

PetLock Plus for Dogs

Material Safety Data Sheet

according to ANSI norm

Revision date: 9/29/14

Supersedes:

Version: 1.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Chemical type : Mixture
Trade name : PetLock Plus for Dogs
EPA registration number : 88052-13-89609

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.2.1. Relevant identified uses

Use of the substance/preparation : Flea and tick control for dogs

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

TruRx, LLC
500 E. Shore Drive, Suite 120
Eagle, ID 83616
USA

1.4. Emergency telephone number

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-855-844-4375 for emergency medical treatment information.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

This material is classified as hazardous under OSHA regulations

Emergency overview

Harmful if swallowed
Harmful in contact with skin
Harmful if inhaled
Causes damage to organs (Health) through prolonged or repeated exposure (oral)

GHS-US classification

Acute Tox. 4 (Oral) H302
Acute Tox. 4 (Dermal) H312
Acute Tox. 4 (Inhalation:dust,mist) H332
STOT RE 1 H372
Full text of H-phrases: see section 16

2.2. Label elements

GHS-US Labelling

Hazard symbols (GHS-US) :



Signal word (GHS-US) : Danger

Hazard statements (GHS-US) : H302 - Harmful if swallowed
H312 - Harmful in contact with skin
H332 - Harmful if inhaled
H372 - Causes damage to organs (Health) through prolonged or repeated exposure (oral)

Precautionary statements (GHS-US) : P260 - Do not breathe vapours
P270 - Do not eat, drink or smoke when using this product
P271 - Use only outdoors or in a well-ventilated area
P301+P312 - IF SWALLOWED: Call a POISON CENTER/doctor/.../if you feel unwell
P302+P352 : IF ON SKIN: Wash with plenty of soap and water
P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing
P314 - Get medical advice and attention if you feel unwell
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3. Other hazards

Other hazards not contributing to the classification : None, to our knowledge.

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SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Mixture based on glycolic solvent containing fipronil (phenylpyrazole family) and (S)-methoprene (juvenile hormone mimics).

Name	Product identifier	% Composition
Fipronil	(CAS No.) 120068-37-3; (EC index no) 608-055-00-8	< 10
(S)-Methoprene	(CAS No.) 40596-69-8; (EC no) 254-993-2	< 10

Full text of H-phrases: see section 16

For OELs: see Section 8.

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation	: Keep victim warm and rested Move the affected person away from the contaminated area and into the fresh air Seek medical advice.
First-aid measures after skin contact	: Wash with soapy water If on skin and if skin irritation occurs, seek medical advice and attention.
First-aid measures after eye contact	: Immediately rinse with water for a prolonged period while holding the eyelids wide open If irritation persists, consult an eye specialist.
First-aid measures after ingestion	: Rinse mouth out with water Do not induce vomiting Seek medical advice immediately Have the product container or label and this MSDS with you when calling a poison control center or doctor, or going for treatment.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries after inhalation	: Headache. Nausea.
Symptoms/injuries after eye contact	: Eye irritation.
Symptoms/injuries after ingestion	: Digestive disorder. Neurologic disorder.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Carbon dioxide (CO ₂) Dry powder Water spray Alcohol resistant foam.
Unsuitable extinguishing media	: Strong water jet.

5.2. Special hazards arising from the substance or mixture

Fire hazard	: Vapour mixes readily with air, forming explosive mixtures On combustion or on thermal decomposition (pyrolysis) releases : Carbon oxides (CO and CO ₂) Nitrogen oxides Hydrogen fluoride Hydrogen chloride.
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5.3. Advice for firefighters

Firefighting instructions	: Cool the containers exposed to heat with a water spray Contain the extinguishing fluids by bunding Do not discharge into drains or the environment.
Protection during firefighting	: Do not attempt to take action without suitable protective equipment Self-contained breathing apparatus Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures	: Do not attempt to take action without suitable protective equipment Avoid any direct contact with the product Do not breathe vapours.
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6.1.2. For emergency responders

Protective equipment	: Do not attempt to take action without suitable protective equipment For further information refer to section 8: "Exposure controls/personal protection".
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Emergency procedures : Ventilate spillage area.

6.2. Environmental precautions

Do not allow product to spread into the environment. Contain the spilled material by bunding. If spillage occurs on the public highway, indicate the danger and notify the authorities (police, fire brigade).

6.3. Methods and material for containment and cleaning up

For containment : Recover the product with inert absorbent material.
Methods for cleaning up : Wash non-recoverable remainder with large amounts of water.
Other information : Dispose of contaminated materials in accordance with current regulations.

6.4. Reference to other sections

For disposal of contaminated materials refer to sections 8 & 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station
Keep away from ignition sources (including static discharges)
Do not breathe vapours
Avoid any direct contact with the product.
Hygiene measures : Do not drink, eat or smoke in the workplace
Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Provide local exhaust or general room ventilation.
Storage conditions : Keep container tightly closed
Store in a cool, well-ventilated place
Keep away from incompatible materials
Store locked up.
Incompatible products : Strong oxidizing agents
Strong acids.
Strong bases.
Incompatible materials : Aluminium and its alloys
Copper and its alloys
Zinc and its alloys
Galvanized metals.
Packaging materials : Original packaging.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No specific limit

8.2. Exposure controls

Hand protection : Neoprene protective gloves
Butyl-rubber protective gloves
VITON gloves
(recommended if large volumes are handled).
Eye protection : Safety glasses
(recommended if large volumes are handled).
Skin and body protection : Protective clothing
(recommended if large volumes are handled).
Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment.
Environmental exposure controls : Take all necessary precautions to avoid the accidental release of the product outside, due to the rupture of containers or transfer systems.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance : Yellow liquid
Physical state : Liquid
Colour : Yellow
Odour : Non-characteristic
Odour threshold : No data available
pH : 5.5 – 6.0
Melting point : No data available

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Boiling point	: No data available
Flash point	: >150°C (closed cup)
Relative evaporation rate (butylacetate=1)	: No data available
Flammability (solid, gas)	: Not relevant
Explosive limits	: Not relevant
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: 1.032 g/ml
Solubility	: Water: Miscible
Log Pow	: Not relevant (mixture) -0.8 – -0.15 (based on major component solvent) 3.5 - 4 (based on the active substance Fipronil) 5.5 (based on the active substance Methoprene)
Self ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: 34.3 cP @ 20°C; 15.48 cP @ 40°C
Explosive properties	: The active ingredients and inerts do not have chemical bond or functional groups associated with explosive chemicals.
Oxidising properties	: Non oxidizing material according to GHS criteria.

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

To our knowledge, the product does not present any particular risk.

10.2. Chemical stability

Stable at ambient temperature and under normal conditions of use.

10.3. Possibility of hazardous reactions

Vapour mixes readily with air, forming explosive mixtures.

10.4. Conditions to avoid

Remove all sources of ignition.

10.5. Incompatible materials

Strong oxidizing agents
Strong acids.
Strong bases.

10.6. Hazardous decomposition products

Carbon oxydes (CO, CO₂)
Nitrogen oxides
Hydrogen chloride
Hydrogen fluoride.

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SECTION 11: Toxicological information

No experimental study is available on the mixture. Information hereunder are based on our knowledge on components, and classification of the mixture is determined with the calculation method, according to GHS-US.

11.1. Information on toxicological effects

Acute toxicity : Harmful if swallowed
Harmful in contact with skin
Harmful if inhaled

PetLock Plus for Dogs	
ATE (oral)	750 mg/kg
ATE (dermal)	> 5,000 mg/kg
ATE (dust,mist)	3.6 mg/l (4h)

Fipronil (120068-37-3)	
LD50 oral rat	92 mg/kg
LD50 dermal rabbit	354 mg/kg
LC50 inhalation rat	0.36 mg/l

Methoprene (40596-69-8)	
LD50 oral rat	25000 mg/kg
LD50 dermal rabbit	3000 mg/kg

Irritation : Not classified (Based on available data, the classification criteria are not met)
Corrosivity : Not classified (Based on available data, the classification criteria are not met)
Sensitisation : Not classified (Based on available data, the classification criteria are not met)
Repeated dose toxicity : Toxic: danger of serious damage to health by prolonged exposure if swallowed.
Information on Effects: refer to section 4.

Fipronil (120068-37-3)	
NOAEL (oral,rat,90 days)	0.35 mg/kg bodyweight/day
NOAEL (dermal,rat/rabbit,90 days)	5 mg/kg bodyweight/day

Carcinogenicity : Not classified (Based on available data, the classification criteria are not met)
Mutagenicity : Not classified (Based on available data, the classification criteria are not met)
Toxicity for reproduction : Not classified (Based on available data, the classification criteria are not met)
Other information : No additional information available.

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SECTION 12: Ecological information

No experimental study is available on the mixture. Information hereunder are based on our knowledge on components.

12.1. Toxicity

Ecology - general : Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Fipronil (120068-37-3)	
LC50 fish	0.0852 mg/l/96h (Lepomis macrochirus)
EC50 Daphnia	0.19 mg/l/48h
EC50 other aquatic organisms	0.068 mg/l/96h (Scenedesmus subspicatus)
NOEC (chronic)	90 mg/l (Oncorhynchus mykiss, 90 d)

Methoprene (40596-69-8)	
LC50 fish	> 50 mg/l/96h (Oncorhynchus mykiss)
EC50 Daphnia	0.89 mg/l/48h

12.2. Persistence and degradability

PetLock Plus for Dogs	
Persistence and degradability	Not relevant (mixture)

Diethylene glycol monoethyl ether (111-90-0)	
Persistence and degradability	Readily biodegradable.

Fipronil (120068-37-3)	
Persistence and degradability	Not readily biodegradable.

Methoprene (40596-69-8)	
Persistence and degradability	Rapidly degraded.

12.3. Bioaccumulative potential

PetLock Plus for Dogs	
Log Pow	Not relevant (mixture)

Fipronil (120068-37-3)	
Log Pow	3.5 - 4

Methoprene (40596-69-8)	
Log Pow	5.5 (estimated)

12.4. Mobility in soil

Fipronil (120068-37-3)	
Koc	427 - 1248 Considered to be adsorbed, therefore immobile.

Methoprene (40596-69-8)	
Koc	23000. Considered to be adsorbed, therefore immobile.

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Discharging into rivers and drains is forbidden. Dispose of in accordance with relevant local regulations.

Additional information : Recycle following cleaning or dispose of at an authorised site. The user's attention is drawn to the possible existence of specific european, national or local regulations regarding disposal.

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SECTION 14: Transport information

In accordance with DOT/ADR / RID / ADNR / IMDG / ICAO / IATA

14.1. UN number

UN-No. : 2810
DOT NA no. : UN2810

14.2. UN proper shipping name

Proper Shipping Name : TOXIC LIQUID, ORGANIC, N.O.S.
Transport document description : UN 2810 TOXIC LIQUID, ORGANIC, N.O.S. (Fipronil), 6.1, II, (D/E)

14.3. Transport hazard class(es)

Department of Transportation (DOT) Hazard : 6.1 - Class 6.1 - Poisonous materials 49 CFR 173.132
Hazard labels (DOT) : 6.1 – Toxic substance



14.4. Packing group

Packing group (DOT) : II

14.5. Environmental hazards

Other information : Not applicable

14.6. Special precautions for user

14.6.1. Overland transport

Hazard identification number (Kemler No.) : 60
Classification code (ADR) : T1
Orange plates :



Tunnel restriction code : D/E
LQ : 100 mL
Excepted quantities (ADR) : E4= 1 mL per inner packaging / 500 mL per outer packaging
DOT Special Provisions (49 CFR 172.102) : IB2 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized.
T11 - 6 178.274(d)(2) Normal..... 178.275(d)(3)
TP2 - a. The maximum degree of filling must not exceed the degree of filling determined by the following: (image) Where: tr is the maximum mean bulk temperature during transport, tf is the temperature in degrees celsius of the liquid during filling, and is the mean coefficient of cubical expansion of the liquid between the mean temperature of the liquid during filling (tf) and the maximum mean bulk temperature during transportation (tr) both in degrees celsius. b. For liquids transported under ambient conditions may be calculated using the formula: (image) Where: d15 and d50 are the densities (in units of mass per unit volume) of the liquid at 15 C (59 F) and 50 C (122 F), respectively.
TP13 - Self-contained breathing apparatus must be provided when this hazardous material is transported by sea.
TP27 - A portable tank having a minimum test pressure of 4 bar (400 kPa) may be used provided the calculated test pressure is 4 bar or less based on the MAWP of the hazardous material, as defined in 178.275 of this subchapter, where the test pressure is 1.5 times the MAWP.
DOT Packaging Exceptions (49 CFR 173.xxx) : 153
DOT Packaging Non Bulk (49 CFR 173.xxx) : 202
DOT Packaging Bulk (49 CFR 173.xxx) : 243

14.6.2. Transport by sea (IMDG)

EmS-No. (1) : F-A S-A
DOT Vessel Stowage Location : B - (i) The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel carrying a number of passengers limited to not more than the larger of 25 passengers, or one passenger per each 3 m of overall vessel length; and (ii) "On deck only" on passenger vessels in which the number of passengers specified in paragraph (k)(2)(i) of this section is exceeded.
DOT Vessel Stowage Other : 40 - Stow "clear of living quarters"

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14.6.3. Air transport

Instruction "cargo" (ICAO/IATA)	: 662 Net Qty maxi / packaging (60L)
Instruction "passenger & cargo" (ICAO/IATA)	: Y641 Net Qty maxi / packaging (1L)
	: 654 Net Qty maxi / packaging (5 L)
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)	5L
	:
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)	60L

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

15.1.2. US-Regulations

FIFRA

This chemical is a pesticide product registered by the 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, and for workplace labels of non-pesticide chemicals. The following is the hazard information as required on the pesticide label:

HAZARDS TO HUMANS

CAUTION. Harmful if swallowed. Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet.

HAZARDS TO DOMESTIC ANIMALS

For external use only. FOR USE ON DOGS AND PUPPIES ONLY. Do not use on puppies under 6 pounds or on puppies under 8 weeks of age. DO NOT USE ON CATS OR OTHER ANIMALS. Keep cats away from treated dogs for 24 hours. If applied to a cat or ingested by a cat, contact your veterinarian. Individual sensitivities, while rare, may occur after using ANY pesticide product. Dogs may experience some temporary irritation at the site of product application. If signs persist, or become more severe within a few days of application, consult a veterinarian. If your dog has an unusual reaction to the initial application, consult a veterinarian before repeating treatment. Certain medications can interact with pesticides. Consult a veterinarian before using on medicated, debilitated or aged dogs.

All pesticides are governed under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). The regulatory information presented below is pertinent only when this product is handled outside of the normal use and application as a pesticide.

TSCA inventory

All substances are listed on the United States TSCA (Toxic Substances Control Act) inventory, except Fipronil and Methoprene.

SARA Section 311/312 Hazard Classes

Immediate (acute) health hazard
Delayed (chronic) health hazard

15.1.3. National regulations

Regional legislation : All substances are listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances) substances.

SECTION 16: Other information

Data sources	: ECHA - European Chemical Agency. Toxicologic sheet of INRS (France) : 255 - 256. SDS of suppliers.
NFPA Rating	:
NFPA health hazard	3 - Short exposure could cause serious temporary or residual injury even though prompt medical attention was given.
	:
NFPA fire hazard	1 - Must be preheated before ignition can occur.
	:
NFPA reactivity	0 - Normally stable, even under fire exposure conditions, and are not reactive with water.

Full text of H-phrases:

Acute Tox. 2 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 2
Acute Tox. 3 (Dermal)	Acute toxicity (inhalation) Category 3
Acute Tox. 3 (Oral)	Acute toxicity (oral) Category 3
Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
STOT RE 1	Specific target organ toxicity (repeated exposure) Category 1
H301	Toxic if swallowed
H302	Harmful if swallowed
H311	Toxic in contact with skin

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H312	Harmful in contact with skin
H330	Fatal if inhaled
H332	Harmful if inhaled
H372	Causes damage to organs through prolonged or repeated exposure

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.