

SAFETY DATA SHEET



FIPRONIL TECH

Version 2.0 / USA
102000016895

1/11
Revision Date: 04/02/2019
Print Date: 04/03/2019

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product identifier

Trade name FIPRONIL TECH

Product code (UVP) 79042388

SDS Number 102000016895

EPA Registration No. 432-1478

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

Use Insecticide

Restrictions on use For manufacturing use only

Information on supplier

Supplier Bayer Environmental Science
2 T.W. Alexander Drive
Research Triangle PK, NC 27709
USA

Responsible Department Email: SDSINFO.BCS-NA@bayer.com

Emergency telephone no.

Emergency Telephone Number (24hr/ 7 days) 1-800-334-7577

Product Information Telephone Number 1-800-331-2867

SECTION 2: HAZARDS IDENTIFICATION

Classification in accordance with regulation HCS 29CFR §1910.1200

Specific target organ toxicity - repeated exposure: Category 1

Acute toxicity(Inhalation): Category 2

Acute toxicity(Oral, Dermal): Category 3

Combustible dust

Labelling in accordance with regulation HCS 29CFR §1910.1200



Signal word: Danger

Hazard statements

Causes damage to organs (Liver, Central nervous system) through prolonged or repeated exposure.

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Fatal if inhaled.
Toxic if swallowed or in contact with skin.
May form combustible dust concentrations in air.
Conduct Dust Hazard Assessment (DHA).

Precautionary statements

Do not breathe dust.
Wash thoroughly after handling.
Do not eat, drink or smoke when using this product.
Wear protective gloves/ protective clothing.
Use only outdoors or in a well-ventilated area.
Wear respiratory protection.
IF SWALLOWED: Immediately call a POISON CENTER/doctor/ physician.
Rinse mouth.
IF ON SKIN: Wash with plenty of water/ soap.
Call a POISON CENTER/doctor/physician if you feel unwell.
Take off immediately all contaminated clothing and wash it before reuse.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
Immediately call a POISON CENTER/doctor/ physician.
Specific treatment is urgent (see supplemental first aid instructions on this label).
Store locked up.
Store in a well-ventilated place. Keep container tightly closed.
Dispose of contents/container in accordance with local regulation.

Hazards Not Otherwise Classified (HNOC)

No physical hazards not otherwise classified.
No health hazards not otherwise classified.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Component Name	CAS-No.	Concentration % by weight
Fipronil	120068-37-3	96.0

SECTION 4: FIRST AID MEASURES

Description of first aid measures

General advice	When possible, have the product container or label with you when calling a poison control center or doctor or going for treatment.
Inhalation	Move to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a physician or poison control center immediately.
Skin contact	Wash off immediately with plenty of water for at least 15 minutes. Take off contaminated clothing and shoes immediately. Call a physician or poison control center immediately.

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Eye contact	Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a physician or poison control center immediately.
Ingestion	Call a physician or poison control center immediately. Rinse out mouth and give water in small sips to drink. DO NOT induce vomiting unless directed to do so by a physician or poison control center. Never give anything by mouth to an unconscious person. Do not leave victim unattended.
Most important symptoms and effects, both acute and delayed	
Symptoms	The following symptoms may occur:, Nausea, Vomiting, Tremors, Sweating, Drowsiness, Convulsions, Unconsciousness
Indication of any immediate medical attention and special treatment needed	
Risks	Must NOT be confused with organophosphorus compounds! There may be delayed neurological effects, including brain oedema.
Treatment	There is no specific antidote. Appropriate supportive and symptomatic treatment as indicated by the patient's condition is recommended.

SECTION 5: FIREFIGHTING MEASURES

Extinguishing media

Suitable Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Unsuitable High volume water jet

Special hazards arising from the substance or mixture In the event of fire the following may be released:, Carbon monoxide (CO), Carbon dioxide (CO₂), Sulphur oxides, Nitrogen oxides (NO_x), Hydrogen chloride (HCl), Hydrogen fluoride

Advice for firefighters

Special protective equipment for firefighters In the event of fire and/or explosion do not breathe fumes. Wear self-contained breathing apparatus and protective suit.

Further information Keep out of smoke. Fight fire from upwind position.
Remove product from areas of fire, or otherwise cool containers with water in order to avoid pressure being built up due to heat. Whenever possible, contain fire-fighting water by diking area with sand or earth.

Flash point Not applicable

Auto-ignition temperature No data available

Lower explosion limit Not applicable

Upper explosion limit Not applicable

Explosivity Not explosive
92/69/EEC, A.14 / OECD 113

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SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Precautions Avoid dust formation. Use personal protective equipment. Avoid contact with spilled product or contaminated surfaces. Keep people away from and upwind of spill/leak. When dealing with a spillage do not eat, drink or smoke.

Methods and materials for containment and cleaning up

Methods for cleaning up Use approved industrial vacuum cleaner for removal. Collect and transfer the product into a properly labelled and tightly closed container. Clean contaminated floors and objects thoroughly, observing environmental regulations.

Additional advice Use personal protective equipment. If the product is accidentally spilled, do not allow to enter soil, waterways or waste water canal.

Reference to other sections Information regarding safe handling, see section 7.
Information regarding personal protective equipment, see section 8.
Information regarding waste disposal, see section 13.

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Avoid dust formation. Use only in area provided with appropriate exhaust ventilation.

Advice on protection against fire and explosion Keep away from heat and sources of ignition. Dust may form explosive mixture in air. Take measures to prevent the build up of electrostatic charge.

Hygiene measures Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, using the toilet or applying cosmetics.
Remove Personal Protective Equipment (PPE) immediately after handling this product. Remove soiled clothing immediately and clean thoroughly before using again. Contaminated work clothing should not be allowed out of the workplace. Wash thoroughly and put on clean clothing.

Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers Store in a place accessible by authorized persons only. Store in original container. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from direct sunlight.

Advice on common storage Keep away from food, drink and animal feedingstuffs.

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Components	CAS-No.	Control parameters	Update	Basis
Fipronil	120068-37-3	0.035 mg/m ³ (TWA)		OES BCS*

*OES BCS: Internal Bayer AG, Crop Science Division "Occupational Exposure Standard"

Exposure controls

Respiratory protection

When respirators are required, select NIOSH approved equipment based on actual or potential airborne concentrations and in accordance with the appropriate regulatory standards and/or industry recommendations.
Under conditions immediately dangerous to life or health, or emergency conditions with unknown concentrations, use a full-face positive pressure air-supplied respirator equipped with an emergency escape air supply unit or use a self-contained breathing apparatus unit.

Hand protection

Chemical resistant nitrile rubber gloves

Eye protection

Tightly fitting safety goggles

Skin and body protection

Wear long-sleeved shirt and long pants and shoes plus socks.
Use suitable protective clothing, gloves and footwear, selected with regard to use conditions and exposure potential.

General protective measures

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and warm/tepid water.
Keep and wash PPE separately from other laundry.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	white to light yellow
Physical State	powder
Odor	characteristic
Odour Threshold	No data available
pH	4.0 - 6.0 (1 %) (23 °C) (Distilled water) emulsion in water
Vapor Pressure	< 0.0000037 hPa
Vapor Density (Air = 1)	No data available
Specific Gravity	No data available
Evaporation rate	Not applicable
Boiling Point	Not applicable

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Melting / Freezing Point	195.5 - 203 °C / 383.9 - 397.4 °F
Water solubility	0.0024 g/l (20 °C)
Minimum Ignition Energy	> 1,000 mJ
Molecular weight	437.1 g/mol
Decomposition temperature	> 220 °C , Heating rate: 10 K/min , Decomposition energy: 183 kJ/kg
Partition coefficient: n-octanol/water	No data available
Viscosity	Not applicable
Flash point	Not applicable
Auto-ignition temperature	No data available
Lower explosion limit	Not applicable
Upper explosion limit	Not applicable
Explosivity	Not explosive 92/69/EEC, A.14 / OECD 113
Other information	Further safety related physical-chemical data are not known.

SECTION 10: STABILITY AND REACTIVITY

Reactivity

Thermal decomposition	> 220 °C, Heating rate: 10 K/min, Decomposition energy: 183 kJ/kg
Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions	No hazardous reactions when stored and handled according to prescribed instructions.
Conditions to avoid	Extremes of temperature and direct sunlight.
Incompatible materials	No data available
Hazardous decomposition products	No decomposition products expected under normal conditions of use.

SECTION 11: TOXICOLOGICAL INFORMATION

Exposure routes	Skin Absorption, Eye contact, Inhalation, Ingestion
Immediate Effects	
Skin	May be fatal if absorbed through skin.

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Ingestion	May be fatal if swallowed.
Inhalation	May be fatal if inhaled.
Information on toxicological effects	
Acute oral toxicity	LD50 (Rat) = 92 mg/kg
Acute inhalation toxicity	LC50 (male Rat) = 0.36 mg/l Exposure time: 4 h Nose exposure only. Determined in the form of a respirable fine dust.
Acute dermal toxicity	LD50 (Rat) > 2,000 mg/kg LD50 (Rabbit) = 354 mg/kg
Skin corrosion/irritation	Slight irritant effect - does not require labelling. (Rabbit)
Serious eye damage/eye irritation	Slight irritant effect - does not require labelling. (Rabbit)
Respiratory or skin sensitisation	Skin: Non-sensitizing. (Guinea pig) OECD Test Guideline 406, Magnusson & Kligman test Skin: Non-sensitizing. (Guinea pig) OECD Test Guideline 406, Buehler test

Assessment STOT Specific target organ toxicity – repeated exposure

Fipronil caused specific target organ toxicity in experimental animal studies in the following organ(s): Liver. Fipronil caused neurobehavioral effects and/or neuropathological changes in animal studies.

Assessment mutagenicity

Fipronil was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.

Assessment carcinogenicity

Fipronil caused an increased incidence of tumours in rats in the following organ(s): Thyroid. The mechanism that triggers tumours in rodents and the type of tumours observed are not relevant to humans.

ACGIH

None.

NTP

None.

IARC

None.

OSHA

None.

Assessment toxicity to reproduction

Fipronil caused reproduction toxicity in a two-generation study in rats only at dose levels also toxic to the parent animals. The reproduction toxicity seen with Fipronil is related to parental toxicity.

Assessment developmental toxicity

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Fipronil did not cause developmental toxicity in rats and rabbits.

SECTION 12: ECOLOGICAL INFORMATION

Toxicity to fish	LC50 (Lepomis macrochirus (Bluegill sunfish)) = 0.0852 mg/l Exposure time: 96 h
Chronic toxicity to fish	Cyprinodon variegatus (sheepshead minnow) Early-life Stage NOEC: = 0.0029 mg/l Exposure time: 35 d Oncorhynchus mykiss (rainbow trout) Early-life Stage NOEC: = 0.015 mg/l Exposure time: 90 d
Toxicity to aquatic invertebrates	EC50 (Daphnia magna (Water flea)) = 0.19 mg/l Exposure time: 48 h LC50 (Mysidopsis bahia (mysid shrimp)) = 0.00014 mg/l Exposure time: 96 h
Chronic toxicity to aquatic invertebrates	NOEC (Mysidopsis bahia (mysid shrimp)): = 0.0077 µg/l Life Cycle; Exposure time: 28 d NOEC (Daphnia magna (Water flea)): = 0.0098 mg/l Exposure time: 21 d
Toxicity to aquatic plants	EC50 (Desmodesmus subspicatus (green algae)) = 0.068 mg/l Exposure time: 96 h NOEC (Desmodesmus subspicatus (green algae)) = 0.040 mg/l Exposure time: 96 h NOEC (Lemna gibba (gibbous duckweed)) = 0.16 mg/l Exposure time: 14 d
Biodegradability	Fipronil: Not rapidly biodegradable
Koc	Fipronil: Koc: 427 - 1278
Bioaccumulation	Fipronil: Bioconcentration factor (BCF) 321 Does not bioaccumulate.
Mobility in soil	Fipronil: Slightly mobile in soils
Additional ecological information	No other effects to be mentioned.
Environmental precautions	Do not allow to get into surface water, drains and ground water.

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SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment methods

Product Pesticide, spray mixture or rinse water that cannot be used according to label instructions may be disposed of on site or at an approved waste disposal facility.
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.

Contaminated packaging Do not re-use empty containers.
Completely empty container into application equipment, then dispose of empty container in a sanitary landfill, by incineration or by other procedures approved by state/provincial and local authorities.
If burned, stay out of smoke.
Follow advice on product label and/or leaflet.

RCRA Information Characterization and proper disposal of this material as a special or hazardous waste is dependent upon Federal, State and local laws and are the user's responsibility. RCRA classification may apply.

SECTION 14: TRANSPORT INFORMATION

49CFR

UN number	2588
Class	6.1
Packaging group	II
Proper shipping name	PESTICIDES, SOLID, TOXIC, N.O.S. (FIPRONIL)

IMDG

UN number	2588
Class	6.1
Packaging group	II
Marine pollutant	YES
Proper shipping name	PESTICIDE, SOLID, TOXIC, N.O.S. (FIPRONIL)

IATA

UN number	2588
Class	6.1
Packaging group	II
Environm. Hazardous Mark	NO
Proper shipping name	PESTICIDE, SOLID, TOXIC, N.O.S. (FIPRONIL)

This transportation information is not intended to convey all specific regulatory information relating to this product. It does not address regulatory variations due to package size or special transportation requirements.

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SECTION 15: REGULATORY INFORMATION

EPA Registration No. 432-1478

US Federal Regulations

TSCA list

Not applicable.

US. Toxic Substances Control Act (TSCA) Section 12(b) Export Notification (40 CFR 707, Subpt D)

Not applicable.

SARA Title III - Section 302 - Notification and Information

None.

SARA Title III - Section 313 - Toxic Chemical Release Reporting

None.

US States Regulatory Reporting

CA Prop65

This product does not contain any substances known to the State of California to cause cancer.

This product does not contain any substances known to the State of California to cause reproductive harm.

US State Right-To-Know Ingredients

None.

EPA/FIFRA Information:

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. Following is the hazard information required on the pesticide label:

Signal word: Warning!

Hazard statements: May be fatal if swallowed or absorbed through the skin.
May be fatal if inhaled.
Causes substantial but temporary eye injury.
Do not get in eyes, on skin, or on clothing.
Do not breathe dust.
Wear natural rubber gloves, protective clothing, and goggles.
Remove and wash contaminated clothing before re-use.
Wash thoroughly with soap and water after handling.

SECTION 16: OTHER INFORMATION

Abbreviations and acronyms

49CFR Code of Federal Regulations, Title 49

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ACGIH	US. ACGIH Threshold Limit Values
ATE	Acute toxicity estimate
CAS-Nr.	Chemical Abstracts Service number
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
EINECS	European inventory of existing commercial substances
ELINCS	European list of notified chemical substances
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
N.O.S.	Not otherwise specified
NTP	US. National Toxicology Program (NTP) Report on Carcinogens
OECD	Organization for Economic Co-operation and Development
TDG	Transportation of Dangerous Goods
TWA	Time weighted average
UN	United Nations
WHO	World health organisation

NFPA 704 (National Fire Protection Association):

Health - 2 Flammability - 2 Instability - 0 Others - none

HMIS (Hazardous Materials Identification System, based on the Third Edition Ratings Guide)

Health - 2 Flammability - 2 Physical Hazard - 0 PPE -

0 = minimal hazard, 1 = slight hazard, 2 = moderate hazard, 3 = severe hazard, 4 = extreme hazard

Reason for Revision: The following sections have been revised: Section 2: Hazards Identification. Section 11: Toxicological Information. Section 12. Ecological information. Section 14: Transport Information. Reviewed and updated for general editorial purposes.

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