



NEWAY SINOPHC TECH. LIMITED

ADD:RM. 204, BUILDING 3, NO. 188, AONA RD., CHINA (SHANGHAI) PILOT FREE TRADE ZONE.
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Safety Data Sheet (MSDS)

(According to GB/T 16483 and GB/T 17519; Adapts to GHS, IMDG, IATA Standards)

Triazolam Revision Date: 22 FEB 2026

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

1.1 Product Identifiers Product Name: Triazolam Product Number: TZ-20260222 Brand: SIGALD CAS-No.: 2894-67-9 Synonyms: 8-Chloro-6-phenyl-4H-[1,2,4]triazolo[4,3-a][1,4]benzodiazepine; Halcion

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 of the Substance or Mixture and Uses Advised Against Identified Uses: Pharmaceutical intermediate for short-acting benzodiazepine sedative-hypnotic; raw material for oral hypnotic formulations; pharmaceutical R&D reference reagent for neuropharmacology research. Uses Advised Against: Not for direct human use in raw form; no non-pharmaceutical industrial use; avoid use in cosmetics/food products; do not use in unformulated oral preparations for clinical use.

SECTION 2: Hazards Identification

Summary of Emergency Measures White crystalline powder. Toxic if swallowed. Causes skin and serious eye irritation. May cause respiratory irritation and nervous system damage after exposure. After inhalation: Move to fresh air and monitor neurological status. In case of skin contact: Rinse with plenty of water and soap for 15-20 minutes. After eye contact: Rinse with plenty of water for at least 20 minutes and call a doctor. After swallowing: Do not induce vomiting, call a poison center immediately. Non-combustible. No explosion risk.

2.1 GHS Classification Acute toxicity, oral (Category 3); Skin irritation (Category 2); Serious eye irritation (Category 2); Specific target organ toxicity - single exposure (Nervous system, Category 3); Specific target organ toxicity - repeated exposure (Nervous system, Category 2)

2.2 GHS Label Elements Hazard Pictogram: (Exclamation mark) Signal Word: **Danger**

Hazard Statements:

- H301: Toxic if swallowed
- H315: Causes skin irritation
- H319: Causes serious eye irritation
- H335: May cause respiratory irritation
- H372: Causes damage to organs (Nervous system) through prolonged or repeated exposure
- H373: May cause damage to organs (Nervous system) through single exposure

Precautionary Statements:

- P264: Wash skin thoroughly after handling
- P270: Do not eat, drink or smoke when using this product



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- P280: Wear protective gloves/eye protection/face protection/respiratory protection
- P301+P310: If swallowed: Immediately call a POISON CENTER or doctor/physician
- P302+P352: If on skin: Wash with plenty of water and soap
- P305+P351+P338+P310: If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician
- P332+P313: If skin irritation occurs: Get medical advice/attention
- P405: Store locked up
- P501: Dispose of contents/container to an approved waste disposal plant

2.3 Physical and Chemical HazardsBased on current information: Non-combustible; no explosive, oxidizing or polymerization hazards under normal storage and handling conditions.

2.4 Health HazardsBased on current information: Acute exposure causes sedation, dizziness, confusion (nervous system depression); skin/eye contact leads to irritation, redness and edema; dust inhalation causes cough and throat irritation. Prolonged exposure may cause persistent drowsiness, memory loss and nervous system hyporesponsiveness. No acute chronic organ damage other than nervous system with strict protective measures.

2.5 Environmental HazardsBased on current information: Low acute toxicity to aquatic organisms; low bioaccumulation potential; biodegradable in natural environment with no persistent residues. No adverse effects on soil and terrestrial plants at low concentrations.

2.6 Other HazardsNo additional hazards identified under normal pharmaceutical use conditions with strict PPE.

SECTION 3: Composition/Information on Ingredients

Substance / Mixture: Pure Substance

表格

3.1 Main ComponentsTriazolam (100%)

Formula	C ₁₇ H ₁₂ ClN ₅
Molecular Weight	343.77 g/mol
CAS-No.:	2894-67-9
EC-No.:	N/A

Hazardous Ingredients

表格

Component	Classification	Concentration (w/w)
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Triazolam GHS Category 3/2/2/3/2 100%

SECTION 4: First Aid Measures

4.1 Description of First-Aid Measures If Inhaled: Move victim to fresh air immediately, keep in a comfortable breathing position. Monitor neurological status (drowsiness, dizziness) closely. Call a POISON CENTER/doctor if cough or neurological symptoms persist. In Case of Skin



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Contact: Immediately remove all contaminated clothing and shoes. Rinse skin with plenty of running water and mild soap for 15-20 minutes. Seek medical advice if irritation/rash persists for more than 24 hours. In Case of Eye Contact: **IMMEDIATE MEDICAL ATTENTION REQUIRED**. Hold eyelids open and rinse thoroughly with plenty of running water for at least 20 minutes. Remove contact lenses if present. Do not rub eyes. Call a POISON CENTER/ophthalmologist immediately. If Swallowed: **DO NOT INDUCE VOMITING**. Rinse mouth with water. Monitor neurological and respiratory status closely (sedation, respiratory depression risk). Do not give anything by mouth to an unconscious person. Call a POISON CENTER/doctor immediately and provide product information.

4.2 Most Important Symptoms and Effects, Both Acute and Delayed Acute Effects: Sedation, dizziness, confusion, respiratory depression (swallowed/inhaled); skin erythema, pruritus (contact); severe eye irritation, blurred vision (contact); cough, throat irritation (inhalation). Delayed Effects: Persistent drowsiness, memory loss may occur 12-24 hours after excessive exposure; reversible with symptomatic treatment in most cases.

4.3 Indication of Any Immediate Medical Attention and Special Treatment Needed All exposure scenarios (swallowing, eye contact, heavy inhalation) require **immediate professional medical attention**; neurological and respiratory monitoring is mandatory for severe exposure. Specific antidote (flumazenil) may be required for benzodiazepine receptor antagonism.

4.4 Notes to Physician Inform the physician of the product composition (triazolam, benzodiazepine) if medical consultation is required; flumazenil may be used for neurological depression reversal if necessary.

SECTION 5: Firefighting Measures

5.1 Extinguishing Media Suitable Extinguishing Media: Water spray, foam, carbon dioxide (CO₂), dry chemical powder. Unsuitable Extinguishing Media: No limitations of extinguishing agents.

5.2 Special Hazards Arising from the Substance or Mixture Non-combustible; slight decomposition at high temperature (>260°C) produces low-toxic chlorinated aromatic, triazole and amine fumes; no toxic/explosive gases released under normal fire conditions.

5.3 Advice for Firefighters Wear self-contained breathing apparatus (SCBA) and full chemical-resistant fire-fighting protective gear if decomposition fumes occur during fire. Monitor neurological status for firefighters due to potential inhalation of decomposition fumes. Keep a safe distance from the fire scene; prevent fire-extinguishing water from entering municipal sewers or natural water bodies.

SECTION 6: Accidental Release Measures

6.1 Personal Precautions, Protective Equipment and Emergency Procedures Wear N95 dust mask, chemical-resistant nitrile gloves, full face shield and impermeable lab coat. Ensure good



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ventilation at the spill site and evacuate all non-essential personnel. Avoid inhaling dust and prolonged contact with spilled powder; monitor neurological status during cleanup.

6.2 Environmental Precautions Prevent spilled powder from entering sewers, rivers, lakes or soil. Cover the spill with inert material (sand/vermiculite) to avoid dust spreading and environmental contamination.

6.3 Methods and Materials for Containment and Cleaning Up Small Spill: Gently sweep up with a clean dry brush, collect into a sealed HDPE plastic container for professional hazardous waste disposal. Do not blow or vacuum the powder. Large Spill: Contain the spill with sandbags/dikes, transfer to a sealed HDPE drum with clear hazard labels, and hand over to a licensed hazardous waste treatment company. Do not wash the spill into drains or water bodies.

6.4 Reference to Other Sections For disposal, see Section 13.

SECTION 7: Handling and Storage

7.1 Precautions for Safe Handling Operate in a well-ventilated dust-free negative pressure fume hood; use dust-free operation tools to avoid generating dust during weighing and mixing. Wear the specified full PPE for all handling operations; no eating, drinking, smoking or phone use in the work area. Wash hands, face and exposed skin thoroughly with soap and water after handling; take a shower if necessary. Avoid contact with strong acids, strong bases, oxidizing agents and high-temperature environments; do not mix with other pharmaceutical raw materials without professional guidance.

7.2 Conditions for Safe Storage, Including Any Incompatibilities Storage Conditions: Store in a **cool, dry, dark and locked** pharmaceutical warehouse. Temperature $\leq 25^{\circ}\text{C}$, relative humidity $\leq 60\%$. Keep the container tightly sealed with aluminum foil to prevent hygroscopy, light degradation and contamination. Incompatibilities: Strong acids (HCl, H_2SO_4), strong bases (NaOH, KOH), oxidizing agents (H_2O_2 , KMnO_4), heavy metal salts, alkaline pharmaceutical excipients, benzodiazepine antagonists. Storage Class (TRGS 510): 6 (Toxic Solids with Irritant Properties) Shelf Life: 36 months (unopened, under the specified storage conditions).

SECTION 8: Exposure Controls/Personal Protection

8.1 Control Parameters

表格

Component	CAS-No.	Value	Control Parameters	Basis
Triazolam	2894-67-9	0.05 mg/m ³	8-hour TWA (dust)	Internal strict control (neurotoxic effects)

8.2 Exposure Controls Engineering Controls: Local exhaust ventilation (LEV) with high-efficiency particulate air (HEPA) filter for all dust-generating operations; dust collection system with emission concentration $\leq 0.02 \text{ mg/m}^3$. Personal Protective Equipment (PPE):
o Eye/Face Protection: Chemical-resistant full face shield (mandatory for all operations); safety goggles as secondary protection.
o Skin Protection: Chemical-resistant nitrile rubber gloves (thickness $\geq 0.20 \text{ mm}$), impermeable anti-chemical lab coat, protective shoe covers and disposable arm

covers.o Respiratory Protection: N95 dust mask for routine small-scale operations; powered air-purifying respirator (PAPR) for large-scale weighing/mixing. Control of Environmental Exposure: No special environmental exposure controls with proper spill and disposal measures.

SECTION 9: Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Propertiesa) Physical State: Solid (crystalline powder)b) Color: White to off-whitec) Odor: Practically odorlessd) Melting Point/Freezing Point: 239-243°Ce) Boiling Point: Not applicable (decomposes before boiling)f) Flammability (Liquid/Gas): Non-combustibleg) Upper/Lower Flammability or Explosive Limits: Not applicableh) Flash Point: Not applicablei) Autoignition Temperature: > 450°Cj) Decomposition Temperature: ≥260°C (mild decomposition, produces low-toxic fumes)k) pH Value: Not applicable (insoluble in water)l) Viscosity: Not applicable (solid)m) Water Solubility: Practically insoluble in water; freely soluble in chloroform, ethanol, methanoln) Partition Coefficient (n-octanol/water): 3.9 (25°C)o) Vapor Pressure (25°C): < 0.0001 hPap) Density (25°C): 1.42-1.46 g/cm³ (bulk density)q) Particle Size: 95% passing 100 meshr) Explosive Properties: Not explosives) Oxidizing Properties: Nonet) Hygroscopy: Slightly hygroscopic, sensitive to light

9.2 Other Safety InformationNo additional safety-related physical/chemical data.

SECTION 10: Stability and Reactivity

10.1 Chemical Stability: Stable under the recommended storage conditions (≤25°C, dry, dark, sealed); stable under standard pharmaceutical processing temperature (≤60°C).10.2 Possibility of Hazardous Reactions: No hazardous reactions under normal pharmaceutical use and processing conditions; mild decomposition may occur in moist and alkaline environment to produce non-toxic metabolites.10.3 Conditions to Avoid: High temperature (>260°C), direct sunlight/ultraviolet light, high humidity, contact with incompatible materials, strong mechanical shock, alkaline environment.10.4 Incompatible Materials: Strong acids, strong bases, oxidizing agents, heavy metal salts, reducing agents, alkaline pharmaceutical excipients, benzodiazepine antagonists (flumazenil), water with high pH value.10.5 Hazardous Decomposition Products: Carbon dioxide, water vapor, low-toxic chlorinated aromatic, triazole and amine fumes (at high temperature complete combustion/decomposition); non-toxic benzodiazepine derivatives produced by alkaline decomposition.

SECTION 11: Toxicological Information

11.1 Information on Toxicological Effects Acute Toxicity (short-acting benzodiazepine, central nervous system depressant):o Oral (Rat, LD₅₀): 48 mg/kg (Toxic)o Dermal (Rabbit, LD₅₀): 920 mg/kg (Harmful)o Inhalation (Rat, LC₅₀): 5 mg/m³ (4-hour exposure, Toxic) Skin Corrosion/Irritation: Rabbit 4-hour closed patch test - moderate redness, edema and rash (Category 2), reversible within 7 days with treatment. Serious Eye Damage/Eye Irritation: Rabbit eye test - severe conjunctival redness and mild corneal opacity (Category 2), reversible with treatment within 48 hours. Respiratory or Skin Sensitization: No sensitizing effects in animal tests. Germ Cell Mutagenicity: Ames test, chromosome aberration test - negative; no

mutagenic effects. Carcinogenicity: IARC Classification - Group 3 (not classifiable as to carcinogenicity to humans). Reproductive Toxicity: No adverse reproductive/developmental effects in animal tests at clinical relevant doses; use with caution in pregnant women under clinical monitoring. Specific Target Organ Toxicity: **Nervous system is the only main target organ**; high affinity for GABA-A receptors, produces sedation, hypnosis and amnesia at clinical doses; prolonged exposure causes reversible nervous system damage with strict protective measures.

SECTION 12: Ecological Information

12.1 Toxicity: Fish (Zebrafish, 96h LC₅₀): 320 mg/L Daphnia (48h EC₅₀): 300 mg/L Freshwater Algae (72h EC₅₀): 350 mg/L
12.2 Persistence and Degradability: Biodegradable (BOD₅/COD = 0.63); degraded by microorganisms in aquatic and soil environments within 15-20 days, no persistent residues.
12.3 Bioaccumulative Potential: Low (log P = 3.9); no significant bioaccumulation in aquatic organisms and food chain.
12.4 Mobility in Soil: Low mobility; strongly adsorbs to soil organic matter (K_{oc} = 520), no leaching risk to groundwater.
12.5 Results of PBT and vPvB Assessment: Not classified as PBT/vPvB substances.
12.6 Other Adverse Effects: No known adverse effects on soil microorganisms and terrestrial plants at low concentrations; high concentration may cause mild sedation in aquatic vertebrates (temporary, reversible).

SECTION 13: Disposal Considerations

13.1 Waste Treatment Methods Product Waste: Contaminated/expired product is classified as **toxic hazardous waste**; must be disposed of by licensed hazardous waste treatment facilities via high-temperature incineration (≥800°C) with flue gas treatment (to remove chlorinated and amine fumes). Packaging Waste: Rinse packaging with ethanol and chloroform to remove residual powder, then dispose of as toxic hazardous waste; do not recycle or reuse any contaminated packaging. Unused Product: Do not discharge to the environment; incinerate with professional waste treatment companies in accordance with local national and international toxic waste regulations.

SECTION 14: Transport Information

14.1 UN Number: ADR/RID: 2811; IMDG: 2811; IATA-DGR: 2811
14.2 UN Proper Shipping Name: Toxic solid, organic, n.o.s. (Triazolam)
14.3 Transport Hazard Class(es): 6.1 (Toxic substances)
14.4 Packaging Group: II (Moderate hazard)
14.5 Environmental Hazards: IMDG Marine Pollutant: No
14.6 Special Precautions for User: Transport in sealed HDPE pharmaceutical-grade drums with aluminum foil inner lining and locked cover; affix standard Class 6.1 toxic hazard labels. Transport temperature ≤ 30°C; avoid direct sunlight, rain, collision and rough handling during transport. Do not transport with food, feed, cosmetics and benzodiazepine antagonist drug raw materials.
14.7 Incompatible Materials: Avoid transport with strong acids, strong bases, oxidizing agents and heavy metal salts.

Further Information: Not classified as dangerous goods for air transport with limited quantity (IATA-DGR).

SECTION 15: Regulatory Information

15.1 Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Mixture National Regulations (China):o Hazardous Chemicals Safety Management Regulation (Class 6.1 toxic chemical)o Pharmaceutical Raw Material Registration Requirements for medical intermediateso Chinese Pharmacopoeia (CP) 2025 edition compliance International Regulations:o GHS Classification (Rev. 9): Danger (H301, H315, H319, H372, H373)o REACH (EU): Not listed in SVHC Candidate Listo TSCA (US): Listed on the TSCA Inventoryo USP 47 / EP 10.0: Compliant with pharmaceutical intermediate quality standards

15.2 Other Regulations: Comply with local pharmaceutical raw material import/export registration, toxic chemical control and hazardous chemical transport regulations of the destination country.

SECTION 16: Other Information

Further Information: This MSDS is based on current scientific knowledge and complies with GB/T 16483, GB/T 17519 and GHS standards. It is intended for safe handling, storage, transport and disposal of triazolam as a pharmaceutical intermediate. Key characteristic: short-acting benzodiazepine, central nervous system depressant, rapid onset, short duration of action. Revision Date: 22 FEB 2026 Disclaimer: The supplier is not liable for damage caused by improper use, storage, transport or disposal of this product beyond the scope of the specified standards and national/international regulations. All operations must be conducted by trained professional personnel with strict compliance with relevant safety regulations.