



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: Chloroquine Phosphate **CAS-No.:** 50-63-5 **Product Number:** CP-20260218 **Brand:** SIGALD
Revision Date: 18 FEB 2026

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

1.1 Product Identifiers

- Synonyms: N4-(7-Chloro-4-quinolyl)-N1,N1-diethyl-1,4-pentanediamine diphosphate;
Chloroquine diphosphate

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/anti-inflammatory); biomedical research reagent; veterinary anti-parasitic drug synthesis
- Uses Advised Against: Not for direct oral/intravenous use (unformulated); no unapproved industrial use; not for cosmetic/food use

SECTION 2: Hazards Identification

2.1 **GHS Classification:** Acute oral toxicity, Category 4 (H302); Eye irritation, Category 2 (H319); Skin irritation, Category 2 (H315); Specific target organ toxicity (repeated exposure), Category 2 (Eye) (H373)

2.2 GHS Label Elements

- Hazard Pictogram: (Warning)
- Signal Word: **Warning**
- Hazard Statements: H302 - Harmful if swallowed; H315 - Causes skin irritation; H319 - Causes serious eye irritation; H373 - May cause damage to eyes through prolonged or repeated exposure
- Precautionary Statements: P264, P270, P280, P302+P352, P305+P351+P338, P312, P332+P313

Physical and Chemical Hazards: No physical/chemical hazards; non-combustible

Health Hazards: Harmful if swallowed; causes skin/serious eye irritation; prolonged exposure may cause eye damage; may cause nausea/vomiting upon accidental ingestion

Environmental Hazards: Slightly toxic to aquatic organisms; fully biodegradable in natural environment; avoid direct release to water bodies

SECTION 3: Composition/Information on Ingredients

- **Substance / Mixture:** Pure substance
- **Active Component:** Chloroquine Phosphate (CAS:50-63-5) | Concentration: ≥98.5% |
Classification: Acute oral toxicity Cat.4; Skin/Eye irritation Cat.2



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SECTION 4: First Aid Measures

4.1 First-Aid Measures

- Inhaled: Move to fresh air; rest in a comfortable breathing position; consult a doctor if coughing/irritation persists
 - Skin Contact: Rinse skin with running water/mild soap for 10-15 mins; remove contaminated clothing; wash clothing before reuse; consult a doctor if rash/redness occurs
 - Eye Contact: Rinse eyes thoroughly with running water for 15-20 mins (hold eyelids open); remove contact lenses; **immediately consult a doctor**
 - Swallowed: Rinse mouth with water; **do not induce vomiting**; immediately call a poison control center or consult a doctor
- 4.2 **Symptoms:** Nausea/vomiting/diarrhea (ingestion); skin redness/itching; eye redness/burning/ blurred vision; prolonged eye exposure may cause corneal irritation
- 4.3 **Medical Attention:** Symptomatic treatment; no specific antidote; gastric lavage under medical supervision if large amount is ingested; ophthalmological examination for eye exposure
- 4.4 **Notes to Physician:** Inform of product composition and exposure/ingestion amount; monitor gastrointestinal and ocular function

SECTION 5: Firefighting Measures

- 5.1 **Extinguishing Media:** Water spray, foam, CO₂, dry powder (all suitable)
- 5.2 **Special Hazards:** Non-combustible; decomposes at >220°C to release toxic nitrogen oxides, hydrogen chloride and phosphoric acid fumes
- 5.3 **Firefighter Advice:** Wear self-contained breathing apparatus (SCBA) and full fire-fighting gear; avoid inhalation of decomposition fumes; cool containers with water spray to prevent decomposition

SECTION 6: Accidental Release Measures

- 6.1 **Personal Precautions:** Wear N95 dust mask, chemical safety goggles, nitrile gloves and protective clothing; ensure good ventilation
- 6.2 **Environmental Precautions:** Prevent spillage from entering drains, sewers, rivers or other water bodies; contain spilled material to avoid soil contamination
- 6.3 **Clean Up Methods**
- Small Spill: Sweep up with a dry clean spatula; transfer to a sealed plastic container for disposal; wipe the area with damp cloth (avoid dust)
 - Large Spill: Contain with inert material (sand/vermiculite); collect into sealed drum; rinse the area with small amount of water (collect rinse water for disposal)
- 6.4 **Reference:** See Section 13 for disposal

SECTION 7: Handling and Storage

7.1 Safe Handling

- Operate in a well-ventilated fume hood/area; avoid dust generation/inhalation
 - Do not eat/drink/smoke in the work area; wash hands thoroughly after handling
 - Avoid contact with eyes, skin and mucous membranes; wear full PPE during handling
- 7.2 **Safe Storage**

- Storage Conditions: Cool, dry, dark warehouse; $\leq 25^{\circ}\text{C}$, relative humidity $\leq 60\%$; airtight sealed container
- Incompatibilities: Strong bases, strong oxidizing agents, alkaline carbonates, heavy metal salts
- Storage Class (TRGS 510): 10 (Toxic Solids, Non-combustible)
- Shelf Life: 24 months (unopened, specified conditions)
- Storage Segregation: Store separately from food, feed, cosmetic raw materials and strong alkaline substances

SECTION 8: Exposure Controls/Personal Protection

8.1 Control Parameters

- Occupational Exposure Limit (OEL): No official national limit; recommended TWA: $1\text{ mg}/\text{m}^3$ (inhalable dust)

8.2 Exposure Controls

- Engineering Controls: Local exhaust ventilation (LEV) for dust-generating operations; dust collection system
- Personal Protective Equipment (PPE)
 - Eye/Face: Chemical safety goggles (mandatory)
 - Skin: Nitrile rubber gloves ($\geq 0.18\text{mm}$); impermeable protective clothing
 - Respiratory: N95/P95 dust mask for routine handling; PAPR for large-scale operations
 - Hand: Nitrile gloves (no latex)
- Hygiene: Change contaminated clothing immediately; shower after handling; avoid touching eyes/face before hand washing

SECTION 9: Physical and Chemical Properties

- Physical State: Crystalline powder
- Color: White to off-white
- Odor: Almost odorless
- Melting Point: $215\text{-}220^{\circ}\text{C}$ (decomposition)
- Boiling Point: N/A (decomposes before boiling)
- Flammability: Non-combustible
- Flash Point: N/A
- Autoignition Temperature: $>350^{\circ}\text{C}$
- Solubility: Freely soluble in water; slightly soluble in ethanol; insoluble in chloroform/ether
- Density (25°C): $1.60\text{ g}/\text{cm}^3$
- Particle Size: 100-200 mesh (pharmaceutical grade, customizable)
- Explosive Properties: Non-explosive
- Oxidizing Properties: None
- pH Value: 3.5-4.5 (1% aqueous solution)
- Viscosity: N/A (solid)

SECTION 10: Stability and Reactivity

10.1 **Chemical Stability:** Stable under recommended storage conditions ($\leq 25^{\circ}\text{C}$, dry, sealed)
10.2 **Hazardous Reactions:** No hazardous reactions under normal use/handling; reacts with strong bases to form insoluble chloroquine base
10.3 **Conditions to Avoid:** High temperature ($>220^{\circ}\text{C}$), direct UV light, high humidity, contact with strong bases/oxidizers
10.4 **Incompatible Materials:** Sodium hydroxide, potassium hydroxide, hydrogen peroxide, potassium permanganate, sodium carbonate
10.5 **Decomposition Products:** Nitrogen oxides (NO_x), hydrogen chloride (HCl), phosphoric acid fumes, carbon monoxide (CO)

SECTION 11: Toxicological Information

11.1 Toxicological Effects

- Acute Toxicity: Oral (Rat, LD_{50}) = 300 mg/kg; Dermal (Rabbit, LD_{50}) >2000 mg/kg; Inhalation (Rat, LC_{50}) >6 mg/m³ (4h)
- Skin Irritation: Moderate irritation (Rabbit, 4h exposure); redness/edema (reversible)
- Eye Irritation: Severe irritation (Rabbit, 24h exposure); corneal edema (reversible with treatment)
- Sensitization: No skin/respiratory sensitization (human/animal tests)
- Mutagenicity: No mutagenic effects (Ames test/in vitro cell tests)
- Carcinogenicity: Not classified by IARC/EPA/NTP
- Reproductive Toxicity: No adverse reproductive/teratogenic effects at therapeutic dosages (animal/human tests)
- Target Organ Toxicity: Eyes, skin, gastrointestinal tract; no chronic target organ toxicity at therapeutic dosages

SECTION 12: Ecological Information

12.1 **Toxicity:** Fish (Zebrafish, LC_{50}) = 150 mg/L (96h); Daphnia (EC_{50}) = 120 mg/L (48h); Algae (EC_{50}) = 180 mg/L (72h)
12.2 **Persistence and Degradability:** Fully biodegradable ($\text{BOD}_5/\text{COD} = 0.60$) in aquatic environments; degradation half-life = 14-28 days

Bioaccumulative Potential: Low ($\log K_{ow} = 2.1$); no biomagnification in aquatic food chains
12.4 **Mobility in Soil:** Moderate mobility; partially soluble in soil water; binds to soil organic matter
12.5 **PBT/vPvB:** Not classified as PBT/vPvB
12.6 **Other Effects:** Slightly toxic to aquatic invertebrates at high concentrations; no adverse effects on soil microorganisms

SECTION 13: Disposal Considerations

13.1 **Waste Treatment:** Dispose via licensed hazardous chemical waste treatment facilities; incinerate at high temperature ($>800^{\circ}\text{C}$) with gas scrubbing to remove toxic fumes; **do not dispose of with ordinary waste**
13.2 **Packaging Waste:** Rinse packaging with water then dilute acid; dispose as hazardous plastic/metal waste; do not recycle with food/cosmetic packaging

SECTION 14: Transport Information

14.1 **UN Number:** ADR/RID/IMDG/IATA: 2811
14.2 **UN Proper Shipping Name:** Toxic solids, organic, n.o.s. (Chloroquine Phosphate)
14.3 **Transport Hazard Class:** 6.1 (Toxic substances)
14.4 **Packaging Group:** III
14.5 **Environmental Hazards:** IMDG: Marine pollutant (No)
14.6 **Special**



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Precautions: Transport at $\leq 25^{\circ}\text{C}$; avoid direct sunlight, moisture, collision and breakage; store separately from food/feed/strong bases
14.7 Incompatible Materials: Avoid transport with strong alkaline substances and oxidizing agents

SECTION 15: Regulatory Information

15.1 National & International Regulations

- China: Chinese Pharmacopoeia (CP) compliant; Hazardous Chemical Safety Management Regulation (Class 6.1 toxic substance); Pharmaceutical Raw Material Management Regulation
- International: GHS (Rev.9) Cat.4 Acute oral toxicity; REACH (EU) - Registered; TSCA (US) - Listed on Inventory; USP/EP/BP compliant (pharmaceutical grade)
- 15.2 **Other:** Comply with local pharmaceutical import/export, hazardous chemical transport and environmental regulations

SECTION 16: Other Information

- This MSDS is based on current scientific research and complies with GB/T 16483, GB/T 17519 and GHS standards
- Supplier is not liable for damage caused by improper use, storage or non-compliance with safety precautions
- Pharmaceutical grade meets CP/USP/EP standards; use only for formulated pharmaceutical/veterinary products
- For further technical/ safety information, contact the supplier's R&D/ EHS department

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