



Material Safety Data Sheet

DOKTOR DOOM Total Release Foggers Item #: 3 oz - 44909, 5.5 oz - 44606, 12.5 oz - 44707

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Doktor Doom Total Release Foggers
EPA REGISTRATION #: 72804-1 **EPA EST #:** 11623-GA-1
CHEMICAL DESCRIPTION: Mixture; a.i.'s: Pyrethrum, Piperonyl Butoxide
SYNONYM(S): None
PRODUCT DESCRIPTION: For formulation into insecticides only.

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

- WARNING**
- Harmful if swallowed
 - Causes substantial but temporary eye irritation
 - Toxic to aquatic organisms, including fish and invertebrates
 - Keep out of reach of children.

POTENTIAL HEALTH EFFECTS

Acute Toxicity (Primary Routes of Exposure): Ingestion, eye and skin contact.

Signs and Symptoms of Systemic Effects: May cause gastrointestinal effects such as nausea, vomiting and diarrhea. Ingestion of large quantities can result in nervous system effects such as dizziness, loss of coordination, tremors and loss of consciousness. Symptoms usually regress with no long lasting effects.

Acute Eye Contact: Causes substantial but temporary eye injury.

Acute Skin Contact: This product is slightly toxic when absorbed through the skin. May cause slight irritation to skin.

Acute Ingestion: This product may be harmful if swallowed.

Acute Inhalation: This product is minimally toxic when inhaled.

Potentially Aggravated Medical Conditions: None known

For complete discussion of the toxicology data from which this evaluation was made, refer to Section 11. For Ecotox/Environmental Information, refer to Section 12. For Regulatory Information, refer to Section 15.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS Number	Weight/ Percent	Purpose
Pyrethrin	8003-34-7	3	Active Ingredient
Piperonyl butoxide (5-[[2-(2-butoxyethoxy)ethoxy]methyl]-6-propyl-1,3-benzodioxole)	51-03-6	30	Active Ingredient
Synthetic Isoparaffinic Hydrocarbon	64742-47-8	9	Solvent
Others	No CAS#	55	Other Ingredients

Other ingredients, which are maintained as trade secrets, are any substances other than an active ingredient contained in this product. Some of these may be hazardous, but their identity is withheld because they are considered trade secrets. The hazards associated with the other ingredients are addressed in this document. Specific information on other ingredients for the management of exposures, spills, or safety assessments can be obtained by a treating physician or nurse by calling **fl** , , **L+(\$!, +%&** (within the United States) or **ft) &L,) &L-) \$-** (outside the United States) at any time.

4. FIRST AID MEASURES

EYE CONTACT:

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 treatment advice.

SKIN CONTACT:

Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

INGESTION:

Immediately call a poison control center or doctor. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give any liquid to the person. Do not give anything by mouth to an unconscious person.

INHALATION:

Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

NOTES TO PHYSICIAN:

Contains petroleum distillates - vomiting may cause aspiration pneumonia. If ingested, probable mucosal damage may contraindicate the use of gastric lavage.

5. FIRE FIGHTING MEASURES

FLASH POINT: 146° F (63° C)
FLASH POINT METHOD: SetaFlash Closed Cup
EXTINGUISHING MEDIA: Carbon dioxide, dry chemical, foam, or water.
OSHA FLAMMABILITY CLASS: Class IIIA Combustible Liquid

NFPA RATING:

Health: 1
 Flammability: 2

Reactivity: 0
Special: None

(Least-0, Slight-1, Moderate-2, High-3, Extreme-4). These values are obtained using professional judgement. Values were not available in the guidelines or published evaluations prepared by the National Fire Protection Association, NFPA.

FIRE FIGHTING INSTRUCTIONS: As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH approved (or equivalent) and full protective gear. Keep upwind. 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 of water 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.

HAZARDOUS DECOMPOSITION PRODUCTS: May form toxic materials such as: Carbon dioxide, Carbon monoxide, various hydrocarbons, etc.

6. ACCIDENTAL RELEASE MEASURES

.....**ULTRASOL 9 EMERGENCY PHONE NUMBER:**
WITHIN THE UNITED STATES: 1-800-452-0023
OUTSIDE OF THE UNITED STATES: 1-800-452-0023

UN/NA NUMBER: UN3082

EMERGENCY RESPONSE GUIDEBOOK NO.: 128

If it is safe to do so:

- Evacuate non-essential personnel from the area to prevent human exposure.
- Remove all sources of ignition.
- Ventilate area, especially low areas where vapors may accumulate.
- Stop the source of the spill. Contain the spill to prevent further contamination of the soil, surface water, or ground water.
- May produce slippery conditions.

GENERAL AND DISPOSAL: Use proper protective equipment to minimize personal exposure (see Section 8). Take all necessary action to prevent and to remedy the adverse effect of the spill. For additional spill response information refer to the **North American Emergency Response Guidebook**, if applicable. Ensure that the disposal is in compliance with all Federal, State, and local regulations. Refer to Section 14 for applicable Reportable Quantity (RQ) and other regulatory requirements.

FOR SPILLS AND LEAKS

CONTAINMENT: If can is punctured or leaking, soak up liquid with an absorbent material such as sand, sawdust earth, fuller's earth, etc. Place in an approved chemical waste container for disposal. Do not allow spill material to enter any body of water.

CLEANUP: Clean up spill immediately. Absorb spill with inert material (such as dry sand or earth), then place in a chemical waste container. Wash area with soap and water. Pick up wash liquid with additional absorbent and place in a chemical waste container.

7. HANDLING AND STORAGE

END USER MUST READ AND OBSERVE ALL PRECAUTIONS ON PRODUCT LABEL.

HANDLING PRECAUTIONS: Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove contaminated clothing and wash clothing before reuse. Do not use near heat or open flame. Avoid contamination of feed and foodstuff.

STORAGE: Keep pesticide in original container only. Store in a cool, dry place, away from heat, flame and incompatible materials. Do not contaminate water, food or feed by storage or disposal.

WORK/HYGIENIC PRACTICES: Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum or using tobacco.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

END USER MUST READ AND OBSERVE ALL PRECAUTIONS ON PRODUCT LABEL.

INFORMATION FOR MANUFACTURER(S) / FORMULATOR(S)

EYES & FACE: Do not get this material in your eyes. Eye contact can be avoided by wearing safety goggles or a face shield. Eyewash facilities should be available.

RESPIRATORY PROTECTION: Use this material only in well ventilated areas. If ventilation is not adequate to keep airborne concentrations below recommended exposure standards, approved respiratory protection should be worn.

SKIN & HAND PROTECTION: Avoid contact with skin or clothing. Skin contact can be minimized by wearing protective clothing including gloves. Immediately take off all contaminated clothing and wash before reuse.

ENGINEERING CONTROLS:

Formulators, mixers, loaders, applicators and other handlers should refer to the product label before use for detailed information on personal protective equipment (PPE).

EXPOSURE LIMITS

Chemical Name	ACGIH Exposure Limits	OSHA Exposure Limits	Manufacturer's Exposure Limits
Pyrethrin	5 mg/m ³ TWA	5 mg/m ³ TWA	None
Piperonyl butoxide (5-[[2-(2-butoxyethoxy)ethoxy]methyl]-6-propyl-1,3-benzodioxole)	None	None	None
Synthetic Isoparaffinic Hydrocarbon	None	None	1200 mg/m ³ TWA
Others	None	None	None

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL FORM:	Liquid
COLOR:	Yellow
ODOR:	Hydrocarbon
FLASH POINT:	146° F (63° C)
FLASH POINT METHOD:	SetaFlash Closed Cup
DENSITY:	1.007 g/mL; (8.4 lb/gal)
pH:	4.6 @ 26° C; (1% solution in water)
VISCOSITY:	168 cps @ 20° C, 68.4 cps @ 40° C

CORROSION CHARACTERISTICS: Not corrosive to containers for 1 year at ambient temperature.
SOLUBILITY: Not intended for use with non-polar solvents.

10. STABILITY AND REACTIVITY

CHEMICAL STABILITY: Stable
INCOMPATIBILITY: None known
OXIDATION/REDUCTION PROPERTIES: Product does not have the potential to act as a strong oxidizing or reducing agent.
EXPLODABILITY: Product contains no explosive ingredients.
HAZARDOUS POLYMERIZATION : Will not occur.
HAZARDOUS DECOMPOSITION PRODUCTS: May form toxic materials such as: Carbon dioxide, Carbon monoxide, various hydrocarbons, etc.
CONDITIONS TO AVOID: Heat or open flame

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY:

The following information is for the formulated product.

Oral Toxicity LD ₅₀ (rats)	> 5,050 mg/kg (males) 3,517 mg/kg (females)	EPA Tox Category	III
Dermal Toxicity LD ₅₀ (rabbits)	> 5,050 mg/kg	EPA Tox Category	IV
Inhalation Toxicity LC ₅₀ (rats)	> 2.02 mg/L	EPA Tox Category	IV
Eye Irritation (rabbits)	Substantial; no effects by Day 10.	EPA Tox Category	II
Skin Irritation (rabbits)	Mildly irritating	EPA Tox Category	IV
Skin Sensitization (guinea pigs)	Not a sensitizer	EPA Tox Category	Not available

Chemical Name	IARC - Group 1 (carcinogenic to humans)	IARC - Group 2A (Probably carcinogenic)	IARC - Group 2B (Possibly carcinogenic)	NTP Carcinogen List
Pyrethrin	No	No	No	Not listed
Piperonyl butoxide (5-[[[2-(2-butoxyethoxy)ethoxy]methyl]-6-propyl-1,3-benzodioxole])	No	No	No	Not listed
Synthetic Isoparaffinic Hydrocarbon	No	No	No	Not listed
Others	No	No	No	Not listed

CHRONIC/CARCINOGENICITY: In a recent study, marginally higher incidences of benign thyroid, parathyroid, ovary, and liver tumors were observed in rats and in lungs of mice following lifetime high dose exposure to pyrethrum.

The significance of these observations is questionable and under review. The doses of pyrethrum at which tumors were observed for both greatly exceeded potential human exposure from labeled uses. 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.

MUTAGENICITY:

Pyrethrum was not found to be genotoxic and did not damage DNA in any study conducted (Ames mutagenicity assay, chromosome aberration in Chinese hamster ovary (CHO) cells, CHO/HGPRT assay with S9 activation, and in the unscheduled DNA synthesis (UDS) assay in cultured human liver cells).

Piperonyl butoxide was not genotoxic in several tests including the Ames mutagenicity assay, chromosome aberration in Chinese hamster ovary (CHO) cells, CHO/HGPRT assay with S9 activation, and in the unscheduled DNA synthesis (UDS) assay in cultured human liver cells.

DEVELOPMENTAL TOXICITY: There were no birth defects or adverse effects on reproductive parameters in tests with rats or rabbits for either pyrethrum or piperonyl butoxide. They are not considered to be teratogenic.

For a summary of the potential for adverse health effects from exposure to this product, refer to Section 2. For information regarding regulations pertaining to this product, refer to Section 15.

12. ECOLOGICAL INFORMATION

AQUATIC ORGANISM TOXICITY: This material is highly toxic to aquatic organisms including fish and invertebrates.

OTHER ENVIRONMENTAL INFORMATION:

Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollution Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product into sewer systems without previously notifying the local sewage treatment plant authority. For guidance, contact your State Water Board or Regional Office of the Environmental Protection Agency (EPA.) Do not contaminate water by cleaning of equipment or disposal of wastes.

13. DISPOSAL CONSIDERATIONS

END USERS MUST DISPOSE OF ANY UNUSED PRODUCT AS PER THE LABEL RECOMMENDATIONS.

PRODUCT DISPOSAL:

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

CONTAINER DISPOSAL:

Non-refillable container. Do not reuse or refill this container. Offer for recycling if available or reconditioning if appropriate, or puncture and dispose of in a sanitary landfill or by other procedures approved by state and local authorities.

DISPOSAL METHODS:

Check government regulations and local authorities for approved disposal of this material. Dispose in accordance with applicable laws and regulations.

14. TRANSPORT INFORMATION

DOT (DEPARTMENT OF TRANSPORTATION)

PROPER SHIPPING NAME: UN3082, Environmentally Hazardous Substance, Liquid, N.O.S., RQ (Pyrethrins)
PRIMARY HAZARD CLASS/DIVISION: 9, PACKING GROUP: III
REPORTABLE QUANTITY (RQ) UNDER CERCLA: 1 Lb. (Pyrethrins)

OTHER SHIPPING INFORMATION: This material is not regulated as hazardous by the DOT when Pyrethrin content is < 1 pound or less per shipping container (i.e., 33.3 Lbs. per shipping container, or less).

Shipping name for quantities less than < 33.3 Lbs. : Insecticides, Insect or Animal Repellents, Liquid, N.O.S.

AIR (ICAO/IATA)

SHIPPING NAME: UN3082, Environmentally Hazardous Substance, Liquid, N.O.S., RQ (Pyrethrins)
 PRIMARY HAZARD CLASS/DIVISION: 9
 PACKING GROUP: III

VESSEL (IMO/IMDG)

SHIPPING NAME: UN3082, Environmentally Hazardous Substance, Liquid, N.O.S., RQ (Pyrethrins)
 PRIMARY HAZARD CLASS/DIVISION: 9
 PACKING GROUP: III

15. REGULATORY INFORMATION

PESTICIDE REGULATIONS: All pesticides are governed under FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act). Therefore, the regulations presented below are pertinent only when handled outside of the normal use and applications of pesticides. This includes waste streams resulting from manufacturing/formulation facilities, spills or misuse of products, and storage of large quantities of products containing hazardous or extremely hazardous substances.

U.S. FEDERAL REGULATIONS:

Ingredients in this product are reviewed against an inclusive list of federal regulations. Therefore, the user should consult appropriate authorities. The federal regulations reviewed include: Clean Water Act, SARA, CERCLA, RCRA, DOT, TSCA and OSHA. If no components or information is listed in the space below this paragraph, then none of the regulations reviewed are applicable.

Pyrethrin

CERCLA Reportable Quantity (RQ):	0.454 kg
	1 lb

Piperonyl butoxide (5-[[2-(2-butoxyethoxy)ethoxy]methyl]-6-propyl-1,3-benzodioxole)

TSCA Inventory List -	Listed
SARA 313 Chemicals	1.0% de minimis concentration

Synthetic Isoparaffinic Hydrocarbon

TSCA Inventory List -	Listed
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SARA (311, 312):

Immediate Health:	Yes
Chronic Health:	No
Fire:	Yes
Sudden Pressure:	No
Reactivity:	No

STATE REGULATIONS:

Each state may promulgate standards more stringent than the federal government. This section cannot encompass an inclusive list of all state regulations. Therefore, the user should consult state or local authorities. The state regulations reviewed include: California Proposition 65, California Directors List of Hazardous Substances, Massachusetts Right to Know, Michigan Critical Materials List, New Jersey Right to Know, Pennsylvania Right to Know, Rhode Island Right to Know and the Minnesota Hazardous Substance list. For Washington State Right to Know, see Section 8 for Exposure Limit information. For Louisiana Right to Know refer to SARA information listed under U.S. Regulations above. If no components or information is listed in the space below this paragraph, then none of the regulations reviewed are applicable.

Pyrethrin

California - Directors List of Hazardous Substances	Present
MA Right To Know	Listed
NJ Right To Know	Listed
PA Right To Know	Listed
RI Right To Know	Listed
MN Hazardous Substance	Listed

Piperonyl butoxide (5-[[2-(2-butoxyethoxy)ethoxy]methyl]-6-propyl-1,3-benzodioxole)

NJ Right To Know	Listed
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For information regarding potential adverse health effects from exposure to this product, refer to Sections 2 and 11.

16. OTHER INFORMATION

REASON FOR ISSUE:	Name change from Pyrenone to PYROCIDE®.
EPA REGISTRATION #:	72804-1
EPA EST #:	11623-GA-1
DFC81 7H7C89:	3 oz - 44909, 5.5 oz - 44606, 12.5 oz - 44707
REVISION NUMBER:	2
REVISION DATE:	08/28/2015
SUPERCEDES DATE:	03/02/2015

This Material Safety Data Sheet (MSDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE EPA-APPROVED PRODUCT LABELING (attached to and accompanying the product container). This MSDS provides important health, safety, and environmental information for employers, employees, emergency responders and others handling large quantities of the product in activities generally other than product use, while the labeling provides information specifically for product use in the ordinary course.

Use, storage and disposal of pesticide products is regulated by the EPA under the authority of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) through the product labeling. All necessary and appropriate precautionary, use, storage, and disposal information is set forth on that labeling. It is a violation of federal law to use a pesticide product in any manner not prescribed on the EPA-approved label.

The information in this MSDS is based on data available to us as of the revision date given herein, and believed to be correct. Contact Valent Biosciences to confirm if you have the most current MSDS.

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