

SAFETY DATA SHEET

according to the OSHA Hazard Communication Standard



Baseline Insecticide

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	07/21/2025	11565145-00001	Date of first issue: 07/21/2025

SECTION 1. IDENTIFICATION

Product name : Baseline Insecticide

Product code : Article/SKU: D00001576 UVP: DU00000101 Specification: 102D00000409 EPA Registration No: 101563-249

Manufacturer or supplier's details

Company name of supplier : Environmental Science U.S. LLC.

Address : 5000 Centregreen Way, Suite 400
Cary NC 27513

Telephone : 1-800-331-2867

Emergency telephone : +1 703-741-5970

E-mail address : uscontact@envu.com

Recommended use of the chemical and restrictions on use

Recommended use : Insecticide

Restrictions on use : Not applicable

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Flammable liquids : Category 4

Acute toxicity (Oral) : Category 3

Skin irritation : Category 2

Serious eye damage : Category 1

Skin sensitization : Sub-category 1B

Carcinogenicity : Category 2

Specific target organ toxicity : Category 1 (Nervous system)
- repeated exposure

Specific target organ toxicity : Category 2 (Liver, Thyroid)
- repeated exposure

Aspiration hazard : Category 1

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Other hazards

Vapors may form explosive mixture with air.

GHS label elements

Hazard pictograms

:



Signal Word

: Danger

Hazard Statements

: H227 Combustible liquid.
H301 Toxic if swallowed.
H304 May be fatal if swallowed and enters airways.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H351 Suspected of causing cancer.
H372 Causes damage to organs (Nervous system) through prolonged or repeated exposure.
H373 May cause damage to organs (Liver, Thyroid) through prolonged or repeated exposure.

Supplemental Hazard Statements

: Corrosive to the respiratory tract.

Precautionary Statements

: **Prevention:**
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P210 Keep away from heat, sparks, open flame and hot surfaces. No smoking.
P260 Do not breathe mist or vapors.
P264 Wash skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P272 Contaminated work clothing must not be allowed out of the workplace.
P280 Wear protective gloves, protective clothing, eye protection and face protection.
Response:
P301 + P310 + P330 IF SWALLOWED: Immediately call a POISON CENTER. Rinse mouth.
P302 + P352 IF ON SKIN: Wash with plenty of water.
P305 + P351 + P338 + P310 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.
P308 + P313 IF exposed or concerned: Get medical attention.
P321 Specific treatment (see supplemental first aid instructions on this label).
P331 Do NOT induce vomiting.
P333 + P313 If skin irritation or rash occurs: Get medical attention.

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Storage:

P405 Store locked up.

Disposal:

P501 Dispose of contents and container to an approved waste disposal plant.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Components

Chemical name	CAS No./Unique ID	Concentration (% w/w)	Trade secret
Diisopropyl-1,1'-biphenyl	69009-90-1*	>= 30 - < 35	-
Bifenthrin	82657-04-3*	23.4	-
Distillates (petroleum), hydrotreated light	64742-47-8*	>= 10 - < 15	-
Nonylphenol ethoxylated	68412-54-4*	>= 5 - < 10	-
Benzenesulfonic acid, mono-C11-13-branched alkyl derivs., calcium salts	68953-96-8*	>= 2.1 - < 2.7	-
2-Methyl-1-propanol	78-83-1*	>= 0.9 - < 1.5	-

* Indicates that the identifier is a CAS No.

SECTION 4. FIRST AID MEASURES

General advice : In the case of accident or if you feel unwell, seek medical advice immediately.
When symptoms persist or in all cases of doubt seek medical advice.

If inhaled : If inhaled, remove to fresh air.
Get medical attention.

In case of skin contact : In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.
Get medical attention.
Wash clothing before reuse.
Thoroughly clean shoes before reuse.

In case of eye contact : In case of contact, immediately flush eyes with plenty of water for at least 15 minutes.
If easy to do, remove contact lens, if worn.

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- Get medical attention immediately.
- If swallowed : If swallowed, DO NOT induce vomiting.
If vomiting occurs have person lean forward.
Call a physician or poison control center immediately.
Rinse mouth thoroughly with water.
Never give anything by mouth to an unconscious person.
- Most important symptoms and effects, both acute and delayed : central nervous system effects
Toxic if swallowed.
May be fatal if swallowed and enters airways.
Causes skin irritation.
May cause an allergic skin reaction.
Causes serious eye damage.
Suspected of causing cancer.
Causes damage to organs through prolonged or repeated exposure.
Corrosive to the respiratory tract.
- Protection of first-aiders : First Aid responders should pay attention to self-protection, and use the recommended personal protective equipment when the potential for exposure exists (see section 8).
- Notes to physician : Treat symptomatically.
Do not induce vomiting: contains petroleum distillates and/or aromatic solvents.

SECTION 5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media : Water spray
Alcohol-resistant foam
Carbon dioxide (CO₂)
Dry chemical
- Unsuitable extinguishing media : High volume water jet
- Specific hazards during fire fighting : Do not use a solid water stream as it may scatter and spread fire.
Flash back possible over considerable distance.
Vapors may form explosive mixtures with air.
Exposure to combustion products may be a hazard to health.
- Hazardous combustion products : Carbon oxides
Chlorine compounds
Fluorine compounds
Metal oxides
Sulfur oxides
- Specific extinguishing methods : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Use water spray to cool unopened containers.

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Remove undamaged containers from fire area if it is safe to do so.
Evacuate area.

Special protective equipment for fire-fighters : In the event of fire, wear self-contained breathing apparatus.
Use personal protective equipment.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Remove all sources of ignition.
Use personal protective equipment.
Follow safe handling advice (see section 7) and personal protective equipment recommendations (see section 8).

Environmental precautions : Avoid release to the environment.
Prevent further leakage or spillage if safe to do so.
Prevent spreading over a wide area (e.g., by containment or oil barriers).
Retain and dispose of contaminated wash water.
Local authorities should be advised if significant spillages cannot be contained.

Methods and materials for containment and cleaning up : Non-sparking tools should be used.
Soak up with inert absorbent material.
Suppress (knock down) gases/vapors/mists with a water spray jet.
For large spills, provide diking or other appropriate containment to keep material from spreading. If diked material can be pumped, store recovered material in appropriate container.
Clean up remaining materials from spill with suitable absorbent.
Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which regulations are applicable.
Sections 13 and 15 of this SDS provide information regarding certain local or national requirements.

SECTION 7. HANDLING AND STORAGE

Technical measures : See Engineering measures under EXPOSURE CONTROLS/PERSONAL PROTECTION section.

Local/Total ventilation : If sufficient ventilation is unavailable, use with local exhaust ventilation.

Advice on safe handling : Do not get on skin or clothing.
Do not breathe mist or vapors.
Do not swallow.

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Do not get in eyes.
Wash skin thoroughly after handling.
Handle in accordance with good industrial hygiene and safety practice, based on the results of the workplace exposure assessment
Keep container tightly closed.
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Take precautionary measures against static discharges.
Do not eat, drink or smoke when using this product.
Take care to prevent spills, waste and minimize release to the environment.

Conditions for safe storage : Keep in properly labeled containers.
Store locked up.
Keep tightly closed.
Keep in a cool, well-ventilated place.
Store in accordance with the particular national regulations.
Keep away from heat and sources of ignition.

Materials to avoid : Do not store with the following product types:
Strong oxidizing agents
Self-reactive substances and mixtures
Organic peroxides
Explosives
Gases

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Distillates (petroleum), hydrotreated light	64742-47-8	TWA (Mist)	5 mg/m ³	OSHA Z-1
		TWA (Mist)	5 mg/m ³	NIOSH REL
		ST (Mist)	10 mg/m ³	NIOSH REL
2-Methyl-1-propanol	78-83-1	TWA	50 ppm	ACGIH
		TWA	50 ppm 150 mg/m ³	NIOSH REL
		TWA	100 ppm 300 mg/m ³	OSHA Z-1

Engineering measures : Ensure adequate ventilation, especially in confined areas.
Minimize workplace exposure concentrations.

Personal protective equipment

Respiratory protection : General and local exhaust ventilation is recommended to maintain vapor exposures below recommended limits. Where concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn.

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Follow OSHA respirator regulations (29 CFR 1910.134) and use NIOSH/MSHA approved respirators. Protection provided by air purifying respirators against exposure to any hazardous chemical is limited. Use a positive pressure air supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstance where air purifying respirators may not provide adequate protection.

Hand protection

- Material : Chemical-resistant gloves
- Remarks : Choose gloves to protect hands against chemicals depending on the concentration specific to place of work. Breakthrough time is not determined for the product. Change gloves often! For special applications, we recommend clarifying the resistance to chemicals of the aforementioned protective gloves with the glove manufacturer. Take note that the product is flammable, which may impact the selection of hand protection. Wash hands before breaks and at the end of workday.

Eye protection

- : Wear the following personal protective equipment:
Chemical resistant goggles must be worn.
If splashes are likely to occur, wear:
Face-shield

Skin and body protection

- : Select appropriate protective clothing based on chemical resistance data and an assessment of the local exposure potential.
Wear the following personal protective equipment:
If assessment demonstrates that there is a risk of explosive atmospheres or flash fires, use flame retardant antistatic protective clothing.
Skin contact must be avoided by using impervious protective clothing (gloves, aprons, boots, etc).

Hygiene measures

- : If exposure to chemical is likely during typical use, provide eye flushing systems and safety showers close to the working place.
When using do not eat, drink or smoke.
Contaminated work clothing should not be allowed out of the workplace.
Wash contaminated clothing before re-use.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : liquid

Color : amber

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Odor	:	hydrocarbon-like
Odor Threshold	:	No data available
pH	:	3.7 - 4.7
Melting point/freezing point	:	No data available
Initial boiling point and boiling range	:	No data available
Flash point	:	163 - 167 °F / 73 - 75 °C
Evaporation rate	:	No data available
Flammability (solid, gas)	:	Not applicable
Flammability (liquids)	:	Sustains combustion
Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower flammability limit	:	No data available
Vapor pressure	:	No data available
Relative vapor density	:	No data available
Relative density	:	No data available
Density	:	1.02 - 1.04 g/cm ³
Solubility(ies) Water solubility	:	emulsifiable
Partition coefficient: n-octanol/water	:	Not applicable
Autoignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity Viscosity, kinematic	:	No data available
Explosive properties	:	Not explosive
Oxidizing properties	:	The substance or mixture is not classified as oxidizing.

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Particle characteristics
Particle size : Not applicable

SECTION 10. STABILITY AND REACTIVITY

Reactivity	: Not classified as a reactivity hazard.
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: Combustible liquid. Vapors may form explosive mixture with air. Can react with strong oxidizing agents.
Conditions to avoid	: Heat, flames and sparks.
Incompatible materials	: Oxidizing agents
Hazardous decomposition products	: No hazardous decomposition products are known.

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Inhalation
Skin contact
Ingestion
Eye contact

Acute toxicity

Toxic if swallowed.

Product:

Acute oral toxicity	: Acute toxicity estimate: 180.49 mg/kg Method: Calculation method
Acute inhalation toxicity	: LC50: > 7.25 mg/l Exposure time: 4 h Test atmosphere: dust/mist
Acute dermal toxicity	: Acute toxicity estimate: > 5,000 mg/kg Method: Calculation method

Components:

Diisopropyl-1,1'-biphenyl:

Acute oral toxicity	: LD50 (Rat): > 5,000 mg/kg Remarks: Based on data from similar materials
Acute dermal toxicity	: LD50 (Rabbit): > 5,000 mg/kg Remarks: Based on data from similar materials

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Bifenthrin:

Acute oral toxicity : LD50 (Mouse, female): 42.5 mg/kg
Method: US EPA Test Guideline OPP 81-1

Acute inhalation toxicity : LC50 (Rat, female): 0.8 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: OECD Test Guideline 403

Acute dermal toxicity : LD50 (Rat): > 2,000 mg/kg

Distillates (petroleum), hydrotreated light:

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg

Acute inhalation toxicity : LC50 (Rat): > 5.3 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Assessment: The substance or mixture has no acute inhalation toxicity
Remarks: Based on data from similar materials

Acute dermal toxicity : LD50 (Rabbit): > 3,160 mg/kg
Assessment: The substance or mixture has no acute dermal toxicity

Nonylphenol ethoxylated:

Acute oral toxicity : LD50 (Rat): 1,980 mg/kg

Acute dermal toxicity : LD50 (Rabbit): > 3,000 mg/kg

Benzenesulfonic acid, mono-C11-13-branched alkyl derivs., calcium salts:

Acute oral toxicity : LD50 (Rat): > 2,000 mg/kg
Method: OECD Test Guideline 401
Assessment: The substance or mixture has no acute oral toxicity
Remarks: Based on data from similar materials

Acute dermal toxicity : LD50 (Rat): > 1,000 - 2,000 mg/kg
Method: OECD Test Guideline 402
Remarks: Based on data from similar materials

2-Methyl-1-propanol:

Acute oral toxicity : LD50 (Rat, female): 3,350 mg/kg
Method: OECD Test Guideline 401

Acute inhalation toxicity : LC50 (Rat): > 18.18 mg/l
Exposure time: 6 h
Test atmosphere: vapor

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Acute dermal toxicity : LD50 (Rabbit, female): 2,460 mg/kg
Method: OECD Test Guideline 402

Skin corrosion/irritation

Causes skin irritation.

Components:

Diisopropyl-1,1'-biphenyl:

Species	: Rabbit
Result	: Skin irritation
Remarks	: Based on data from similar materials

Bifenthrin:

Species	: Rabbit
Result	: No skin irritation

Distillates (petroleum), hydrotreated light:

Assessment : Repeated exposure may cause skin dryness or cracking.

Nonylphenol ethoxylated:

Species	: Rabbit
Result	: Skin irritation

Benzenesulfonic acid, mono-C11-13-branched alkyl derivs., calcium salts:

Species	: Rabbit
Result	: Skin irritation

2-Methyl-1-propanol:

Species	: Rabbit
Method	: OECD Test Guideline 404
Result	: Skin irritation

Serious eye damage/eye irritation

Causes serious eye damage.

Components:

Diisopropyl-1,1'-biphenyl:

Species	: Rabbit
Result	: No eye irritation
Remarks	: Based on data from similar materials

Bifenthrin:

Species	: Rabbit
Result	: No eye irritation

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Distillates (petroleum), hydrotreated light:

Species	:	Rabbit
Result	:	No eye irritation

Nonylphenol ethoxylated:

Species	:	Rabbit
Result	:	Irreversible effects on the eye
Method	:	Draize Test

Benzenesulfonic acid, mono-C11-13-branched alkyl derivs., calcium salts:

Species	:	Rabbit
Result	:	Irreversible effects on the eye

2-Methyl-1-propanol:

Species	:	Rabbit
Result	:	Irreversible effects on the eye
Method	:	OECD Test Guideline 405

Respiratory or skin sensitization

Skin sensitization

May cause an allergic skin reaction.

Respiratory sensitization

Not classified based on available information.

Product:

Assessment	:	Probability or evidence of low to moderate skin sensitization rate in humans
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Components:

Diisopropyl-1,1'-biphenyl:

Test Type	:	Maximization Test
Routes of exposure	:	Skin contact
Species	:	Guinea pig
Result	:	negative
Remarks	:	Based on data from similar materials

Bifenthrin:

Test Type	:	Maximization Test
Routes of exposure	:	Skin contact
Species	:	Guinea pig
Method	:	OECD Test Guideline 406
Result	:	positive

Assessment	:	Probability or evidence of low to moderate skin sensitization rate in humans
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Distillates (petroleum), hydrotreated light:

Test Type	: Maximization Test
Routes of exposure	: Skin contact
Species	: Guinea pig
Result	: negative
Remarks	: Based on data from similar materials

Nonylphenol ethoxylated:

Test Type	: Maximization Test
Routes of exposure	: Skin contact
Species	: Guinea pig
Result	: negative

Benzenesulfonic acid, mono-C11-13-branched alkyl derivs., calcium salts:

Test Type	: Maximization Test
Routes of exposure	: Skin contact
Species	: Guinea pig
Method	: OECD Test Guideline 406
Result	: negative
Remarks	: Based on data from similar materials

2-Methyl-1-propanol:

Test Type	: Buehler Test
Routes of exposure	: Skin contact
Species	: Guinea pig
Method	: OECD Test Guideline 406
Result	: negative
Remarks	: Based on data from similar materials

Germ cell mutagenicity

Not classified based on available information.

Components:

Diisopropyl-1,1'-biphenyl:

Genotoxicity in vitro	: Test Type: Bacterial reverse mutation assay (AMES) Method: OECD Test Guideline 471 Result: negative Remarks: Based on data from similar materials
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Test Type: In vitro mammalian cell gene mutation test
Result: negative
Remarks: Based on data from similar materials

Test Type: Chromosome aberration test in vitro
Result: negative
Remarks: Based on data from similar materials

Bifenthrin:

Genotoxicity in vitro	: Test Type: Bacterial reverse mutation assay (AMES)
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Result: negative

Test Type: In vitro mammalian cell gene mutation test
Method: Regulation (EC) No. 440/2008, Annex, B.17
Result: positive

Test Type: Chromosome aberration test in vitro
Method: Directive 67/548/EEC, Annex V, B.10.
Result: negative

Test Type: In vitro sister chromatid exchange assay in mam-
malian cells
Method: OECD Test Guideline 479
Result: negative

Genotoxicity in vivo : Test Type: Mutagenicity (in vivo mammalian bone-marrow
cytogenetic test, chromosomal analysis)
Species: Rat
Application Route: Ingestion
Method: Regulation (EC) No. 440/2008, Annex, B.11
Result: negative

Test Type: Mammalian erythrocyte micronucleus test (in vivo
cytogenetic assay)
Species: Mouse
Application Route: Ingestion
Method: OECD Test Guideline 474
Result: negative

Test Type: Unscheduled DNA synthesis (UDS) test with
mammalian liver cells in vivo
Species: Rat
Application Route: Ingestion
Method: OECD Test Guideline 486
Result: negative

Distillates (petroleum), hydrotreated light:

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)
Result: negative

Genotoxicity in vivo : Test Type: Chromosomal aberration
Species: Rat
Application Route: Intraperitoneal injection
Result: negative
Remarks: Based on data from similar materials

Benzenesulfonic acid, mono-C11-13-branched alkyl derivs., calcium salts:

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)
Result: negative
Remarks: Based on data from similar materials

Test Type: In vitro mammalian cell gene mutation test

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Result: negative
Remarks: Based on data from similar materials

Genotoxicity in vivo : Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay)
Species: Mouse
Application Route: Ingestion
Result: negative
Remarks: Based on data from similar materials

2-Methyl-1-propanol:

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)
Result: negative

Test Type: In vitro mammalian cell gene mutation test
Result: negative

Test Type: in vitro micronucleus test
Result: negative

Genotoxicity in vivo : Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay)
Species: Mouse
Application Route: Ingestion
Method: OECD Test Guideline 474
Result: negative

Carcinogenicity

Suspected of causing cancer.

Components:

Bifenthrin:

Species : Mouse
Application Route : Ingestion
Exposure time : 104 weeks
Result : positive

Carcinogenicity - Assessment : Limited evidence of carcinogenicity in animal studies

IARC No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

NTP No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Reproductive toxicity

Not classified based on available information.

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Components:

Bifenthrin:

Effects on fertility : Test Type: Four-generation reproduction toxicity study
Species: Rat
Application Route: Ingestion
Result: negative

Effects on fetal development : Test Type: Fertility/early embryonic development
Species: Rat
Application Route: Ingestion
Result: negative

Distillates (petroleum), hydrotreated light:

Effects on fertility : Test Type: One-generation reproduction toxicity study
Species: Rat
Application Route: Ingestion
Result: negative
Remarks: Based on data from similar materials

Effects on fetal development : Test Type: Embryo-fetal development
Species: Rat
Application Route: Ingestion
Result: negative

Benzenesulfonic acid, mono-C11-13-branched alkyl derivs., calcium salts:

Effects on fertility : Test Type: Three-generation reproduction toxicity study
Species: Rat
Application Route: Ingestion
Result: negative
Remarks: Based on data from similar materials

Effects on fetal development : Test Type: Embryo-fetal development
Species: Rat
Application Route: Ingestion
Result: negative
Remarks: Based on data from similar materials

2-Methyl-1-propanol:

Effects on fertility : Test Type: Two-generation reproduction toxicity study
Species: Rat
Application Route: inhalation (vapor)
Method: OPPTS 870.3800
Result: negative

Effects on fetal development : Test Type: Embryo-fetal development
Species: Rat
Application Route: inhalation (vapor)
Method: OECD Test Guideline 414
Result: negative

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STOT-single exposure

Corrosive to the respiratory tract.

Components:

2-Methyl-1-propanol:

Assessment : May cause respiratory irritation., May cause drowsiness or dizziness.

STOT-repeated exposure

Causes damage to organs (Nervous system) through prolonged or repeated exposure.

May cause damage to organs (Liver, Thyroid) through prolonged or repeated exposure.

Components:

Diisopropyl-1,1'-biphenyl:

Routes of exposure : Ingestion
Target Organs : Liver, Thyroid
Assessment : Shown to produce significant health effects in animals at concentrations of >10 to 100 mg/kg bw.

Bifenthrin:

Routes of exposure : Ingestion
Target Organs : Nervous system
Assessment : Shown to produce significant health effects in animals at concentrations of 10 mg/kg bw or less.

Repeated dose toxicity

Components:

Diisopropyl-1,1'-biphenyl:

Species : Rat
LOAEL : 35 mg/kg
Application Route : Ingestion
Exposure time : 28 Days
Method : OECD Test Guideline 407

Bifenthrin:

Species : Rat, male
NOAEL : 3.4 mg/kg
LOAEL : 7.5 mg/kg
Application Route : Ingestion
Exposure time : 90 Days

Distillates (petroleum), hydrotreated light:

Species : Rat
NOAEL : > 10.4 mg/l
Application Route : inhalation (vapor)
Exposure time : 90 Days

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Remarks : Based on data from similar materials

Benzenesulfonic acid, mono-C11-13-branched alkyl derivs., calcium salts:

Species	: Rat
LOAEL	: > 100 mg/kg
Application Route	: Ingestion
Exposure time	: 9 Months
Remarks	: Based on data from similar materials

2-Methyl-1-propanol:

Species	: Rat
NOAEL	: > 1,450 mg/kg
Application Route	: Ingestion
Exposure time	: 90 Days
Method	: OECD Test Guideline 408

Species	: Rat
NOAEL	: ≥ 7.5 mg/l
Application Route	: inhalation (vapor)
Exposure time	: 17 Weeks

Aspiration toxicity

May be fatal if swallowed and enters airways.

Components:

Diisopropyl-1,1'-biphenyl:

The substance or mixture is known to cause human aspiration toxicity hazards or has to be regarded as if it causes a human aspiration toxicity hazard.

Distillates (petroleum), hydrotreated light:

The substance or mixture is known to cause human aspiration toxicity hazards or has to be regarded as if it causes a human aspiration toxicity hazard.

2-Methyl-1-propanol:

The substance or mixture causes concern owing to the assumption that it causes a human aspiration toxicity hazard.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

Diisopropyl-1,1'-biphenyl:

Toxicity to fish	: LC50 (Oncorhynchus mykiss (rainbow trout)): > 0.01 mg/l
	Exposure time: 96 h
	Method: Directive 67/548/EEC, Annex V, C.1.
	Remarks: Based on data from similar materials

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Toxicity to daphnia and other aquatic invertebrates : EL50 (Daphnia magna (Water flea)): > 100 mg/l
Exposure time: 48 h
Test substance: Water Accommodated Fraction
Method: OECD Test Guideline 202

Toxicity to algae/aquatic plants : EC50 (Raphidocelis subcapitata (freshwater green alga)): > 0.01 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201
Remarks: Based on data from similar materials

NOEC (Raphidocelis subcapitata (freshwater green alga)): > 0.01 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201
Remarks: Based on data from similar materials

Bifenthrin:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 0.1 µg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 0.11 µg/l
Exposure time: 48 h

Toxicity to fish (Chronic toxicity) : NOEC (Oncorhynchus mykiss (rainbow trout)): 0.012 µg/l
Exposure time: 76 d
Method: OECD Test Guideline 210

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia magna (Water flea)): 0.00095 µg/l
Exposure time: 21 d

Toxicity to microorganisms : NOEC (activated sludge): > 1,929 mg/l
Exposure time: 3 h
Remarks: No toxicity at the limit of solubility.

Distillates (petroleum), hydrotreated light:

Toxicity to fish : LL50 (Danio rerio (zebra fish)): > 250 mg/l
Exposure time: 96 h
Test substance: Water Accommodated Fraction
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : EL50 (Acartia tonsa (Calanoid copepod)): > 3,193 mg/l
Exposure time: 48 h
Test substance: Water Accommodated Fraction

Toxicity to algae/aquatic plants : EL50 (Skeletonema costatum (marine diatom)): > 3,200 mg/l
Exposure time: 72 h
Test substance: Water Accommodated Fraction

NOELR (Skeletonema costatum (marine diatom)): 993 mg/l

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Exposure time: 72 h
Test substance: Water Accommodated Fraction

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOELR (Ceriodaphnia dubia (water flea)): > 70 mg/l
Exposure time: 8 d
Test substance: Water Accommodated Fraction

Toxicity to microorganisms : EC50: > 100 mg/l
Exposure time: 3 h

Nonylphenol ethoxylated:

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): > 0.1 - 1 mg/l
Exposure time: 96 h
Remarks: Based on data from similar materials

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 0.1 - 1 mg/l
Exposure time: 48 h
Method: ISO 6341
Remarks: Based on data from similar materials

Toxicity to algae/aquatic plants : ErC50 (Raphidocelis subcapitata (freshwater green alga)): > 1 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201
Remarks: Based on data from similar materials

NOEC (Raphidocelis subcapitata (freshwater green alga)): > 1 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201
Remarks: Based on data from similar materials

Toxicity to fish (Chronic toxicity) : NOEC (Oryzias latipes (Japanese medaka)): > 0.1 - 1 mg/l
Exposure time: 100 d
Remarks: Based on data from similar materials

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Mysidopsis bahia (opossum shrimp)): > 0.001 - 0.01 mg/l
Exposure time: 28 d
Remarks: Based on data from similar materials

Toxicity to microorganisms : EC10 (activated sludge): > 1 mg/l
Exposure time: 3 h
Method: OECD Test Guideline 209
Remarks: Based on data from similar materials

Benzenesulfonic acid, mono-C11-13-branched alkyl derivs., calcium salts:

Toxicity to fish : LC50 (Lepomis macrochirus (Bluegill sunfish)): > 1 - 10 mg/l
Exposure time: 96 h
Remarks: Based on data from similar materials

Toxicity to daphnia and other : EC50 (Daphnia magna (Water flea)): > 10 - 100 mg/l

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aquatic invertebrates		Exposure time: 48 h Method: OECD Test Guideline 202 Remarks: Based on data from similar materials
Toxicity to algae/aquatic plants	:	ErC50 (Raphidocelis subcapitata (freshwater green alga)): > 10 mg/l Exposure time: 72 h Remarks: Based on data from similar materials NOEC (Raphidocelis subcapitata (freshwater green alga)): > 1 mg/l Exposure time: 72 h Remarks: Based on data from similar materials
Toxicity to fish (Chronic toxicity)	:	NOEC (Oncorhynchus mykiss (rainbow trout)): > 0.1 - 1 mg/l Exposure time: 72 d Remarks: Based on data from similar materials
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC (Daphnia magna (Water flea)): > 1 mg/l Exposure time: 21 d Remarks: Based on data from similar materials
Toxicity to microorganisms	:	EC50 (activated sludge): > 100 mg/l Exposure time: 3 h Method: OECD Test Guideline 209 Remarks: Based on data from similar materials

2-Methyl-1-propanol:

Toxicity to fish	:	LC50 (Pimephales promelas (fathead minnow)): 1,430 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia pulex (Water flea)): 1,100 mg/l Exposure time: 48 h
Toxicity to algae/aquatic plants	:	ErC50 (Pseudokirchneriella subcapitata (green algae)): 1,799 mg/l Exposure time: 72 h Method: OECD Test Guideline 201 NOEC (Pseudokirchneriella subcapitata (green algae)): 117 mg/l Exposure time: 72 h Method: OECD Test Guideline 201
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC (Daphnia magna (Water flea)): 20 mg/l Exposure time: 21 d
Toxicity to microorganisms	:	EC50: > 1,000 mg/l Exposure time: 16 h

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Persistence and degradability

Components:

Bifenthrin:

Biodegradability : Result: Not readily biodegradable.
Biodegradation: 11 %
Exposure time: 28 d
Method: OECD Test Guideline 301B

Distillates (petroleum), hydrotreated light:

Biodegradability : Result: Readily biodegradable.
Biodegradation: 82 %
Exposure time: 24 d
Method: OECD Test Guideline 301F

Nonylphenol ethoxylated:

Biodegradability : Result: Not readily biodegradable.
Remarks: Based on data from similar materials

Benzenesulfonic acid, mono-C11-13-branched alkyl derivs., calcium salts:

Biodegradability : Result: Not readily biodegradable.
Method: OECD Test Guideline 301E
Remarks: Based on data from similar materials

2-Methyl-1-propanol:

Biodegradability : Result: Readily biodegradable.
Biodegradation: 74 %
Exposure time: 28 d
Method: OECD Test Guideline 301D

Bioaccumulative potential

Components:

Diisopropyl-1,1'-biphenyl:

Partition coefficient: n-octanol/water : log Pow: 6.67
Remarks: Calculation

Bifenthrin:

Bioaccumulation : Species: Cyprinus carpio (Carp)
Bioconcentration factor (BCF): 1,082

Partition coefficient: n-octanol/water : log Pow: > 6

Nonylphenol ethoxylated:

Partition coefficient: n-octanol/water : log Pow: < 4
Remarks: Calculation

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Benzenesulfonic acid, mono-C11-13-branched alkyl derivs., calcium salts:

Partition coefficient: n-octanol/water	:	log Pow: 4.595
		Method: Regulation (EC) No. 440/2008, Annex, A.8

2-Methyl-1-propanol:

Partition coefficient: n-octanol/water	:	log Pow: 1
		Method: OECD Test Guideline 117

Mobility in soil

No data available

Other adverse effects

No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues	:	It is best to use all of the product in accordance with label directions. If it is necessary to dispose of unused product, please follow container label instructions and applicable local guidelines. Do not dispose of waste into sewer.
Contaminated packaging	:	Follow advice on product label and/or leaflet. Empty containers retain residue and can be dangerous. Do not re-use empty containers.

SECTION 14. TRANSPORT INFORMATION

International Regulations

UNRTDG

UN number	:	UN 3352
Proper shipping name	:	PYRETHROID PESTICIDE, LIQUID, TOXIC (Bifenthrin, Benzenesulfonic acid, mono-C11-13-branched alkyl derivs., calcium salts)
Class	:	6.1
Packing group	:	III
Labels	:	6.1
Environmentally hazardous	:	yes

IATA-DGR

UN/ID No.	:	UN 3352
Proper shipping name	:	Pyrethroid pesticide, liquid, toxic (Bifenthrin, Benzenesulfonic acid, mono-C11-13-branched alkyl derivs., calcium salts)
Class	:	6.1
Packing group	:	III
Labels	:	Toxic
Packing instruction (cargo)	:	663

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aircraft)

Packing instruction (passenger aircraft) : 655

Environmentally hazardous

: yes

IMDG-Code

UN number : UN 3352

Proper shipping name : PYRETHROID PESTICIDE, LIQUID, TOXIC
(Bifenthrin, Benzenesulfonic acid, mono-C11-13-branched alkyl derivs., calcium salts, Nonylphenol ethoxylated)

Class : 6.1

Packing group : III

Labels : 6.1

EmS Code : F-A, S-A

Marine pollutant : yes

Transport in bulk according to IMO instruments

Not applicable for product as supplied.

Domestic regulation

49 CFR

UN/ID/NA number : UN 3352

Proper shipping name : Pyrethroid pesticide, liquid toxic

Class : 6.1

Packing group : III

Labels : TOXIC

ERG Code : 151

Marine pollutant : yes(Bifenthrin, Nonylphenol ethoxylated)

Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

SECTION 15. REGULATORY INFORMATION

CERCLA Reportable Quantity

Listed substances in the product are at low enough levels to not be expected to exceed the RQ

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 Hazards : Flammable (gases, aerosols, liquids, or solids)
Acute toxicity (any route of exposure)
Respiratory or skin sensitization
Carcinogenicity
Specific target organ toxicity (single or repeated exposure)
Aspiration hazard
Skin corrosion or irritation
Serious eye damage or eye irritation

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SARA 313 : The following components are subject to reporting levels established by SARA Title III, Section 313:

Bifenthrin	82657-04-3	23.4 %
Nonylphenol ethoxylated	68412-54-4	>= 5 - < 10 %

US State Regulations

Pennsylvania Right To Know

Diisopropyl-1,1'-biphenyl	69009-90-1
Bifenthrin	82657-04-3
Triacetin	102-76-1
Distillates (petroleum), hydrotreated light	64742-47-8
Nonylphenol ethoxylated	68412-54-4
2-Methyl-1-propanol	78-83-1

California List of Hazardous Substances

Distillates (petroleum), hydrotreated light	64742-47-8
2-Methyl-1-propanol	78-83-1

California Permissible Exposure Limits for Chemical Contaminants

Distillates (petroleum), hydrotreated light	64742-47-8
2-Methyl-1-propanol	78-83-1

Product Type : Insecticides, acaricides and products to control other arthropods

Active substance : 263 g/l
Bifenthrin

SECTION 16. OTHER INFORMATION

Further information

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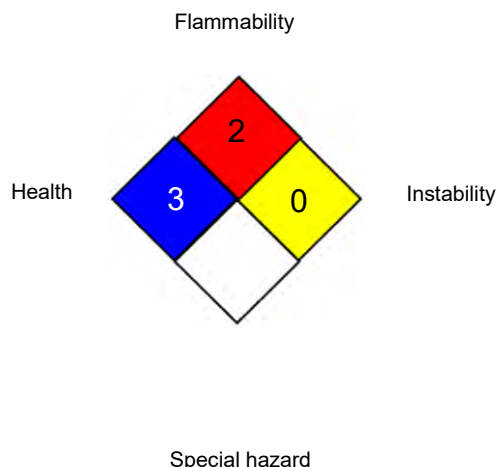
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NFPA 704:



HMIS® IV:

HEALTH	*	3
FLAMMABILITY		2
PHYSICAL HAZARD		0

HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "*" represents a chronic hazard, while the "/" represents the absence of a chronic hazard.

Full text of other abbreviations

ACGIH	:	USA. ACGIH Threshold Limit Values (TLV)
NIOSH REL	:	USA. NIOSH Recommended Exposure Limits
OSHA Z-1	:	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
ACGIH / TWA	:	8-hour, time-weighted average
NIOSH REL / TWA	:	Time-weighted average concentration for up to a 10-hour workday during a 40-hour workweek
NIOSH REL / ST	:	STEL - 15-minute TWA exposure that should not be exceeded at any time during a workday
OSHA Z-1 / TWA	:	8-hour time weighted average

AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of

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Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TECl - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

Sources of key data used to compile the Material Safety Data Sheet : Internal technical data, data from raw material SDSs, OECD eChem Portal search results and European Chemicals Agency, <http://echa.europa.eu/>

Revision Date : 07/21/2025

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and shall not be considered a warranty or quality specification of any type. The information provided relates only to the specific material identified at the top of this SDS and may not be valid when the SDS material is used in combination with any other materials or in any process, unless specified in the text. Material users should review the information and recommendations in the specific context of their intended manner of handling, use, processing and storage, including an assessment of the appropriateness of the SDS material in the user's end product, if applicable.

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