

1. IDENTIFICATION

Product identifier	Pyrethrin Concentrate
Other means of identification	EPA Reg. No. 89459-29-829
Synonyms	None
Recommended use	Insecticide
Uses advised against	KEEP OUT OF THE REACH OF CHILDREN. Avoid contact with eyes, skin and clothing. Do not use or store near heat or open flame. Avoid release to the environment. Do not take internally. Avoid inhalation of vapors or fumes.
Company	Southern Agricultural Insecticides, Inc. P.O. Box 218 Palmetto, FL 34220
Company Telephone/Fax	(941) 722-3285/(941) 723-2974
Emergency Telephone Number	For Chemical Emergency, Spill, Leak, Fire, Exposure, or Accident, Call CHEMTREC Day or Night: 1-800-424-9300 Recommended use

2. HAZARD IDENTIFICATION

United States (US)
According to: OSHA 29 CFR 1910.1200 HCS

Classification of the substance or mixture

OSHA HCS 2012 Aspiration 1
 Flammable Liquids 4
 Skin Irritation 2
 Skin Sensitization 1
 Specific Target Organ Toxicity Single Exposure 3: Narcotic Effects Serious Eye Damage 1

Label elements

Signal word DANGER



Hazard statements Causes skin irritation
 May be fatal if swallowed and enters airways
 May cause an allergic skin reaction
 Combustible liquid
 May cause drowsiness or dizziness
 Causes serious eye damage

Precautionary statements

Prevention Wash thoroughly after handling.
 Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves/protective clothing/eye protection/face protection. Avoid breathing dust, fume, gas, mist, vapors and/or spray.
 Keep away from heat, sparks, open flames and/or hot surfaces. - No smoking. Use only out doors or in a well-ventilated area.

Response IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse.
 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Do NOT induce vomiting. In case of fire: Use appropriate media CO₂, foam, dry chemical or sand for extinction.
 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a poison control center or doctor if you feel unwell.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

Storage/Disposal

Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Store in a well-ventilated place. Keep cool. Store locked up.

Store in a well-ventilated place. Keep container tightly closed.

Keep cool.

Other hazards OSHA HCS 2012

This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. This product is toxic to aquatic organisms including fish and invertebrates. Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances

Material does not meet the criteria of a substance.

Mixtures

Chemical Name	Composition	
	Identifiers	%
Pyrethrins	CAS:8003-34-7	0.96%
Piperonyl butoxide	CAS:51-03-6	9.60%
Distillates (petroleum), hydrotreated light	CAS:64742-47-8	81.44%
Nonylphenol, ethoxylated	Proprietary	8.00%

4. FIRST-AID MEASURES

Description of first aid measures

Inhalation

IF INHALED: If breathing is difficult, remove person to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

Skin

IF ON SKIN: Wash with plenty of soap and water. If irritation or rash occurs, get medical advice/attention. Take off contaminated clothing and wash before reuse.

Eye

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CONTROL center or doctor.

Ingestion

IF SWALLOWED: Immediately call a poison control center or doctor. Aspiration hazard - if swallowed, do NOT induce vomiting.

Most important symptoms and effects, both acute and delayed

Aspiration hazard, causes serious eye damage, causes skin irritation, may cause an allergic skin reaction in individuals with a sensitivity to piperonyl butoxide, may cause dizziness and/or drowsiness if inhaled. Refer to Section 11 - Toxicological Information.

Indication of any immediate medical attention and special treatment needed

Notes to Physician

Contains petroleum distillate vomiting may cause aspiration pneumonia. Treat symptomatically and supportively.

5. FIRE-FIGHTING MEASURES

Extinguishing media

Suitable Extinguishing Media

LARGE FIRE: Water spray, fog or regular foam.

SMALL FIRES: Dry chemical, CO₂, sand or regular foam.

**Unsuitable Extinguishing Media
Firefighting Procedures**

Avoid heavy hose streams.

Do not allow fire fighting water to escape into waterways or sewers.

LARGE FIRES: Dike fire control water for later disposal; do not scatter the material.

LARGE FIRES: Move containers from fire area if you can do it without risk. Stay upwind.

Ventilate closed spaces before entering. Do not breathe gas/fumes/vapor/spray.

Special hazards arising from the substance or mixture

Unusual Fire and Explosion Hazards Combustible liquid.

Containers may explode when heated.

Liquid will float and may re-ignite on surface of water.

**Hazardous Combustion Products
Advice for firefighters**

Combustible liquid - may produce carbon dioxide and/or carbon monoxide.

Wear positive pressure self-contained breathing apparatus (SCBA).

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions

Do not walk through spilled material. Ventilate enclosed areas. Wear appropriate personal protective equipment, avoid direct contact.

Emergency Procedures

ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Ventilate closed spaces before entering. Avoid release into the environment.

Environmental precautions

LARGE SPILLS: Prevent entry into waterways, sewers, basements or confined areas.

Methods and material for containment and cleaning up

Containment/Clean-up Measures

Absorb spills with an inert material, clay granules or other inert absorbent material and put in container for disposal. All equipment used when handling the product must be grounded. LARGE SPILLS: Dike far ahead of spill for later disposal.

Stop leak if you can do it without risk.

7. HANDLING AND STORAGE

Precautions for safe handling

Handling

Keep away from fire - No Smoking. Avoid breathing fumes. Use only in well ventilated areas. Wear appropriate personal protective equipment, avoid direct contact.

Conditions for safe storage, including any incompatibilities

Storage

Store locked up. Store in a cool/low-temperature, well-ventilated dry place away from heat and ignition sources. Keep from freezing. Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F

**Incompatible Materials or Ignition
Sources**

Heat, sparks, open flame.

Other Information

See product label for additional information.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Limits/Guidelines

No data available.

	Result	Exposure Limits/Guidelines		OSHA
		ACGIH	NIOSH	
Pyrethrins (8003-34-7)	TWAs	5 mg/m ³ TWA	5 mg/m ³ TWA	5 mg/m ³ TWA

Exposure Limits Supplemental

ACGIH

•Pyrethrins (8003-34-7): TLV Basis - Critical Effects: (liver damage; lower respiratory tract irritation)

Engineering Measures/Controls

Use adequate ventilation to remove vapors (fumes, dust, etc.)

Personal Protective Equipment

Pictograms



Respiratory

In case of insufficient ventilation, wear suitable respiratory equipment. Not required with normal use. However, mixers, loaders, applicators and other handlers must wear respiratory protection with P or R filters.

Eye/Face

Wear chemical splash safety goggles.

Hands

Wear appropriate gloves.

Skin/Body

If prolonged exposure is anticipated, it is recommended for handlers to wear appropriate clothing to prevent skin contact.

Environmental Exposure Controls

Controls should be engineered to prevent release to the environment, including procedures to prevent spills, atmospheric release and release to waterways.

Other Information

See product label for specific use PPE instructions.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on Physical and Chemical Properties

Material Description

Physical Form	Liquid	Appearance/Description	Yellow to amber liquid.
Color	Yellow to amber.	Odor	Pleasant woody.
Odor Threshold	No data available		

General Properties

Boiling Point	No data available	Melting Point/Freezing Point	No data available
Decomposition Temperature	No data available	pH	No data available
Specific Gravity/Relative Density	6.8 lb/gal (0.82 g/ml)	Density	No data available
Water Solubility	insoluble	Viscosity	No data available
Critical Temperature	No data available		

Volatility

Vapor Pressure	No data available	Vapor Density	No data available
Evaporation Rate	No data available		

Flammability

Flash Point	152 F(66.6667 C) CC (Closed Cup)	UEL	7.0 (solvent)
LEL	0.6 (solvent)	Autoignition	No data available
Flammability (solid, gas)	No data available		

Environmental

Octanol/Water Partition coefficient	No data available		
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10. STABILITY AND REACTIVITY

Reactivity	Non-reactive under normal handling and storage conditions.
Chemical stability	Stable
Possibility of hazardous reactions	Hazardous polymerization will not occur.
Conditions to avoid	Direct sunlight. Do not freeze. Excessive heat >110°F. Heat, sparks, open flame, other ignition sources, and oxidizing conditions.
Incompatible materials	Store away from oxidizers.
Hazardous decomposition products	Carbon dioxide and possibly carbon monoxide.

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

Components

Pyrethrins (0.96%) 8003-34-7	Acute Toxicity: Ingestion/Oral-Rat, adult female LD50 • 1030 mg/kg; Ingestion/Oral-Rat, adult male LD50 • 2370 mg/kg; Inhalation-Rat LC50 • 3.4 mg/L; Skin-Rat LD50 • 2000 mg/kg
Piperonyl butoxide (9.6%)	Acute Toxicity: Ingestion/Oral-Rat • 4300 mg/kg; Inhalation-Rat • >5 mg/L 4 Irritation: Eye-Rabbit • Essentially non-irritating; Skin-Rabbit • Essentially non-irritating

GHS Properties

Classification

Respiratory sensitization	OSHA HCS 2012 • Classification criteria not met
Serious eye damage/Irritation	OSHA HCS 2012 • Serious Eye Damage 1
Acute toxicity	OSHA HCS 2012 • Acute Toxicity - Dermal - Classification criteria not met; Acute Toxicity Inhalation - Classification criteria not met; Acute Toxicity - Oral - Classification criteria not met
Aspiration Hazard	OSHA HCS 2012 • Aspiration 1
Carcinogenicity	OSHA HCS 2012 • Classification criteria not met
Skin corrosion/Irritation	OSHA HCS 2012 • Skin Irritation 2
Skin sensitization	OSHA HCS 2012 • Skin Sensitizer 1
STOT-RE	OSHA HCS 2012 • Classification criteria not met
STOT-SE	OSHA HCS 2012 • Specific Target Organ Toxicity Single Exposure 3: Narcotic Effects
Toxicity for Reproduction	OSHA HCS 2012 • Classification criteria not met
Germ Cell Mutagenicity	OSHA HCS 2012 • Not classified - data lacking

Potential Health Effects

Inhalation

Acute (Immediate)	May cause drowsiness and dizziness.
Chronic (Delayed)	No data available

Skin

Acute (Immediate)	•May cause an allergic reaction in individuals with a sensitivity to piperonyl butoxide. Causes skin irritation.
Chronic (Delayed)	No data available

Eye

Acute (Immediate)	Causes serious eye damage.
Chronic (Delayed)	No data available

Ingestion

Acute (Immediate)	Aspiration hazard - small amounts of liquid aspirated into the lungs during ingestion or from vomiting may cause chemical pneumonitis or pulmonary edema.
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Chronic (Delayed) Mutagenic Effects	No data available 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. Pyrethrins were not found to be genotoxic and did not damage DNA in any study conducted which included: Ames assay, chromosome aberration in Chinese hamster ovaries (CHO) cells and in the unscheduled DNA synthesis (UNS) assay in cultured human liver cells.
Carcinogenic Effects	Piperonyl butoxide is not classified as carcinogen by NTP, IARC and OSHA. Pyrethrins are not listed as a carcinogen by OSHA, IARC, or NTP.
Reproductive Effects	Pyrethrins did not produce any birth defects or adverse effects on reproductive parameters in tests with rats and rabbits.

12. ECOLOGICAL INFORMATION

Toxicity

		Components
Pyrethrins (0.96%)	8003-34-7	Aquatic Toxicity-Fish: 96 Hour(s) LC50 Rainbow trout 0.0051 mg/L [Acute] 96 Hour(s) LC50 Sheepshead minnow 0.016 mg/L [Acute] 96 Hour(s) NOEC Fathead minnow 0.0019 mg/L [Chronic] NOEC Sheepshead minnow 0.0059 mg/L [estimated chronic] Aquatic Toxicity-Crustacea: NOEC Daphnia magna 0.00086 mg/L [Chronic] NOEC Mysid shrimp 0.0001 mg/L [Estimated chronic] 96 Hour(s) LC50 Mysid Shrimp 0.0014 mg/L [Acute] 48 Hour(s) LC50 Water Flea Daphnia magna 0.0116 mg/L [Acute]
Distillates (petroleum), 64742-47-8 hydrotreated light (81.44%)		Aquatic Toxicity-Fish: 96 Hour(s) LC50 Rainbow Trout 2.9 mg/L [Acute] 96 Hour(s) LC50 Lepomis macrochirus 2.2 mg/L [Acute]

Persistence and degradability	Pyrethrins have low persistence in the environment due to rapid breakdown in presence of UV light.
Bioaccumulative potential	No data available.
Mobility in Soil	Pyrethrins are relatively immobile in soil.
Other adverse effects	
Potential Environmental Effects	This product is toxic to aquatic organisms, including fish and invertebrates. This product is highly toxic to bees exposed to direct treatment. Care should be taken to avoid contamination of the environment.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Product waste	Dispose of content and/or container in accordance with local, regional, national, and/or international regulations. Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. Do not contaminate water by disposal.
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Packaging waste	Dispose of content and/or container in accordance with local, regional, national, and/or international regulations. See product label for disposal instructions.
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14. TRANSPORTATION INFORMATION

	UN number	UN proper shipping name	Transport hazard class(es)	Packing group	Environmental hazards
DOT	None	Not regulated (for packages <104 lbs.)	None	None	Not Applicable
IMO/IMDG	UN3082	Environmentally Hazardous Substance, Liquid (Pyrethrins, piperonyl butoxide)	9	III	Marine Pollutant
IATA/ICAO	UN3082	Environmentally Hazardous Substance, Liquid (Pyrethrins, piperonyl butoxide)	9	III	Acute Aquatic Toxicity

Special precautions for user None specified.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code No data available

Other information	DOT	Environmental Hazards: RQ (Pyrethrins = 1 lb).
	IMO/IMDG	No data available
	IATA/ICAO	No data available

15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications

SARA Title III Section 313, Acute

FIFRA – Pesticide Labeling

This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.

CAUTION

Precautionary Statements
Hazards to Humans and
Domestic Animals

KEEP OUT OF THE REACH OF CHILDREN.

Contains Petroleum Distillate. Harmful if absorbed through the skin. Avoid contact with skin, eyes or clothing. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

First Aid

If on skin or clothing • 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. If swallowed • Immediately call a Poison Control Center or doctor. • Do not induce vomiting unless told to do so by the Poison Control Center or doctor. • Do not give any liquid to the person. • Do not give anything by mouth to an unconscious person.

NOTE TO PHYSICIAN: Contains petroleum distillate - vomiting may cause aspiration pneumonia.

Environmental Hazards

For Terrestrial Applications: This product is toxic to aquatic organisms, including fish and invertebrates. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. This product may contaminate water through runoff. This product has a potential for runoff for several weeks after application. Poorly draining soils and soils with shallow water tables are more prone to produce runoff that contains this product. This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds.

Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area. Except as specified in the directions for use, do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment wash-water or rinsate. For Wide Area Mosquito Adulticide Applications: This pesticide is toxic to aquatic organisms, including fish and invertebrates. Runoff from treated areas or deposition of spray droplets into a body of water may be hazardous to fish and aquatic invertebrates. When applying as a wide area mosquito adulticide, before making the first application in a season, it is advisable to consult with the state or tribal

agency with primary responsibility for pesticide regulation to determine if highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply when bees health determined by a state, tribal, or local health or vector control agency on the basis of documented evidence of disease causing agents in vector mosquitoes or the occurrence of mosquito-borne disease in animal or human populations, or if specifically approved by the state or tribe during a natural disaster recovery effort. When applying as a wide area mosquito adulticide, do not apply over bodies of water (lakes, rivers, permanent streams, natural ponds, commercial fish ponds, swamps, marshes or estuaries), except when necessary to target areas where adult mosquitoes are present, and weather conditions will facilitate movement of applied material away from the water in order to minimize incidental deposition into the water body. (For containers equal to or greater than 5 gallons) 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 Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

Component	Inventory CAS	TSCA
Distillates (petroleum), hydrotreated light	64742-47-8	Yes
Nonylphenol, ethoxylated	Proprietary	Yes
Piperonyl butoxide	51-03-6	Yes
Pyrethrins	8003-34-7	No

Environment

U.S. - CERCLA/SARA - hazardous Substances and their Reportable Quantities

Nonylphenol, ethoxylated	Proprietary	Not Listed
Pyrethrins	8003-34-7	1 lb final RQ (listed under (listed under Pyrethrins)
Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
Piperonyl butoxide	51-03-6	Not Listed

U.S. - CERCLA/SARA Section 313 Emission Reporting

Nonylphenol, ethoxylated	Proprietary	Not Listed
Pyrethrins	8003-34-7	Not Listed
Distillates (petroleum), hydrotreated light	64742-47-8	Not Listed
Piperonyl butoxide	51-03-6	1.0 % de minimis concentration

Disclaimer/Statement of Liability

The information and statements herein are believed to be reliable but are not to be construed as a warranty or representation for which we assume legal responsibility. Users should undertake sufficient verification and testing to determine the suitability for their own particular purpose of any information or products referred to herein. NO WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE IS MADE.

June, 2016

