Chlorfenapyr -MATERIAL SAFETY DATA SHEET

Manufacturer/information service:

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1. Chemical Product Identification

Product Name: Chlorfenapyr Molecular Formula: C₁₅H₁₁BrClF₃N₂O Molecular Weight: 407.60 Structural Formula:



Chemical Name: 4-bromo-2-(4-chlorophenyl)-1-(ethoxymethyl)-5-

(trifluoromethyl)-pyrrole-3-carbonitrile

Form: solid

Color: Yellow

Odor: odorless

CAS No.: 122453-73-0

2. Composition / Information on Ingredients

Composition	CAS No.	Content %
Chlorfenapyr	122453-73-0	95.0
Other ingredients		5.0

3. Hazards Identification

SWALLOWED : Harmful.

EYE: Will cause irritation.

SKIN :Moderately toxic. Will irritate the skin.

INHALED :Little inhalation hazard if handled in the correct manner.

4. First Aid Measures

If inhaled:

Remove the affected individual into fresh air and keep the person calm. Assist in breathing if necessary.

If on skin:

Rinse skin immediately with plenty of water for 15 - 20 minutes.

If in eyes:

Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if

present, after first 5 minutes, then continue rinsing.

If swallowed:

Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to by a poison control

center or doctor. Never induce vomiting or give anything by mouth if the victim is unconscious or having convulsions.

5. Fire-Fighting Measures

Suitable extinguishing media:

foam, dry extinguishing media, carbon dioxide, water spray

Hazards during fire-fighting:

carbon monoxide, carbon dioxide, hydrogen bromide, hydrochloric acid, Hydrofluoric acid, nitrogen oxides

If product is heated above decomposition temperature, toxic vapours will be released. The substances/groups of substances mentioned can be released if the product is involved in a fire.

Protective equipment for fire-fighting:

Firefighters should be equipped with self-contained breathing apparatus and turn-out gear.

6. Accidental Release Measures

Personal precautions:

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. Contain contaminated water/firefighting water.

Cleanup:

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

Handling: Containers and packages containing this pesticide will be handed carefully, so as to avoid spillages and breakings Store in original container, preferably in a locked area, away from children, feed, food.

Storage :Keep away from heat. Protect against moisture. Protect from direct sunlight. 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

Respiratory protection:

Wear respiratory protection if ventilation is inadequate.

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.

9. Physical and Chemical Properties

Water Solubility: insoluble

Solubility in Other Solvents: soluble in acetone , aether , acetonitrile .

Melting Point: 100-101°C

Vapor Pressure:< 1.0×10⁻⁷Pa @ 25 ℃

Partition Coefficient: Not Applicable

Adsorption Coefficient: Not Applicable

Specific gravity: Not Applicable

10. Stability and Reactivity

Conditions to avoid:

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

Substances to avoid:

strong oxidizing agents

Hazardous reactions:

The product is chemically stable.

Hazardous polymerization will not occur. No hazardous reactions if stored and handled as prescribed/indicated.

11. Toxicological Information

Acute Toxicity::

Oral LD₅₀ : 459mg/kg(female rat);

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Dermal LD₅₀ : \geq 2000 mg/kg(rabbit).

Contact on skin : slight irritation

Contact on eye : slight irritation

12. Ecological And Ecotoxicological Information

Toxicity on birds:.

LD₅₀:34mg/kg for quail

LD_{50:} 10mg/kg for mallard

Toxicity on aquatic organisms:

LC50(96h) : 7.44µg/L for rainbow trout

LC50(96h) : 11.6µg/L for sunfish

LC50 (96h): 6.11µg/L for daphnia

Toxicity on other organisms:

Bee : LD_{50 : 0.2}µg/bee

Earthworm : LD_{50 : 22mg/kg}

13. Disposal Considerations

Pesticide Diaposal: Pesticide wastes are toxic, Incinerate all disposal material in accordance according to the local state regulations.

14. Transport Information

Not applicable.

15. Regulatory Information

Not applicable.

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 produce 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.