

Safety Data Sheet

Section 1. IDENTIFICATION: PRODUCT IDENTIFIER AND CHEMICAL IDENTITY

1.1 Company identification

Product Name **Oxyfluorfen 480g/L SC**
Use End use herbicide product

1.2 Product identification

Company Hangzhou Nutrichem Company Limited
Address No. 9777, Hong-Shiwu Road, Linjiang Industrial Park, Xiaoshan District, Hangzhou City, Zhejiang 311228, P.R. China
Tel. 0086-571-56039799
Fax. 0086-571-56039700

Section 2. HAZARD(S) IDENTIFICATION

2.1 GHS Classification

Acute aquatic toxicity Category 1
Chronic Category toxicity Category 1

2.2 GHS Label elements

Hazard pictograms



Signal Word **WARNING!**

2.3 Hazard statement

Very toxic to aquatic life with long lasting effects.

2.4 Precautionary Statement

Prevention

Avoid release to the environment.

Response

Collect spillage.

Disposal

Dispose of contents/ container to an approved waste disposal plant.

2.5 Other hazards

No data available

Section 3. COMPOSITION AND INFORMATION ON INGREDIENTS, IN ACCORDANCE WITH SCHEDULE 8

This product is a mixture.

Component	CASRN	Concentration
Oxyfluorfen	42874-03-3	39.4% - 41.8%
Balance	Not available	Up to 100.0 %

Section 4. FIRST AID MEASURES

4.1 Description of first aid measures

General advice: If potential for exposure exists refer to Section 8 for specific personal protective equipment.

Inhalation

Move person to fresh air. If person is not breathing, call an emergency responder or ambulance, then give artificial respiration; if by mouth to mouth use rescuer protection (pocket mask etc). Call a poison control center or doctor for treatment advice.

Skin contact

Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice. Suitable emergency safety shower facility should be available in work area.

Eye contact

Hold eyes open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eyes. Call a poison control center or doctor for treatment advice. Suitable emergency eye wash facility should be available in work area.

Ingestion

No emergency medical treatment necessary.

4.2 Most important symptoms and effects, both acute and delayed: Aside from the information found under Description of first aid measures (above) and Indication of immediate medical attention and special treatment needed (below), any additional important symptoms and effects are described in Section 11: Toxicology Information.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician: No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient. Have the Safety Data Sheet, and if available, the product container or label with you when calling a poison control center or doctor, or going for treatment.

Section 5. FIREFIGHTING MEASURES**5.1 Suitable extinguishing media:**

To extinguish combustible residues of this product use water fog, carbon dioxide, dry chemical or foam.

5.2 Unsuitable extinguishing media: No data available**5.3 Special hazards arising from the substance or mixture**

Hazardous combustion products: Under fire conditions some components of this product may decompose. The smoke may contain unidentified toxic and/or irritating compounds. Combustion products may include and are not limited to: Nitrogen oxides. Hydrogen fluoride. Hydrogen chloride. Carbon monoxide. Carbon dioxide.

Unusual Fire and Explosion Hazards: This material will not burn until the water has evaporated. Residue can burn. If exposed to fire from another source and water is evaporated, exposure to high temperatures may cause toxic fumes.

5.4 Advice for firefighters

Fire Fighting Procedures: Keep people away. Isolate fire and deny unnecessary entry. Use water spray to cool fire exposed containers and fire affected zone until fire is out and danger of reignition has passed. To extinguish combustible residues of this product use water fog, carbon dioxide, dry chemical or foam. Contain fire water run-off if possible. Fire water run-off, if not contained, may cause environmental damage.

Special protective equipment for firefighters: Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots, and gloves). Avoid contact with this material during fire fighting operations. If contact is likely, change to full chemical resistant fire fighting clothing with self-contained breathing apparatus. If this is not available, wear full chemical resistant clothing with self-contained breathing apparatus and fight fire from a remote location. For protective equipment in post-fire or non-fire clean-up situations, refer to the relevant sections.

Section 6. ACCIDENTAL RELEASE MEASURES**6.1 Personal precautions, protective equipment and emergency procedures**

Oxyfluorfen 480 g/L SC

Response to this material requires the use of personal protective equipment to prevent contact with this material. Those items include but are not limited to boots, impervious gloves, hard hat, chemical splash-proof goggles, protective clothing, and appropriate approved respiratory protection.

6.2 Environmental precautions

Isolate area and keep unauthorized people away.

Do not walk through spilled material.

Avoid breathing dust and skin contact. Remove sources of ignition of combustible or flammable vapors may be present and ventilate area.

Follow container label instruction for disposals of wastes generated in compliance with the product label.

6.3 Methods and materials for containment and cleaning up

Clean up spills immediately, observing precautions.

Vacuum or sweep up material and place in properly labeled disposal container.

After removal, flush contaminated area thoroughly with water. Do not allow any material to run off in soil, drainage systems or bodies of water.

Notify and consult with proper regulatory authorities. In other situations dispose in a hazardous waste incinerator.

Section 7. HANDLING AND STORAGE, INCLUDING HOW THE CHEMICAL MAY BE SAFELY USED**7.1 Precautions for safe handling**

Keep out of reach of children. Do not swallow. Avoid contact with eyes, skin, and clothing. Avoid breathing vapor or mist. Wash thoroughly after handling. Use with adequate ventilation. See Section 8, EXPOSURE CONTROLS AND PERSONAL PROTECTION.

7.2 Conditions for safe storage

Store in a dry place. Store in original container. Keep container tightly closed when not in use. Do not store near food, foodstuffs, drugs or potable water supplies.

Section 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION**8.1 Control parameters**

Occupational exposure limit values No data available

Biological limit values No data available

8.2 Exposure controls

Engineering controls: Use local exhaust ventilation, or other engineering controls to maintain airborne levels below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, general ventilation should be sufficient for most operations. Local exhaust ventilation may be necessary for some operations.

8.3 Individual protection measures

Eye/face protection: Use safety glasses (with side shields).

Skin protection

Hand protection: Use gloves chemically resistant to this material when prolonged or frequently repeated contact could occur. Use chemical resistant gloves classified under standard AS/NZS 2161.10: Protective gloves against chemicals and micro-organisms. Examples of preferred glove barrier materials include: Neoprene. Nitrile/butadiene rubber ("nitrile" or "NBR"). Polyvinyl chloride ("PVC" or "vinyl"). When prolonged or frequently repeated contact may occur, a glove with a protection class of 3 or higher (breakthrough time greater than 60 minutes according to AS/NZS 2161.10) is recommended. NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.

Other protection: Wear clean, body-covering clothing.

Respiratory protection: Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, wear respiratory protection when adverse effects, such as respiratory irritation or discomfort have been experienced, or where indicated by your risk assessment process. For most conditions no respiratory protection should be needed; however, if discomfort is experienced, use an approved air-purifying respirator.

The following should be effective types of air-purifying respirators: Organic vapor cartridge with a particulate pre-filter.

Section 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Appearance

Physical State	Liquid
Color	Yellow to Orange

9.2 Odor Characteristic

9.3 Odor threshold No test data available.

9.4 pH 7.66 1% aqueous solution.

9.5	Meting Point/ Range	Not applicable
9.6	Freezing Point	No test data available.
9.7	Boiling point (760 mmHg)	No test data available.
9.8	Flash point	closed cup EC Method A9 none below boiling point
9.9	Evaporation rate (Butyl Acetate = 1)	No test data available.
9.10	Flammability (solid, gas)	No data available.
9.11	Lower Explosion limit	No test data available.
9.12	Upper Explosion limit	No test data available.
9.13	Vapor pressure	Not applicable
9.14	Relative Vapor density (air = 1)	No test data available.
9.15	Relative density (water = 1)	No test data available.
9.16	Water Solubility	Not applicable
9.17	Partition coefficient: n-octanol/water	No data available.
9.18	Auto-ignition temperature	No test data available.
9.19	Decomposition temperature	No test data available.
9.20	Dynamic Viscosity	No test data available.
9.21	Kinematic Viscosity	No data available.
9.22	Explosive properties	No test data available.
9.23	Oxidizing properties	No test data available.
9.24	Liquid Density	1.18 g/ml (20 °C)
9.25	Molecular weight	No data available.

NOTE: The physical data presented above are typical values and should not be construed as a specification.

Section 10. STABILITY AND REACTIVITY

10.1 Reactivity

No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

Stable under recommended storage conditions. See Storage, Section 7.

10.3 Possibility of hazardous reactions

Polymerization will not occur.

10.4 Conditions to avoid

Generation of gas during decomposition can cause pressure in closed systems. Pressure build-up can be rapid.

10.5 Incompatible materials

Avoid contact with: Strong oxidizers.

10.6 Hazardous decomposition products

Decomposition products depend upon temperature, air supply and the presence of other materials. Decomposition products can include and are not limited to: Carbon monoxide. Carbon dioxide. Hydrogen chloride. Hydrogen fluoride. Nitrogen oxides. Toxic gases are released during decomposition.

Section 11. TOXICOLOGICAL INFORMATION

Toxicological information appears in this section when such data is available.

11.1 Acute toxicity**Acute oral toxicity**

Very low toxicity if swallowed. Harmful effects not anticipated from swallowing small amounts.

As product:

LD50, Rat, > 5,000 mg/kg

Acute dermal toxicity

Prolonged skin contact is unlikely to result in absorption of harmful amounts.

As product:

LD50, Rat, > 5,000 mg/kg

Acute inhalation toxicity

No adverse effects are anticipated from single exposure to mist. Based on the available data, respiratory irritation was not observed.

As product:

LC50, Rat, 4 Hour, dust/mist, > 0.39 mg/l

11.2 Skin corrosive/irritant

Brief contact is essentially nonirritating to skin.

11.3 Serious eye damage/eye irritation

Essentially nonirritating to eyes.

Corneal injury is unlikely.

11.4 Sensitization

Did not cause allergic skin reactions when tested in guinea pigs.

For respiratory sensitization:

No relevant data found.

Section 12. ECOLOGICAL INFORMATION

Ecotoxicological information appears in this section when such data is available.

12.1 Ecotoxicity**Acute toxicity to fish**

Material is very highly toxic to aquatic organisms on an acute basis (LC50/EC50 <0.1 mg/L in the most sensitive species).

LC50, *Oncorhynchus mykiss* (rainbow trout), 96 Hour, > 115 mg/l, OECD Test Guideline 203 or Equivalent

Acute toxicity to aquatic invertebrates

EC50, *Daphnia magna* (Water flea), 48 Hour, 79 mg/l, OECD Test Guideline 202 or Equivalent

Acute toxicity to algae/aquatic plants

EC50, *Pseudokirchneriella subcapitata* (green algae), 72 Hour, 0.00043 mg/l, OECD Test Guideline 201 or Equivalent

Toxicity to Above Ground Organisms

Material is practically non-toxic to birds on an acute basis (LD50 > 2000 mg/kg).

oral LD50, *Colinus virginianus* (Bobwhite quail), > 2250mg/kg bodyweight.

contact LD50, *Apis mellifera* (bees), 48 d, > 238µg/bee

oral LD50, *Apis mellifera* (bees), 48 d, > 238µg/bee

Toxicity to soil-dwelling organisms

LC50, *Eisenia fetida* (earthworms), 14 d, > 1,000 mg/kg

Section 13. DISPOSAL CONSIDERATIONS***Disposal method***

If wastes and/or containers cannot be disposed of according to the product label directions, disposal of this material must be in accordance with your local or area regulatory authorities. This information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. If the material as supplied becomes a waste, follow all applicable regional, national and local laws.

This product when disposed of in its unused and uncontaminated state should be treated as a hazardous waste.

Section 14. TRANSPORT INFORMATION**ADG**

Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE,
LIQUID, N.O.S.(Oxyfluorfen)

UN number	UN 3082
Class	9
Packing group	III
Marine pollutant	Oxyfluorfen
Classification for SEA transport (IMO-IMDG):	
Proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(Oxyfluorfen)
UN number	UN 3082
Class	9
Packing group	III
Marine pollutant	Oxyfluorfen
Transport in bulk according to Annex I or II of MARPOL 73/78 and the IBC or IGC Code	Consult IMO regulations before transporting ocean bulk
Classification for AIR transport (IATA/ICAO):	
Proper shipping name	Environmentally hazardous substance, liquid, n.o.s.(oxyfluorfen)
UN number	UN 3082
Class	9
Packing group	III

Further information:

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

Section 15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulation specific for the product

GLOBALY HARMONIZED SYSTEM OF CLASSIFICATION AND LABELLING OF CHEMICALS (GHS), *Fifth revised edition, UNITED NATIONS, New York and Geneva, 2013*
Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 with amendments.

Section 16. ANY OTHER RELEVANT INFORMATION

16.1 Information source and references

The information contained in the Safety Data sheet is correct to the best of our knowledge at the date of issue. It is intended as a guide for the safe use, handling, disposal, storage and transportation and is not intended as a warranty or as a specification. The information relates only to the product specified and may not be suitable for combinations with other materials or in processes other than those specifically described herein.

16.2 Issuing date 20.02.2020

16.3 Revision date 20.02.2020
