

Product Name: AQUA-RESLIN®
Product Code: 15253
MSDS Number : C2111
Version Date: July 11 2000

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Material Safety Data Sheet

Print date -- July 27th, 2000 11:01 a.m. (E) PS PSA PSFHV -- 1.1 (1/9)

----- 1. CHEMICAL PRODUCT and COMPANY IDENTIFICATION -----

Product Name: AQUA-RESLIN®
Product Code: 15253
MSDS Number : C2111
Chemical Name: Mixture; a.i., permethrin, piperonyl butoxide
EPA Registry Number: 432-796

AVENTIS ENVIRONMENTAL SCIENCE USA LP
95 CHESTNUT RIDGE ROAD
MONTVALE, NJ 07645
UNITED STATES

Reslin is a registered trademark of Aventis.

PRODUCT USE:

PRODUCT DESCRIPTION: A synthetic pyrethroid for effective adult mosquito, midge and blackfly control.

----- 2. COMPOSITION / INFORMATION on INGREDIENTS -----


Component	Cas number	%
Permethrin	52645-53-1	20%
Piperonyl butoxide, technical	51-03-6	20%
Other ingredients, including:		60%
Odorless mineral spirits	8052-41-3	10%

----- 3. HAZARDS IDENTIFICATION -----

EMERGENCY OVERVIEW:

A cream to tan liquid with a very mild paint or brake fluid odor.

- Harmful if swallowed.
- This pesticide is extremely toxic to fish and aquatic invertebrates.
- This pesticide is highly toxic to bees exposed to direct treatment on blooming crops or weeds.

 For Product Use Information: (800)331-2867 24 Hours/Day
Medic./Trans. Emergency:
(DART) (800)334-7577 24 Hours/Day
(CHEMTREC) (800)424-9300 24 Hours/Day

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----- **3. HAZARDS IDENTIFICATION (Continued)** -----

POTENTIAL HEALTH EFFECTS

ROUTES OF EXPOSURE:

Inhalation and ingestion.

IMMEDIATE EFFECTS

SKIN:

May cause slight irritation.

EYES:

May cause slight irritation.

INGESTION:

Harmful if swallowed.

DELAYED/LONG TERM EFFECTS

CARCINOGENIC:

See Section 11 for information concerning permethrin and piperonyl butoxide.

----- **4. FIRST AID MEASURES** -----

After contact with eyes:


Flush eyes with plenty of water. Seek medical attention if irritation persists.

After ingestion:

Call a physician or Poison Control Center. Do not induce vomiting. Do not give anything by mouth to an unconscious person. Avoid alcohol. May pose an aspiration pneumonia hazard.

Hints for the physician:

This product contains a synthetic pyrethroid and 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. DO NOT administer or instill milk, cream or other substances containing vegetable or animal

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Hints for the physician: (Continued)

fats which enhance absorption of lipophilic substances. If localized paresthesia develops, the site should be thoroughly washed with soap and water. Cold cream can be applied to diminish the effect.

----- 5. FIRE FIGHTING MEASURES -----

FLAMMABLE PROPERTIES

Flash point: > 200°F > 93°C TCC

Advice on protection against fire and explosion:

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

Suitable extinguishing media:

Carbon dioxide, dry chemical, foam or water.


----- 6. ACCIDENTAL RELEASE MEASURES -----

Soak up with an absorbent material such as sand, sawdust, earth, fuller's earth, etc. Dispose of with chemical waste.

----- 7. HANDLING and STORAGE -----

Storage:

- Store upright at room temperature.
- Avoid exposure to extreme temperatures.
- Do not contaminate water, food or feed by storage.

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----- 8. EXPOSURE CONTROLS / PERSONAL PROTECTION -----

Hygiene measures:

- Wash thoroughly with soap and water after handling.

Personal protective equipment

Body protection:

Impervious gloves.

Eye protection:

Safety glasses.

EXPOSURE GUIDELINES:

Odorless mineral spirits (8052-41-3)

OSHA PEL	ACGIH TLV	HCC WEL
2900 mg/m ³ (PEL)525 mg/m ³ (TWA)	None	
500 ml/m ³ (PEL)	100 ml/m ³ (TWA)	None

----- 9. PHYSICAL and CHEMICAL PROPERTIES -----

APPEARANCE: Cream to tan liquid.

ODOR: Very mild paint or brake-fluid odor.

BASIC PHYSICAL PROPERTIES

PHYSICAL STATE: Liquid

SPECIFIC GRAVITY: 1.015 @ 22°C

SOLUBILITY (H₂O): Soluble

PH: 5.1


VISCOSITY: 170 cp @ 23°C

DENSITY: 8.46 lbs/gal

----- 10. STABILITY and REACTIVITY -----

CHEMICAL STABILITY:

Stable

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----- **10. STABILITY and REACTIVITY (Continued)** -----

HAZARDOUS POLYMERIZATION:

Will not occur

----- **11. TOXICOLOGICAL INFORMATION** -----

ACUTE STUDIES

THE FOLLOWING DATA WERE DEVELOPED WITH: Aqua-Permanone (EPA No. 432-796) for which Aqua-Reslin is an alternate name and also Permanone Insect Killer R7 which has a similar formulation of 20.9% Permethrin and 20.1% Piperonyl Butoxide.

EYE EFFECTS

(Rabbit) Slightly irritating

SKIN EFFECTS

Irritation (rabbit): Slightly irritating

Absorption (rabbit): LD50 > 5,000 mg/kg (practically non-toxic)

Sensitization (guinea pig): Non-sensitizing

ACUTE ORAL EFFECTS

Oral LD50 (rat): 1,000 mg/kg (slightly toxic)

ACUTE INHALATION EFFECTS


4-Hour LC50 (rat) > 2.87 mg/L (practically non-toxic)

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

CHRONIC (CANCER INFORMATION)

A statistically significant increase in the incidence of lung and liver tumors was observed in female mice receiving diets containing 375 and 750 mg/kg/day of permethrin technical over 85 weeks.

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.

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----- 11. TOXICOLOGICAL INFORMATION (Continued) -----

CARCINOGENICITY: NTP: No IARC: No OSHA: No

TERATOGENICITY (BIRTH DEFECTS)

Permethrin was not teratogenic when tested in rats.

There were no birth defects or adverse effects on reproductive parameters in tests with rats or rabbits for piperonyl butoxide. It is not considered to be teratogenic.

REPRODUCTIVE EFFECTS

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.

MUTAGENICITY (GENETIC EFFECTS)


Permethrin did not produce any mutagenic effects when tested in the Ames test.

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.

----- 12. ECOLOGICAL INFORMATION -----

ENVIRONMENTAL HAZARDS: This pesticide is extremely toxic to fish and other invertebrates. Do not apply directly to water, to areas where surface water is present or to intertidal areas below mean high water mark. Do not apply when weather conditions favor drift from treated areas. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment rinsate. Do not apply when wind speeds exceed 10 MPH.

This pesticide is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow drift when bees are actively visiting the treatment area. Applications should be timed to provide the maximum possible interval between treatment and the next

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----- 12. ECOLOGICAL INFORMATION (Continued) -----

period of bee activity.

----- 13. DISPOSAL CONSIDERATIONS -----

Do not contaminate water, food or feed by disposal.

Pesticide Disposal: Pesticide, spray mixture or rinse water that cannot be used according to label instructions must be disposed of at or by an approved waste disposal facility.

Container Disposal:

Metal Containers - 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.

Plastic Containers - Triple rinse or equivalent, then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill or by incineration, or if allowed by State and local authorities, by burning. If burned, stay out of smoke.

RCRA CLASSIFICATION:

RCRA HAZARDOUS WASTE INGREDIENT: None.

----- 14. TRANSPORT INFORMATION -----

PROPER SHIPPING NAME: Not DOT Regulated

NOTE: For transport purposes (49 CFR Part 173.132), the calculated 1-Hour LC50 (Rat) is: 11.48 mg/l.


----- 15. REGULATORY INFORMATION -----

STATE REGULATIONS

The following chemicals associated with the product are subject to the right-to-know regulations in these states:

Odorless mineral spirits (8052-41-3): FL, IL, MA, NJ, PA,
RI

Permethrin (52645-53-1): MA, NJ

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STATE REGULATIONS (Continued)

Piperonyl butoxide (51-03-6): NJ

U.S. FEDERAL REGULATIONS

EPA Registration Number: 432-796

SARA TITLE III NOTIFICATION AND INFORMATION:

Section 302 (EHS) Ingredient: None

Section 304 (CERCLA & EHS) ingredients (RQ): None

SARA TITLE III - HAZARD CLASSES

Acute Health Hazard - Yes

Chronic Health Hazard - No

Fire Hazard - No

Sudden Release of Pressure Hazard - No

Reactivity Hazard - No

TSCA inventory status

These components are not listed:

Permethrin 20% (52645-53-1)

Other ingredients, including: 60%

SARA 313 :

Permethrin 20% (52645-53-1)

Piperonyl butoxide 20% (51-03-6)

INTERNATIONAL REGULATIONS

The following chemical(s) associated with the product have also been listed on the following International inventories:

Odorless mineral spirits (8052-41-3): CANADIAN DSL, EINECS


Permethrin (52645-53-1): EINECS

Piperonyl butoxide (51-03-6): CANADIAN DSL, EINECS

----- 16. OTHER INFORMATION -----

HAZARD RATINGS

	HEALTH	FLAMM	REACT	OTHER
NFPA	1	1	0	-
HMIS	1	1	0	B

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----- **16. OTHER INFORMATION (Continued)** -----

REVISED SECTIONS:

MSDS REVISION INDICATOR: New Format and Company Name.


PREPARED BY: Regulatory Department

PHONE: 800-438-5837

SUPERCEDES MSDS DATED: 08/22/97

DISCLAIMER:

This information is provided in good faith but without express or implied warranty. Buyer assumes all responsibility for safety and use not in accordance with label instructions.

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