SAFETY DATA SHEET
FUSE

1. IDENTIFICATION

Product name:	**FUSE**
Product type:	Termiticide/Insecticide
EPA Registration No.:	53883-328
Chemical name of active ingredient(s):	**Imidacloprid:** 1-[(6-chloro-3-pyridinyl)methyl]-N-nitro-2-imidazolidinimine **Fipronil:** 5-amino-1-(2,6-dichloro-4-(trifluoromethyl)phenyl)-4-((1,R,S)-(trifluoromethyl)sulfinyl)-1-H-pyrazole-3-carbonitrile
Manufacturer/Registrant:	Control Solutions, Inc. 5903 Genoa-Red Bluff Pasadena, TX 77507
For fire, spill, and/or leak emergencies, contact Chemtrec:	Phone: 1-800-424-9300
For medical emergencies and health and safety inquiries, contact Safety Call:	Phone: 1-866-897-8050
Poison Control Center	Phone: 1-800-222-1222

2. HAZARDS IDENTIFICATIONS

OSHA HCS CLASSIFICATION (29 CFR 1910.1200)

Acute Toxicity:

	Acute oral	Acute dermal	Acute inhalation	Eye irritation	Skin irritation	Skin Sensitization
Category	III	III	III	IV	IV	None

NC: Not classified

SIGNAL WORD: CAUTION

HAZARD STATEMENTS:

- Harmful if swallowed, absorbed through skin or inhaled

PICTOGRAM:

PRECAUTIONARY STATEMENTS:

- Do not get in eyes, on skin or on clothing. Do no breath spray mist. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove and wash contaminated clothing before reuse. Use only outdoors or in a well-ventilated area. If in haled: Remove victim to fresh air and keep comfortable for breathing. Call a poison center or doctor if you feel unwell.

Contact Safety Call® International for emergency medical treatment at (866) 897-8050.

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3. COMPOSITION/INFORMATION ON INGREDIENTS

COMMON NAME	CAS NO.	%	OSHA PEL	ACGIH TLV	OTHER	NTP/IARC/OSHA (Carcinogen)
Imidacloprid	13826-41-3	21.4	NE	NE	NA	NA
Fipronil	120068-37-3	6.6	NE	NE	NE	NA

NE=Not established; NA=Not applicable.

4. FIRST AID MEASURES

FIRST AID

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

If swallowed:	• Call a Poison Control Center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by a poison control center or doctor. • Do not give anything by mouth to an unconscious person.
If on skin or clothing:	• Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
If inhaled:	• Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. • Call a poison control center or doctor for treatment advice.
If in eyes:	• 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 poison control center or doctor for treatment advice.

Note to Physician: There is no specific antidote. All treatment should be based on observed signs and symptoms of distress in the patient. Overexposure to materials other than this product may have occurred. In severe cases of overexposure by oral ingestion, lethargy, muscle tremors, and in extreme cases, possibly convulsions may occur.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact SafetyCall® (866) 897-8050 for emergency medical treatment information.

5. FIRE FIGHTING MEASURES

FLASH POINT: Not applicable
FLAMMABLE LIMITS: Not applicable
EXTINGUISHING MEDIA: Water spray, CO_2, foam, dry powder.

FIRE & EXPLOSION HAZARDS: Pesticide fires have potential to emit hazardous gases such as carbon monoxide, carbon dioxide, hydrogen fluoride, hydrogen chloride, nitrogen oxides, sulfur oxides, acid halides. If product is heated above decomposition temperature, toxic vapors will be released. The substances/groups of substances mentioned can be released if the product is involved in a fire.

FIRE-FIGHTING PROCEDURES: Isolate fire area and evacuate downwind. DO NOT breathe gases, smoke or vapors generated. Wear positive pressure self-contained breathing apparatus and full-protective clothing.

HAZARDOUS DECOMPOSITION PRODUCTS: May release irritating and toxic gases due to thermal decomposition.

6. ACCIDENTAL RELEASE MEASURES

ACTION TO TAKE FOR SPILLS/LEAKS: Keep unnecessary personnel away. Do not touch or walk through spilled material. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep people away from and upwind of spill/leak. Do not contaminate water. Stop leak if you can do so without risk. Prevent entry into waterways, sewers, basements or confined areas. Use water spray to reduce vapors or divert vapor cloud drift. Remove sources of ignition. Before attempting clean up, refer to hazard data given above. Small Spills: Absorb with non-reactive absorbent and place in suitable, covered, labeled containers. Prevent large spills from entering sewers or waterways. Never return spills in original containers for re-use. Large Spills: Wet down with water and dike for later disposal. After removal flush contaminated area thoroughly with water. Contact emergency services and supplier for advice.

7. HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN IN HANDLING: Do not contaminate water, food, or feed by storage or disposal or cleaning of equipment. Carefully open containers and after partial use close container tightly. Avoid contact with skin, eyes or clothing. Avoid breathing spray mist. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse.

PRECAUTIONS TO BE TAKEN IN STORAGE: Store unused product in original container only, out of reach of children and animals.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

THE FOLLOWING RECOMMENDATIONS FOR EXPOSURE CONTROLS/PERSONAL PROTECTION ARE INTENDED FOR THE MANUFACTURE, FORMULATION, PACKAGING AND USE OF THIS PRODUCT.

FOR COMMERCIAL APPLICATIONS AND/OR ON-FARM APPLICATIONS CONSULT THE PRODUCT LABEL.

HAND PROTECTION: Chemical-resistant gloves made of any waterproof material such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyvinylchloride (PVC) or viton

SKIN PROTECTION: Long-sleeve shirt, long pants, shoes plus socks.

EYE PROTECTION: Protective eyewear (goggles, a face shield or safety glasses with front, brow and temple protection) when working in a non-ventilated space, including but not limited to crawl-spaces and basements or when applying by rodding or sub-slab injection.

RESPIRATOR REQUIREMENTS: All pesticide handlers must wear a dust/mist filtering respirator (MSHA/NIOSH approval number prefix TC-21C), or a NIOSH approved respirator with any N, R, P or HE filter, when working in a non-ventilated space including but not limited to crawl-spaces and basements.

VENTILATION: Whenever possible, adequate ventilation should be used to minimize the need for personal protective equipment.

ADDITIONAL PROTECTIVE MEASURES:
Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product. Do not reuse them.

USER SAFETY RECOMMENDATIONS:
Users Should:

- User must wash hands thoroughly with soap and water before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove contaminated clothing. Then wash body thoroughly with soap and water and put on clean clothing. Wash clothing with detergent and hot water before reusing.
- Remove PPE immediately after handling this product. Wash outside of gloves before removing. Wash PPE before reusing.

EXPOSURE GUIDELINES: Refer to Section 3.
ENGINEERING CONTROLS: Minimize airborne concentrations.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: White opaque liquid
ODOR: None
pH: 6.25
FLASH POINT: Not applicable
DENSITY: 1.133 g/mL @ 20°C
VISCOSITY: 140.22 cSt @ 20°C; 121.81 cSt @ 40°C

10. STABILITY AND REACTIVITY

STABILITY: Stable under normal conditions.
CONDITIONS TO AVOID: Avoid excessive heat.
INCOMPATIBLE MATERIALS: None known.
HAZARDOUS DECOMPOSITION PRODUCTS: May release irritating and toxic gases due to thermal decomposition.
HAZARDOUS POLYMERIZATION: Will not occur.

11. TOXICOLOGICAL INFORMATION

ACUTE TOXICITY/IRRITATION STUDIES:

Acute Oral LD_{50} (Rat): > 2,772 mg/kg
Acute Dermal LD_{50} (Rabbit): > 5,050 mg/kg
Acute Inhalation LC_{50} (Rat): > 2.11 mg/L/4 hr
Eye Irritation: Non-irritating
Skin Irritation: Non-irritating
Dermal Sensitization: Not a skin sensitizer

REPRODUCTIVE/DEVELOPMENTAL TOXICITY:

Imidacloprid: Reproductive toxicity: In a two-generation reproduction study in rats, imidacloprid was not a primary reproductive toxicant. Offspring exhibited reduced body weights at the high dose and in conjunction with maternal toxicity.

Developmental toxicity: In developmental toxicity studies in rats and rabbits, there was no evidence of an embryotoxic or teratogenic potential for imidacloprid. In both species, developmental effects were observed only at high doses and in conjunction with maternal toxicity.

Fipronil: Animals studies gave no indication of a developmental toxic effect at doses that were not toxic to the parental animals. No indications of a developmental toxicity or teratogenic effects were seen in animal studies.

CHRONIC/SUBCHRONIC TOXICITY:

Imidacloprid: In chronic dietary studies in rats and dogs exposed to imidacloprid, the target organs were the thyroids and/or liver.

Fipronil: Signs of toxicity during a 52-week chronic rat feeding study included reduced feeding and food conversion efficiency, reduced body weight gain, seizures and seizure-related death, changes in thyroid hormones, increased mass of the liver and thyroid, and kidney effects.

CARCINOGENICITY:

Imidacloprid: In oncogenicity studies in rats and mice, imidacloprid was not considered carcinogenic in either species.

Fipronil: The EPA has classified fipronil a Group C Possible Human Carcinogen based on laboratory animal studies (increased thyroid tumors in male and female rats). Humans and rats have the same of the mechanism of action which produced fipronil-induced thyroid tumors in the rat; however, the rat appears to be more highly sensitive than humans. Therefore, fipronil-induced rat thyroid tumors are not considered suggestive of a human health risk. None of the remaining ingredients in the mixture are considered to be carcinogenic.

MUTAGENICITY:

Imidacloprid: The imidacloprid mutagenicity studies, taken collectively, demonstrate that the active ingredient is not genotoxic or mutagenic.

Fipronil: Results from a number of mutagenicity studies with microorganisms, mammalian cell culture and mammals are available. Taking into account all of the information, there is no indication that the substance is mutagenic.

NEUROTOXICITY:

Imidacloprid: Neurotoxicity studies in rats showed slight behavioral and activity changes only at the highest dose tested. There were no correlating morphological changes observed in the neural tissues.

Fipronil: A neurotoxic in both rats and dogs as shown in the acute and sub-chronic screening in the rat, developmental neurotoxicity and chronic carcinogenicity studies in the rat and in two chronic dog studies.

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL HAZARDS: This pesticide is toxic to birds, fish, and highly toxic to aquatic invertebrates. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Extreme care must be taken to avoid runoff. Runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwaters.

This product is highly toxic to bees exposed to direct treatment or residues on blooming crops/plants or weeds. Do not apply this product or allow it to drift to blooming crops/plants or weeds if bees are foraging in the treatment area.

This chemical demonstrates the properties and characteristics associated with chemicals detected in groundwater. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

ECOTOXICOLOGICAL INFORMATION:

Imidacloprid:

Rainbow trout LC_{50} (96h) - 211 mg/L
Daphnia magna EC_{50} (48h) - 85 mg/L
Algae EC_{50} (72h) - > 10 mg/L

Fipronil:

Bluegill sunfish (*Lepomis macrochirus* LC_{50} (96 h) – 0.083 mg/L

Rainbow trout (*Onchorhynchus mykiss*) LC_{50} (96 h) – 0.246 mg/L
Sheephead minnow LC_{50} (96 h) – 0.13 mg/L
Water flea (*Daphnia magna*) NOEL – 9.8 µg/L; LOEL - 20 µg/L
Bobwhite quail LD_{50} - > 11.3 mg/kg

13. DISPOSAL CONSIDERATIONS

PESTICIDE DISPOSAL: Pesticide wastes are acutely hazardous**.** Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. Dispose of excess or waste pesticide by use according to label directions, or contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

CONTAINER DISPOSAL: Nonrefillable Container: Do not reuse or refill this container. Triple rinse or pressure rinse container (or equivalent) promptly after emptying; then offer for recycling, if available, or reconditioning, if appropriate, or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities. **Triple rinse containers small enough to shake (capacity ≤ 5 gallons) as follows:** Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank, or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. **Pressure rinse as follows:** Empty the remaining contents into application equipment or mix tank. Hold container upside down over application equipment or mix tank, or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

14. TRANSPORT INFORMATION

Ground Domestic (DOT): Not regulated for non-bulk packaging.

International transportation:

Vessel (IMDG): UN3082, Environmentally hazardous substances, liquid, n.o.s. (fipronil), 9, PG III, marine pollutant

Air (IATA): UN3082, Environmentally hazardous substances, liquid, n.o.s. (fipronil), 9, PG III, marine pollutant

15. REGULATORY INFORMATION

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 for safety data sheet, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label.

CAUTION; Harmful if swallowed, absorbed through skin or inhaled. Do not get in eyes, on skin or on clothing. Do not breathe spray mist. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove and wash contaminated clothing before reuse.

SARA TITLE III CLASSIFICATION:
Section 302: Not applicable.
Section 311/312: Acute health hazard (immediate)
Chronic health hazard (delayed)
Section 313: Not applicable

CA PROPOSITION 65: Not applicable

CERCLA RQ: Not applicable

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RCRA CLASSIFICATION: Under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste.

TSCA STATUS: The ingredients of this product are listed on the TSCA inventory or are exempt.

16. OTHER INFORMATION

HAZARD RATINGS	NFPA	HMIS		
HEALTH:	1	1	0	MINIMAL
FLAMMABILITY:	0	0	1	SLIGHT
REACTIVITY:	0	0	2	MODERATE
			3	HIGH
			4	SEVERE

MSDS DATE: 12/20/13

The information and recommendations contained herein are based upon data believed to be correct. However, no warranty of any kind, expressed or implied, is made with respect to the information contained herein.