SAFETY DATA SHEETS

Chlorfluazuron 95%TC

No.: 111033
Version: 4
Date: April, 2022

SECTION 1: IDENTIFICATION

Product identifier	Chlorfluazuron 95%TC
Other means of identification	N/A
Recommended use	Insecticide
Supplier's details	Zhejiang Heben Pesticide & Chemicals Co., Ltd
Address	Liandun Road, Houjing, Yanjiang Industrial Area, Wenzhou, Zhejiang, China
Telephone No	+86-577-88797730; +86-577-88797721
Fax No.	+86-577-88797739
E-mail	info@hb-p.com
Emergency phone number	+86-532-83889090

SECTION 2: HAZARDS IDENTIFICATION

2.1 GHS classification of the substance or mixture (Ninth Revised Edition, 2021)

Physical hazards	None	None
Health hazards	Causes eye irritation, Category 2B	H320
Environmental hazards	Toxic to aquatic life, Category 2	H401

2.2 GHS label elements, including precautionary statements

Hazard pictograms	N/A
Signal word	Warning
Hazard statement (s)	
H320	Causes eye irritation
H401	Toxic to aquatic life

Prevention statements

P264	Wash hands thoroughly after handling
P265	Do not touch eyes.
P273	Avoid release to the environment

Response statements

P337+P317	If eye irritation persists: Get medical advice/attention
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P391	Collect spillage

Storage statements

None	None

Disposal statements

P501	Dispose of contents/container to local regulation

2.3 Other hazards which do not result in classification

No other hazards known.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Common name, synonyms	Chemical identity	CAS number and other unique identifiers	The concentrations of the ingredients
Chlorfluazuron	1-[3,5-dichloro-4-(3-chloro-5-trifluoromethyl-2-pyridyloxy)phenyl]-3-(2,6-difluorobenzoyl)urea (IUPAC)	CAS No.: 71422-67-8; EC No.: N/A	⩾ 95.0%
Other non-hazardous ingredients			< 5.0%

SECTION 4: FIRST-AID MEASURES

4.1 Description of necessary first-aid measures

Skin: Remove contaminated clothes. Rinse and then wash skin with water and soap. Refer for medical attention.

Eyes: For eye contamination, flush eyes immediately with water. Irrigate each eye continuously with normal saline during transport.

Inhalation: Move affect person to fresh air and keep at rest until recovered. If not breathing, give artificial respiration and get to a doctor.

Ingestion: Do not induce vomiting if the person is conscious. Give glass of water. Get to a doctor.

4.2 Most important symptoms/effects, acute and delayed

No such information is reported.

4.3 Indication of immediate medical attention and special treatment needed, if necessary
No antidote, no special treatment, please treat it symptomatically.

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Suitable extinguishing media
Use dry chemical, carbon dioxide, water spray, and foam.
5.2 Specific hazards arising from the chemical
May produce toxic fumes of carbon monoxide, and oxides of nitrogen if burning.
5.3 Special protective equipment for firefighters
Should wear full-protective clothing, and self-contained breathing apparatus. Fight fire from safe distance and protected location. Avoid (reject) fire-fighting water to enter environment.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures
In the event of major spill, prevent spillage from entering drains or water courses. Wear full protective clothing including face mask, face shield and gauntlets. All skin areas should be covered. Though launder protective clothing before storage or re-use. Stop leak is safe to do so, and contain spill. Sweep up and shovel or collect recoverable product into labeled containers for recycling or salvage.
6.2 Environmental precautions
After spills, wash area, preventing runoff from entering drains.
6.3 Methods and materials for containment and cleaning up
If there is contamination of crops or waterways, advise emergency services or state department of agriculture.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling
Avoid direct or prolonged contact with skin and eyes. Do no breathe dust. Do not breathe vapors and mists. Do no ingest. It is recommended that wear full protective clothing including face mask, face shield and gauntlets, all skin areas should be covered, when handling this product.
Prevent eating, drinking, tobacco use, and cosmetic application in areas where there is a potential for exposure to the material.And take a bath or wash hands completely with soap after use. Remove contaminated clothing and protective equipment before entering eating areas.
7.2 Conditions for safe storage, including any incompatibilities
Store the material in a well-ventilated, secure area out of reach of children and domestic animals. Do not store food, beverages or tobacco products in the storage area.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

Contain no substances with occupational exposure limit values.

8.2 Appropriate engineering controls

Use only in an enclosed system. Use local exhaust ventilation. Safety shower. Use explosive dust handling controls.

8.3 Individual protection measures

Industrial hygiene: Remove and wash contaminated clothing promptly. After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water.

Personal protective equipment

Respiratory protection:

Wear respirator with a particle filter mask (protection factor 20) conforming to European Norm EN149FFP3 or EN140P3 or equivalent.

Respiratory protection should only be used to control residual risk of short duration activities, when all reasonably practicable steps have been taken to reduce exposure at source e.g. containment and/or local extract ventilation. Always follow respirator manufacturer's instructions regarding wearing and maintenance.

Protective gloves: rubber gloves;

Eye protection: Wear goggles (conforming to EN166, Field of Use = 5 or equivalent).

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical state	Solid
Color	White
Odor	Characteristic odor
Melting point / freezing point	Decompose before melting
Boiling point or initial boiling point and boiling range	N/A
Flammability	Not highly flammable
Lower and upper explosion limit/ flammability limit	No information
Flash point	Not expected to self ignite
Auto-ignition temperature	Not expected to self ignite
Decomposition temperature	226.5 ºC
pH value	Not determined
Kinematic viscosity	No information
Solubility	In water <0.01 mg/l (20 ºC). In hexane <0.01, n-octanol 1, xylene 2.5, methanol 2.5, toluene 6.6, isopropanol 7, dichloromethane 22, acetone 55, cyclohexanone 110 (all in g/l, 20 ºC).
Partition coefficient	logP = 5.8

n-octanol/water (log value)	
Vapour pressure	<1×10-^{5} mPa (20 ºC)
Density and/or relative density	1.663g/ml (20 °C)
Relative vapor density	No information
Particle characteristics	Not known

9.2 Other information

Further safety related physical-chemical data are not known.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

No reactivity under normal conditions.

10.2 Chemical stability

This product is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

10.3 Possibility of hazardous reactions

No dangerous reactions known.

10.4 Conditions to avoid

Avoid fire, feed, food and beds of water.

10.5 Incompatible materials

Not compatible with strong oxidizing agents.

10.6 Hazardous decomposition products

Formation of toxic gases is possible during heating or in case of fire.

SECTION 11: TOXICOLOGICAL INFORMATION

Acute toxicity	Acute oral LD_{50} for rat ＞8500 mg/kg (*Data From* The e-pesticide manual (Thirteenth Edition) Version 3.0) Acute dermal LD_{50} for rats >1000 mg/kg (*Data From* The e-pesticide manual (Thirteenth Edition) Version 3.0) Acute inhalation LC_{50} (4h) for rats >2.4 mg/l (Data From The e-pesticide manual (Thirteenth Edition) Version 3.0)
Skin corrosion/irritation	Not irritant to skin (Rabbit) (*Data* The e-pesticide manual (Thirteenth Edition) Version 3.0)
Serious eye damage/irritation	Mild irritant to eyes. (Rabbit) (*Data From* The e-pesticide manual (Thirteenth Edition) Version 3.0)
Respiratory or skin sensitization	Not a skin sensitizer (*Data From* The e-pesticide manual (Thirteenth Edition) Version 3.0)

Germ cell mutagenicity	Non-mutagenic in the Ames test (*Data From* The e-pesticide manual (Thirteenth Edition) Version 3.0)
Carcinogenicity	No available data
Reproductive toxicity	No available data.
STOT-single exposure	No available data.
STOT-repeated exposure	No available data.
Aspiration hazard	No available data.
Further information	No available data.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Eco-toxicity

Birds	Acute oral LD_{50} for quail and mallard ducks >2510 mg/kg. Dietary LC_{50} (8 d) for quail and mallard ducks >5620 mg/kg diet. (Thirteenth Edition) Version 3.0)
Fish	LC_{50} (96 h) for bluegill sunfish 1071 µg/l. (The e-pesticide manual (Thirteenth Edition) Version 3.0)
Daphnia	LC_{50} (48 h) 0.908µg/l. (The e-pesticide manual (The e-pesticide manual (Thirteenth Edition) Version 3.0)
Algae	EC50 (12 d) for green algae >1.8 mg/l. (The e-pesticide manual (Thirteenth Edition) Version 3.0)
Bees	LD50 (oral) >100µg/bee. (The e-pesticide manual (Thirteenth Edition) Version 3.0)
Worms	LC50 (28 d) for earthworms >1000 mg/kg soil. (The e-pesticide manual (Thirteenth Edition) Version 3.0)

12.2 Persistence and degradability

Moderately persistent in soil degradation.

12.3 Bio-accumulative potential

No available data

12.4 Mobility in soil
None mobile

12.5 Other adverse effects
None

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Product
The product should not be allowed to enter drains, water courses or the soil. Do not contaminate ponds, waterways or ditches with chemical or used container. Send to a licensed waste management company.

13.2 Contaminated packaging
Empty remaining contents. Dispose of as unused product. Do not re-use empty containers. Do not burn, or use a cutting torch on, the empty drum.

SECTION 14: TRANSPORT INFORMATION

The substance is not subject to **IMO/IMDG.**

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the product in question
WHO-classification: U (Unlikely to present an acute hazard)
This product is not subject to any prohibitions or restrictions in China.

SECTION 16: OTHER INFORMATION

All information and instructions provided in this Material Safety Data Sheet (MSDS) are based on the current state of scientific and technical knowledge at the date indicated on the present MSDS and are presented in good faith and believed to be correct. This information applies to the PRODUCT AS SUCH. In case of new formulations or mixes, it is necessary to ascertain that a new danger will not appear. It is the responsibility of persons on receipt of this MSDS to ensure that the information contained herein is properly read and understood by all people who may use, handle, dispose or in any way come in contact with the product. If the recipient subsequently produces formulations containing this product, it is the recipients sole responsibility to ensure the transfer of all relevant information

from this MSDS to their own MSDS.