

SAFETY DATA SHEET

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product Name: Mesotrione 10% SC
Substance: Suspension concentrate of Mesotrione
Chemical name of active ingredient: IUPAC Name:
2-(4-mesyl-2-nitrobenzoyl)cyclohexane-1,3-dione
CA Name:
2-[4-(methylsulfonyl)-2-nitrobenzoyl]-1,3-cyclohexanedione
Product Use: Agricultural herbicide
Manufacturer: Spinochem Tech Co.,Ltd
Address: No.2278,Zhaochong Rd,Shanghai,China.
Emergency telephone No.: + 86 21 64238765

2. HAZARDS IDENTIFICATION

According to Regulation (EC) No1272/2008

Aquatic Acute Toxicity (Category 1)

Label elements

Pictogram



Signal word: Warning

Hazard statement(s)

H400 Very toxic to aquatic life.

Precautionary statement(s)

P273 Avoid release to the environment.

Hazard symbol(s)

N Dangerous for the environment.

Other hazards None.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient	CAS No.	Content
Mesotrione	104206-82-8	10%
Others	Not applicable	Up to 100%

4. FIRST AID MEASURES

General advice

Have the product container, label or Safety Data Sheet with you when going for treatment. Tell the person contacted the complete product name, and the type and amount of exposure. Describe any symptoms and follow the advice given.

If ingested

Remove by gastric lavage and catharsis. Maintain blood pressure and airway. Give oxygen if respiration is depressed. Do not perform gastric lavage if victim is unconscious. Get medical attention immediately.

If inhaled

Remove to fresh air. If breathing is irregular or stopped, administer artificial respiration. Keep patient warm and at rest. Call for a physician or Poison Control Centre immediately.

In case of skin contact

Take off contaminated clothing. Rinse skin immediately with soap and plenty of water for 15 to 20 minutes. If irritation develops, get medical attention.

In case of eye contact

Flush eyes with clean water, holding eyelids apart for a minimum of 15-20 minutes. Obtain medical attention immediately if irritation persists.

Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labeling (see section 2) and /or in section 11.

Note to physician

Poisoning symptoms in laboratory animals were non-specific. There is no specific antidote available. Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Use foam, carbon dioxide, dry powder, halon extinguishant or water fog or mist, (avoid use of water jet).

Special hazards arising from the substance or mixture

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Nitrogen oxides (NO_x), Sulphur oxides.

Advice for firefighters

Wear protective clothing and self-contained breathing apparatus. Do not allow run-off from firefighting to enter drains or water courses. Cool closed containers exposed to fire with water spray

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Wear respiratory protection. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

For personal protection see section 8.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Method and material for containment and cleaning up

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

Reference to other sections

For disposal see section 13.

7. HANDLING AND STORAGE

Precautions for safe handling

Spray solutions of this product should be mixed, stored and applied using only plastic, plastic-lined steel, stainless steel or fiberglass containers. Concentrate should not be stored in mild steel, cast iron or aluminum containers. Keep product in original tightly

closed container; avoid inhalation of particles, do not get on skin, eyes or clothing; do not eat, drink or smoke when handling; wash hands before eating, drinking or smoking.

Conditions for safe storage, including any incompatibilities

Store in original container only in a well-ventilated, cool, dry, secure area. Protect from heat, sparks and flame. Do not expose sealed containers to temperatures above 40°C and prevent product from freezing. Keep separate from other products to prevent cross contamination. Rotate stock. Clean up spilled material immediately.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Components with workplace control parameters.

Exposure limits

Not available.

Acceptable Daily Intake (ADI):

(EC) 0.01mg/kg b.w; aRfD 0.02mg/kg b.w. [2003]; (EPA) cRfD 0.007mg/kg [2001].

No-observable-effect-level (NOEL):

Rats (90 d) 0.24, mice 61.5mg/kg b.w. daily; Rats (2 y) 7.7mg/kg b.w. daily;
Mice (multi-generation reproduction) 1472, for rats 0.3mg/kg b.w. daily.

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes and clothing. Wash hands before breaks and at the end of workday.

Personal protection equipment

Eye Protection: Protective glasses or goggles should be worn when this product is being used. Failure to protect your eyes may cause them harm. Emergency eye wash facilities are also recommended in an area close to where this product is being used.

Skin Protection: The information at hand indicates that this product is not harmful and that normally no special skin protection is necessary. However, we suggest that you routinely avoid contact with all chemical products and that you wear suitable

gloves (preferably elbow-length) when handling this product.

Body protection: Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace

Respiratory protection: Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Environmental exposure controls

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

User safety recommendations:

Users should wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove clothing immediately after handling this product. Wash outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	White to off-white liquid
pH range	3-6
Wet sieve test, % pass 75um sieve	≥90
Suspensibility, %	≥90
Pourability, % residue	≤5

10. STABILITY AND REACTIVITY

Reactivity

No data available.

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

No data available.

Conditions to avoid

Concentrate should not be stored in mild steel, cast iron or aluminum containers. Spray solutions should not be mixed, stored or applied in containers other than plastic, stainless steel, plastic-lined steel or fiberglass.

Incompatible materials

Strong oxidizing agents.

Hazardous decomposition products

Other decomposition products - No data available.

In the event of fire: see section 5

11. TOXICOLOGICAL INFORMATION

Acute Oral	Rats c: LD ₅₀ >5000mg/kg
Inhalation	Rats: LC ₅₀ (4 h) >5mg/L
Skin and Eye	Rats: Acute percutaneous LD ₅₀ >2000mg/kg Rabbits: None irritating to skin and eyes.
Skin sensitization	Not a skin sensitizer in guinea pigs.
Mutagenic effects	No data available.
Carcinogenic effects	IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC. ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
Reproductive effects	No data available.
Teratogenic effects	No data available.
STOT-single exposure	No data available.
STOT-repeated exposure	No data available.
Aspiration hazard	No data available.

12. ECOLOGICAL INFORMATION

Eco-toxicity(ePM)

Bird	Bobwhite	LD ₅₀ >2000 mg/kg. Dietary LC ₅₀ >5200mg/kg.
	Mallard ducks	Dietary LC ₅₀ >5200 mg/kg.
Fish	Rainbow trout:	LC ₅₀ (96-hour) >100mg/L
	Bluegill sunfish:	LC ₅₀ (96-hour) >100mg/L
Daphnia	Daphnia	LC ₅₀ (48 h, static) >100mg/L
Algae	Selenastrum	ErC ₅₀ (120, static) 35mg/L
	capricornutum:	
Bees	Bees	LD ₅₀ (oral) >100µg/bee
Worms	Worms	NOEL ≥1000mg/kg.

Persistence and degradability

In soil, DT₅₀ (lab., anaerobic) 4 d (first order); DT₉₀ 12 d. DT₅₀ (lab., aerobic) 6–27 d (17 soils); DT₉₀ 20–89 d. Soil photolysis c. 23 d. DT₅₀ (field) 3–7 d (6 sites); DT₉₀ 36–78 d. Degradation is faster at higher pH values. K_{oc} 19–141 (seven soils, pH 5.1–8.2; o.c. 0.53–3.31%); K_{oc} 29–390, K_d 0.2–5.2 (13 soils, pH 4.5–8.2, o.c. 0.53–3.31%); correlated inversely with pH and directly with soil organic carbon

Bioaccumulative potential

No data available.

Mobility in soil

No data available.

Result of PBT and vPvB assessment

No data available.

Other adverse effects

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Very toxic to aquatic life.

13. DISPOSAL CONSIDERATIONS

Triple or preferably pressure rinse containers before disposal. Add rinsing to spray tank. DO NOT dispose of undiluted chemicals on site. If recycling, replace cap and

return clean containers to recycler or designated collection point. If not recycling, break, crush or puncture and bury empty containers in a local authority landfill. If no landfill available, bury the containers below 500mm in a disposal pit specifically marked and set up for this purpose clear of waterways, desirable vegetation and tree roots. Empty containers and product should not be burnt.

Dispose of washings, contaminated materials, used absorbents and other waste materials as directed by local regulations

14. TRANSPORT INFORMATION

UN number

ADR/RID: Not dangerous goods IMDG: 3082 IATA: 3082

UN proper shipping name

ADR/RID: -

IMDG: Enviromentally hazardous substances, Liquid, N.O.S (Mesotrione)

IATA: Enviromentally hazardous substances, Liquid, N.O.S (Mesotrione)

Transport hazard class(es)

ADR/RID: - IMDG: 9 IATA: 9

Packaging group

ADR/RID: - IMDG: III IATA: III

Environmental hazards

ADR/RID: - IMDG Marine pollutant: yes

Special precautions for user

No data available.

15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture

No data available

Chemical Safety Assessment

For this product a chemical safety assessment was not carried out.

16. OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 3.

H400 Very toxic to aquatic life.

Full text of P-Statements referred to under sections 2 and 3.

P273 Avoid release to the environment.

Further information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall we be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if we has been advised of the possibility of such damages.