



# TIDE INTERNATIONAL USA, INC.

—A DIVISION OF TIDE GROUP

MAIN OFFICE : 21 HUBBLE, IRVINE, CA 92618, USA

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## Safety Data Sheet of Tide Imidacloprid 2F T&O

### Section 1 – Chemical Product and Company Identification

Product name                      Tide Imidacloprid 2F T&O  
EPA Reg. No.                        84229-14  
Chemical Class                      Neonicotinoid  
Recommended Use                  Insecticide

#### Company details

Importer                              Tide International USA, Inc.  
   21 Hubble, Irvine, CA 92618

Emergency phone                  Chemtrec                              1-800-424-9300  
   Tide International USA, Inc.      1-949-679-3535

### Section 2 – Hazard Identification

Classified as Hazardous according to criteria of the Hazard Communication Standard (HCS) or 29 CFR §1910.1200 (2012).

#### Classification of the substance or mixture:

Acute Oral Toxicity (Category 4)

Acute Inhalation (Category 4)

#### Label elements

HCS labeling

Hazard pictograms (HCS)



**Signal Word:** WARNING

#### GHS Hazard Statements:

Harmful if swallowed

Harmful if inhaled

#### Other hazard information:

Environmental hazards:



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This product is highly toxic to bees exposed to direct treatment or residues in blooming crops, plants or weeds. This product is toxic to wildlife and highly toxic to aquatic invertebrates.

## Section 3 - Composition / Information on Ingredients

| Active ingredient  | CAS No.     | Content (w/w,%) | ACIGH TWA  |
|--|-------------|-----------------|--|
| Imidacloprid<br>(EZ)-1-(6-cloro-3-piridilmetil)-<br>N-nitroimidazolidin-2-ilidenoamina | 138261-41-3 | 22.6% min.      | NE   |
| Sodium bentonite   | 1302-78-9   | 1.5% max.       | 3 mg/m <sup>3</sup> Respirable<br>particles<br>10 mg/m <sup>3</sup> Inhalable<br>particles |
| Propylene glycol   | 57-55-6     | 5.0% max.       | NA   |
| Other ingredient deemed not to be<br>hazardous   | Proprietary | Balance         | -  |

## Section 4 – First Aid Measures

Have the product container or label with you when calling a poison control center or doctor or going for treatment. You may also contact CHEMTREC at 1-800-424-9300 for emergency medical treatment information.

**If swallowed:** Call a POISON CENTER or doctor/physician if you feel unwell. Have person sip a glass of water if able to swallow. Rinse mouth. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

### **If inhaled:**

Call a POISON CENTER or doctor/physician if you feel unwell. Remove person to fresh air and keep comfortable for breathing. If person is not breathing, call 911 for an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advices.

**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 in eyes:** Get medical advice/attention. 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.

**Note to physician:** There is no specific antidote. Treat symptomatically.

## Section 5 – Fire-Fighting Measures

**Flashpoint:** >100°C

**Combustible:** No

**Means of Extinction:** Water spray, Carbon dioxide (CO<sub>2</sub>), alcohol-resistant foam, Dry chemical



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**Hazardous combustion products:** Hydrogen chloride, Hydrogen cyanide (hydrocyanic acid), Carbon monoxide, Nitrogen oxides (NOx)

**Fire fighting instructions:** Keep out of smoke. Cool exposed containers with water spray. Fight fire from upwind position. Use self-contained breathing equipment and protective suit. Do not allow run-off from fire fighting to enter drains or water courses. Equipment or materials involved in pesticide fires may become contaminated.

## Section 6 - Accidental Release Measures

Clean up spills immediately, observing precautions in Section 8 of this document. Isolate hazard area. Keep unnecessary and unprotected personnel from entering.

**General and Disposal:** Isolate area and keep unauthorized people away. Avoid breathing vapors and avoid skin contact. Use proper protective equipment to minimize personal exposure (see Section 8). Contaminated soil may have to be removed and disposed. Contact AmTide for further assistance if necessary.

**Methods for Cleaning up:** Take up with absorbent material (e.g. sand, diatomaceous earth or a proprietary absorbent material). Keep in suitable, closed containers for disposal. Clean contaminated floors and objects thoroughly, observing environmental regulations.

**Additional Advice:** Use personal protective equipment. Do not allow product to enter streams, sewers or other waterways. Do not allow product to contact vegetation.

## Section 7- Handling and Storage

KEEP OUT OF REACH OF CHILDREN!

### Handling:

Use only outdoors or in a well-ventilated area. Avoid breathing fumes/vapors. Handle and open container in a manner as to prevent spillage. If the container is leaking, invert to prevent leakage and carefully dam up the spilled material to prevent runoff. Refer to the Precautionary Statements section of this label for hazards associated with the handling of this material. Do not walk through spilled material. Absorb spilled material with absorbing type compounds and dispose of as directed for pesticides below. In spill or leak incidents, keep unauthorized people away.

Advice on safe handling: Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product. Do not get in eyes, on skin, or on clothing. Keep container tightly closed. Do not ingest or inhale. Use with adequate ventilation. Discard contaminated shoes. Keep away from heat, sparks and flame.

### Storage:

Keep pesticide in original container. Do not put concentrate or dilute into food or drink containers. Store in cool, dry place. Do not store diluted spray.



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## Section 8 - Exposure Controls / Personal Protection

### Exposure limit values

| Components.                             | CAS-No      | Control parameters                       | Basis     |
|---|-------------|--|-----------|
| Imidacloprid                            | 138261-41-3 | NE                                       | NE        |
| Sodium bentonite                        | 1302-78-9   | 3 mg/m <sup>3</sup> Respirable particles | ACGIH TWA |
|   |             | 10 mg/m <sup>3</sup> Inhalable particles | ACGIH TWA |
|   |             | 15 mg/m <sup>3</sup> Total dust          | OSHA PEL  |
|   |             | 5 mg/m <sup>3</sup> Respirable fraction  | OSHA PEL  |
|   |             | 15 mg/m <sup>3</sup> Total dust          | OSHA TWA  |
| 5 mg/m <sup>3</sup> Respirable fraction | OSHA TWA    |  |           |
| Propylene glycol                        | 57-55-6     | 10 mg/m <sup>3</sup> (WEEL)              | OSHA      |

### Engineering controls

When handlers used closed systems, enclosed cabs in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [(40 CFR 170.240(d) (4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

### Personal protection

Always follow the label instructions when handling this product.

#### Applicators and other handlers must wear:

Long-sleeved shirt and long pants

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

Shoes plus socks

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.

**Respiratory Protection:** Not normally required. When respiratory protection is necessary under the conditions of use, wear a respirator approved for pesticides by the National Institute for Occupational Safety and Health (NIOSH).

#### Hand Protection:



Protective gloves

**Eye Protection:** Where eye contact is likely, use chemical splash goggles. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.



Tightly sealed goggle



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**Skin and Body Protection:** To avoid contact with skin, wear long pants, long-sleeved shirt, shoes and socks. An emergency shower or water supply should be readily accessible to the work area.

**Specific Hygiene Measures:** Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Wash clothing and other absorbent materials that have been exposed to this product. Follow the manufacturer's instructions for cleaning and maintaining PPE.

### Environmental controls

See Sections 6, 7, 12, 13.

## Section 9 - Physical and Chemical Properties

**Appearance:** White opaque thick liquid

**Odor:** Aromatic-like odor

**Odor threshold:** No Data Available

**pH:** 5.0-7.0 at 25°C

**Melting point/freezing point:** No Data Available

**Initial boiling point and boiling range:** Not determined

**Flammability:** > 100°C

**Explosibility:** Does not have explosive characteristics.

**Evaporation rate:** No Data Available

**Vapor pressure:**  $9 \times 10^{-10}$  mPa (25°C, Imidacloprid )

**Vapor density:** No Data Available

**Density:** 1.11g/cm<sup>3</sup>

**Solubility:** Dispersible

**Octanol/water partition coefficient:** log P = 0.57 @ 21°C (Imidacloprid)

**Auto-ignition temperature:** No Data Available

**Decomposition temperature:** TGA-measurement: Above 230 °C, a weight loss was observed both under air and under a nitrogen atmosphere.

**Viscosity:** 243.247 Centistokes at 20°C; 288.073 Centistokes at 40°C

These physical data are typical values based on material test but may vary from sample to sample. Typical values should not construed as a guaranteed analysis and any specific lot or as specification items.

## Section 10 - Stability and Reactivity

**Reactivity:** Product will not undergo polymerization

**Chemical stability:** Stable under normal conditions.

**Possibility of hazardous reactions:** Will not occur hazardous polymerization.

**Conditions to avoid:** Excessive heat. For imidacloprid, strong exothermal reaction above 200°C

**Incompatible Materials:** Not known

**Hazardous decomposition products:** Hydrogen chloride, Hydrogen cyanide (hydrocyanic acid), Carbon monoxide, Nitrogen oxides (NOx)



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## Section 11 - Toxicological Information

**Exposure routes:** Eyes, skin, ingestion & inhalation.

No specific data is available for this product as no toxicity tests have been conducted on this product. Information presented is our best judgement based on similar products and/or individual components.

### Toxicity:

|                           |   |
|---------------------------|---|
| Acute oral toxicity       | LD <sub>50</sub> for female rat 1030mg/kg     |
| Acute dermal toxicity     | LD <sub>50</sub> for rabbits >5,000mg/kg      |
| Acute inhalation toxicity | LC <sub>50</sub> (4h) >2.03 mg/L in male rats |
| Skin irritation           | Slightly irritating                           |
| Eye irritation            | Mildly irritating                             |
| Sensitization             | No skin sensitizing reaction in guinea pigs   |

**Chronic Toxicity:** In chronic dietary studies in rats and dogs exposed to Imidacloprid, the target organs were the thyroid and/or liver.

**Carcinogenicity:** In oncongenicity studies in rats and mice, Imidacloprid was not considered carcinogenic in either species.

Not carcinogenic (rat); Not listed by ACGIH, NTP, IARC, or OSHA.

**Reproduction:** 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 material toxicity.

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

**Neurotoxicity:** 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.

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

## Section 12 - Ecological Information

This product is highly toxic to bees exposed to direct treatment or residues in 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 product is toxic to wildlife and highly toxic to aquatic invertebrates.

This chemical demonstrates the properties and characteristics associated with chemicals detected in ground water. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination. Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters.





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## Avian toxicity: Imidacloprid technical

5 day oral LC<sub>50</sub> (Bobwhite quail): > 5000 mg/kg

5 day oral LC<sub>50</sub> (Mallard duck): > 4797 mg/kg

LD<sub>50</sub> (Mallard duck): > 283 mg/kg

LD<sub>50</sub> (Bobwhite quail): 152mg/kg

## Aquatic organism toxicity: Imidacloprid technical

Fish LC<sub>50</sub> (96 h) for rainbow trout 214.4 mg/L.

Daphnia EC<sub>50</sub> (48 h) >336.92mg/L.

## Other non-target organism toxicity: Imidacloprid technical

Bees: LD<sub>50</sub> (oral, 48hr) Bee > 21 ng/bee; LD<sub>50</sub> (contact, 48hr) Bee: 81 µg/bee

Worms: The LC<sub>50</sub> for earthworms is 10.7 mg/kg soil

**Persistence/Degradability:** The time required for 50% of the field-applied imidacloprid to dissipate (DT<sub>50</sub>) can range anywhere from approximately 80 days to 2 years. Assuming typical DT<sub>50</sub>s of 1 to 2 years, PMRA has classified imidacloprid as persistent in soil based on the classification scheme of Goring et al.

**Bioaccumulative potential:** Low potential.

**Mobility in soil:** Low mobility at low application rate and with aging.

**Other adverse effects:** Imidacloprid was found to be hydrolysis stable with a half-life > 1 year at pH 5 and 7. Imidacloprid has a photolysis half-life of 39 days at the soil surface, with a range of 26.5–229 days when incorporated into the soil.

## Section 13 - Disposal Considerations

Dispose of contents and container in accordance with local regulations. End users must dispose of any unused product as per the label recommendations.

**Pesticide disposal:** Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

**Container handling:** Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying.

(Nonrefillable container ≤ 5 gallons): Triple rinse 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. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

(Nonrefillable > 5 gallons): Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times.



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Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

## Section 14 - Transport Information

**US DOT Classification:** Not Regulated

**IMO/IMDG Classification:** Not Regulated

**IATA Classification:** Not Regulated

## Section 15 - Regulatory Information

### 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 AND DOMESTIC ANIMALS

#### CAUTION

Harmful if inhaled. Harmful if swallowed. Avoid breathing spray mist.

#### ENVIRONMENTAL HAZARDS

Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters.

This product is highly toxic to bees exposed to direct treatment or residues in 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 product is toxic to wildlife and highly toxic to aquatic invertebrates.

APPLICATION RESTRICTIONS EXIST FOR THIS PRODUCT BECAUSE OF RISK TO BEES AND OTHER INSECT POLLINATORS. FOLLOW APPLICATION RESTRICTIONS FOUND IN THE DIRECTIONS FOR USE TO PROTECT POLLINATORS.

### US Federal Regulations

#### TSCA list:

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

**SARA Title III - Section 302 - notification and information** None

**SARA Title III - Section 313 - toxic chemical release reporting** None

**SARA Title III - Section 311/312 - hazard identification**

Immediate (Acute)

Delayed (Chronic)

This product contains none of the components listed as Extremely Hazardous substances.





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## OSHA Hazardous Components:

Sodium bentonite: 1302-78-9

## U.S. Regulatory Reporting

### CA Prop65

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

### State information:

Each state may promulgate standards more stringent than the federal government. This section cannot encompass an inclusive list of all state regulations. Therefore, the user should consult state or local authorities.

## Canadian Regulations

All ingredients are on the inventory or exempt from listing.

## Environmental

### CERCLA

None

## Section 16 - Other Information

SDS# TIC-INS8422914

Created date: 09/23/2015

Update date:

Revised for:

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