

SAFETY DATA SHEET

This Safety Data Sheet (SDS) complies with the requirements of the U.S. Federal Occupational Safety and Health Administration Hazard Communication 29 CFR 1910.1200 (g)(2).

Clefandim 360 EC

Version Revision Date:
5.0 10/20/2025

1. IDENTIFICATION OF THE PRODUCT & COMPANY

Product Name: Clefandim 360 EC

Other means of identification: EPA Reg. No. 103087-5

Intended Use: Herbicide

Company Identification:

Longwind Cropsience USA LLC.
8 THE GREEN, STE A, DOVER, KENT,
DE, 19901, UNITED STATES

Emergency Information: In the event of a leak, fire or medical emergency involving a human or animal please call INFOTRAC at 1-800-535-5053 or Outside the USA and Canada at 1-352-323-3500, 24/7/365.

2. HAZARD IDENTIFICATION

GHS-US classification

Health and Environmental Hazards:

Flammable liquids	Category 4
Aspiration Hazard	Category 1

Required Label Elements

Pictograms:



Signal Word: Danger

Hazard Statements:

Combustible liquid.
May be fatal if swallowed and enters airways.

Precautionary Statements:

Prevention:

Wash thoroughly after handling.
Do not eat, drink or smoke when using this product.
Contaminated work clothing should not be allowed out of the workplace.
Avoid release to the environment.

Response:

If swallowed: get medical help.
If on skin: get medical help.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention.
In case of fire: Use dry chemical, carbon dioxide or foam to extinguish.

Storage:

Store in a well-ventilated place. Keep cool.
Store locked up
Dispose of in accordance with local/regional/national/international regulations.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS Number	CONTENT %	Active Ingredient
Clethodim	99129-21-2	24.3-25.9%	X
Solvent naphtha	64742-94-5	<70%	
Other ingredient	PROPRIETARY	Balance	

The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

Eyes: If in eyes, flush eyes with water for at least 15 minutes. Seek medical attention if irritation persists.

Skin: If skin becomes irritated, wash with soap and water. Seek medical attention if irritation persists.

Ingestion: Quickly rinse mouth out with water. Do not induce vomiting. Seek medical attention or call a poison control center for treatment advice.

Inhalation: If irritation or respiratory symptoms develop, move immediately to fresh air. Seek medical attention if irritation is severe or persists.

5. FIRE FIGHTING MEASURES

Extinguishing Media: Dry chemical, carbon dioxide, foam, or smother.

Special Hazards Arising from the Substance/Mixture: None.

Advice for Fire Fighters: Wear full protective gear and self-contained breathing apparatus (SCBA) for significant fires.

Additional Information: None.

6. **ACCIDENTAL RELEASE MEASURES**

Personal Precautions: None typically required. Use personal protective equipment as necessary. Follow label directions.

Environmental Precautions: Do not discharge into aquatic environment.

Methods for Containment/Clean-Up: Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Collect and transfer the product into a properly labelled and tightly closed container. Clean contaminated floors and objects thoroughly, observing environmental regulations. Contaminated soil may have to be removed and disposed.

7. **HANDLING AND STORAGE**

Handling: Use only in area provided with appropriate exhaust ventilation. Avoid contact with skin, eyes and clothing. Keep working clothes separately. Wash hands immediately after work, if necessary, take a shower. Remove soiled clothing immediately and clean thoroughly before using again. Garments that cannot be cleaned must be destroyed (burnt). Keep away from: sparks, open flame and direct sunlight.

Storage: Store in the original, unopened container in a cool, dry place, out of direct sunlight and away from stockfeed or foodstuffs. Store in a place accessible by authorized persons only.

8. **EXPOSURE CONTROL/PERSONAL PROTECTION**

Exposure Controls: Follow manufacturer's instructions for cleaning/maintaining PPE. Use in ventilated areas adequate to keep exposure below the TWA. Keep containers closed when not in use.

Personal Protection:

Eye protection: Safety glasses with side-shields.

Skin and body protection: Wear long-sleeved shirt and long pants and shoes plus socks.

Respiratory protection: A respirator is not normally required when handling this substance. Use effective engineering controls to comply with occupational exposure limits. When respirators are required, select a certificated equipment based on actual or potential airborne concentrations and in accordance with the appropriate regulatory standards and/or industry recommendations.

General protective measures: Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and warm/tepid water. Keep and wash PPE separately from other laundry.

9. **PHYSICAL AND CHEMICAL PROPERTIES**

Appearance:	Light yellow to light brown liquid
Odor:	Characteristic odor at temperature of 19.8°C
Melting/Freezing Point:	Not determined
pH:	4.0-7.0
Solubilities:	Not determined
Flash point:	≥60
Density:	1.000±0.02g/ml
Water content %:	≤0.3
Emulsion stability (20x dilution) 2 h:	Separation of cream or oil observed ≤0.3ml

Persistent foaming (1min), mL: ≤60

10. STABILITY AND REACTIVITY

Chemical stability: Stable under normal use and storage conditions. Unstable at extreme pH's, temperature and upon exposure to UV light.

Possibility of hazardous reactions: Will not occur.

Conditions to Avoid: Extremes of temperature and direct sunlight. Oxidising agents, acids and alkali

Incompatible materials: May react with strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.

Hazardous Decomposition Products: No decomposition products expected under normal conditions of use.

11. TOXICOLOGICAL INFORMATION

Acute oral toxicity rat:	LD ₅₀ =5000 mg/kg b.w
Acute dermal toxicity rabbit:	LD ₅₀ >2000 mg/kg
Acute inhalation toxicity rat(4h):	LC ₅₀ > 5.04 mg/L
Skin irritation rabbit:	Non irritating
Eye irritant rabbit:	Non irritating
Sensitisation guinea pig:	Non-sensitizing

12. ECOLOGICAL INFORMATION

Birds (Japanese Quailwas) :	Acute oral LD ₅₀ : > 2000 mg/kg-bwt
Fish (Danio rerio) :	96-hour LC ₅₀ : 13.41 mg/L
Daphnia:	48-hour LC ₅₀ : > 100 mg/L
Water algae:	72-hour EyC ₅₀ : 13.26 mg/L
	72-hour ErC ₅₀ : 33.8 mg/
Honeybees:	Contact LC ₅₀ (48h) :> 100 µg/bee
	Oral LC ₅₀ (48h): >100 µg/bee
Earthworms:	LC ₅₀ (14d): 1000 mg/kg.

13. DISPOSAL CONSIDERATIONS

Pesticide disposal: Open dumping or burning of this pesticide is prohibited. Waste resulting from the use of this product that cannot be reused or reprocessed. Never pour untreated waste into public sewers or where there is any danger of run-off or seepage into water systems. Do not contaminate rivers, dams or any other water sources with the product or used containers. Comply with local legislation applying to waste disposal.

Container disposal: Do not re-use empty containers. Triple rinse containers. Consult state and local regulations regarding the proper disposal of container. Follow advice on product label and/or leaflet. TRIPLE RINSE empty containers in the following manner: Invert the empty container over the spray or mixing tank and allow to drain for at least 30 seconds after the flow has slowed down to a drip. Thereafter rinse the container three times with a volume of water equal to a minimum of 10 % of that of the container. Add the rinsing to the contents of the spray tank before destroying the container in the prescribed manner. Do not re-use the empty container for any other purpose but destroy it by perforation and flattening and bury in an approved dumpsite. Prevent contamination of food, feedstuffs, drinking water and eating utensils. Comply with local legislation applying to waste disposal.

14. TRANSPORTATION INFORMATION

UN Number: Not regulated

UN Proper shipping name: Not regulated

Transport hazard class: Not regulated

Packing group: Not regulated

15. REGULATORY INFORMATION

Pesticide regulations: All pesticides are governed under FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act). Therefore, the regulations presented below are pertinent only when handled outside of the normal use and applications of pesticides. This includes waste streams resulting from manufacturing/formulation facilities, spills or misuse of products, and storage of large quantities of products containing hazardous or extremely hazardous substances.

U.S. Federal regulations: Ingredients in this product are reviewed against an inclusive list of federal regulations. Therefore, the user should consult appropriate authorities. The federal regulations reviewed include: Clean Water Act, SARA, CERCLA, RCRA, DOT, TSCA and OSHA. If no components or information is listed in the space below this paragraph, then none of the regulations reviewed are applicable

16. OTHER INFORMATION

This MSDS summarizes our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this MSDS and consider the information in the context of the how the product will be handled and used in the workplace including in conjunction with other products.

If clarification or further information is needed to ensure that an appropriate risk assessment can be made the user should contact the company.