



SAFETY DATA SHEET

Clethodim 240G/L EC

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Section 1: IDENTIFICATION OF THE SUBSTANCE AND THE SUPPLIER

Product name: Clethodim 240G/L EC

Recommended use of the chemical and Herbicide

restrictions on use

Supplier name: Shandong Weifang Rainbow Chemical Co., Ltd.

Supplier address: Binhai Economic Development Area, Weifang, Shandong,

China

Supplier phone: +86-531-88875222, 88875231

Supplier fax: +86-531-88875232, 88875224

Emergency phone number: +86-531-88875222

Section 2: HAZARDS IDENTIFICATION

Harmful if inhaled.

Avoid breathing dust/fume/gas/mist/vapours/spray. Use only outdoors or with adequate ventilation. IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Section 3: COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Concentration
Clethodim	99129-21-2	240.0 g/L
Others	/	Up to 1L

Section 4: FIRST AID MEASURES

Description of necessary first aid measures

Inhalation:	Remove the victim to a well-ventilated place and keep him at rest in a position that does not hinder breath. If the victim is not breathing, give artificial respiration. Look for a health service taking the packaging, label, the package insert or this MSDS.
Skin contact:	Remove contaminated clothing and shoes. Wash affected areas with plenty of running water and soap. If necessary, consult a doctor.
Eye contact:	Remove contact lenses, if present. Wash the eye with plenty of running water for at least 15 minutes, lifting the eyelids occasionally. Consult a physician.
Ingestion:	May be harmful if ingested. DO NOT INDUCE VOMITING. Rinse your mouth with plenty of running water. In case of spontaneous vomiting, keep the head below the level of the hips or in a lateral position to avoid aspiration of gastric contents. See a doctor immediately.

Advice to doctors: Symptomatic and supportive treatment, according to the clinical picture.

There is no specific antidote.

Most important symptoms/effects, acute and delayed

The product may be harmful if swallowed. Causes moderate eye irritation. Exposure to high doses can cause dizziness, headache, malaise. Exposure to high doses can cause muscle contractions, spasms, profound weakness and loss of consciousness.

Section 5: FIRE FIGHTING MEASURES

Suitable extinguishing media:

Water fog, dry chemical and carbon dioxide (CO₂).

Not recommended: Water directly over the burning liquid.

Special hazards arising from the chemical:

Combustion of the chemical or its packaging can form irritating and toxic gases such as carbon monoxide and carbon dioxide.

Special protective actions for fire-fighters:

Fight fire from a safe distance and with the wind at your back to avoid poisoning. Cool containers exposed to flames with plenty of water from the side, even after the fire has been extinguished.

Wear suitable protective fire fighting clothing and self-contained breathing apparatus.

Section 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:

For personnel who do not is part of the services emergency

Use personal protective equipment (PPE). Isolate and signal the area. Do not smoke. Remove all sources of ignition. Avoid contact with the product. Do not handle broken packages. Do not touch or walk on spilled product.

For the staff of emergency service

Use appropriate PPE. Keep unauthorized persons away. Isolate the emergency service: spill or leak within a radius of at least 50 meters in all directions.

Precautions in environment

Prevent spilled product from entering waterways and sewers. Avoid environmental contamination. In the event of a spill or leak, contain the spilled material.

Method and materials for containment and cleaning

Use PPE. Stop the leak if this can be done without risk. Paved floor: Absorb spillage with sand, earth or other inert absorbent material. Collect the material with the aid of a clean shovel and place it in a suitable and properly identified container for later disposal. Wash the area with soap and water, avoiding environmental contamination. Large spill: confine the flow to a dike away from the spill for proper disposal. Prevent product from entering waterways and sewers. The spilled product should not be used again. Soil: remove layers of contaminated soil until it reaches uncontaminated soil, store in an appropriate place and discard later.

Differences in the action big and small leaks

There is no distinction between the actions of large and small leaks for this product.

Section 7: HANDLING AND STORAGE

Appropriate technical measures for handling:

Precautions for safe handling: Use PPE. Avoid contact of the product with the skin, eyes and mucous membranes. Handle the product in an open and ventilated place. Ensure good ventilation in the workplace. When opening the package, do so in order to avoid spills. Handle in compliance with general industrial safety and hygiene rules and/or good agricultural practices.

Hygiene measures: Wash your hands and face thoroughly after handling and before eating, drinking, smoking or using the bathroom **Conditions for safe storage, including any incompatibilities:**

Fire prevention and explosion: This product is not expected to present a fire or explosion hazard.

Proper conditions: Store the product in its original packaging, always closed, at room temperature and protected from light. The place must be exclusive for toxic products, and must be isolated from food, drinks, feed or other materials. The construction must be of masonry or non-oxidizing material.

Suitable packaging materials: Similar to the original packaging.

Unsuitable materials for packing: No unsuitable materials are known for this product.

Section 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters:

Engineering control measures: Ensure adequate ventilation when handling the product.

Emergency showers and eyewash should be available close to the work area.

Provides exhaust ventilation where processes demand.

Personal protective equipment:

Eye / face protection: Safety glasses with side protection.

Skin and body protection: Long-sleeved water-repellent overalls, rubber boots, waterproof apron, Arab cap, nitrile gloves.

Breath protection: Mask with mechanical filter class P2.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance (physical state, color etc.):	Transparent liquid
Odor and odor limit	Characteristic
pH:	4.0-7.0
Flash point:	44.1°C at 760 mmHg
Relative density:	1.0137 g/cm ³ at 20°C

Section 10: STABILITY AND REACTIVITY

Reactivity:	None when properly stored and used.
Chemical stability:	The product is stable at room temperature and in air.
Possibility of hazardous reactions:	No dangerous reactions are known with respect to the product.
Conditions to avoid:	Elevated temperatures.
Incompatible materials:	Incompatible materials are not known.
Hazardous decomposition products:	Product decomposition may form toxic gases.

Section 11: TOXICOLOGICAL INFORMATION

Acute Toxicity:

Acute oral LD ₅₀ :	> 2000mg/kg in the rat
Acute dermal LD ₅₀ :	> 2000mg/kg in the rat
Acute inhalation LC ₅₀ -4h:	> 1.18mg/L
Skin irritation:	Non-irritating to skin
Eye irritation:	Irritating to the eyes
Sensitization:	It is not classified as a skin sensitizer

Section 12: ECOLOGICAL INFORMATION

Ecotoxicity: Harmful to aquatic organisms

Pesticide to alga:	Acute 72 h EC ₅₀ = 15.28 mg/L, <i>Pseudokirchneriella subcapitata</i> .
Pesticide to fish:	Acute 96 h EC ₅₀ = 2.83 mg/L, <i>Danio rerio</i> .
Pesticide to daphnia:	Acute 48 h EC ₅₀ = 4.52 mg/L, <i>Daphnia magna</i> .

Persistence and degradability:

Low persistent in the environment.

Bio-accumulative potential:

Presents bioaccumulative potential in aquatic organisms

Mobility in the soil:

It has high mobility in the soil.

Other adverse effects:

No data available.

Section 13: DISPOSAL CONSIDERATIONS

Recommended methods for disposal :

Product:	Disposal must be carried out in accordance with current laws and regulations.
Product remains:	Keep product remnants in their original and properly closed packaging. The disposal must be carried out as established for the product.
Used packaging:	Do not reuse empty packaging. These may contain remnants of the product and must be kept closed and forwarded for proper disposal as established for the product.

Section 14: TRANSPORT INFORMATION

SEA transport

(IMDG) UN number:	3082
UN proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Clethodim)
Transport hazard class(es):	9
Packing group, if applicable:	III
Marine pollutant (Yes/No):	Yes
Special precautions for user:	No data available

Section 15: OTHER INFORMATION

This MSDS was prepared based on current knowledge on the proper handling of the product and under normal conditions of use, according to the application specified on the packaging. Any other form of use of the product that involves its combination with other materials, in addition to forms of use other than those indicated, are the responsibility of the user. It is noted that the handling of any chemical substance requires prior knowledge of its dangers by the user. In the workplace, it is up to the company that uses the product to promote the training of its employees on the possible risks arising from exposure to the chemical product.