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1. Identification

Product identifier used on the label

Regent 4 SC Insecticide

Recommended use of the chemical and restriction on use

Recommended use*: crop protection product, insecticide

Details of the supplier of the safety data sheet

Company:

BASF Agricultural Solutions US LLC 2 TW Alexander Drive Research Triangle Park, NC 27713 USA

Telephone: +1 973 245-6000

Emergency telephone number

24 Hour Emergency Response Information

CHEMTREC: 1-800-424-9300

BASF HOTLINE: 1-800-832-HELP (4357)

Other means of identification

Substance number: 615254
EPA Registration number: 7969-207
Synonyms: Fipronil

2. Hazards Identification

According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

Classification of the product

Flam. Liq. 4 Flammable liquids
Acute Tox. 3 (oral) Acute toxicity
Acute Tox. 2 (Inhalation - mist) Acute toxicity
Acute Tox. 3 (dermal) Acute toxicity

^{*} The "Recommended use" identified for this product is provided solely to comply with a Federal requirement and is not part of the seller's published specification. The terms of this Safety Data Sheet (SDS) do not create or infer any warranty, express or implied, including by incorporation into or reference in the seller's sales agreement.

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Eye Dam./Irrit. 1 Serious eye damage/eye irritation

Skin Sens. 1 Skin sensitization

STOT RE 1 Specific target organ toxicity — repeated

exposure

Aquatic Acute 1 Hazardous to the aquatic environment - acute Aquatic Chronic 1 Hazardous to the aquatic environment - chronic

Label elements

Pictogram:

Signal Word:

Danger

Hazard Statement:

H227 Combustible liquid.

H318 Causes serious eye damage.

H330 Fatal if inhaled.

H317 May cause an allergic skin reaction. H301 + H311 Toxic if swallowed or in contact with skin

H372 Causes damage to organs (Central nervous system) through prolonged

or repeated exposure.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

Precautionary Statements (Prevention):

P271 Use only outdoors or in a well-ventilated area.

P280 Wear protective gloves and eye protection or face protection.

P273 Avoid release to the environment.
P260 Do not breathe dust/gas/mist/vapours.

P210 Keep away from heat, hot surfaces, sparks, open flames and other

ignition sources. No smoking.

P284 In case of inadequate ventilation wear respiratory protection.

P270 Do not eat, drink or smoke when using this product.
P264 Wash contaminated body parts thoroughly after handling.

P272 Contaminated work clothing should not be allowed out of the workplace.

Precautionary Statements (Response):

P310 Immediately call a POISON CENTER or physician.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove

contact lenses, if present and easy to do. Continue rinsing.

P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for

breathing.

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.

P361 + P364 Take off immediately all contaminated clothing and wash it before

reuse.

P330 Rinse mouth
P391 Collect spillage.

P370 + P378 In case of fire: Use water spray, dry powder, foam or carbon dioxide for

extinction.

Precautionary Statements (Storage):

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up.

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Precautionary Statements (Disposal):

P501 Dispose of contents/container in accordance with local regulations.

Hazards not otherwise classified

See section 12 - Results of PBT and vPvB assessment. If applicable information is provided in this section on other hazards which do not result in classification but which may contribute to the overall hazards of the substance or mixture.

Labeling of special preparations (GHS):

May produce an allergic reaction. Contains: 1,2-benzisothiazol-3(2H)-one

3. Composition / Information on Ingredients

According to Regulation 2012 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

Citric acid

CAS Number: 77-92-9 Content (W/W): 0.1 - 1.0%

Synonym: 2-Hydroxy-1,2,3-propanetricarboxylic acid; Citric acid

1,2-benzisothiazol-3(2H)-one

CAS Number: 2634-33-5 Content (W/W): < 0.1% Synonym: No data available.

Fipronil

CAS Number: 120068-37-3 Content (W/W): 25.0 - 50.0%

Synonym: Fipronil

4. First-Aid Measures

Description of first aid measures

General advice:

First aid personnel should pay attention to their own safety. If the patient is likely to become unconscious, place and transport in stable sideways position (recovery position). Immediately remove contaminated clothing.

If inhaled:

Keep patient calm, remove to fresh air, seek medical attention. Immediately administer a corticosteroid from a controlled/metered dose inhaler.

If on skin:

Immediately wash thoroughly with plenty of water, apply sterile dressings, consult a skin specialist.

If in eyes:

Immediately wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.

If swallowed:

Immediately rinse mouth and then drink 200-300 ml of water, seek medical attention.

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Most important symptoms and effects, both acute and delayed

Symptoms: CNS stimulation, tremors, convulsions

Indication of any immediate medical attention and special treatment needed

Note to physician

Antidote: No known specific antidote.

Treatment: Treat according to symptoms (decontamination, vital functions), no

known specific antidote. Anticonvulsant therapy as routinely administered to humans. Based on animal studies diazepam and phenobarbital prevented convulsions. Due to the slow elimination of the active compound and its metabolites, the treatment must be continued for several days, gradually decreasing the dose of anticonvulsant based

on the clinical response.

5. Fire-Fighting Measures

Extinguishing media

Suitable extinguishing media: water spray, carbon dioxide, foam, dry powder

Unsuitable extinguishing media for safety reasons: water jet

Special hazards arising from the substance or mixture

Hazards during fire-fighting:

carbon monoxide, carbon dioxide, Hydrogen chloride, hydrogen fluoride, nitrogen oxides, halogenated compounds, sulfur oxides, silica compounds

The substances/groups of substances mentioned can be released in case of fire.

Advice for fire-fighters

Protective equipment for fire-fighting:

Wear self-contained breathing apparatus and chemical-protective clothing.

Further information:

Collect contaminated extinguishing water separately, do not allow to reach sewage or effluent systems. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations. In case of fire and/or explosion do not breathe fumes. Keep containers cool by spraying with water if exposed to fire.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Take appropriate protective measures. Clear area. Shut off source of leak only under safe conditions. Extinguish sources of ignition nearby and downwind. Ensure adequate ventilation. Wear suitable personal protective clothing and equipment.

Environmental precautions

Do not discharge into the subsoil/soil. Do not discharge into drains/surface waters/groundwater.

Methods and material for containment and cleaning up

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Dike spillage. Pick up with suitable absorbent material. Place into suitable containers for reuse or disposal in a licensed facility. Spilled substance/product should be recovered and applied according to label rates whenever possible. If application of spilled substance/product is not possible, then spills should be contained, solidified, and placed in suitable containers for disposal. After decontamination, spill area can be washed with water. Collect wash water for approved disposal.

7. Handling and Storage

Precautions for safe handling

RECOMMENDATIONS ARE FOR MANUFACTURING, COMMERCIAL BLENDING, AND PACKAGING WORKERS. PESTICIDE APPLICATORS & WORKERS must refer to the Product Label and Directions for Use attached to the product for Agricultural Use Requirements in accordance with the EPA Worker Protection Standard 40 CFR part 170. Ensure adequate ventilation. Provide good ventilation of working area (local exhaust ventilation if necessary). Keep away from sources of ignition - No smoking. Keep container tightly sealed. Protect contents from the effects of light. Protect against heat. Protect from air. Handle and open container with care. Do not open until ready to use. Once container is opened, content should be used as soon as possible. Avoid aerosol formation. Avoid dust formation. Provide means for controlling leaks and spills. Do not return residues to the storage containers. Follow label warnings even after container is emptied. The substance/product may be handled only by appropriately trained personnel. Avoid all direct contact with the substance/product. Avoid contact with the skin, eyes and clothing. Avoid inhalation of dusts/mists/vapours. Wear suitable personal protective clothing and equipment.

Protection against fire and explosion:

The relevant fire protection measures should be noted. Fire extinguishers should be kept handy. Avoid all sources of ignition: heat, sparks, open flame. Sources of ignition should be kept well clear. Avoid extreme heat. Keep away from oxidizable substances. Electrical equipment should conform to national electric code. Ground all transfer equipment properly to prevent electrostatic discharge. Electrostatic discharge may cause ignition.

Conditions for safe storage, including any incompatibilities

Segregate from incompatible substances. Segregate from foods and animal feeds. Segregate from textiles and similar materials.

Further information on storage conditions: Keep only in the original container in a cool, dry, well-ventilated place away from ignition sources, heat or flame. Protect containers from physical damage. Protect against contamination. The authority permits and storage regulations must be observed.

8. Exposure Controls/Personal Protection

Users of a pesticidal product should refer to the product label for personal protective equipment requirements.

Components with occupational exposure limits

Fipronil TWA value 0.042 mg/m3;

Advice on system design:

No applicable information available.

Personal protective equipment

RECOMMENDATIONS FOR MANUFACTURING, COMMERCIAL BLENDING, AND PACKAGING WORKERS:

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Respiratory protection:

Wear respiratory protection if ventilation is inadequate. Wear a NIOSH-certified (or equivalent) TC23C Chemical/Mechanical type filter system to remove a combination of particles, gas and vapours. For situations where the airborne concentrations may exceed the level for which an air purifying respirator is effective, or where the levels are unknown or Immediately Dangerous to Life or Health (IDLH), use NIOSH-certified full facepiece pressure demand self-contained breathing apparatus (SCBA) or a full facepiece pressure demand supplied-air respirator (SAR) with escape provisions.

Hand protection:

Chemical resistant protective gloves, Protective glove selection must be based on the user's assessment of the workplace hazards.

Eye protection:

Safety glasses with side-shields. Tightly fitting safety goggles (chemical goggles). Wear face shield if splashing hazard exists.

Body protection:

Body protection must be chosen depending on activity and possible exposure, e.g. head protection, apron, protective boots, chemical-protection suit.

General safety and hygiene measures:

Wear long sleeved work shirt and long work pants in addition to other stated personal protective equipment. Work place should be equipped with a shower and an eye wash. Handle in accordance with good industrial hygiene and safety practice. Personal protective equipment should be decontaminated prior to reuse. Gloves must be inspected regularly and prior to each use. Replace if necessary (e.g. pinhole leaks). Take off immediately all contaminated clothing. Store work clothing separately. Hands and/or face should be washed before breaks and at the end of the shift. No eating, drinking, smoking or tobacco use at the place of work. Keep away from food, drink and animal feeding stuffs.

9. Physical and Chemical Properties

Form: liquid Odour: odourless

Odour threshold: not applicable, odour not perceivable

Colour: greenish white pH value: approx. 8 - 10

(approx. 10 g/l, 25 °C)

Melting point: approx. < 0 °C

The statements are based on the properties of the individual

components.

Boiling point: approx. 100 °C

The statements are based on the properties of the individual

components.

Sublimation point: No applicable information available.

Flash point: > 90 °C Flammability: not applicable

Lower explosion limit: As a result of our experience with this

product and our knowledge of its composition we do not expect any hazard as long as the product is used appropriately and in accordance with (ASTM D93)

the intended use.

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Upper explosion limit: As a result of our experience with this

product and our knowledge of its composition we do not expect any hazard as long as the product is used appropriately and in accordance with

the intended use.

Autoignition: Based on the water content the

product does not ignite.

Vapour pressure: approx. 23.3 hPa

(20°C)

Information applies to the solvent.

Density: approx. 1.23 g/cm3

(25°C)

approx. 10.3 lb/USg

(77°F)

Relative density: No applicable information available.

Vapour density: not applicable Partitioning coefficient n- not applicable

octanol/water (log Pow):

Thermal decomposition: No decomposition if stored and handled as

prescribed/indicated.

Viscosity, dynamic: 1,600 - 1,850 mPa.s

(22 °C)

Viscosity, kinematic: No applicable information available.

Solubility in water: dispersible

Solubility (quantitative): No applicable information available. Solubility (qualitative): No applicable information available.

Evaporation rate: not applicable

No applicable information available.

Other Information: If necessary, information on other physical and chemical

parameters is indicated in this section.

10. Stability and Reactivity

Reactivity

No hazardous reactions if stored and handled as prescribed/indicated.

Corrosion to metals:

Corrosive effects to metal are not anticipated.

Oxidizing properties: not fire-propagating

Chemical stability

The product is stable if stored and handled as prescribed/indicated.

Possibility of hazardous reactions

No hazardous reactions if stored and handled as prescribed/indicated.

The product is chemically stable.

Hazardous polymerization will not occur.

Conditions to avoid

Avoid all sources of ignition: heat, sparks, open flame. Avoid prolonged storage. Avoid electro-static discharge. Avoid contamination. Avoid prolonged exposure to extreme heat. Avoid extreme temperatures.

Incompatible materials

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strong oxidizing agents, bases, nitrates

Hazardous decomposition products

Decomposition products:

Hazardous decomposition products: No hazardous decomposition products if stored and handled as prescribed/indicated., Prolonged thermal loading can result in products of degradation being given off.

Thermal decomposition:

No decomposition if stored and handled as prescribed/indicated.

11. Toxicological information

Primary routes of exposure

Routes of entry for solids and liquids are ingestion and inhalation, but may include eye or skin contact. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquefied gases.

Acute Toxicity/Effects

Acute toxicity

Assessment of acute toxicity: Moderately toxic after single ingestion. Moderately toxic after short-term skin contact. Moderately toxic after short-term inhalation.

<u>Oral</u>

Type of value: LD50 Species: rat (male)

Value: 300 mg/kg (OECD Guideline 401)

Inhalation

Type of value: LC50 Species: rat (female) Value: 0.23 mg/l Exposure time: 4 h

An aerosol with respirable particles was tested.

Dermal

Type of value: LD50 Species: rabbit (female)

Value: 273 mg/kg (OECD Guideline 402)

Assessment other acute effects

Assessment of STOT single:

Based on the available information there is no specific target organ toxicity to be expected after a single exposure.

The product has not been tested. The statement has been derived from the properties of the individual components.

No applicable information available.

Irritation / corrosion

Assessment of irritating effects: May cause moderate but temporary irritation to the eyes. May cause moderate irritation to the skin.

Skin

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Species: rabbit Result: non-irritant

Method: OECD Guideline 404

Eye

Species: rabbit Result: non-irritant

Method: OECD Guideline 405

Sensitization

Assessment of sensitization: Skin sensitizing effects were not observed in animal studies.

Buehler test

Species: guinea pig

Result: Skin sensitizing effects were not observed in animal studies.

Method: OECD Guideline 406

Aspiration Hazard

No aspiration hazard expected. The product has not been tested. The statement has been derived from the properties of the individual components.

Chronic Toxicity/Effects

Repeated dose toxicity

Assessment of repeated dose toxicity: The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: Fipronil

Assessment of repeated dose toxicity: Causes mortality and signs of neurotoxicity through prolonged or repeated exposure.

or repeated exposure.

Genetic toxicity

Assessment of mutagenicity: Mutagenicity tests revealed no genotoxic potential. The product has not been tested. The statement has been derived from the properties of the individual components.

Carcinogenicity

Assessment of carcinogenicity: The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: Fipronil

Assessment of carcinogenicity: In long-term studies in rats the substance induced thyroid tumors. The effect is caused by an animal specific mechanism that has no human counter part. In long-term studies in mice in which the substance was given by feed, a carcinogenic effect was not observed.

Reproductive toxicity

Assessment of reproduction toxicity: The results of animal studies gave no indication of a fertility impairing effect. The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: fipronil

Assessment of reproduction toxicity: Animal studies gave no indication of a developmental toxic effect at doses that were not toxic to the parental animals.

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Teratogenicity

Assessment of teratogenicity: Animal studies gave no indication of a developmental toxic effect at doses that were not toxic to the parental animals. The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: Fipronil

Assessment of teratogenicity: No indications of a developmental toxic / teratogenic effect were seen

in animal studies.

Other Information

Misuse can be harmful to health.

12. Ecological Information

Toxicity

Aquatic toxicity

Assessment of aquatic toxicity:

Very toxic (acute effect) to aquatic organisms.

Toxicity to fish

Information on: Fipronil

LC50 (96 h) 0.0852 mg/l, Lepomis macrochirus

Aquatic invertebrates

Information on: Fipronil

EC50 (48 h) 0.19 mg/l, Daphnia magna LC50 (48 h) 0.00017 mg/l, Mysidopsis bahia

Aquatic plants

Information on: Fipronil

EC50 (72 h) 0.103 mg/l (growth rate), Scenedesmus subspicatus

No observed effect concentration (72 h) >= 0.14 mg/l, Pseudokirchneriella subcapitata

EC50 (14 d) > 0.16 mg/l (biomass), Lemna gibba

No observed effect concentration (14 d) > 0.16 mg/l (biomass), Lemna gibba

Chronic toxicity to fish

Information on: Fipronil

No observed effect concentration (35 d) 0.0029 mg/l, Cyprinodon variegatus

Chronic toxicity to aquatic invertebrates

Information on: Fipronil

No observed effect concentration (28 d) 0.000008 mg/l, Mysidopsis bahia

Assessment of terrestrial toxicity

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With high probability not acutely harmful to terrestrial organisms.

Other terrestrial non-mammals

Information on: fipronil

LD50 (48 d) 0,00593 ug/bee (contact), Apis mellifera LD50 (48 d) 0,00417 ug/bee (oral), Apis mellifera

Persistence and degradability

Assessment biodegradation and elimination (H2O)

The product has not been tested. The statement has been derived from the properties of the individual components.

Assessment biodegradation and elimination (H2O)

Information on: Fipronil

Not readily biodegradable (by OECD criteria).

Bioaccumulative potential

Assessment bioaccumulation potential

The product has not been tested. The statement has been derived from the properties of the individual components.

Bioaccumulation potential

Information on: Fipronil

Bioconcentration factor: 321, Lepomis macrochirus Accumulation in organisms is not to be expected.

Mobility in soil

Assessment transport between environmental compartments

The product has not been tested. The statement has been derived from the properties of the individual components.

Information on: Fipronil

Following exposure to soil, adsorption to solid soil particles is probable, therefore contamination of groundwater is not expected.

Additional information

Other ecotoxicological advice:

The ecological data given are those of the active ingredient. Do not release untreated into natural waters.

13. Disposal considerations

Waste disposal of substance:

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Pesticide wastes are regulated. Improper disposal of excess pesticide, spray mix or rinsate is a violation of federal law. If pesticide wastes cannot be disposed of according to label instructions, contact the State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Container disposal:

Rinse thoroughly at least three times (triple rinse) in accordance with EPA recommendations. Consult state or local disposal authorities for approved alternative procedures such as container recycling. Recommend crushing, puncturing or other means to prevent unauthorized use of used containers.

14. Transport Information

Land transport

USDOT

Hazard class: 6.1 Packing group:

ID number: UN 2902 Hazard label: 6.1. EHSM

Proper shipping name: PESTICIDE, LIQUID, TOXIC, N.O.S. (contains FIPRONIL)

Sea transport

IMDG

Hazard class: 6.1 Packing group:

UN 2902 ID number: Hazard label: 6.1, EHSM

Marine pollutant: YES

PESTICIDE, LIQUID, TOXIC, N.O.S. (contains FIPRONIL) Proper shipping name:

Air transport

IATA/ICAO

Hazard class: 6.1 Packing group: Ш

UN 2902 ID number: Hazard label:

PESTICIDE, LIQUID, TOXIC, N.O.S. (contains FIPRONIL) Proper shipping name:

15. Regulatory Information

Federal Regulations

Registration status:

Crop Protection TSCA, US released / exempt

Chemical TSCA, US blocked / not listed

EPCRA 311/312 (Hazard categories): Refer to SDS section 2 for GHS hazard classes applicable for this product.

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State regulations

State RTKCAS NumberChemical namePA57-55-6Propylene glycolNJ57-55-6Propylene glycol

Safe Drinking Water & Toxic Enforcement Act, CA Prop. 65:

WARNING: This product can expose you to chemicals including SILICA, CRYSTALLINE (AIRBORNE PARTICLES OF RESPIRABLE SIZE), which is known to the State of California to cause cancer. For more information, go to www.P65Warnings.ca.gov.

Labeling requirements under 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 workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label.

WARNING:

May be fatal if absorbed through skin.

May be fatal if swallowed.

May be fatal if inhaled.

Causes eye irritation.

Do not breathe dust.

Do not get in eyes, on skin, or on clothing.

16. Other Information

SDS Prepared by:

BASF Agricultural Solutions US NA Product Regulations SDS Prepared on: 2021/11/23

We support worldwide Responsible Care® initiatives. We value the health and safety of our employees, customers, suppliers and neighbors, and the protection of the environment. Our commitment to Responsible Care is integral to conducting our business and operating our facilities in a safe and environmentally responsible fashion, supporting our customers and suppliers in ensuring the safe and environmentally sound handling of our products, and minimizing the impact of our operations on society and the environment during production, storage, transport, use and disposal of our products.

END OF DATA SHEET