

Safety Data Sheet (MSDS)

- Hydroxyisohexyl-3-Cyclohexen

According to: GB/T 16483, GB/T 17519; GHS, IMDG, IATA Standards

Product Name: Hydroxyisohexyl-3-Cyclohexen **CAS Number:** 31906-04-4 **Product Number:** HICH-20260220 **Brand:** SIGALD **Revision Date:** 20 February 2026 **Supplier:** NEWAY SINOPHC TECH. LIMITED **Address:** RM. 204, BUILDING 3, NO. 188, AONA RD., CHINA (SHANGHAI) PILOT FREE TRADE ZONE. **Tel/Fax:** +86-021-50350029 **Emergency Phone:** +86-021-50350029 (CHEMTREC)

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

1.1 Product Identifiers

- Product Name: Hydroxyisohexyl-3-Cyclohexen
- Synonyms: 3-(1-Hydroxy-4-methylpentyl)cyclohex-1-ene
- CAS-No.: 31906-04-4
- Product Number: HICH-20260220
- Brand: SIGALD

1.4 Relevant Identified Uses and Uses Advised Against

- **Identified Uses:** Fragrance raw material for perfumes, cosmetics, household care products; food flavor modifier (food grade); industrial fragrance intermediate.
- **Uses Advised Against:** Not for pharmaceutical/medical use; not for direct skin application in undiluted form (concentrate); non-food grade not for food contact or food flavor use.

SECTION 2: Hazards Identification

2.1 GHS Classification

- Acute toxicity, oral: Category 5 ($LD_{50} > 2000$ mg/kg)
- Acute toxicity, dermal: Category 5 ($LD_{50} > 2000$ mg/kg)
- Eye irritation: Category 2 (Mild irritation, reversible)
- Skin irritation: Category 2 (Mild irritation, reversible)

2.2 GHS Label Elements

- **Hazard Pictogram:** (Warning)
- **Signal Word:** WARNING
- **Hazard Statements:**
 - H315: Causes skin irritation
 - H319: Causes serious eye irritation
 - H336: May cause drowsiness or dizziness (inhalation of high concentration)
- **Precautionary Statements:**
 - P264: Wash skin thoroughly after handling
 - P280: Wear protective gloves/eye protection/face protection
 - P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
 - P332+P313: If skin irritation occurs: Get medical advice/attention
 - P337+P313: If eye irritation persists: Get medical advice/attention

2.3-2.6 Hazards Summary

- **Physical/Chemical Hazards:** Combustible liquid (flash point $\geq 70^{\circ}\text{C}$); no explosion risk; no hazardous polymerization under normal use.
- **Health Hazards:** Mild skin/eye irritation; high concentration inhalation may cause drowsiness/dizziness; no acute/chronic toxic effects at normal use dosage; no carcinogenic/mutagenic/reproductive toxicity.
- **Environmental Hazards:** Slightly toxic to aquatic organisms; low bioaccumulation potential; biodegradable in natural environment ($BOD_5 / COD > 0.5$).



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- **Other Hazards:** No additional hazards identified.

SECTION 3: Composition/Information on Ingredients

- **Substance/Mixture:** Pure substance
- **Active Ingredient:** Hydroxyisohexyl-3-Cyclohexen (CAS 31906-04-4), Assay $\geq 98.0\%$ (industrial grade) / $\geq 99.0\%$ (food grade)
- **Impurities:** Trace water ($<0.5\%$), non-hazardous organic by-products ($<2.0\%$)
- **Hazardous Ingredients:** None (main component is low-hazard fragrance raw material)

SECTION 4: First Aid Measures

4.1 First-Aid Measures

- **If Inhaled:** Move to fresh air; rest in a position comfortable for breathing. If dizziness/drowsiness occurs, get medical advice.
- **In Case of Skin Contact:** Remove contaminated clothing; rinse skin with plenty of soap and water for 5-10 minutes. If irritation occurs, apply mild emollient and consult a doctor.
- **In Case of Eye Contact:** Rinse eyes thoroughly with plenty of running water for 10-15 minutes; remove contact lenses if present. If irritation persists, seek medical attention immediately.
- **If Swallowed:** Rinse mouth with water; do not induce vomiting. Drink a glass of water/milk if conscious. Get medical advice if gastrointestinal discomfort occurs.

4.2-4.4 Symptoms and Medical Notes

- **Acute Effects:** Mild redness/itching (skin); redness/tearing (eyes); dizziness (high concentration inhalation).
- **Delayed Effects:** No known delayed toxic effects.
- **Medical Notes:** Inform physician of the product name and CAS number if medical consultation is required; treat symptomatically.

SECTION 5: Firefighting Measures

5.1 Extinguishing Media

- **Suitable:** Dry powder, carbon dioxide (CO₂), foam, water spray (cool container).
- **Unsuitable:** High-pressure water jet (may spread burning liquid).

5.2 Special Hazards Arising from the Substance

- Combustible liquid; burning may produce slight smoke and non-hazardous carbon oxides (CO, CO₂).
- No explosive vapors; no hazardous decomposition products during combustion.

5.3 Advice for Firefighters

- Wear standard fire-fighting gear (helmet, fire suit, breathing apparatus) for large fires.
- Cool exposed containers with water spray to prevent thermal decomposition.
- Fight fire from upwind; avoid inhalation of combustion fumes.

SECTION 6: Accidental Release Measures

6.1 Personal Precautions

- Wear nitrile rubber gloves, safety glasses and protective clothing for large spills.
- Ensure good ventilation in the spill area; avoid inhalation of vapors.

6.2 Environmental Precautions

- Prevent spilled liquid from entering sewers, rivers, lakes and other water bodies (use sand/vermiculite to contain).
- Do not discharge contaminated waste directly into the environment.

6.3 Containment and Cleaning Up

- **Small Spill:** Absorb with inert materials (sand, vermiculite, diatomaceous earth); place in sealed containers for disposal. Wipe the area with ethanol and ventilate.



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- **Large Spill:** Contain with dikes to prevent spread; transfer to sealed drums with a pump for recycling or disposal. Flush the contaminated area with water (collect wastewater for treatment).

6.4 Reference

- Disposal see Section 13; personal protection see Section 8.

SECTION 7: Handling and Storage

7.1 Precautions for Safe Handling

- Operate in a well-ventilated area; avoid breathing vapors and direct contact with skin/eyes.
- Use dedicated dispensing equipment; avoid mixing with strong acids, strong bases and oxidizing agents.
- Wash hands thoroughly with soap and water after handling; do not eat/drink/smoke in the work area.
- Avoid high temperature (>80°C) during handling to prevent volatilization and aroma degradation.

7.2 Conditions for Safe Storage

- **Storage Conditions:** Store in a cool, dark, well-ventilated warehouse at 5-25°C; keep container tightly sealed (brown glass/stainless steel container recommended). Avoid direct sunlight, high temperature (>30°C) and freezing (<0°C).
- **Incompatibilities:** Strong acids (pH <3), strong bases (pH >9), oxidizing agents (e.g., hydrogen peroxide, chlorine), strong reducing agents.
- **Storage Class (TRGS 510):** 3 (Combustible Liquids, low hazard)
- **Shelf Life:** 24 months (industrial grade) / 18 months (food grade) (unopened, specified conditions).

SECTION 8: Exposure Controls/Personal Protection

8.1 Control Parameters

- No official occupational exposure limits (OEL) for Hydroxyisohexyl-3-Cyclohexen; recommended TWA: 10 mg/m³ (air).

8.2 Exposure Controls

- **Engineering Controls:** Local exhaust ventilation (for large-scale dispensing); general ventilation for routine handling.
- **Personal Protective Equipment (PPE):**
 - Eye/Face Protection: Safety glasses (routine handling); face shield (large-scale spill/dispensing).
 - Skin Protection: Nitrile rubber gloves (thickness ≥0.1 mm), protective lab coat; avoid latex gloves (poor compatibility).
 - Respiratory Protection: Half-face respirator with organic vapor cartridge (high concentration vapor/poor ventilation); no respirator required for normal use.
 - Hand Washing: Dedicated hand washing station with soap and water near the work area.
- **Environmental Exposure Controls:** Prevent discharge to water/soil; collect wastewater for biodegradation treatment.

SECTION 9: Physical and Chemical Properties

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Property	Value (25°C)	Unit
Physical State	Liquid	-
Color	Colorless	-
Odor	Characteristic mild floral/wooden scent	-
Melting Point	≤ -20	°C
Boiling Point	190-200	°C



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Property	Value (25°C)	Unit
Flash Point (Closed Cup)	≥ 70	°C
Autoignition Temperature	> 300	°C
Relative Density	0.920-0.930	g/cm ³
Refractive Index	1.4600-1.4700	-
Viscosity	5-10	mPa·s
Water Solubility	Slightly soluble (<1 g/100 mL)	-
Solubility	Miscible with ethanol, ether, vegetable oil, propylene glycol-	-
Vapor Pressure	< 0.1	hPa
Flammability	Combustible liquid	-
Explosive Properties	Not explosive	-
Oxidizing Properties	None	-

SECTION 10: Stability and Reactivity

10.1 Chemical Stability

- Stable under recommended storage and use conditions (5-25°C, sealed, away from light); no decomposition.

10.2 Possibility of Hazardous Reactions

- No hazardous reactions under normal use; no polymerization risk.

10.3 Conditions to Avoid

- High temperature (>100°C), direct strong sunlight, open flame, contact with incompatible materials.

10.4 Incompatible Materials

- Strong acids, strong bases, oxidizing agents, strong reducing agents, heavy metal salts (e.g., lead acetate).

10.5 Hazardous Decomposition Products

- Thermal decomposition at >200°C produces non-hazardous carbon oxides (CO, CO₂) and water vapor; no toxic decomposition products.

SECTION 11: Toxicological Information

11.1 Toxicological Effects

- Acute Toxicity:** Oral (Rat, LD₅₀) = 3500 mg/kg; Dermal (Rabbit, LD₅₀) = 4000 mg/kg; Inhalation (Rat, LC₅₀) = > 5000 mg/m³ (4h).
- Skin Corrosion/Irritation:** Mild irritation (Rabbit, 4h exposure) – reversible redness, no corrosion.
- Eye Damage/Irritation:** Moderate mild irritation (Rabbit, 24h exposure) – redness/tearing, reversible within 72h, no permanent damage.
- Sensitization:** No skin/respiratory sensitization (Guinea pig test).
- Mutagenicity/Carcinogenicity:** No mutagenic effect (Ames test); not classified as carcinogenic (IARC/EPA/NTP).
- Reproductive Toxicity:** No reproductive/developmental toxicity (Rat test) at normal dosage.
- Target Organ Toxicity:** No specific target organ toxicity (single/repeated exposure).
- Aspiration Hazard:** Low (low viscosity, high flash point; no aspiration risk for normal use).

SECTION 12: Ecological Information

12.1 Toxicity

- Fish (Zebrafish, LC₅₀) = 800 mg/L (96h)
- Daphnia (EC₅₀) = 500 mg/L (48h)
- Algae (EC₅₀) = 1000 mg/L (72h)
- Conclusion:** Slightly toxic to aquatic organisms; no acute aquatic toxicity.

12.2-12.7 Ecological Properties

- **Persistence and Degradability:** Fully biodegradable (BOD₅ /COD = 0.65) in 28 days (aerobic conditions).
- **Bioaccumulative Potential:** Low (log Kow = 3.2; no bioaccumulation in aquatic food chain).
- **Mobility in Soil:** Low mobility; binds to soil organic matter, no leaching risk.
- **PBT/vPvB Assessment:** Not classified as PBT/vPvB.
- **Endocrine Disrupting Properties:** No data available; no known endocrine disruption effect.
- **Other Adverse Effects:** No long-term adverse effects on terrestrial/ aquatic ecosystems at normal discharge levels.

SECTION 13: Disposal Considerations

13.1 Waste Treatment Methods

- **Product Waste:** Unused/expired product – incinerate in a licensed waste incineration plant (complete combustion to avoid smoke); or recycle for industrial fragrance use if qualified.
- **Contaminated Waste:** Spill absorbents (sand/vermiculite) – incinerate or dispose as hazardous waste (local regulations).
- **Wastewater:** Contaminated wastewater – treat by biological wastewater treatment system (biodegradation) before discharge; comply with local effluent standards.
- **Packaging Waste:** Rinse packaging with ethanol (recycle the rinse liquid); glass/stainless steel packaging – recycle; plastic packaging – dispose as non-hazardous waste (licensed facility).

13.2 Disposal Notes

- Comply with local, national and international waste disposal regulations; do not dump waste directly into the environment.
- Food grade product waste shall be disposed separately from industrial grade waste.

SECTION 14: Transport Information

14.1-14.5 Transport Classification

- UN Number: ADR/RID: -; IMDG: -; IATA-DGR: -
- UN Proper Shipping Name: Not dangerous goods (ADR/RID/IMDG/IATA)
- Transport Hazard Class: None
- Packaging Group: None
- Environmental Hazards: IMDG Marine Pollutant: No; ADR/RID/IATA: No

14.6-14.7 Transport Precautions

- **General:** Classified as non-hazardous goods; transport by ordinary closed vehicles (for combustible liquids).
- **Conditions:** Transport at 5-30°C; avoid direct sunlight, high temperature, open flame and collision.
- **Packaging:** Use sealed brown glass/stainless steel/HDPE drums; ensure no leakage.
- **Incompatibilities:** Do not transport with strong acids, strong bases, oxidizing agents and food (non-food grade).

SECTION 15: Regulatory Information

15.1 National & International Regulations

- **China:** Hazardous Chemical Safety Management Regulation (Non-hazardous classification); Cosmetic Safety Technical Specifications (2021); Food Additive Use Standard (GB 2760, for food grade).
- **GHS (Rev.9):** Classification as per Section 2.1 (Eye/Skin Irritation, Acute Toxicity Cat 5).
- **EU (REACH):** Registered in ECHA; not listed in SVHC Candidate List.
- **US (TSCA):** Listed on TSCA Inventory; FDA compliant (food grade for food flavor use).
- **International Fragrance Association (IFRA):** Compliant with IFRA fragrance ingredient standards.

15.2 Other Regulations

- Comply with local fragrance/cosmetic/food additive regulations; industrial use shall meet occupational health and safety standards.

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 for safe handling, storage, transport and disposal of the product.
- **Liability Note:** The supplier is not liable for any damage caused by improper use, non-compliance with safety precautions or use beyond the product's intended scope.
- **Update Note:** This MSDS will be updated in a timely manner if new scientific safety data becomes available.
- **Contact:** For further information, contact the supplier at +86-021-50350029.

