



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)

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

1.1 Product Identifiers

- Product Name: Paracetamol / Acetaminophen
- Product Number: PAC-20260210
- Brand: SIGALD
- CAS-No.: 103-90-2
- Synonyms: N-(4-Hydroxyphenyl)acetamide; 4-Acetamidophenol
- Molecular Formula: $C_8H_9NO_2$
- Molecular Weight: 151.16 Da

1.2 Details of the supplier of the safety data sheet

- Company: NEWAY SINOPHC TECH. LIMITED
- 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

- Emergency Phone #: +86-021-50350029 (CHEMTREC)

1.4 Relevant Identified Uses and Uses Advised Against

- Identified Uses: Pharmaceutical raw material (oral/rectal antipyretic analgesic preparations); pharmaceutical research reagent; fine chemical intermediate for organic synthesis.
- Uses Advised Against: Not for direct bulk ingestion; not for intravenous injection without pharmaceutical formulation; not for use in excessive dosage in pharmaceutical preparations; not for mixing with strong oxidizing agents in industrial production.

SECTION 2: Hazards Identification

| Summary of Emergency Measures | White crystalline powder. May cause mild skin irritation and serious eye irritation; harmful if swallowed in large quantity and may cause liver damage. After inhalation: Move to fresh air and rest, consult a doctor if cough/chest tightness occurs. In case of skin contact: Rinse thoroughly with running water for 5-10 minutes, remove contaminated clothing. After eye contact: Rinse with plenty of water for 15 minutes (hold eyelids open), consult an ophthalmologist immediately. After swallowing: Rinse mouth with water, do not induce vomiting, seek medical attention at once. Non-combustible. No explosion risk. | | --- |

2.1 GHS Classification

- Serious eye damage (Category 1)
- Skin irritation (Category 2)
- Acute toxicity, oral (Category 4)

2.2 GHS Label Elements



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- Hazard Pictogram: (Exclamation mark), (Corrosion)
- Signal Word: **Danger**
- Hazard Statements:
 - H302: Harmful if swallowed
 - H315: Causes skin irritation
 - H318: Causes serious eye damage
- Precautionary Statements:
 - P261: Avoid breathing dust/fume/gas/mist/vapours/spray
 - P264: Wash hands thoroughly after handling
 - P270: Do not eat, drink or smoke when using this product
 - P280: Wear protective gloves/eye/face protection
 - P301+P312: If swallowed: Call a POISON CENTER/doctor if you feel unwell
 - P302+P352: If on skin: Wash with plenty of water/soap
 - P305+P351+P338: If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing
 - P310: Immediately call a POISON CENTER/doctor
 - P333+P313: If skin irritation or rash occurs: Get medical advice/attention
 - P362+P364: Take off contaminated clothing and wash it before reuse
 - P501: Dispose of contents/container to an approved waste disposal plant

2.3 Physical and Chemical Hazards Non-combustible; no explosive/oxidizing properties; no hazardous physical/chemical hazards under normal use and handling conditions.

2.4 Health Hazards

- Acute effects: Severe eye pain, redness and blurred vision; mild skin redness and itching; nausea, vomiting and abdominal pain if ingested; acute liver damage in case of large oral dosage.
- Chronic effects: No known chronic toxic effects at normal occupational exposure levels; long-term excessive oral intake may cause chronic liver and kidney damage.

2.5 Environmental Hazards Low toxicity to aquatic organisms; readily biodegradable; no significant bioaccumulation potential; no long-term adverse environmental effects at normal use levels.

2.6 Other Hazards No additional hazards identified.

SECTION 3: Composition/Information on Ingredients

- Substance / Mixture: **Pure chemical compound** | 3.1 Main Component | Paracetamol / Acetaminophen (100%) | |---|---| | CAS-No.: | 103-90-2 | | EC-No.: | 203-157-5 | | Hazard Classification | Serious eye damage 1; Skin irritation 2; Acute oral toxicity 4 |

SECTION 4: First Aid Measures

4.1 First-Aid Measures



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- **Inhaled:** Move the victim to fresh air, keep warm and at rest. If breathing is difficult, supply oxygen. Consult a doctor immediately if cough, chest tightness or other discomfort persists.
- **Skin Contact:** Immediately remove all contaminated clothing and footwear. Rinse the affected area thoroughly with plenty of running water and mild soap for 5-10 minutes. Consult a doctor if irritation, redness or rash appears.
- **Eye Contact: IMMEDIATELY** hold the eyelids open and rinse the eyes continuously with clean running water for at least 15 minutes. Do not use any eye drops without medical advice. Consult an ophthalmologist without delay, even if no obvious symptoms are present.
- **Swallowed:** Rinse the mouth with clean water. Do **NOT** induce vomiting (risk of esophageal irritation). Drink a small amount of water only if the victim is conscious and alert. Call a poison center or doctor immediately for specific treatment, especially for large dosage ingestion.

4.2 Most Important Symptoms and Effects

- **Acute Effects:** Severe eye damage, mild skin irritation, gastrointestinal discomfort, nausea, vomiting, acute liver damage (high dosage).
- **Delayed Effects:** Persistent eye irritation in severe contact cases; liver function abnormality may occur 24-48h after excessive oral ingestion.

4.3 Immediate Medical Attention and Special Treatment Immediate medical attention is **mandatory** for eye contact and oral ingestion of large dosage. Seek medical advice if skin irritation lasts for more than 24 hours. No specific antidote is available; treat symptomatically, and conduct liver function tests for high dosage ingestion cases according to the doctor's advice.

4.4 Notes to Physician Inform the physician that the exposed substance is Paracetamol (CAS 103-90-2). Perform a comprehensive ophthalmic examination for eye contact cases; conduct liver function tests and provide liver protective treatment for oral ingestion of large dosage cases.

SECTION 5: Firefighting Measures

5.1 Extinguishing Media

- **Suitable:** Water spray, dry powder, carbon dioxide (CO₂), foam.
- **Unsuitable:** No limitations of extinguishing agents; do not use high-pressure water jet to avoid dust dispersion.

5.2 Special Hazards Arising from the Substance or Mixture Non-combustible; no flammable vapors or hazardous combustion gases under normal fire conditions. Thermal decomposition at high temperature (>300°C) releases non-toxic carbon dioxide, water, and small amounts of ammonia and aromatic hydrocarbons.

5.3 Advice for Firefighters Wear full fire-fighting protective gear (self-contained breathing apparatus, chemical-resistant fire suit, anti-corrosion gloves, face shield) to avoid inhalation of thermal decomposition products and skin/eye contact. Keep containers cool with water spray

if exposed to fire to prevent thermal decomposition. Prevent fire water from entering water bodies and soil to avoid environmental contamination.

SECTION 6: Accidental Release Measures

6.1 Personal Precautions, Protective Equipment and Emergency Procedures Wear basic personal protective equipment (disposable mask, chemical-resistant goggles, nitrile rubber gloves, lab coat) before cleanup. Ensure good ventilation in the spill area; evacuate non-essential personnel and set up warning signs to prevent unauthorized access. Avoid breathing dust and direct contact with the spilled material.

6.2 Environmental Precautions Prevent the spilled powder from entering sewers, rivers, lakes and soil (use sand/vermiculite to contain and absorb). The product is readily biodegradable, and small spills can be cleaned with water after absorption without causing environmental pollution.

6.3 Methods and Materials for Containment and Cleaning Up

- **Small Spill:** Cover the spilled powder with dry sand/vermiculite to prevent dust dispersion; sweep up with a clean dry brush and transfer to a sealed HDPE container for disposal or reuse.
- **Large Spill:** Contain the spill with plastic dikes/sand bags; transfer the spilled material to sealed metal drums with a clean shovel; clean the spill area with a damp cloth (avoid dust) and collect the cleaning waste for centralized disposal.

6.4 Reference to Other Sections For disposal of the spilled material and related waste, see Section 13.

SECTION 7: Handling and Storage

7.1 Precautions for Safe Handling

- Operate in a well-ventilated workshop with dust collection system; use low-dust handling equipment (e.g., vacuum feeder) to avoid powder dispersion.
- Avoid direct skin contact and eye exposure; wear mandatory PPE during all handling operations (see Section 8).
- Do not eat, drink, smoke or apply cosmetics in the handling area; wash hands thoroughly with soap and water after handling.
- Contaminated work clothing must be washed separately and cannot be worn out of the workplace; clean up spills immediately and keep the handling area clean and tidy.
- Avoid contact with strong acids, strong bases and strong oxidizing agents to prevent chemical reactions and degradation of the active ingredient.

7.2 Conditions for Safe Storage, Including Any Incompatibilities

- **Storage Conditions:** Store in a cool, dry, dark and well-ventilated pharmaceutical raw material warehouse; keep the container tightly sealed and protected from light; storage temperature $\leq 25^{\circ}\text{C}$; relative humidity $\leq 60\%$.



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- **Incompatibilities:** Strong acids (pH < 3), strong bases (pH > 10), strong oxidizing agents (e.g., hydrogen peroxide, potassium permanganate), heavy metal salts (e.g., copper sulfate, ferric chloride).
- **Storage Class (TRGS 510):** 10 (Hazardous Solids - Irritant)
- **Shelf Life:** 36 months (unopened, under the above specified storage conditions); 6 months after opening (resealed immediately with vacuum, stored under the same conditions and used as soon as possible).
- **Storage Labeling:** Clearly mark the container with product name, CAS number, batch number, hazard classification, **DANGER** labels.

SECTION 8: Exposure Controls/Personal Protection

8.1 Control Parameters

表格

Component	CAS-No.	Value	Control Parameters	Basis
Paracetamol	103-90-2	10 mg/m ³ 8h TWA	(Respirable dust)	EU OEL, China GBZ 2.1-2019
		20 mg/m ³ 15min STEL		EU OEL, China GBZ 2.1-2019

8.2 Exposure Controls

- **Engineering Controls:** Local exhaust ventilation with dust collection efficiency ≥99%; regular maintenance of ventilation equipment to ensure normal operation.
- **Personal Protective Equipment (MANDATORY):**
 - **Eye/Face Protection:** Chemical-resistant goggles + face shield (full eye and face coverage).
 - **Skin Protection:** Nitrile rubber gloves (thickness ≥0.18mm) + chemical-resistant lab coat + protective shoes.
 - **Respiratory Protection:** Disposable N95 respirator for normal handling; powered air-purifying respirator (PAPR) for large-scale processing or spill cleanup.
- **Hygiene Measures:** Set up emergency eye wash and hand washing facilities in the workplace; provide skin care cream for daily use to protect the skin from irritation.

SECTION 9: Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties
a) Physical State: Crystalline powder
b) Color: White to off-white
c) Odor: Odorless
d) Melting Point/Freezing Point: 168-172°C (Capillary Method)
e) Initial Boiling Point and Boiling Range: N/A (decomposes before boiling)
f) Flammability (Solid): Non-combustible
g) Upper/Lower Flammability or Explosive Limits: Not applicable
h) Flash Point: Not applicable
i) Autoignition Temperature: > 300°C
j) Decomposition Temperature: ≥ 200°C (slow decomposition)
k) pH Value (25°C): 5.5-6.5 (5% aq. solution)
l) Viscosity: Not applicable (solid)
m) Water Solubility: Slightly soluble (1.4 g/100 mL, 25°C); soluble in hot water, ethanol, methanol, acetone
n) Partition Coefficient (n-octanol/water): Log P = 0.46 (25°C)
o) Vapor Pressure (25°C): < 0.0001 hPa
p) Density (25°C): 1.29-1.32 g/cm³ (bulk density)
q) Relative Vapor Density: Not applicable
r) Particle Characteristics: ≥95% passing 100



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meshes) Explosive Properties: Not explosive) Oxidizing Properties: None) Hygroscopy: Slightly hygroscopic

SECTION 10: Stability and Reactivity

10.1 Chemical Stability: Stable under recommended storage conditions ($\leq 25^{\circ}\text{C}$, dry, dark, sealed); no degradation within the shelf life and the active ingredient content remains above 99.0%.

10.2 Possibility of Hazardous Reactions: No hazardous reactions under normal use and handling conditions; no polymerization occurs.

10.3 Conditions to Avoid: High temperature ($>200^{\circ}\text{C}$), direct sunlight, high humidity ($>60\%$), contact with strong acids/alkalis/oxidizing agents.

10.4 Incompatible Materials: Concentrated sulfuric acid, hydrochloric acid, sodium hydroxide, potassium hydroxide ($\geq 10\%$), hydrogen peroxide ($\geq 30\%$), potassium permanganate, heavy metal salts.

10.5 Hazardous Decomposition Products: Carbon dioxide (CO_2), water (H_2O), small amounts of ammonia and aromatic hydrocarbons (at high temperature $>300^{\circ}\text{C}$).

SECTION 11: Toxicological Information

11.1 Information on Toxicological Effects

- **Acute Toxicity:** Oral (Rat, LD_{50}): 338 mg/kg; Dermal (Rabbit, LD_{50}): > 2000 mg/kg; Inhalation (Rat, LC_{50}): > 10 mg/m³ (4-hour exposure, respirable dust).
- **Skin Corrosion/Irritation:** Category 2 (Rabbit test: mild redness and edema after 24h exposure, reversible within 72h).
- **Serious Eye Damage/Eye Irritation:** Category 1 (Rabbit test: severe corneal opacity and conjunctival irritation after single exposure).
- **Skin Sensitization:** Negative (Guinea pig test: no allergic reaction).
- **Germ Cell Mutagenicity:** Negative (Ames test, chromosome aberration test, mouse micronucleus test).
- **Carcinogenicity:** Not classified as carcinogenic by IARC, EPA or NTP.
- **Reproductive Toxicity:** No reproductive harm at normal occupational exposure levels (rat and rabbit studies); high oral doses may cause fetal developmental abnormalities in animals.
- **Specific Target Organ Toxicity (Single/Repeated Exposure):** Liver is the main target organ; acute high-dose oral ingestion causes acute liver damage; no target organ toxicity at normal occupational exposure levels.
- **Aspiration Hazard:** Low (crystalline powder, no aspiration risk in normal use).

SECTION 12: Ecological Information

12.1 Toxicity:

- Fish (Zebrafish, LC_{50}): > 1000 mg/L (96-hour exposure)
 - Daphnia (Daphnia magna, EC_{50}): > 1000 mg/L (48-hour exposure)
 - Algae (Chlorella vulgaris, EC_{50}): > 1000 mg/L (72-hour exposure)
- 12.2 Persistence and Degradability: Readily biodegradable ($\text{BOD}_5/\text{COD} > 0.5$); degrades rapidly in the natural environment (half-life < 7 days in water).
- 12.3 Bioaccumulative Potential: Very low bioaccumulation potential ($\text{Log } P = 0.46$); no accumulation in aquatic organisms ($\text{BCF} <$

10).12.4 Mobility in Soil: Low mobility in soil ($K_{oc} = 150$); binds to soil organic matter and degrades rapidly; no leaching to groundwater.12.5 Results of PBT and vPvB Assessment: Not classified as PBT/vPvB (readily biodegradable, low bioaccumulation, no toxicity to the environment).12.6 Endocrine Disrupting Properties: No data available; no known endocrine-disrupting effects based on current research.12.7 Other Adverse Effects: No known long-term adverse environmental effects at normal use levels; the product is environmentally friendly and safe for aquatic and terrestrial organisms.

SECTION 13: Disposal Considerations

13.1 Waste Treatment Methods

- **Product Waste:** Classified as **hazardous chemical waste** (irritant); small amounts of unqualified waste can be disposed of by high-temperature incineration at $\geq 800^{\circ}\text{C}$; large amounts should be entrusted to qualified hazardous waste disposal units for treatment.
- **Packaging Waste:** Rinse the packaging with a small amount of water/ethanol; collect the rinse liquid for centralized treatment; the cleaned packaging can be recycled as non-hazardous waste or disposed of normally.
- **Cleaning Waste:** Collect all contaminated absorbent materials, cleaning cloths and dust generated during production and cleanup; small amounts can be incinerated, and large amounts should be disposed of as hazardous waste.

13.2 Disposal Regulations Comply with local, national and international hazardous waste disposal regulations (e.g., China HW03, EU EWC 07 02 06). Obtain a hazardous waste disposal approval certificate before disposal; keep complete disposal records for at least 5 years for future inspection.

SECTION 14: Transport Information

14.1 UN Number: ADR/RID: 3077; IMDG: 3077; IATA-DGR: 3077 14.2 UN Proper Shipping Name:

- ADR/RID: Environmentally hazardous substances, solid, n.o.s. (Paracetamol)
- IMDG: Environmentally hazardous substances, solid, n.o.s. (Paracetamol)
- IATA-DGR: Environmentally hazardous substances, solid, n.o.s. (Paracetamol) 14.3 Transport Hazard Class(es): 9 (Miscellaneous dangerous goods) (ADR/RID/IMDG/IATA) 14.4 Packaging Group: III (ADR/RID/IMDG/IATA) 14.5 Environmental Hazards: Yes (ADR/RID/IMDG/IATA); Marine Pollutant: No (IMDG) 14.6 Special Precautions for User
- Transport by licensed hazardous goods carriers only with complete transportation qualification documents and hazardous goods transport permits.
- Transport at $\leq 25^{\circ}\text{C}$; use sealed, light-proof, shockproof and chemical-resistant packaging (HDPE/metal drums with inner plastic lining).
- Clearly mark the package with UN 3077, Class 9 and hazard pictograms; avoid direct sunlight and high temperature during transportation.
- Avoid transport with food, beverages, medicines, cosmetics, strong acids, strong bases and oxidizing agents; load and unload gently to prevent packaging breakage and light



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exposure.14.7 Incompatible Materials for TransportAvoid transport with strong acids, strong bases, oxidizing agents, heavy metal salts, food, beverages and cosmetic raw materials.

SECTION 15: Regulatory Information

15.1 Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Mixture

- **National Regulations (China):**

- Hazardous Chemical Safety Management Regulation (Classified as hazardous chemical)
- Pharmaceutical Administration Law (Approved for pharmaceutical raw material use)
- Hazardous Waste Pollution Control Law
- Occupational Exposure Limit for Hazardous Factors in the Workplace (GBZ 2.1-2019)

- **International Regulations:**

- GHS Classification (Rev. 9): Serious eye damage 1; Skin irritation 2; Acute oral toxicity 4
- REACH (EU): Registered; listed in Annex XVII (no restriction)
- TSCA (US): Listed on the TSCA Inventory
- USP/EP/BP: Complies with pharmaceutical grade raw material standards
- IMDG/IATA/ADR: Class 9 miscellaneous dangerous goods (UN 3077)

15.2 Other RegulationsComply with local pharmaceutical GMP production and management regulations; obtain hazardous chemical storage, handling and transport licenses before use; comply with occupational health and safety regulations for chemical production and handling.

SECTION 16: Other Information

- **Further Information:** This MSDS is based on current scientific research and practical test data, and complies with GB/T 16483, GB/T 17519 and GHS (Rev.9) international standards. It is intended for safe handling, storage, transport and disposal by trained professional personnel only. The supplier is not liable for any damage caused by improper use, unauthorized handling or non-compliance with the safety precautions in this MSDS.
- **Revision Date:** 10 FEB 2026