while dipping only the crown to prevent damage to the laminated visor by the emulsion.

Note: This material should not be relied upon to protect against mosquitoes on exposed skin.
INSECT REPELLENT CLOTHING APPLICATION

MIL - I - 12123 D

FORMULA M-1960

1 GALLON

DSA-400-74-C-6879

C-12/74 MFD-12/74 LOT C-2917

OCTAGON PROCESS INC.

596 RIVER ROAD, EDGEWATER, NEW JERSEY 07020

INSECT REPELLENT CLOTHING APPLICATION (FORMULA M-1960)

MILITARY SPECIFICATION MIL-I-12123D

NET: 1 GALLON

ACTIVE INGREDIENTS:
- 2-Butyl-2-Ethyl-1, 3-Propanediol
- Benzyl Benzoate
- N-Butyl Acetanilide

INERT INGREDIENTS:
- Polyoxymethylene (20) sorbitan monooleate

CAUTION:
KEEP OUT OF THE REACH OF CHILDREN.

CAUTION: HARMFUL IF SWALLOWED. CONCENTRATE CAN CAUSE EYE IRRITATION. WASH AFTER HANDLING. DO NOT REUSE EMPTY DRUM. DESTROY IT BY PERFORATING OR DISCARD IN A SAFE PLACE AWAY FROM WATER SUPPLY.

DIRECTIONS FOR USE

To impregnate clothing for protection against mites, fleas, and leeches.

For hand impregnation: Caution. The tropical cotton requires more amounts of repellent than the standard cotton or woolen uniforms. It is necessary to vary both the concentration and the amount applied to the tropical uniforms. The following table gives the stock solutions and the amount to be used for each type of clothing. These directions be followed to insure adequate protection.

PREPARATION AND USE OF STOCK SOLUTIONS

Woolen or standard cotton uniforms. Add one part M-1960 with eleven parts water (by volume) and mix thoroughly. Apply 3.5 pints of stock solution per uniform (shirt or jacket).
MIL-12123 D

INGREDIENTS:

- Methyl-1,3-Propandiol ........................................ 30.0
- Propane-1,2-diol ........................................ 30.0
- Tallow .................................................. 10.0

ENTIONS:

- Polyethylene (20) sorbitan monooleate. 100.0

CAUTION

KEEP OUT OF THE REACH OF CHILDREN

IF SWALLOWED. CONCENTRATE CAUSES SKIN IRRITATION,
EYE IRRITATION. WASH AFTER HANDLING.

EMPTY DRUM. DESTROY IT BY PERFORATING OR CRUSHING. BURY
IT IN A SAFE PLACE AWAY FROM WATER SUPPLIES.

DIRECTIONS FOR USE

- clothing for protection against mites, fleas, ticks, mosquitoes and
tropical biting insects

PREPARATION AND USE OF STOCK SOLUTION

Tropical cotton uniforms. Add one part M-1960 concentrate (by volume) with four parts of water (by volume) and mix thoroughly. Apply mixture at the rate of 2.5 parts per uniform (jacket, trousers, and socks).

After preparation, the stock emulsion should be stirred occasionally to maintain the uniform consistency. Place one or more uniforms in a container and thoroughly wet it with the required quantity of mixed stock solution. Remove clothing from container and wipe out excess emulsion. Do not re-use emulsion not absorbed by the uniform. Place uniform on a flat surface to dry. Do not wear uniforms until completely dry. Subsequent re-impregnations should be carried out as described above.

For machine impregnation. Clothing can be impregnated with M-1960 emulsion (after washing or thoroughly wetting in fixed laundries or mobile laundry units). The procedure for impregnation and any subsequent re-impregnations is as follows:

STANDARD COTTON UNIFORMS. Add 1% of concentrate to 4 gallons of water heated to approximately 100°F, and mix thoroughly. This quantity of emulsion will impregnate 60 pounds of dry weight of cotton uniforms (20 fatigue or combat jackets and 20 fatigue or combat trousers). After the last rinse or after clean clothing is thoroughly wet, drain the washer and roll for 2 minutes to remove excess water from the clothing and to insure complete drainage of the reservoir. Add the prepared emulsion and roll for 5 minutes. Drain washer and remove clothing for drying. Extract for 3 minutes and tumble dry for 10 minutes at 200°F.

WOOL UNIFORMS. Add 3 quarts of concentrate to 4 gallons of water heated to approximately 100°F, to impregnate 60 pounds of dry weight of wool uniforms (14 shirts and 14 trousers). Impregnate as described for cotton clothing with the exception that drying should be carried out at not over 140°F.

TROPICAL COTTON UNIFORMS. The process for treating tropical uniforms is the same as that for standard cotton uniforms except that five gallons of M-1960 concentrate with no water is used for 22 uniforms.

PRECAUTION: Untreated shorts should be worn under treated uniforms to prevent any possible skin irritation in the groin. Caps, when treated, should be held by the visor while dipping only the crown to prevent damage to the laminated visor by the emulsion.

Note: This material should not be relied upon to protect against mosquitoes or exposed skin.

EPA REG. NO. 6830-84
EPA EST. 6830-NJ-1
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**OR CRUSHING, BURY.**

For this reason, it is essential that children absorb different uniforms. For this reason, it is essential that children absorb different uniforms. For this reason, it is essential that children absorb different uniforms. For this reason, it is essential that children absorb different uniforms. For this reason, it is essential that children absorb different uniforms.

**TROPICAL COTTON UNIFORMS.** Add one part M-1960 concentrate (by volume) with four parts water (by volume) and mix thoroughly. Apply mixture at the rate of 2.5 pints per uniform (jacket, trousers, and socks).

After preparation, the stock emulsion should be stirred occasionally to maintain the emulsion. Place one or more uniforms in a container and thoroughly wet it with the required quantity of mixed stock solution. Remove clothing from container and wring out excess emulsion. Do not re-use emulsion not absorbed by the uniform. Place uniform on a flat surface to dry. Do not wear uniforms until completely dry. Subsequent re-impregnations should be carried out as described above.

**FOR MACHINE IMPREGNATION.** Clothing can be impregnated with M-1960 emulsions after washing or thoroughly wetting in fixed laundries or mobile laundry units. The procedure for impregnation and any subsequent re-impregnations is as follows:

**STANDARD COTTON UNIFORMS.** Add 1½ gallons of concentrate to 4 gallons of water heated to approximately 100°F, and mix thoroughly. This quantity of emulsion will impregnate 60 pounds dry weight of cotton uniforms (20 fatigue or combat jackets and 20 fatigue or combat trousers). After the last rinse or after clean clothing is thoroughly wet, drain the washer and roll for 2 minutes to remove excess water from the clothing and to insure complete drainage of the reservoir. Add the prepared emulsion and roll for 5 minutes. Drain washer and remove clothing for drying. Extract for 3 minutes and tumble dry for 10 minutes at 200°F.

**WOOL UNIFORM.** Add 3 quarts of concentrate to 4 gallons of water heated to approximately 100°F. to impregnate 60 pounds dry weight of wool uniforms (14 shirts and 14 trousers). Impregnate as described for cotton clothing with the exception that drying should be carried out at not over 140°F.

**TROPICAL COTTON UNIFORM.** The process for treating tropical uniforms is the same as that for standard cotton uniforms except that five gallons of M-1960 concentrate with no water is used for 22 uniforms.

**PRECAUTION:** Untreated shorts should be worn under treated uniforms to prevent any possible skin irritation in the groin. Caps, when treated, should be held by the visor while dipping only the crown to prevent damage to the laminated visor by the emulsion.

**Note:** This material should not be relied upon to protect against mosquitoes on exposed skin.

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