
Safety Data Sheet

Talstar
Prepared 15.01.2004

Certis

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1. Substance / preparation and company name

Talstar

Use of the Substance/ Preparation

Horticultural insecticide

Company identification

Certis

1b Mills Way, Boscombe Down Business Park, Amesbury, Wiltshire. SP4 7RX

Telephone: 01980 676500 Fax: 01980 626555

2. Composition / information on ingredients

| Chemical name | CAS number | | Weight % |
|------------------------|------------|-----|----------|
| Bifenthrin | 82657-04-3 | | 11 |
| Aromatic hydrocarbons | 64742-95-6 | | <49 |
| 1,2,4-trimethylbenzene | 95-63-6 | <25 | |
| Xylene | 1330-20-7 | | <16 |
| Surfactant blend | | | <6 |
| Cumene | 98-82-8 | <4 | |
| Ethylbenzene | 100-41-1 | | <3 |
| 1-butanol | 71-36-3 | <2 | |

3. Possible hazards

Moderately combustible. May support combustion if heated above the product's flash point (see Section 5)

Thermal decomposition and burning may form toxic by-products

For large exposures or fire, wear personal protective equipment

Highly toxic to fish and aquatic organisms. Keep out of drains and water courses

Extremely irritating to eyes

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4. First aid measures

Potential health effects: effects from overexposure result from either swallowing, inhaling or coming into contact with the eyes or skin. Symptoms of overexposure include bleeding from the nose, tremors and convulsions. Contact with this product may occasionally produce skin sensations such as rashes, numbing, burning or tingling. These skin sensations are reversible and usually subside within 12 hours

Inhalation: Remove to fresh air. If breathing difficulty or discomfort occurs and persists, obtain medical attention

Skin contact: Wash with plenty of soap and water. Get medical attention if irritation occurs and persists

Eye contact: Immediately flush with water for at least 15 minutes, lifting upper and lower eyelids intermittently. See a medical doctor immediately

Ingestion: Rinse mouth with water. Dilute by giving 1 or 2 glasses of water. Do not induce vomiting. Never give anything by mouth to an unconscious person. See a medical doctor immediately

Notes to medical doctor: This product has low oral, dermal and inhalation toxicity. It is extremely irritating to the eyes and minimally irritating to the skin. Contains aromatic hydrocarbons that can produce a severe pneumonitis if aspirated during vomiting. Consideration should be given to gastric lavage with an endotracheal tube in place. Reversible skin sensations (paresthesia) may occur and ordinary skin salves have been found useful in reducing discomfort. Treatment is otherwise controlled removal of exposure followed by symptomatic and supportive care.

5. Fire fighting measures

Flash point and method: 40°C (TCC)

Extinguishing media: Foam, CO₂, or dry chemical. Soft stream water fog only if necessary. Contain all runoff

Explosion hazards: Moderately combustible. When heated above the flash point, this material releases vapours which, when mixed with air, can burn or be explosive

Fire fighting procedures: Isolate fire area. Evacuate downwind. Wear full protective clothing and self-contained breathing apparatus. Do not breathe smoke, gases or vapours generated

Hazardous decomposition products: Carbon monoxide, carbon dioxide, hydrogen chloride and hydrogen fluoride

6. Accidental release measures

Release notes: Isolate spill area. Wear protective clothing and personal protective equipment as prescribed in Section 8

Keep unprotected persons and animals out of the area. Keep material out of lakes, streams, ponds and drains. Dike to confine spill and absorb with a non-combustible absorbent such as clay, sand or soil. Vacuum, shovel or pump waste into a drum and label contents for disposal. To clean and neutralise spill area, tools and equipment, wash with a suitable solution of caustic or soda ash, and an appropriate alcohol (i.e. methanol, ethanol or isopropanol). Follow this by washing with a strong soap and water solution. Absorb, as above, any excessive liquid and add to the drums of waste already collected. Repeat if necessary. Dispose of drummed waste according to the method outlined in Section 13.

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7. Handling and storage

General procedures: Store in a cool, dry well-ventilated place. Do not use or store near heat, open flame or hot surfaces. Store in original containers only. Keep out of reach of children and animals. Do not contaminate other pesticides, fertilizers, water, food or feed by storage or disposal

8. Exposure controls / personal protection

Engineering controls: Use local exhaust at all process locations where vapour or mist may be emitted. Ventilate all transport vehicles prior to unloading

Personal protective equipment:

Eyes and face: For splash, mist or spray exposure, wear chemical protective goggles or face shield

Respiratory: For splash, mist or spray exposure wear, as a minimum, a properly fitted half-face air-purifying respirator which is approved for pesticides (EU CEN). Respirator use and selection must be based on airborne concentrations

Protective clothing: Depending upon concentrations encountered, wear coveralls or long-sleeved uniform and head covering. For larger exposures as in the case of spills, wear full body cover barrier suit, such as a PVC suit. Leather items – such as shoes, belts and watchbands – that become contaminated should be removed and destroyed. Launder all work clothing before reuse (separately from household laundry)

Work hygienic practices: Clean water should be available for washing in case of eye or skin contamination. Wash skin prior to eating, drinking or smoking. Shower at the end of the workday

Gloves: Wear chemical protective gloves made of materials such as nitrile or neoprene brand. Thoroughly wash the outside of gloves with soap and water prior to removal. Inspect regularly for leaks

Comments: Personal protective recommendations for mixing and applying this product are prescribed on the product label. Information stated above provides useful, additional guidelines for individuals whose use or handling of this product is not guided by the product label

9. Physical and chemical properties

| | |
|----------------------|----------------------|
| Appearance: | Light-brown liquid |
| Solubility in water: | Emulsifies |
| Specific gravity: | 0.9133-0.9160 @ 20°C |
| Molecular weight: | 422.88 (bifenthrin) |
| Weight per volume: | 913.3-916.0 g/l |

10. Stability and reactivity

Conditions to avoid: excessive heat and fire

Stability: stable

11. Toxicological information

| | |
|--------------|----------------------|
| Dermal LD50: | >2000 mg/kg (rabbit) |
| Oral LD50: | 520 mg/kg (rat) |

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Inhalation LC50: >4.94 mg/litre/4 hr (rat)

Sensitization: This product produces skin sensitization (allergic reaction) in laboratory animals, and may produce similar effects in humans

12. Ecological information

Unless otherwise indicated, the data presented below are for the active ingredient

Environmental data: Bifenthrin has moderate stability in the soil under aerobic conditions (half-life range from 65-125 days depending on soil type) and is stable at a wide range of pH values. Bifenthrin has a high Log Pow (>6.0), a high affinity for organic matter, and is not mobile in soil. Therefore, there is little potential for movement into ground water. There is the potential for bifenthrin to bioconcentrate (BCF = 11750)

Ecotoxicological information: Bifenthrin is highly toxic to fish and aquatic arthropods and LC50 values range from 0.0038 to 17.8 µg/l. In general, the aquatic arthropods are the most sensitive species. Care should be taken to avoid contamination of the aquatic environment. Bifenthrin has no effect on molluscs at its limit of water solubility. Bifenthrin is only slightly toxic to both water fowl and upland game birds (LD50 values range from 1800 mg/kg to >2150 mg/kg)

13. Disposal considerations

Disposal method: open dumping or burning of this material or its packaging is prohibited. If spilled material cannot be disposed of by use according to label instructions, an acceptable method of disposal is to incinerate in accordance with local, state and national environmental laws, rules, standards and regulations. However, because acceptable methods of disposal may vary by location and regulatory requirements may change, the appropriate agencies should be contacted prior to disposal

Empty container: non-returnable containers which held this material should be cleaned, prior to disposal, by triple rinsing. Containers which held this material may be cleaned by being triple rinsed, and recycled, with the rinsate being incinerated.

14. Transport information

Proper shipping name: Flammable, liquid, n.o.s.
Primary hazard class/division: 3
UN/NA Number: UN1993
Packing group: III
Marine pollutant (1): bifenthrin (severe marine pollutant)

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15. Regulatory information

This product has been classified in accordance with The Chemicals (Hazard Information and Packaging for Supply) Regulations 2002: CHIP3

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|-----------------|--|
| Hazard symbols: | Xn N |
| Risk phrases: | R10 Flammable R20/22 Harmful by inhalation and if swallowed R36/37 Irritating to eyes and respiratory system R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment R65 Harmful: may cause lung damage if swallowed |
| Safety phrases: | S2 Keep out of reach of children S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice S29 Do not empty into drains S62 If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label |

16. Other information

Disclaimer

The above information is intended to give general health and safety guidance on the storage and transport of the substance or product to which it relates. It is not intended to apply to the use of the substance or product for which purposes the substance or product label and any appropriate technical usage literature available should be consulted and any relevant licences, consents or approvals complied with. The requirements or recommendations of any relevant site or working procedure, system or policy in force or arising from any risk assessment involving the substance or product should take precedence over any of the guidance contained in this safety data sheet where there is a difference in the information given. The information provided in this safety data sheet is accurate at the date of publication and will be updated as and when appropriate. No liability will be accepted for any injury loss or damage resulting from any failure to take account of information or advice contained in this safety data sheet.
