


**SCOURGE® INSECTICIDE WITH SBP-1382/PB
18%+54% FORMULA II**

MSDS Version 2.2

SECTION 1. CHEMICAL PRODUCT AND COMPANY INFORMATION

| | |
|--------------------------------|--|
| Product Name | SCOURGE® INSECTICIDE WITH SBP-1382/PB 18%+54% FORMULA II |
| Chemical Name | Mixture; a.i.'s, resmethrin, piperonyl butoxide |
| Synonym | |
| MSDS Number | 190 |
| Chemical Family | |
| Chemical Formulation | |
| EPA Registration No. | 432-667 |
| Canadian Registrat. No. | |

Bayer Environmental Science
95 Chestnut Ridge Road
Montvale, NJ 07645
USA

For Product Use Information: (800)331-2867 Monday through Friday(CRLF) 8:00AM-4:30PM(CRLF) For Medical Emergency contact DART: (800) 334-7577 24 Hours/Day(CRLF) For Transportation Emergency CHEMTREC: (800) 424-9300 24 Hours/Day

Product Use Description A synthetic pyrethroid for effective adult mosquito, midge and blackfly control. This product has a restricted use classification and can be used only by Certified Applicators or persons under the supervision of such applicators.

SECTION 2. COMPOSITION/INFORMATION ON INGREDIENTS

| <u>Component Name</u> | <u>CAS No.</u> | <u>Concentration % by Weight</u> | |
|--|----------------|----------------------------------|----------------|
| | | <u>Minimum</u> | <u>Maximum</u> |
| Resmethrin | 10453-86-8 | 18.0000 | |
| Piperonyl butoxide | 51-03-6 | 54.0000 | |
| Other ingredients, including: NAPHTHALENE | 91-20-3 | 28.0000 | < 2.7000 |

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SECTION 3. HAZARDS IDENTIFICATION

NOTE: Please refer to Section 11 for detailed toxicological information.

| | |
|--|--|
| Emergency Overview | Caution. Keep out of the reach of children. Hazard to humans and domestic animals. This pesticide is highly toxic to fish. |
| Physical State | liquid |
| Odor | mild paintlike solvent |
| Appearance | amber |
| Immediate Effects | |
| Skin | Harmful if absorbed through skin. |
| Ingestion | Harmful if swallowed. |
| Medical Conditions Aggravated by Exposure | None known |
| Signs and Symptoms | Symptoms might include transient headache, dizziness, stuffy or runny nose and scratchy throat. |

SECTION 4. FIRST AID MEASURES

| | |
|--------------------------|---|
| Eye | Flush with plenty of water. Get medical attention immediately if irritation persists. |
| Skin | Wash with soap and plenty of water. Seek medical attention. |
| Ingestion | Call a doctor or get medical attention. Do not induce vomiting. Never give anything by mouth to an unconscious person. Avoid alcohol. This product contains aromatic petroleum solvent. Aspiration may be a hazard. |
| Inhalation | Remove victim to fresh air. Seek medical attention if breathing difficulties occur. |
| Note to Physician | <p>This product contains a synthetic pyrethroid. This product contains a petroleum solvent. If ingested and vomiting has not occurred, emesis should be induced with supervision. Keep patient's head below hips to prevent aspiration. If symptoms such as loss of gag reflex, convulsions or unconsciousness occur before emesis, gastric lavage using a cuffed endotracheal tube should be considered.</p> <p>Do not administer milk, cream or other substances containing vegetable or animal fats, which enhance the absorption of lipophilic substances. If localized paresthesia develops, the site should be thoroughly washed with soap and water. Cold cream or a moisturizing cream has been successful in diminishing the sensations associated with localized paresthesia.</p> |

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SECTION 5. FIRE FIGHTING MEASURES

| | |
|-------------------------------------|---|
| Flash Point | 74 °C / 165 °F Method: Tagliabue Closed Cup |
| Suitable Extinguishing Media | carbon dioxide (CO2), dry chemical, foam |
| Fire Fighting Instructions | Firefighters should wear NIOSH/MSHA approved self-contained breathing apparatus and full protective clothing. Stay upwind if possible. Isolate hazard area. Avoid inhalation of smoke and fumes. Use water or foam to reduce fumes. Do not touch spilled material. If possible, move containers from area. Extinguish only if flow can be stopped. Use flooding amounts of water as a fog. Cool containers with flooding amounts of water from as far a distance as possible. Avoid breathing vapors. |
| Dust Explosion Class | Not applicable |

SECTION 6. ACCIDENTAL RELEASE MEASURES

| | |
|-----------------------------|---|
| General and Disposal | Use proper protective equipment to minimize personal exposure (see Section 8). Take all necessary action to prevent and to remedy the effects of the spill. Ensure that the disposal is in compliance with Federal or local disposal regulations. See Section 13 for any applicable Reportable Quantity (RQ) and other federal regulatory information. |
| Land Spill or Leaks | <p>Small Spill: Absorb with an inert absorbent material such as granular clay, saw dust or pet litter. Sweep up carefully while avoiding the formation of a dust cloud. Place in an approved chemical waste container for disposal. Rinse spill area with small amount of soapy water. Contain and absorb the rinsate with inert absorbents and place into the same disposal container. Area can be washed with water to remove the last trace residue. Do not allow water to contaminate water supplies or sewers.</p> <p>Large Spill: Eliminate all ignition sources. Stop leak if you can do so without coming into contact with spilled material. Dike far ahead of liquid spill for later disposal. All equipment used to clean up spill should be grounded. Prevent entry into waterways, sewers, basements or confined areas. Inform appropriate authorities immediately if contamination occurs. Contact Bayer for further assistance if necessary.</p> |

SECTION 7. HANDLING AND STORAGE

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|----------------------------|---|
| Handling Procedures | Avoid contact with skin, eyes and clothing. |
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Storing Procedures Do not contaminate water, food, or feed by storage or disposal. Store in original container. Keep in a locked storage area.

Work/Hygienic Procedures Wash with soap and water after handling.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls Control airborne concentrations below the exposure guidelines. Local exhaust ventilation may be necessary.

Eye/Face Protection safety glasses splash goggles face-shield

Body Protection Chemical-resistant gloves (Neoprene, Nitrile, PVC) other protective clothing to avoid skin contact

Respiratory Protection Ensure adequate ventilation. If not adequate, use a chemical cartridge-type respirator approved by the National Institute of Occupational Health and Safety.

General Protection Eye wash facility and safety shower should be available.

Exposure Limits

| | | | | | |
|-------------|---------|-----------|---------|--------|----------|
| NAPHTHALENE | 91-20-3 | ACGIH | TWA | | 10 ppm |
| | | ACGIH | STEL | | 15 ppm |
| | | NIOSH | REL | 10 ppm | 50 mg/m3 |
| | | NIOSH | STEL | 15 ppm | 75 mg/m3 |
| | | OSHA Z1 | PEL | 10 ppm | 50 mg/m3 |
| | | OSHA Z1A | TWA | 10 ppm | 50 mg/m3 |
| | | OSHA Z1A | STEL | 15 ppm | 75 mg/m3 |
| | | US CA OEL | TWA PEL | 10 ppm | 50 mg/m3 |
| | | US CA OEL | STEL | 15 ppm | 75 mg/m3 |

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance amber

Physical State liquid

Odor mild paintlike solvent

pH Not applicable

Vapor Pressure Not available

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| | |
|--------------------------------------|--|
| Vapor Density (air = 1) | Not available |
| Specific Gravity | 1.01g/cm ³ at 21 °C |
| Bulk Density | 8.41 lb/gal at 21 °C |
| Boiling Point | Not available |
| Melting/Freezing Point | Not available |
| Solubility (in water) | Not available |
| Solubility (in Solvent/Oil) | Not available |
| Minimum Ignition Energy (mj) | Not available |
| Minimum Explosion Conc. (MEC) | Not available |
| Viscosity | 35.6 cp 21 °C |
| Other Information | EVAPORATION RATE (BUTYL ACETATE = 1): Not available LIMITED OXYGEN CONCENTRATION (LOC): Not available DUST EXPLOSION CONCENTRATION (MEC): Not available LIMITED OXYGEN CONCENTRATION (LOC): Not available |

SECTION 10. STABILITY AND REACTIVITY

| | |
|--|---|
| Chemical Stability | Stable |
| Conditions to Avoid | extreme heat sources of ignition |
| Incompatibility | strong oxidizing agents strong reducing agents |
| Hazardous Products of Decomposition | Decomposition Type: thermal carbon monoxide carbon dioxide (CO ₂) |

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**Hazardous Polymerization
(Conditions to avoid)** Will not occur

SECTION 11. TOXICOLOGICAL INFORMATION

| | |
|----------------------------------|--|
| Acute Oral Toxicity | Scourge Insecticide with SBP-1382/Piperonyl Butoxide 18% + 54% MF Formula II (EPA Reg. No. 432-667), which contains 18% Resmethrin and 54% Piperonyl Butoxide. Rat: LD50: 2,700 mg/kg Slightly toxic. |
| Acute Dermal Toxicity | Scourge Insecticide with SBP-1382/Piperonyl Butoxide 18% + 54% MF Formula II (EPA Reg. No. 432-667), which contains 18% Resmethrin and 54% Piperonyl Butoxide. Rabbit: LD50: > 2,000 mg/kg Slightly toxic. |
| Acute Inhalation Toxicity | Scourge Insecticide with SBP-1382/Piperonyl Butoxide 18% + 54% MF Formula II (EPA Reg. No. 432-667), which contains 18% Resmethrin and 54% Piperonyl Butoxide. Rat: LC50: > 2.64 mg/l 4 h Practically non-toxic. |
| Skin Irritation | Scourge Insecticide with SBP-1382/Piperonyl Butoxide 18% + 54% MF Formula II (EPA Reg. No. 432-667), which contains 18% Resmethrin and 54% Piperonyl Butoxide. Rabbit: Slightly irritating |
| Eye Irritation | Scourge Insecticide with SBP-1382/Piperonyl Butoxide 18% + 54% MF Formula II (EPA Reg. No. 432-667), which contains 18% Resmethrin and 54% Piperonyl Butoxide. Rabbit: Non-irritating. |
| Sensitization | Scourge Insecticide with SBP-1382/Piperonyl Butoxide 18% + 54% MF Formula II (EPA Reg. No. 432-667), which contains 18% Resmethrin and 54% Piperonyl Butoxide. Guinea pig: Non-sensitizing |

NOTE: The severity classifications listed above are those of Bayer Environmental Science, and, particularly for eye irritation, may not always coincide with EPA-mandated Precautionary Statements.

THE FOLLOWING DATA WERE DEVELOPED WITH: resmethrin and piperonyl butoxide, the active ingredients

Sub-Chronic Toxicity The NOEL established for resmethrin in a 90-day inhalation study with rats was 0.1 g/m³ or 0.1 mg/L. The NOEL for resmethrin was 10 mg/kg/day in the diet when fed to dogs for 180 days. Rats tolerated diets containing 5000 ppm of

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piperonyl butoxide without adverse effects for 17 weeks.

Chronic Toxicity

Resmethrin was not considered to be oncogenic based on chronic feeding studies conducted in rats and mice.

A statistically significant increase in the number of benign liver tumors appeared in mice fed piperonyl butoxide technical at doses which far exceed any anticipated daily human intake. Independent and industry toxicological experts who have reviewed the data agree that the findings of the study do not indicate a health risk to human beings.

Assessment Carcinogenicity

ACGIH

NAPHTHALENE

91-20-3

Group A4

NTP

NAPHTHALENE

91-20-3

IARC

Piperonyl butoxide

51-03-6

3

OSHA

None

Reproductive & Developmental Toxicity

No effects on reproductive parameters were observed when diets containing up to 500 ppm resmethrin were fed to rats over two successive generations. Resmethrin is not considered to be teratogenic based on studies conducted in rabbits and rats.

Reproductive performance and offspring development in rats were unaffected when piperonyl butoxide was fed at dietary concentrations of up to 1000 ppm over two successive generations. Piperonyl Butoxide was not considered to be fetotoxic or teratogenic based on a study in rabbits.

Neurotoxicity

Resmethrin is not considered to be a neurotoxin based on rat feeding studies conducted for up to 32 weeks.

Mutagenicity

Resmethrin is not considered to be mutagenic based on in vitro studies conducted with bacteria and yeast.

SECTION 12. ECOLOGICAL INFORMATION

Acute and Prolonged Toxicity to Fish

Scourge
Rainbow trout
LC50: 2.40 ppb
Exposure Time: 96 h

Scourge
Bluegill sunfish
LC50: 13.00 ppb
Exposure Time: 96 h

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Scourge
Sheepshead minnow
LC50: 8.80 ppb
Exposure Time: 96 h

Acute Toxicity to Aquatic Invertebrates

Scourge
Daphnia
LC50: 0.10 ppm
Exposure Limit: 48 h

Scourge
Penaeus Shrimp
LC50: 1.25 ppb
Exposure Limit: 96 h

Scourge
American Oyster
LC50: 1.79 ppb
Exposure Limit: 96 h

Toxicity Other Non Mammal Terr. Species

Resmethrin
Japanese quail
LC50: > 5,000 ppm

Resmethrin
Mallard duck
LC50: > 5,000 ppm

Resmethrin
California Quail
LD50: > 2,000 mg/kg

Dietary administration of Resmethrin at 300 ppm for 23 weeks produced no adverse effects on reproduction in Bobwhite Quail and in Mallard Duck.

Environmental Precautions

This pesticide is highly toxic to fish. For terrestrial uses, do not apply directly to water, or to areas where surface water is present, or to intertidal areas below mean high water mark. Drift and runoff from treated sites may be hazardous to fish in adjacent waters. Consult your State's Fish and Wildlife Agency before treating such waters. Do not contaminate water by cleaning of equipment or disposal of equipment wastewaters.

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SECTION 13. DISPOSAL CONSIDERATIONS

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|----------------------------------|---|
| General Disposal Guidance | Do not contaminate water, food, or feed by disposal. Pesticide Disposal: Wastes resulting from use of this product may be disposed of on site or at an approved waste disposal facility. |
| Container Disposal | Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and Local authorities. |
| RCRA Classification | Not Regulated under this Statute |

SECTION 14. TRANSPORT INFORMATION

PROPER SHIPPING NAME: Not DOT Regulated

NOTE: For transport purposes (49 CFR Part 173.132), thecalculated 1-Hour LC50 (Rat) is: 10.56 mg/l.

SECTION 15. REGULATORY INFORMATION

US Federal

| | | |
|--|------------|------|
| EPA Registration No. | 432-667 | |
| TSCA list | | |
| Piperonyl butoxide | 51-03-6 | |
| NAPHTHALENE | 91-20-3 | |
| TSCA 12b export notification | | |
| None | | |
| SARA Title III - section 302 - notification and information | | |
| None | | |
| SARA Title III - section 313 - toxic chemical release reporting | | |
| Resmethrin | 10453-86-8 | 1.0% |
| Piperonyl butoxide | 51-03-6 | 1.0% |
| NAPHTHALENE | 91-20-3 | 1.0% |

US States Regulatory

CA Prop65

This product does not contain any substances known to the State of California to cause cancer.

US State right-to-know ingredients

| | | |
|--------------------|------------|----------------------------|
| Resmethrin | 10453-86-8 | NJ |
| Piperonyl butoxide | 51-03-6 | NJ |
| NAPHTHALENE | 91-20-3 | CA, CT, IL, MN, NJ, PA, RI |

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Canadian Regulations

Canadian Registrat. No.

Canadian Domestic Substance List

| | |
|--------------------|------------|
| Resmethrin | 10453-86-8 |
| Piperonyl butoxide | 51-03-6 |
| NAPHTHALENE | 91-20-3 |

Environmental

CERCLA

| | | |
|-------------|---------|---------|
| NAPHTHALENE | 91-20-3 | 100 lbs |
|-------------|---------|---------|

Clean Water Section 307 Priority Pollutants

| | |
|-------------|---------|
| NAPHTHALENE | 91-20-3 |
|-------------|---------|

Safe Drinking Water Act Maximum Contaminant Levels

| | |
|-------------|---------|
| NAPHTHALENE | 91-20-3 |
|-------------|---------|

International Regulations

EU Classification

| | | |
|-------------|---------|---------------------------------------|
| NAPHTHALENE | 91-20-3 | Harmful Dangerous for the environment |
|-------------|---------|---------------------------------------|

R Phrases Harmful if swallowed. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S Phrases Keep out of the reach of children. Wear suitable protective clothing and gloves. This material and its container must be disposed of as hazardous waste. Avoid release to the environment. Refer to special instructions/safety data sheets.

European Inventory of Existing Commercial Substances (EINECS)

| | |
|--------------------|------------|
| Resmethrin | 10453-86-8 |
| Piperonyl butoxide | 51-03-6 |
| NAPHTHALENE | 91-20-3 |

SECTION 16. OTHER INFORMATION

| | Health | Flammability | Reactivity | Others |
|------|--------|--------------|------------|--------|
| HMIS | 1 | 2 | 1 | G |
| NFPA | 1 | 2 | 1 | |

REVISED SECTIONS: Company name change

Print Date: 12/09/2002

Supersedes MSDS, which is older than: 12/09/2002

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FORMULA II**

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