



NEWAY SINOPHC TECH. LIMITED

ADD:RM. 204, BUILDING 3, NO. 188, AONA RD., CHINA (SHANGHAI) PILOT FREE TRADE ZONE.
Email:marketing01@newayphc.com; Phone:+86-021-50350029 <https://www.newayphc.com>

Safety Data Sheet (MSDS)

According to GB/T 16483 and GB/T 17519; Adapts to GHS, IMDG, IATA Standards **Product Name:** Artesunate **CAS-No.:** 88495-63-0 **Product Number:** ATE-20260214 **Brand:** SIGALD **Revision Date:** 14 FEB 2026

SECTION 1: Identification of the Substance/Mixture and of the Company/Undertaking

1.1 Product Identifiers

- Synonyms: Artesunate; (3R,5aS,6R,8aS,9R,12S,12aR)-Octahydro-3,6,9-trimethyl-3,12-epoxy-12H-pyrano[4,3-j]-1,2-benzodioxepin-10-yl hydrogen succinate

1.2 Supplier Details

- Company: NEWAY SINOPHC TECH. LIMITED
- Address: RM. 204, BUILDING 3, NO. 188, AONA RD., CHINA (SHANGHAI) PILOT FREE TRADE ZONE.
- Telephone: +86-021-50350029
- Fax: +86-021-50350029

1.3 Emergency telephone: +86-021-50350029 (CHEMTREC)

1.4 Identified Uses & Uses Advised Against

- Identified Uses: Pharmaceutical raw material (anti-malarial); artemisinin derivative synthesis; intravenous anti-malarial drug production; research reagent
- Uses Advised Against: Not for direct oral/intravenous use (unformulated); no unapproved industrial/medical use

SECTION 2: Hazards Identification

2.1 **GHS Classification:** Not a hazardous substance or mixture (GHS 0 category) 2.2 **GHS Label Elements**

- Hazard Pictogram: None
- Signal Word: None
- Hazard Statements: None
- Precautionary Statements: P264, P270, P305+P351+P338 2.3 **Physical and Chemical Hazards:** No physical/chemical hazards; non-combustible 2.4 **Health Hazards:** No acute/chronic toxic effects; mild eye/skin irritation in sensitive individuals; no systemic toxicity at therapeutic dosages 2.5 **Environmental Hazards:** Environmentally friendly; fully biodegradable; no adverse effects on aquatic/terrestrial organisms 2.6 **Other Hazards:** No additional hazards identified

SECTION 3: Composition/Information on Ingredients

- **Substance / Mixture:** Pure substance
- **Active Component:** Artesunate (CAS:88495-63-0) | Concentration: ≥99.0% | Classification: Non-hazardous

SECTION 4: First Aid Measures

4.1 First-Aid Measures

- Inhaled: Move to fresh air; rest if discomfort occurs; no special treatment required



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- Skin Contact: Rinse skin with running water and mild soap for 5-10 mins; remove contaminated clothing
 - Eye Contact: Rinse eyes thoroughly with plenty of running water for 10-15 mins; remove contact lenses; consult a doctor if irritation persists
 - Swallowed: Rinse mouth with water; do not induce vomiting; consult a doctor if large amount is ingested
- 4.2 Symptoms and Effects:** Mild reversible eye/skin irritation in sensitive individuals; no other toxic effects
- 4.3 Medical Attention:** No specific antidote; symptomatic treatment only for irritation
- 4.4 Notes to Physician:** Inform of product composition and exposure/ingestion amount

SECTION 5: Firefighting Measures

5.1 Extinguishing Media: Water spray, foam, carbon dioxide (CO₂), dry powder (all suitable)

5.2 Special Hazards: Non-combustible; decomposes at >135°C (melting/decomposition) to non-toxic organic compounds; no hazardous combustion fumes/gases

5.3 Firefighter Advice: Wear standard fire-fighting gear; no special protective equipment required

SECTION 6: Accidental Release Measures

6.1 Personal Precautions: Wear dust mask, nitrile rubber gloves and safety glasses for large spills; ensure good ventilation

6.2 Environmental Precautions: No special measures; biodegradable, no soil/water pollution

6.3 Clean Up Methods

- Small Spill: Sweep up with clean spatula/brush; transfer to sealed container for reuse/recycling
 - Large Spill: Contain with inert material (sand/vermiculite); collect into sealed drum; avoid entering drainage/soil
- 6.4 Reference:** See Section 13 for waste disposal

SECTION 7: Handling and Storage

7.1 Safe Handling

- Operate in well-ventilated area; avoid dust generation and inhalation
- Avoid contact with strong acids, strong oxidizing agents and high temperature (>80°C)
- Hygiene Measures: Wash hands thoroughly with soap and water after handling; no eating/drinking/smoking in work area; use sterile equipment for pharmaceutical formulation

Safe Storage

- Storage Conditions: Cool, dry, dark warehouse; temperature ≤20°C, relative humidity ≤50%; airtight sealed container
- Incompatibilities: Strong mineral acids, oxidizing agents (hydrogen peroxide/potassium permanganate), heavy metal salts (Fe³⁺/Cu²⁺), strong alkalis
- Storage Class (TRGS 510): 13 (Non-Hazardous Solids)
- Shelf Life: 24 months (unopened, under specified storage conditions)

SECTION 8: Exposure Controls/Personal Protection

8.1 Control Parameters: No occupational exposure limits (national/international standards)

Exposure Controls

- Engineering Controls: Basic ventilation; dust collection system for large-scale production/handling; sterile clean room for pharmaceutical grade processing



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- Personal Protective Equipment (PPE)
 - Eye/Face Protection: Anti-dust safety goggles (mandatory for all handling)
 - Skin Protection: Nitrile rubber gloves (≥ 0.1 mm) for prolonged contact; sterile protective clothing for pharmaceutical formulation
 - Respiratory Protection: N95 dust mask for dust-generating scenarios; no respiratory protection for normal use
 - Hand Protection: Nitrile gloves preferred over latex gloves (sterile gloves for pharmaceutical use)
- Environmental Exposure: No special control measures required

SECTION 9: Physical and Chemical Properties

- Physical State: Crystalline powder
- Color: White to off-white
- Odor: Faint characteristic organic odor
- Melting Point: 130-135°C (decomposition)
- Boiling Point: N/A (decomposes before boiling)
- Flammability: Non-combustible
- Flash Point: N/A
- Autoignition Temperature: $>360^{\circ}\text{C}$
- Specific Rotation: $+160^{\circ}$ to $+170^{\circ}$ (25°C , MeOH, 1%)
- pH Value: Slightly acidic (5.0-6.0 in methanol solution)
- Solubility: Soluble in methanol/ethanol/dimethyl sulfoxide (DMSO); slightly soluble in water; insoluble in ether/hexane
- Density (25°C , solid): 1.29 g/cm³
- Particle Size: 100-200 mesh (pharmaceutical grade, customizable)
- Explosive Properties: Non-explosive
- Oxidizing Properties: None; weak antioxidant activity

SECTION 10: Stability and Reactivity

10.1 **Chemical Stability:** Stable under recommended storage conditions ($\leq 20^{\circ}\text{C}$, dry, sealed)

10.2 **Hazardous Reactions:** No hazardous reactions under normal use/handling conditions

10.3 **Conditions to Avoid:** High temperature ($>80^{\circ}\text{C}$), high humidity, direct UV light/sunlight, strong acids/alkalis/oxidizers

10.4 **Incompatible Materials:** Concentrated HCl/H₂SO₄, hydrogen peroxide, potassium permanganate, NaOH/KOH, Fe³⁺/Cu²⁺ salts

10.5 **Decomposition Products:** Non-toxic organic acids/esters; no toxic or gaseous decomposition products

SECTION 11: Toxicological Information

11.1 Toxicological Effects

- Acute Toxicity: Oral (Rat, LD₅₀) >5000 mg/kg; Dermal (Rabbit, LD₅₀) >10000 mg/kg; Inhalation (Rat, LC₅₀) >7 mg/m³ (4h)



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- Skin Corrosion/Irritation: Mild reversible irritation (Rabbit, 4h exposure)
- Eye Irritation: Moderate reversible irritation (Rabbit, 24h exposure)
- Sensitization: No skin/respiratory sensitization (human/animal tests)
- Mutagenicity/Carcinogenicity: No mutagenic effects (Ames test); not classified as carcinogenic by IARC/EPA/NTP
- Reproductive Toxicity: No adverse reproductive/teratogenic effects at therapeutic dosages
- Target Organ Toxicity: No target organ toxicity identified at recommended dosages
- Aspiration Hazard: Low (solid powder, no dust aspiration risk under normal handling)

SECTION 12: Ecological Information

12.1 **Toxicity:** Fish (Zebrafish, LC₅₀) >700 mg/L (96h); Daphnia (EC₅₀) >250 mg/L (48h);

Algae (EC₅₀) >700 mg/L (72h) 12.2 **Persistence and Degradability:** Fully biodegradable

(BOD₅/COD >0.6) in aquatic/soil environments 12.3 **Bioaccumulative Potential:** Low (log Kow = 2.1); no biomagnification in food chain 12.4 **Mobility in Soil:** Low mobility; adsorbs to soil organic

matter; slight water solubility with no leaching to groundwater 12.5 **PBT/vPvB:** Not classified as PBT/vPvB 12.6 **Other Effects:** Weak antioxidant effect in environment; no adverse ecological

impacts

SECTION 13: Disposal Considerations

13.1 **Waste Treatment:** Dispose via licensed pharmaceutical/chemical waste treatment facilities; comply with local/national/international regulations; incineration (low NOx/SO₂

emission) or biological degradation available 13.2 **Packaging Waste:** Rinse thoroughly with methanol/ethanol; recycle as non-hazardous plastic/metal waste; comply with

pharmaceutical packaging waste regulations (sterile packaging treated as medical waste)

SECTION 14: Transport Information

14.1 **UN Number:** ADR/RID/IMDG/IATA: -14.2 **UN Proper Shipping Name:** Non-dangerous goods (all international transport regulations) 14.3 **Transport Hazard Class:** -14.4 **Packaging Group:** -

14.5 **Environmental Hazards:** No (non-marine pollutant) 14.6 **Special Precautions:** Transport at ≤25°C; avoid direct sunlight, moisture, collision and breakage of containers; sterile packaging

kept sealed 14.7 **Incompatible Materials:** Avoid transport with strong acids, alkalis, oxidizing agents and heavy metal salts

SECTION 15: Regulatory Information

15.1 National & International Regulations

- China: Chinese Pharmacopoeia (CP) compliant; Hazardous Chemical Safety Management Regulation (Non-hazardous); Pharmaceutical Raw Material Management Regulation; GMP compliant for pharmaceutical grade
- International: GHS (Rev.9) Non-hazardous; REACH (EU) - Not in SVHC List; TSCA (US) - Listed on Inventory; USP/EP/BP compliant (pharmaceutical grade) 15.2 **Other:** Comply with local pharmaceutical raw material import/export, environmental protection and medical device regulations



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SECTION 16: Other Information

- This MSDS is based on current scientific research and complies with GB/T 16483, GB/T 17519 and GHS international standards
- Supplier is not liable for damage caused by improper use, storage or non-compliance with safety precautions
- Pharmaceutical grade Artesunate meets CP/USP/EP/GMP quality standards; custom synthesis for high-purity grade (99.5%+) available
- For further technical/quality information, contact the supplier's R&D/technical department

