

MATERIAL SAFETY DATA SHEET

Manufacturer/information service:

RAYFULL HOLDING CO., LTD.

ADD:ROOM 1701 UNIT 4 XINHU BLDG. WAITAN RUIAN, ZHEJIANG CHINA.

Tel:+86-577-65900587 Fax: +86-577-65900567

Email: info@rayfull.com sales@rayfull.com

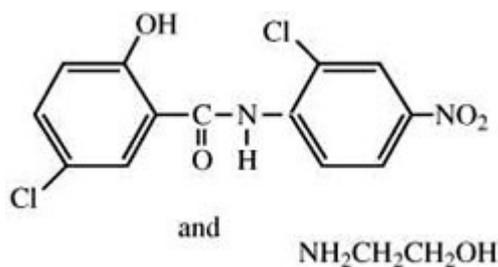
1. Chemical Product Identification

Product Name: Niclosamide

Molecular Formula: C₁₃H₈Cl₂N₂O₄

Molecular Weight: 327.1

Structural Formula:



Chemical Name: 2',5-Dichloro-4'-nitrosalicylanilide (IUPAC)

Form: crystalline solid

Color: Yellowish

Odor: odorless

CAS No.: 50-65-7

UN No.: 2588

2. Composition / Information On Ingredients

Composition	CAS No.	Content %
Niclosamide	50-65-7	95.0
Other ingredients		5.0

3. Hazards Identification

Component	Sympol	R phrases
Niclosamide	Xn	R36 R38

More important danger for the man: none

Dangers for the enviroment: toxic to fish and aquatic invertebrates.

Physical-chemical dangers: none

4. First Aid Measures

Skin: remove contaminated clothing and shoes, flush with plenty of water

and soap.

Eyes: flush with plenty of water for 15-20 minutes.

Inhalation: move to a fresh air place and give artificial respiration.

Ingestion: clean mouth, drink plenty of water, if a large quantity of material was swallowed and signs of toxicity are apparent, induce vomiting if person is conscious avoiding aspiration of vomit.

5. Fire-Fighting Measures

Extinguishing media

To be used: water spray, foam, dry chemical powder and carbon oxide.

Don't use: none

Particular risk: none

Measures of personal protection: Fire fighters should wear full protective gear, including self-contained breathing apparatus.

Environmental cautions

EX: prevent the contamination of the floor and of beds of water.

6. Accidental Release Measures

Personal cautions: the product will irritate the eyes and skin. Avoid inhaling spray mist. Keep people and animals away and upwind.

Cleaning methods

EX: collect and store in properly labelled, sealed drums for safe disposal.

Deal with all spillages immediately.

Environmental cautions

EX: prevent the contamination of the floor and of beds of water.

7. Handling And Storage

Handling: Keep out of reach of children. Avoid contact with the eyes, skin and clothing and avoid inhalation of product or spray mist. If product in eyes, wash it immediately with water. After handling and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water.

Storage: Store in the closed, original container in a dry, well-ventilated area. Store in locked room or place away from children, animals, food, animal feed, seed and fertilisers.

8. Exposure Controls / Personal Protection

Personal protective equipment: full-length overalls

Respiratory protection: wear a respirator with an organic vapour cartridge if inhalation is likely.

Protective gloves: elbow-length PVC gloves

Eye protection: safety goggles or face shield.

9. Physical and Chemical Properties

Melting point: 230°C (decomposed at 208°C)

Bulk density: not applicable

Water solubility: 5-8 mg/L at 20°C

Other solubilities: nearly insoluble in n-hexane, dichloromethane, 2-propanol, toluene

pH value: ≤ 0.30 (expressed as H₂SO₄)

Flash point: none

Ignition temperature: not applicable

10. Stability And Reactivity

Conditions to avoid: none

Products to avoid: none

Thermal decomposition: 208°C

Hazardous decomposition products: none

Hazardous reaction: none

11. Toxicological Information

Contact with the skin: slight irritative to skin

Contact with the eyes: irritative to eyes

Inhalation: not applicable

Ingestion: nausea and abdominal pain occurred

Sharp toxicity: none

Effects for chronic oxhibition: not applicable

Sensitisation: moderate sensitisation

Other data: niclosamide showed no evidence of causing developmental toxicity, mutagenicity or carcinogenicity.

12. Ecological And Ecotoxicological Information

Avian acute-moderate toxic (LD₅₀ 60mg/kg)

Avian subacute dietary – practically nontoxic (LD₅₀>5419 mg/gk diet)

Mammalian acute- practically nontoxic (LC₅₀>1000 mg/kg)

Fish (freshwater acute)-highly toxic to very highly toxic (LC₅₀ 0.03- 0.23 mg/L)

invertebrates acute- slightly to very highly toxic (EC₅₀ 0.034 – 50 mg/L)

invertebrates chronic – (NOAEC 0.03 mg/L; LOEC 0.05 mg/L)

Aquatic plants – toxic (0.04 to > 1450 mg/L)

13. Disposal Considerations

Product: Do not pollute ponds, watercourses and canals with the product or the empty packaging. Never reuse the empty package for other materials. To avoid spraying solutions after treatment, calculate how much liquid is

needed on the basis of the area that need to be treated and the amount of water needed for each hectare.

The empty container need to be rinsed with water by means of a manual system (three successive times shaking with water) or by means of a cleaning sys with water under pressure, placed on the spraying tank. The wash water needs to be poured in the spraying tank. The rinsed package must be brought to a specific collector.

14. Transport Information

GGVSee/IMDG-Cod.: 6220, 6219

UN No.: 2588

RID/ADR: none

15. Regulatory Information

Symbol: Xn

R phrases: R36, R38

S phrases: S2, S24/25

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.