



Material Safety Data Sheet

SCOURGE® INSECTICIDE with RESMETHRIN/PIPERONYL BUTOXIDE 4%+12% MF FORMULA II

MSDS Version: 4.0

SECTION 1. CHEMICAL PRODUCT AND COMPANY INFORMATION

Product Name	SCOURGE® INSECTICIDE with RESMETHRIN/PIPERONYL BUTOXIDE 4%+12% MF FORMULA II
Chemical Name	
Common Name	
MSDS Number	191
Chemical Family	
Chemical Formulation	
EPA Registration No.	432-716
Product Use	A ready to use synthetic pyrethroid for effective adult mosquito (including organophosphate resistant species), midge (biting and non-biting) and black fly control. This product has a restricted use classification and can be used only by Certified Applicators or persons under the supervision of such applicators.

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

For MEDICAL, TRANSPORTATION or Other EMERGENCY call 1-800-334-7577 24 hours/day
For Product Information call 1-800-331-2867

SECTION 2. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Hazardous Component Name</u>	<u>CAS No.</u>	<u>Concentration % by Weight</u>	
		<u>Minimum</u>	<u>Maximum</u>
Resmethrin Technical	10453-86-8	3.9300	4.3500
Piperonyl Butoxide, Technical	51-03-6	10.3800	13.0400
Petroleum distillate	64742-55-8		

SECTION 3. HAZARDS IDENTIFICATION

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

Emergency Overview Caution! Harmful if swallowed or absorbed through skin. Avoid contact with skin, eyes and clothing. Highly toxic to fish.

Physical State Liquid

Odor Mild Solvent

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Appearance	Gold to Amber
Immediate Effects	
Eye	Avoid contact with the eyes.
Skin	Harmful if absorbed through skin. Do not get in eyes, on skin, or on clothing.
Ingestion	Harmful if swallowed. Do not take internally.

SECTION 4. FIRST AID MEASURES

General	Have the product container or label with you when calling a poison control center or doctor or going for treatment.
Eye	Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for further treatment advice.
Skin	Take off all contaminated clothing immediately. Rinse immediately with plenty of water for at least 15 minutes. Call a poison control center or doctor for treatment advice.
Ingestion	Call a physician or Poison Control Center immediately. DO NOT induce vomiting unless directed to do so by a physician or poison control center. Do not give liquids to drink. Do not give anything by mouth to an unconscious or convulsing person.
Inhalation	Move to fresh air. Call a poison control center or doctor for further treatment advice.
Notes to Physician	
Signs and Symptoms	Symptoms might include transient headache, dizziness, stuffy or runny nose and scratchy throat.
Hazards	This product contains a synthetic pyrethroid. Do not induce vomiting: contains petroleum distillates and/or aromatic solvents. Aspiration may be a hazard.
Treatment	To prevent aspiration of swallowed product, lay victim on side with head lower than waist. If symptoms such as loss of gag reflex, convulsions or unconsciousness occur before emesis, gastric lavage using a cuffed endotracheal tube should be considered. If ingested and vomiting has not occurred, emesis should be induced with supervision. Do not administer milk, cream or other substances containing vegetable or animal fats, which enhance the absorption of lipophilic substances. Cold cream or a moisturizing cream has been successful in diminishing the sensations associated with localized paresthesia. If localized paresthesia develops, the site should be thoroughly washed with soap and water.

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SECTION 5. FIRE FIGHTING MEASURES

Flash Point	> 93 °C / > 199 °F Method: Tagliabue Closed Cup
Suitable Extinguishing Media	Carbon dioxide (CO2), Dry chemical, Foam, Water
Fire Fighting Instructions	<p>Isolate hazard area. Cool containers with water from the farthest possible distance away. In the event of fire and/or explosion do not breathe fumes. Hose down gases, fumes and/or dust with water. Move containers from fire area if without risk. Use flooding amounts of water as a fog.</p> <p>As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH approved (or equivalent) and full protective gear.</p>

SECTION 6. ACCIDENTAL RELEASE MEASURES

General and Disposal	<p>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. Any disposal practice must be in compliance with all Federal, State/provincial, and local laws and regulations.</p> <p>Keep unnecessary people away, isolate hazard area and deny entry. Avoid contact with spilled product or contaminated surfaces.</p>
Land Spill or Leaks	<p>Do not flush into surface water or sanitary sewer system. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Place in an approved chemical waste container for disposal. Rinse spill area with small amount of soapy water. Rinse away with water.</p> <p>Remove all sources of ignition. To avoid ignition of vapours by static electricity discharge, all metal parts of the equipment must be grounded. Stop leak if you can do so without coming into contact with spilled material. Dike far ahead of liquid spill for later disposal. 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

Handling Procedures	Avoid contact with skin, eyes and clothing.
Storing Procedures	Do not contaminate water, food, or feed by storage or disposal. Store in original container and out of the reach of children, preferably in a locked storage area.
Work/Hygienic Procedures	Wash thoroughly with soap and water after handling.

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SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls	Ensure adequate ventilation, especially in confined areas.
Eye/Face Protection	Splash goggles
Hand Protection	Suitable chemical resistant gloves
Body Protection	Wear long-sleeved shirt and long pants and shoes plus socks.
Respiratory Protection	When respiratory protection is necessary under the conditions of use, wear a respirator approved for pesticides by the National Institute for Occupational Safety and Health (NIOSH).
General Protection	Eye wash facility and safety shower should be available.
Exposure Limits	None Established

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Gold to Amber
Physical State	Liquid
Odor	Mild Solvent
Specific Gravity	0.87 at 22 °C
Bulk Density	7.23 lb/gal at 22 °C
Water Solubility	Insoluble
Viscosity	34.3 mPa.s 21 °C

SECTION 10. STABILITY AND REACTIVITY

Chemical Stability	Stable
Conditions to Avoid	Exposure to extreme heat. Sources of ignition
Incompatibility	Strong reducing agents Strong oxidizing agents
Hazardous Decomposition Products	Thermal decomposition Carbon monoxide Carbon dioxide (CO ₂)
Hazardous	Will not occur.

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Polymerization
(Conditions to Avoid)

SECTION 11. TOXICOLOGICAL INFORMATION

The ACUTE TOXICITY Data were developed with a similar material SCOURGE Insecticide with SBP-1382/Piperonyl Butoxide 19% + 54% MF Formula II (EPA Reg. No. 432-667), which contains 18% Resmethrin and 54% Piperonyl Butoxide. Other data was developed with Resmethrin and Piperonyl Butoxide, the active ingredients.

Acute Oral Toxicity Rat: 2,700 mg/kg

Acute Dermal Toxicity Rabbit: > 2,000 mg/kg

Acute Inhalation Toxicity Rat: > 2.64 mg/l 4 h

Skin Irritation Rabbit: slight irritation

Eye Irritation Rabbit: non-irritant

Sensitization Guinea pig: non-sensitizing

Subchronic 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 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

None

NTP

None

IARC

Piperonyl Butoxide, Technical

51-03-6

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

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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	Rainbow trout LC50: 0.00240 mg/l Exposure Time: 96 h
	Bluegill sunfish LC50: 0.013 mg/l Exposure Time: 96 h
	Cyprinodon variegatus (sheepshead minnow) LC50: 0.0088 mg/l Exposure Time: 96 h
Acute Toxicity to Aquatic Invertebrates	Daphnia LC50: 0.1 mg/l Exposure Limit: 48 h
	Penaeus Shrimp LC50: 0.00125 mg/l Exposure Limit: 96 h
	American Oyster LC50: 0.00179 mg/l Exposure Limit: 96 h
Toxicity to other organisms	Acute Oral The value mentioned relates to the active ingredient resmethrin. California Quail LD50: > 2,000 mg/kg
	The value mentioned relates to the active ingredient resmethrin. Japanese quail LC50: > 5,000 ppm
	The value mentioned relates to the active ingredient resmethrin. Mallard duck LC50: > 5,000 ppm

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Environmental Precautions 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 areas may be hazardous to fish/aquatic organisms in adjacent sites. Consult your State's Fish and Wildlife Agency before treating water areas. Do not contaminate surface or ground water by cleaning equipment or disposal of wastes, including equipment wash water.

Ecological Information For ecotoxicological data call the product information phone number listed in Section 1.

SECTION 13. DISPOSAL CONSIDERATIONS

General Disposal Guidance Pesticide Disposal: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

Container Disposal Triple rinse containers. Then offer for recycling or reconditioning or puncture and dispose of in a sanitary landfill or incineration, or if allowed by State and Local authorities, by burning. If burned, stay out of smoke.

RCRA Classification Not Regulated under this Statute

SECTION 14. TRANSPORT INFORMATION

DOT CLASSIFICATION:
Not regulated for Domestic Surface Transportation

FREIGHT CLASSIFICATION:
Insecticides or Fungicides, N.O.I., other than poison

SECTION 15. REGULATORY INFORMATION

EPA Registration No. 432-716

US Federal Regulations

TSCA list

Piperonyl Butoxide, Technical 51-03-6
Petroleum distillate 64742-55-8

US. Toxic Substances Control Act (TSCA) Section 12(b) Export Notification (40 CFR 707, Subpt D)

None

SARA Title III - section 302 - notification and information

None

SARA Title III - section 313 - toxic chemical release reporting

Resmethrin Technical 10453-86-8 1.0%
Piperonyl Butoxide, Technical 51-03-6 1.0%

US States Regulatory Reporting

CA Prop65

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

This product contains a chemical known to the state of California to cause birth defects Resmethrin Technical 10453-86-8 Developmental toxin.

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or other reproductive harm.

US State right-to-know ingredients

Resmethrin Technical	10453-86-8	NJ
Piperonyl Butoxide, Technical	51-03-6	NJ

Canadian Regulations

Canadian Domestic Substance List

Resmethrin Technical	10453-86-8
Piperonyl Butoxide, Technical	51-03-6
Petroleum distillate	64742-55-8

Environmental

CERCLA

None

Clean Water Section 307 Priority Pollutants

None

Safe Drinking Water Act Maximum Contaminant Levels

None

International Regulations

EU Classification

Petroleum distillate	64742-55-8	Toxic
R-phrase(s)	May cause cancer.	
S-phrase(s)	Avoid exposure - obtain special instructions before use. In case of accident or if you feel unwell, seek medical advice immediately (show label where possible).	

European Inventory of Existing Commercial Substances (EINECS)

Resmethrin Technical	10453-86-8
Piperonyl Butoxide, Technical	51-03-6
Petroleum distillate	64742-55-8

SECTION 16. OTHER INFORMATION

NFPA	Health 1	Flammability 1	Reactivity 1	Others None
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MSDS REVISION INDICATOR: Label Name change; update first aid statements; correct composition ingredients.

Approval Date: 08/06/2004

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