MATERIAL SAFETY DATA SHEET

Oxyfluorfen 240g/L EC

Revision: 01/02/2022

Section 1. Identification of the Substance/Mixture and of the Company/Undertaking

1.1 Product Identifiers

Product Name:	Oxyfluorfen 240g/L EC
CAS No.	42874-03-3

1.2 Relevant Identified Uses of the Substance or Mixture and Uses advised against

Identified uses:	Herbicide

1.3 Details of the Supplier of the Safety Data Sheet

Company Name:	ZHEJIANG XINAN CHEMICAL INDUSTRIAL GROUP CO., LTD.
Add:	Xinanjiang, Jiande , Zhejiang, 311600, China
Telephone:	+86-571- 87220468
Fax:	+86-571- 87220464

1.4 Emergency Telephone Number

Emergency contact:	+86-571 -64723891

Section 2. Hazards Identification

2.1 HAZARD CLASSIFICATION:

Classified as Hazardous according to the Globally Harmonised System of Classification and Labelling of Chemicals (GHS) and Safe Work Australia criteria.

Not classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail.

2.2 Pictograms:

2.3 Signal Word: Danger

2.4 Hazard Statements:

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H360D May damage the unborn child.

H335 May cause respiratory irritation.

H304 May be fatal if swallowed and enters airways.

H411 Toxic to aquatic life with long lasting effects

2.5 Precautionary Statements

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P264 Wash hands thoroughly after handling.

P271 Use only outdoors or in a well-ventilated area.

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.

P302+P352 IF ON SKIN: Wash with plenty of water.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P308+P313 IF exposed or concerned: Get medical advice/attention.

P312 Call a POISON CENTER/doctor if you feel unwell.

P321 Specific treatment (see on this label).

P331 Do NOT induce vomiting.

P332+P313 If skin irritation occurs: Get medical advice/attention.

P337+P313 If eye irritation persists: Get medical advice/attention.

P362+P364 Take off contaminated clothing and wash it before reuse.

P391 Collect spillage.

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national regulations

Section 3. Composition/Information on Ingredients

Hazardous Components (Chemical Name)	**CAS-No**	**Concentration, g/L**
Oxyfluorfen	**42874-03-3**	**240**
Other ingredient (non-hazardous)		**Up to 1L**

Section 4. First Aid Measures

4.1 Description of First Aid Measures

General advice:	Remove victim from area of exposure. Wash off remaining material with plenty of water.
Inhalation:	Remove victim to fresh air. If breathing is difficult: artificial respiration. Get medical attention.
Skin:	Remove contaminated clothing. Wash away remainder with water and soap.
Eyes:	Wash out with plenty of water with the eyelid held wide open for at least 15 minutes. Get medical attention.
Ingestion:	If swallowed, seek medical advice immediately and show this container or label. DO NOT induce vomiting.
Notes to physician:	There is no specific antidote. Treat symptomatically and give supportive therapy.

4.2 Most Important Symptoms and Effects, both acute and delayed

Inhalation: Headache, dizziness and nausea.

Ingestion: Nausea, headache, cramps, vomiting.

Skin contact: Irritating to skin.

Eye contact: Irritating to eyes.

Section 5. Fire Fighting Measures

5.1	**Suitable Extinguishing Media**	Dry chemical, water spray, foam, carbon dioxide.
5.2	**Special Hazards arising from the Substance or Mixture**	Chloride compounds, Fluoride compounds and nitrogen oxides
5.3	**Precautions for Fire-Fighting**	Self-contained breathing apparatus and total protection required in enclosed areas.

Section 6. Accidental Release Measures

6.1	**Personal Precautions**	Wear suitable protective clothing.
6.2	**Environmental Precautions**	Do not discharge into drains or the environment.
6.3	**Methods for Cleaning up**	Keep away from: open flame, sparks and heat. Absorb remainder in sand or other inert material. Dispose of in an authorized waste collecting point.

Section 7. Handling and Storage

7.1	**Handling**	Avoid contact with skin and eyes. Ventilation required. Keep away from: sparks, open flame and direct sunlight.
7.2	**Storage**	Keep only in the original container. Keep in a cool, dry, well ventilated place away from direct sunlight.

Section 8. Exposure Controls/Personal Protection

8.1	**Exposure Parameters**	TLV (USA): 0.2 mg/m3 STEL (USA): 1.6 mg/m3
8.2	**Engineering Controls**	Ventilation required.
8.3	**Personal Protection Equipment**	Respiratory system: Respiratory protection is not required if good ventilation is maintained. Skin and body: Wear suitable protective clothing. Chemical resistant boots. Hands: Chemical resistant gloves. Eyes: Safety goggles or face shield.
8.4	**Hygiene measures:**	When handling do not eat, drink or smoke. Wash hands thoroughly after handling. Wash clothing separately before re-use.

Section 9. Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties

Appearance:

Form	Liquid
Color	Yellow to brown
Odor	Aromatic
PH	4.0-8.0
Boiling point	201.7°C
Flash point	98°C
Relative density	0.95-1.15 g/mL at 25 °C
Vapor pressure	0.29hPa at 20°C
Henry's Law constant	N/A
Dissociation constant	N/A
Oxidizing	Not oxidizing
Partition coefficient	N/A
Solubility	Emulsifiable in water
Explosive properties	N/A
Auto-ignition temperature	346 °C

Section 10. Stability and Reactivity

10.1	**Reactivity**	No reactive under normal conditions.
10.2	**Chemical stability**	Stable under recommended storage conditions.
10.3	**Conditions to avoid**	Heat, flames and sparks.
10.4	**Incompatibilities with other materials**	Strong oxidizing agents Strong acids Strong bases
10.5	**Hazardous decomposition products**	Chloride compounds, Fluoride compounds and nitrogen oxides.

Section 11. Toxicological Information

11.1 Information on Toxicological Effects

Acute oral toxicity	LD50 (rat): >2000 mg/kg
Acute inhalation toxicity	LC50 (rat): >5.12mg/l; Exposure time: 4 h
Acute dermal toxicity	LD50 (rat): >5000 mg/kg
Skin irritation	Moderately irritation (rabbit)
Eye irritation	Moderately irritation. (rabbit)
Sensitization	Consider to be a contact sensitizer. (guinea pig)
Long term toxicity:	NOAEL= 0.28 mg/kg bw/day (mice)
Mutagenicity	No genotoxic potential.
Carcinogenicity	EPA : Group C EU : Not classified IARC : Not classified HSNO NZ: Not Classified
Reproductive toxicity	NOAEL=91 mg/kg bw per day

Section 12. Ecological Information

12.1	**Toxicity**	
	Toxicity to fish	Fish acute toxicity LC50 =0.8mg /L (Oncorhynchus mykiss),
	Toxicity to aquatic invertebrates	Daphnia magna acute EC50 (48hours)=6mg/L
	Toxicity to aquatic plants	Alga ErC50 (72hours) >8mg/L
	Toxicity to other organisms	Bird LD50≥ 2250 mg/kg body weight (Bobwhite Quails); Acute contact LD50 (48hours) = 49.6μg a.i./bee, Acute oral LD50 (48 hours) > 100μg a.i./ bee.; Earthworms LC50 (14d) >1000 mg/kg.
12.2	**Persistence and Degradability**	Soil: The product is persistent to some extent. Half-life time (LD50): 5-55 days. Degradation is primarily via: photolysis. Water: Dissipates rapidly from aquatic systems by adsorption to sediment.
12.3	**Bioaccumulative Potential**	Does not bioaccumulate.
12.4	**Mobility in Soil**	Not mobile. Adsorbed on soils with high organic content. Koc = 2891 – 3238 mL/g

Section 13. Disposal Considerations

13.1 Waste Disposal	Do not contaminate ponds, waterways or ditches with chemical or used container. Do not dispose of waste into sewer. Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with local regulations.
13.2 Container Disposal	Container Disposal - Triple rinse empty container and add rinsate to spray tank. Burn in an appropriate incinerator, if circumstances such as wind direction permit. Otherwise crush or puncture and bury in a suitable landfill, or if appropriate, recycle. Avoid contamination of any water supply with product or empty container.

Section 14. Transport Information

14.1 DOT	Packing less than 119 gallons(450L):not reguilated Packing over 119 gallons(450L): UN 3082, Environmentally hazardous substance, Liquid, N.O.S, Oxyfluorfen,9,PG III, Marine Pollutant
14.2 IATA	UN 3082, Environmentally hazardous substance, Liquid, N.O.S, Oxyfluorfen
14.3 IMDG	UN number:3082 UN proper shipping name: Environmentally hazardous substance, Liquid, N.O.S, Oxyfluorfen Hazard class: 9 Packing Group: III Marine Pollutant: Yes

Section 15. Regulatory Information

This material is listed in Institute for the Control of Agrochemicals Ministry of Agriculture, P.R. China (ICAMA). Reg No.：PD20101134

Section 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 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 this company.

Our responsibility for products sold is subject to our standard terms and conditions, a copy of which is sent to our customers and is also available on request.