

## **SAFETY DATA SHEETS**

**This SDS packet was issued with item:**

078929208

**The safety data sheets (SDS) in this packet apply to the individual products listed below. Please refer to invoice for specific item number(s).**

078852591 078852609 078852617 078852625 078929060 078929061 078929062 078929063 078929206 078929207

078929209 21142795 21142796 21142797 21142804 78929206 78929207 78929208



# SAFETY DATA SHEET

## 1. Identification

**Product identifier** Parastar Plus for Dogs

**Other means of identification**

**Item Code** CA5332

**Recommended use** Insecticide

**Recommended restrictions** None known.

**Manufacturer/Importer/Supplier/Distributor information**

**Company Name** Elanco Animal Health  
2500 Innovation Way  
Greenfield, IN 46140  
US

**Phone:** 1-877-Elanco1 (1-877-352-6261)

**Email:** lilly\_msds@lilly.com

**Emergency Telephone Numbers:** Elanco Product Technical Support / Human or Animal Exposure Reporting:  
1-888-545-5973

**Transportation Emergency Telephone:** CHEMTREC: 1-800-424-9300  
(Outside U.S. 1-703-527-3887)

## 2. Hazard(s) identification

**Physical hazards** Not classified.

**Health hazards**

Acute toxicity, inhalation	Category 4
Serious eye damage/eye irritation	Category 2
Specific target organ toxicity, repeated exposure	Category 1

**OSHA defined hazards** Not classified.

### Label elements



**Signal word** Danger

### Hazard statement

H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H372	Causes damage to organs (central nervous system) through prolonged or repeated exposure.

### Precautionary statement

#### Prevention

P260	Do not breathe mist or vapor.
P264	Wash thoroughly after handling.
P280	Wear protective gloves/protective clothing/eye protection/face protection.

#### Response

P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a POISON CENTER/doctor if you feel unwell.
P312	If eye irritation persists: Get medical advice/attention.
P337 + P313	

**Storage** Not available.

<b>Disposal</b>	
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.
<b>Hazard(s) not otherwise classified (HNOC)</b>	None known.
<b>Supplemental information</b>	None.

### 3. Composition/information on ingredients

#### Mixtures

Chemical name	Common name and synonyms	CAS number	%
Fipronil		120068-37-3	9.8
Cyphenothrin		39515-40-7	5.2

**Composition comments** Remaining components of this product are non-hazardous and/or are present at concentrations below reportable levels.

### 4. First-aid measures

<b>Inhalation</b>	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Oxygen or artificial respiration if needed. Call a POISON CENTER or doctor/physician if you feel unwell.
<b>Skin contact</b>	Wash off with soap and water. Get medical attention if irritation develops and persists.
<b>Eye contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention if irritation develops and persists.
<b>Ingestion</b>	Rinse mouth. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Get medical advice/attention if you feel unwell.
<b>Most important symptoms/effects, acute and delayed</b>	Harmful if inhaled. Causes serious eye irritation. Prolonged or repeated exposure may cause: Central nervous system effects.
<b>Indication of immediate medical attention and special treatment needed</b>	Treat symptomatically.
<b>General information</b>	NOT FOR HUMAN USE! If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

### 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire.
<b>Specific hazards arising from the chemical</b>	During fire, gases hazardous to health may be formed.
<b>Special protective equipment and precautions for firefighters</b>	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
<b>Fire fighting equipment/instructions</b>	Move containers from fire area if you can do so without risk.
<b>Specific methods</b>	Use standard firefighting procedures and consider the hazards of other involved materials.

### 6. Accidental release measures

<b>Personal precautions, protective equipment and emergency procedures</b>	Keep unnecessary personnel away. Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
<b>Methods and materials for containment and cleaning up</b>	In case of spills, beware of slippery floors and surfaces. Should not be released into the environment.  Large Spills: Stop the flow of material, if this is without risk. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.  Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.  Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

**Environmental precautions** Avoid discharge into drains, water courses or onto the ground.

## 7. Handling and storage

**Precautions for safe handling** Do not breathe mist or vapor. Use only outdoors or in a well-ventilated area. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Observe good industrial hygiene practices.

**Conditions for safe storage, including any incompatibilities** Store in a cool, dry place out of direct sunlight. Store in original tightly closed container. Do not refrigerate. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS).

## 8. Exposure controls/personal protection

**Occupational exposure limits** No exposure limits noted for ingredient(s).

**Biological limit values** No biological exposure limits noted for the ingredient(s).

**Appropriate engineering controls** Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

### Individual protection measures, such as personal protective equipment

**Eye/face protection** Wear safety glasses with side shields (or goggles).

#### Skin protection

**Hand protection** Wear appropriate chemical resistant gloves.

#### Other

Chemical-resistant gloves and impermeable body covering to minimize skin contact.

**Respiratory protection** In case of insufficient ventilation, wear suitable respiratory equipment. Select appropriate respirator for physical characteristics of material. Select respirator with appropriate protection factor.

**Thermal hazards** Not available.

**General hygiene considerations** Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

## 9. Physical and chemical properties

### Appearance

**Physical state** Liquid.

**Form** Liquid.

**Color** Colourless to light yellow.

**Odor** Faint. Pleasant.

**Odor threshold** Not available.

**pH** Not available.

**Melting point/freezing point** Not available.

**Initial boiling point and boiling range** Not available.

**Flash point** > 199.9 °F (> 93.3 °C)

**Evaporation rate** Not available.

**Flammability (solid, gas)** Not applicable.

### Upper/lower flammability or explosive limits

**Flammability limit - lower (%)** Not available.

**Flammability limit - upper (%)** Not available.

**Explosive limit - lower (%)** Not available.

**Explosive limit - upper (%)** Not available.

**Vapor pressure** 0.0000009 mm Hg (25 °C) (Cyphenothrin)

**Vapor density** Not available.

**Relative density** Not available.

### Solubility(ies)

**Solubility (water)** 0.01 mg/l (25 °C) (Cyphenothrin)  
2.4 mg/l (25 °C) (Fipronil)

<b>Partition coefficient (n-octanol/water)</b>	Not available.
<b>Auto-ignition temperature</b>	Not available.
<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	Not available.
<b>Other information</b>	
<b>Density</b>	1.63 g/ml (20 °C) (Fipronil)
<b>Explosive properties</b>	Not explosive
<b>Oxidizing properties</b>	No oxidizing properties.

## 10. Stability and reactivity

<b>Reactivity</b>	The product is stable and non-reactive under normal conditions of use, storage and transport.
<b>Chemical stability</b>	Material is stable under normal conditions.
<b>Possibility of hazardous reactions</b>	No dangerous reaction known under conditions of normal use.
<b>Conditions to avoid</b>	Avoid exposure to high temperatures or direct sunlight. Do not refrigerate. Contact with incompatible materials.
<b>Incompatible materials</b>	Strong oxidizing agents.
<b>Hazardous decomposition products</b>	No hazardous decomposition products are known.

## 11. Toxicological information

### Information on toxicological effects

**Acute toxicity** Harmful if inhaled.

<b>Product</b>	<b>Species</b>	<b>Test Results</b>
Parastar Plus for Dogs		
<b><u>Acute</u></b>		
<b>Dermal</b>		
LD50	Rat	> 2000 mg/kg (similar product)
<b>Oral</b>		
LD50	Rat	2722 mg/kg (similar product)
<b>Components</b>	<b>Species</b>	<b>Test Results</b>
Cyphenothrin (CAS 39515-40-7)		
<b><u>Acute</u></b>		
<b>Dermal</b>		
LD50	Rat	> 5000 mg/kg
<b>Inhalation</b>		
LC50	Rat	1.85 mg/l, 4 hours
<b>Oral</b>		
LD50	Rat	318 mg/kg
Fipronil (CAS 120068-37-3)		
<b><u>Acute</u></b>		
<b>Dermal</b>		
LD50	Rabbit	354 mg/kg
<b>Inhalation</b>		
LC50	Rat	0.39 mg/l, 4 hours
<b>Oral</b>		
LD50	Rat	97 mg/kg
<b>Skin corrosion/irritation</b>	Rabbit: Slight irritation. (Fipronil) Rabbit: No irritation (Cyphenothrin) (similar substance) Based on available data, the classification criteria are not met.	
<b>Serious eye damage/eye irritation</b>	Causes eye irritation. (similar substance)	

**Respiratory or skin sensitization****Respiratory sensitization**

Not a respiratory sensitizer. (Cyphenothrin)  
Based on available data, the classification criteria are not met.

**Skin sensitization**

Guinea pig: Not a skin sensitizer. (similar substance) (Fipronil) (Cyphenothrin)  
Based on available data, the classification criteria are not met.

**Germ cell mutagenicity**

Result in genetic toxicity assays (in vitro and in vivo): Negative (Fipronil) (Cyphenothrin)  
Based on available data, the classification criteria are not met.

**Carcinogenicity**

Not listed by IARC, NTP, ACGIH or OSHA.  
No effects identified in animal studies. (Cyphenothrin)  
In carcinogenicity studies, no tumors in mice observed, thyroid tumors reported in rat. These results are thought to be a rat-specific effect that is not relevant for humans. (Fipronil)

**IARC Monographs. Overall Evaluation of Carcinogenicity**

Not listed.

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

Not regulated.

**US. National Toxicology Program (NTP) Report on Carcinogens**

Not listed.

**Reproductive toxicity**

In laboratory animal studies, effects on reproduction have been seen only at doses that produced significant toxicity to the parent animals. (Fipronil)  
No effects identified in animal studies. (Cyphenothrin)  
Based on available data, the classification criteria are not met.

**Specific target organ toxicity - single exposure**

No significant target organ toxicity reported. (Active ingredient(s))  
Based on available data, the classification criteria are not met.

**Specific target organ toxicity - repeated exposure**

May cause damage to organs (central nervous system) through prolonged or repeated exposure. A chronic feeding study on fipronil in rats produced seizures, including seizures resulting in death, decreased body weight gain, decreased food consumption, decreased hematology measures, alterations in clinical chemistry, alterations in thyroid hormones, alterations in urine chemistry, changes on gross necropsy, increase in liver and thyroid weights, and kidney effects.

**Aspiration hazard**

Not an aspiration hazard.

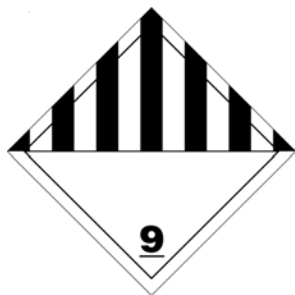
**12. Ecological information****Ecotoxicity**

Very toxic to aquatic life with long lasting effects.

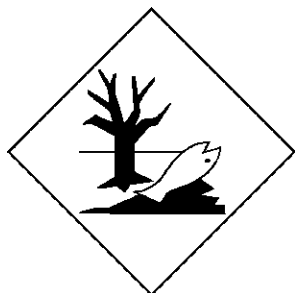
Product		Species	Test Results
Parastar Plus for Dogs			
Aquatic			
Fish	LC50	Fish	0.7517 mg/l, 96 hours
Components		Species	Test Results
Cyphenothrin (CAS 39515-40-7)			
Aquatic			
Algae	IC50	Algae	> 0.014 mg/l, 72 hours
Crustacea	EC50	Daphnia	0.0004 mg/l, 48 hours
		Water flea (Daphnia magna)	0.0012 mg/l, 48 hours
Fish	LC50	Fish	0.0003 mg/l, 96 hours
		Rainbow trout,donaldson trout (Oncorhynchus mykiss)	0.0004 mg/l, 96 hours
Fipronil (CAS 120068-37-3)			
	EC50	Midge (Chironomus dilutus)	0.0325 µg/l, 96 hours
	NOEC	Midge (Chironomus riparius)	0.12 µg/l, 28 days
		Scenedesmus subspicatus (Desmodesmus subspicatus (Chodat))	40 µg/l
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	190 µg/l, 48 hours
			12.9 µg/l, 48 hours
	LC50	Opossum shrimp (Americamysis bahia)	0.14 µg/l, 96 hours
		NOEC	Opossum shrimp (Americamysis bahia)

Components		Species	Test Results
Fish	LC50		0.007 µg/l, 28 days
		Water flea (Daphnia magna)	9.8 µg/l, 21 days
		Bluegill (Lepomis macrochirus)	85.2 µg/l, 96 hours
		Carp (Cyprinus carpio)	430 µg/l, 96 hours
	NOEC	Channel catfish (Ictalurus punctatus)	560 µg/l, 96 hours
		Rainbow trout,donaldson trout (Oncorhynchus mykiss)	248 µg/l, 96 hours
		Sheepshead minnow (Cyprinodon variegatus)	130 µg/l, 96 hours
		Rainbow trout,donaldson trout (Oncorhynchus mykiss)	15 µg/l, 90 days
	Sheepshead minnow (Cyprinodon variegatus)	2.9 µg/l, 35 days	
<b>Persistence and degradability</b>		Fipronil biodegrades slowly in the environment and is not expected to bioaccumulate.	
<b>Bioaccumulative potential</b>		No data available.	
<b>Partition coefficient n-octanol / water (log Kow)</b>			
Fipronil		4.01	
<b>Mobility in soil</b>		No data available.	
<b>Other adverse effects</b>		Not available.	
<b>13. Disposal considerations</b>			
<b>Disposal instructions</b>		Dispose of contents/container in accordance with local/regional/national/international regulations.	
<b>14. Transport information</b>			
<b>General information</b>		Effective January 1, 2015 by Special Provision, UN3077 and UN3082 when packaged in inner packages of 5L / 5 KG or less are not subject to the dangerous goods regulations.	
<b>DOT</b>			
Not regulated as dangerous goods.			
<b>IATA</b>			
<b>UN number</b>		UN3082	
<b>UN proper shipping name</b>		Environmentally hazardous substance, liquid, n.o.s. (Fipronil)	
<b>Transport hazard class(es)</b>			
<b>Class</b>		9	
<b>Subsidiary risk</b>		-	
<b>Packing group</b>		III	
<b>Environmental hazards</b>		Yes	
<b>ERG Code</b>		9L	
<b>Special precautions for user</b>		Read safety instructions, SDS and emergency procedures before handling.	
<b>Other information</b>			
<b>Passenger and cargo aircraft</b>		Allowed with restrictions.	
<b>Cargo aircraft only</b>		Allowed with restrictions.	
<b>IMDG</b>			
<b>UN number</b>		UN3082	
<b>UN proper shipping name</b>		ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (FIPRONIL)	
<b>Transport hazard class(es)</b>			
<b>Class</b>		9	
<b>Subsidiary risk</b>		-	
<b>Packing group</b>		III	
<b>Environmental hazards</b>			
<b>Marine pollutant</b>		Yes	
<b>EmS</b>		F-A, S-F	
<b>Special precautions for user</b>		Read safety instructions, SDS and emergency procedures before handling.	
<b>Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</b>		Not established.	

IATA; IMDG



Marine pollutant



## 15. Regulatory information

### US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.  
One or more components are not listed on TSCA.

#### TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

#### CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

#### SARA 304 Emergency release notification

Not regulated.

#### OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not regulated.

### Superfund Amendments and Reauthorization Act of 1986 (SARA)

#### Hazard categories

Immediate Hazard - Yes  
Delayed Hazard - Yes  
Fire Hazard - No  
Pressure Hazard - No  
Reactivity Hazard - No

#### SARA 313 (TRI reporting)

Not regulated.

### Other federal regulations

#### Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

#### Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

#### Safe Drinking Water Act (SDWA)

Not regulated.

### International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	No

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).



## 16. Other information, including date of preparation or last revision

**Issue date** 07-13-2017

**Version #** 01

**Lilly Lab Code** Health: 1  
Fire: 1  
Reactivity: 0

**Disclaimer** As of the date of issuance, we are providing available information relevant to the handling of this material in the workplace. All information contained herein is offered with the good faith belief that it is accurate. THIS MATERIAL SAFETY DATA SHEET SHALL NOT BE DEEMED TO CREATE ANY WARRANTY OF ANY KIND (INCLUDING WARRANTY OF MERCHANT ABILITY OR FITNESS FOR A PARTICULAR PURPOSE). In the event of an adverse incident associated with this material, this safety data sheet is not intended to be a substitute for consultation with appropriately trained personnel. Nor is this safety data sheet intended to be a substitute for product literature which may accompany the finished product.

For additional information contact:

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**Revision information** This document has undergone significant changes and should be reviewed in its entirety.