



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) - Propofol

According to: GB/T 16483, GB/T 17519, GHS Rev.9, USP 45, EP 10.0 **Product Name:** Propofol **CAS Number:** 2078-54-8 **Product Number:** PP-20260225 **Brand:** SIGALD **Revision Date:** 25 FEB 2026 **Supplier:** NEWAY SINOPHC TECH. LIMITED **Address:** RM. 204, BUILDING 3, NO. 188, AONA RD., CHINA (SHANGHAI) PILOT FREE TRADE ZONE **Telephone/Fax:** +86-021-50350029 **Emergency Telephone:** +86-021-50350029 (24h Pharmaceutical Raw Material Emergency Response)

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

1.1 Product Identifiers

- Product Name: Propofol
- CAS-No.: 2078-54-8
- MDL No.: MFCD00002811
- Synonyms: 2,6-Diisopropylphenol; Disoprofol; Diprivan raw material
- Product Number: PP-20260225

1.4 Relevant Identified Uses and Uses Advised Against

- **Identified Uses:** Pharmaceutical raw material for the production of clinical intravenous anesthetic injectable emulsions (only for licensed pharmaceutical enterprises).
- **Uses Advised Against:** Non-pharmaceutical use, direct clinical administration (raw material only), household use, unauthorized processing/sale, use in food/cosmetic production, and unlicensed clinical use.

SECTION 2: Hazards Identification

2.1 GHS Classification

- Acute toxicity, oral (Category 4)
- Acute toxicity, dermal (Category 4)
- Acute toxicity, inhalation (vapor, Category 3)
- Specific target organ toxicity - single exposure (central nervous system, Category 2)
- Eye irritation (Category 2)
- Skin irritation (Category 2)
- Flammable liquid (Category 4)

2.2 GHS Label Elements

- **Hazard Pictograms:** Exclamation mark (!), Flame ()
- **Signal Word:** Warning
- **Hazard Statements:**
 - H227: Combustible liquid
 - H302: Harmful if swallowed
 - H312: Harmful in contact with skin
 - H331: Toxic if inhaled
 - H315: Causes skin irritation
 - H319: Causes serious eye irritation



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- H371: May cause damage to organs (central nervous system) through single exposure
- **Precautionary Statements:**
- P210: Keep away from heat/sparks/open flames/hot surfaces. No smoking.
- P261: Avoid breathing vapor/dust/fume/gas/mist/vapors/spray
- P270: Do not eat, drink or smoke when using this product
- P280: Wear protective gloves/eye protection/face protection/respiratory protection
- P301+P312: If swallowed: Call a POISON CENTER/doctor if you feel unwell
- P302+P352: If on skin: Wash with plenty of soap and water
- P305+P351+P338: If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
- P311: Call a POISON CENTER/doctor
- P403+P235: Store in a well-ventilated place. Keep cool.
- P501: Dispose of contents/container in accordance with local/national/international regulations

2.3-2.6 Hazards Summary

- **Physical/Chemical Hazards:** Combustible liquid (flash point 115°C); stable under recommended storage conditions, easy to oxidize when exposed to air/light.
- **Health Hazards:** Inhalation of vapor causes severe central nervous system depression (drowsiness, coma, respiratory depression); skin/eye contact causes irritation; swallowing causes gastrointestinal discomfort and systemic sedation.
- **Environmental Hazards:** Low toxicity to aquatic organisms; slightly biodegradable; no long-term adverse environmental effects at normal occupational exposure levels.

SECTION 3: Composition/Information on Ingredients

- **Substance/Mixture:** Pure pharmaceutical grade substance (100% w/w)
- **Active Ingredient:** Propofol (CAS:2078-54-8) | Hazard classification: see Section 2
- **No other ingredients/additives**

SECTION 4: First Aid Measures

4.1 First-Aid Measures

- **Inhaled:** Immediately remove victim to fresh air; keep respiratory tract open. If breathing is difficult, give oxygen; if breathing stops, perform artificial respiration. **Call a poison center/physician at once** and provide symptomatic treatment for central nervous system depression.
- **Skin Contact:** Immediately wipe off the liquid with absorbent paper; remove contaminated clothing and shoes; rinse skin with plenty of soapy water for 15-20 minutes. If irritation occurs, apply mild emollient and seek medical advice.
- **Eye Contact:** Immediately rinse eyes thoroughly with plenty of sterile water for injection for 15-20 minutes (lift upper/lower eyelids); remove contact lenses if worn. **Consult an ophthalmologist immediately** (causes serious eye irritation).



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- **Swallowed:** Do not induce vomiting; rinse mouth with water. **Call a poison center/doctor at once;** provide gastric lavage under medical supervision if necessary, and symptomatic treatment for central nervous system depression.

4.2 Most Important Symptoms

Acute: Drowsiness, dizziness, confusion, respiratory depression, hypotension, skin redness/irritation, eye redness/pain/tearing; severe vapor inhalation may cause coma. Delayed: No known delayed toxic effects at occupational exposure levels with proper protection.

4.3 Medical Attention

Inform the physician of the product name (Propofol) and CAS number; treat symptomatically (e.g., respiratory support for central nervous system depression, anti-irritation treatment for skin/eye damage).

SECTION 5: Firefighting Measures

5.1 Extinguishing Media

- **Suitable:** Dry powder, carbon dioxide (CO₂), foam; water spray (for cooling fire-exposed containers).
- **Unsuitable:** Direct high-pressure water (may spread the combustible liquid).

5.2 Special Hazards

Combustion produces small amounts of carbon monoxide (CO) and phenol-containing fumes; thermal decomposition at high temperature (>300°C) produces toxic aromatic hydrocarbons.

5.3 Firefighter Advice

Wear self-contained breathing apparatus (SCBA) and full fire-fighting protective gear; fight fire from upwind; cool containers with water spray until fire is out; prevent fire water from entering drainage systems; collect fire debris as hazardous waste.

SECTION 6: Accidental Release Measures

6.1 Personal Precautions

- Wear full PPE (nitrile rubber gloves, chemical safety goggles, full face shield, organic vapor respirator, impermeable protective clothing); avoid contact with spilled liquid and vapor inhalation.
- Evacuate non-essential personnel; set up warning zones; prohibit open flames and smoking in the spill area; ensure good ventilation.

6.2 Environmental Precautions

Prevent spilled liquid from entering sewers, rivers, lakes and soil; contain spilled liquid with inert absorbents (e.g., sand, diatomite) to avoid environmental contamination.

6.3 Containment and Cleaning Up

- **Small Spill:** Absorb with inert absorbent; place into a sealed hazardous waste container for pharmaceutical waste disposal; mark the container clearly.

- **Large Spill:** Contain with dikes; collect with an anti-static pump into a sealed brown glass/stainless steel drum; dispose of by licensed hazardous waste treatment enterprises.
- Do not reuse contaminated absorbents; do not wash spilled material into drainage systems; decontaminate the spill area with neutral detergent and rinse with water.

SECTION 7: Handling and Storage

7.1 Safe Handling

- Operate only in GMP-certified workshops by trained pharmaceutical production personnel; use closed operation and local exhaust ventilation to avoid vapor leakage and inhalation.
- No open flames, smoking or spark-producing equipment in the operation area; use anti-static equipment and grounding measures for material transfer.
- Do not eat, drink or smoke during handling; wash hands/face thoroughly with soap and water after operation; take a shower if contaminated.
- Avoid contact with air, strong light, strong oxidizing agents and metal ions (Fe^{3+} , Cu^{2+}) to prevent oxidation and degradation.

7.2 Safe Storage

- **Storage Conditions:** 2 ~ 8°C (refrigerated, dark place); nitrogen-filled sealed brown glass/stainless steel containers; relative humidity $\leq 60\%$.
- **Incompatibilities:** Strong oxidizing agents (e.g., hydrogen peroxide, potassium permanganate), strong acids, strong bases, metal ions (Fe^{3+} , Cu^{2+}), air and strong light.
- **Storage Class:** Combustible pharmaceutical raw material (locked storage in a dedicated, cool, dark and well-ventilated pharmaceutical warehouse, away from fire sources and oxidizing agents).
- **Shelf Life:** 24 months (unopened, nitrogen-filled, 2~8°C refrigeration); 6 hours after opening (nitrogen protection, aseptic operation).

SECTION 8: Exposure Controls/Personal Protection

8.1 Occupational Exposure Limits

- No official national/international OEL for Propofol; use **the strictest exposure control measures** to minimize vapor inhalation (vapor is toxic).
- Biological limit: No established standard; regular physical examination for operators (focus on central nervous system and respiratory system function).

8.2 Exposure Controls

- **Engineering Controls:** Closed operation system, local exhaust ventilation (air exchange rate ≥ 10 times/h), nitrogen protection for material storage and transfer, anti-static grounding, explosion-proof lighting and equipment.
- **Personal Protective Equipment (PPE):**
 - Eye/Face: Chemical safety goggles + full face shield (mandatory for all operations)
 - Skin: Nitrile rubber gloves (thickness $\geq 0.18\text{mm}$) + impermeable protective clothing + anti-static shoes

- Respiratory: Organic vapor respirator (for normal operation); SCBA (for emergency spills/leaks/fires)
- Other: Disposable hairnet/mask/gown (GMP compliance), emergency eye wash, shower and respiratory support equipment.
- **Hygiene:** Dedicated hand washing station; no food/drinks in the operation area; separate storage of work clothes and daily clothes; regular occupational health checkups for operators.

SECTION 9: Physical and Chemical Properties

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Property	Value
Physical State	Colorless to pale yellow clear oily liquid
Odor	Faint phenolic odor
Melting Point	18 ~ 20°C
Boiling Point	256 ~ 258°C
Flash Point	115°C (Closed Cup)
Autoignition Temperature	346°C
Solubility	Miscible with ethanol/ether/chloroform; practically insoluble in water
pH Value	Neutral (7.0, neat liquid)
Specific Gravity (25°C)	0.950 ~ 0.956
Refractive Index (25°C)	1.512 ~ 1.514
Vapor Pressure (25°C)	0.01 hPa (negligible)
Vapor Density (air=1)	6.14
Viscosity (25°C)	3.4 mPa·s
Flammability	Combustible liquid (Category 4)
Stability	Stable under nitrogen, dark and low temperature; oxidizes in air/light

SECTION 10: Stability and Reactivity

10.1 Chemical Stability

Stable under **recommended storage conditions (2~8°C, nitrogen-filled, dark, sealed)**; no degradation for the shelf life and good compatibility with common pharmaceutical excipients for emulsion formulation.

10.2-10.5 Reactivity Summary

- No hazardous reactions under normal use/handling conditions with proper protection.
- **Conditions to Avoid:** Open flames, high temperature (>25°C), direct strong light, air contact, contact with strong oxidizing agents/strong acids/strong bases/metal ions.
- **Incompatible Materials:** Hydrogen peroxide, potassium permanganate, concentrated HCl/H₂SO₄, NaOH/KOH, iron(III) chloride, copper sulfate, air (oxygen).

- **Hazardous Decomposition Products:** Carbon monoxide (CO), phenol, aromatic hydrocarbons and acid fumes (at high temperature/combustion); oxidized products (quinones) when exposed to air/light.
- No polymerization under normal storage and use conditions.

SECTION 11: Toxicological Information

11.1 Key Toxicological Data

- **Acute Toxicity:**
 - Oral (Rat, LD₅₀): 420 mg/kg bw
 - Dermal (Rabbit, LD₅₀): 380 mg/kg bw
 - Inhalation (Rat, LC₅₀, 4h): 1.2 mg/m³ (vapor)
- **Skin Irritation (Rabbit):** Moderate irritation (4h exposure, erythema and slight edema; reversible)
- **Eye Irritation (Rabbit):** Severe irritation (24h exposure, conjunctivitis, corneal redness and tearing; reversible within 72h)
- **Sensitization:** No skin/respiratory sensitization (Guinea pig test)
- **Carcinogenicity:** IARC Class 3 (Not classifiable as to its carcinogenicity to humans)
- **Reproductive Toxicity:** No teratogenic/fertility damage effects at clinical relevant doses (rat/mouse tests); high doses may cause fetal growth retardation.
- **Target Organ Toxicity:** Central nervous system (severe depression, respiratory depression), respiratory system (mild irritation); no other organ toxicity at occupational exposure levels.

11.2 Toxicity Summary

Propofol's main toxic effect is severe central nervous system depression caused by vapor inhalation, which may lead to respiratory depression in severe cases; it is a combustible liquid, and its vapor is toxic when inhaled. Local effects include moderate skin irritation and serious eye irritation. No chronic toxic effects, carcinogenicity or obvious reproductive toxicity at occupational exposure levels with proper protection; all acute effects are reversible with symptomatic treatment.

SECTION 12: Ecological Information

12.1 Ecotoxicity

- Fish (Zebrafish, LC₅₀, 96h): 12.8 mg/L
- Daphnia (EC₅₀, 48h): 8.5 mg/L
- Algae (EC₅₀, 72h): 15.6 mg/L
- **Conclusion:** Low toxicity to aquatic organisms; no acute lethal effect on aquatic life at normal environmental concentrations.

12.2-12.7 Ecological Properties

- **Persistence/Degradability:** Slightly biodegradable (BOD₅/COD = 0.3~0.4) in aquatic environments; degraded by microbial action in natural water bodies.
- **Bioaccumulative Potential:** Moderate (log Kow=3.6; bioaccumulation factor (BAF) = 300~500 in fish)

- **Mobility in Soil:** Low (adsorbs to soil organic matter; no leaching to groundwater)
- **PBT/vPvB:** Not classified as PBT/vPvB
- **Other Adverse Effects:** Slight inhibition of soil microbial activity at high concentrations; no eutrophication risk.

SECTION 13: Disposal Considerations

13.1 Waste Treatment

- **Product Waste:** Classified as **pharmaceutical hazardous waste** and **combustible organic waste**; dispose of by licensed hazardous waste treatment enterprises (incineration at >800°C with flue gas purification treatment to remove phenol and aromatic hydrocarbons).
- **Packaging Waste:** Rinse packaging with ethanol (3 times) under nitrogen protection; collect the rinse solution and incinerate with the product waste; decontaminate the clean packaging and dispose of as pharmaceutical hazardous waste (no recycling).
- **Do not dispose of with household waste, general industrial waste or medical waste**; do not discharge into sewers/rivers/soil/groundwater.

13.2 Disposal Regulations

Comply with China's **Hazardous Waste Pollution Control Law**, **Pharmaceutical Waste Disposal Standards** and EU **REACH/WEEE** regulations; comply with local fire protection regulations for combustible waste disposal.

SECTION 14: Transport Information

14.1-14.7 Transport Details

- **UN Number:** UN 3082 (Environmentally hazardous substance, liquid, n.o.s.)
- **UN Proper Shipping Name:** Propofol (pharmaceutical raw material, combustible liquid)
- **Transport Hazard Class:** 9 (Miscellaneous dangerous goods) + 4 (Combustible liquid)
- **Packaging Group:** III
- **Marine Pollutant:** No
- **Special Transport Requirements:**
 1. Refrigerated transport (2~8°C) with real-time temperature monitoring; nitrogen-filled sealed brown glass/stainless steel packaging, shockproof, light-proof and anti-static.
 2. Load/unload gently; avoid package damage, open flames and smoking during transport; store separately from food, feed, strong oxidizing agents, acids and alkalis in the transport vehicle.
 3. The transport vehicle is equipped with fire-fighting equipment, emergency spill treatment materials and organic vapor respirators; the driver and escort have professional pharmaceutical raw material transport training certificates.
- **International Transport:** Comply with IATA/IMDG/ADR regulations for Class 9 dangerous goods and combustible liquids.

SECTION 15: Regulatory Information

15.1 National/International Regulations



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- **China:**

- Pharmaceutical Administration Law (pharmaceutical raw material classification)
- Hazardous Chemical Safety Management Regulation (combustible liquid, Class 9 miscellaneous dangerous goods)
- Chinese Pharmacopoeia (2025 Edition)
- GMP for Pharmaceutical Raw Materials
- Fire Protection Law

- **International:**

- GHS Rev.9 (hazard classification)
- USP 45 / EP 10.0 (pharmacopoeial standards)
- REACH (EU) (registered; not in SVHC Candidate List)
- TSCA (US) (listed on the TSCA Inventory)
- IATA/IMDG/ADR (Class 9 transport regulations for combustible liquids)

15.2 Other Requirements

- Production/sale/use limited to **licensed pharmaceutical enterprises** with GMP certification.
- Occupational operation requires professional pharmaceutical production and fire protection training; compliance with GMP/GLP guidelines and strict operation records.
- The whole process of storage and transport must comply with fire protection regulations, and set up fire prevention and explosion-proof measures.

SECTION 16: Other Information

- **MSDS Validity:** This MSDS is valid for 3 years from the revision date (25 FEB 2026) unless the product formula or hazard information changes.
- **Disclaimer:** This MSDS is based on current scientific and technical knowledge; the supplier is not liable for any damage caused by improper use, non-compliance with regulations, or unauthorized handling of the product.
- **Additional Information:** For more technical/formulation data (e.g., emulsion preparation), contact the supplier's technical department (+86-021-50350029 ext. 812).
- **Key Reminder:** This product is a clinical anesthetic pharmaceutical raw material and combustible liquid; any illegal production/sale/use/transport will be subject to legal liability in accordance with the law.