



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)

- α -Iso-Methylionone

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

Date: 15 FEB 2026

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

1.1 Product Identifiers

- Product Name: α -Iso-Methylionone
- Product Number: AIM-20260215
- Brand: SIGALD
- CAS-No.: 127-51-5
- Synonyms: 2-Methyl-4-(2,6,6-trimethyl-1-cyclohexen-1-yl)-2-butanone; α -Methyl ionone iso
- Formula: C₁₄H₂₂O
- Molecular Weight: 206.32 g/mol

1.2 Details of the supplier of the safety data sheet

- 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

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

1.4 Relevant Identified Uses and Uses Advised Against

- Identified Uses: Fragrance and flavor manufacturing; cosmetic formulations; personal care products; household cleaning products; fine chemical synthesis.
- Uses Advised Against: Not for direct oral consumption in large quantities; not for pharmaceutical injection use.

SECTION 2: Hazards Identification

2.1 GHS Classification

- Skin Irritation (Category 2)
- Eye Irritation (Category 2)
- Specific Target Organ Toxicity - Single Exposure (Category 3, Respiratory tract irritation)

2.2 GHS Label Elements

- Hazard Pictogram: (Exclamation mark)
- Signal Word: **Warning**
- Hazard Statements:
 - H315: Causes skin irritation
 - H319: Causes serious eye irritation
 - H335: May cause respiratory tract irritation
- Precautionary Statements:
 - P261: Avoid breathing dust/fume/gas/mist/vapors/spray
 - P264: Wash hands thoroughly after handling
 - P280: Wear protective gloves/eye protection/face protection
 - 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
 - P337+P313: If eye irritation persists: Get medical advice/attention
 - P332+P313: If skin irritation occurs: Get medical advice/attention

2.3 Physical and Chemical Hazards

- Combustible liquid (flash point $\geq 110^{\circ}\text{C}$); no explosion risk under normal use.

2.4 Health Hazards

- Acute: Skin/eye irritation; may cause mild respiratory irritation if inhaled in high concentration.
- Chronic: No known chronic health hazards with normal occupational exposure.

2.5 Environmental Hazards

- Low aquatic toxicity; no significant bioaccumulation potential; partially biodegradable.

2.6 Other Hazards

- No additional hazards identified.

SECTION 3: Composition/Information on Ingredients

- Substance / Mixture: **Pure Substance**
- Active Ingredient: α -Iso-Methylionone (127-51-5), Concentration: 98.0-99.0% (w/w)
- No hazardous impurities present above threshold limits.

SECTION 4: First Aid Measures

4.1 Description of First-Aid Measures

- **If Inhaled:** Move victim to fresh air. Rest in a position comfortable for breathing. If symptoms persist (cough, shortness of breath), consult a doctor.
- **In Case of Skin Contact:** Remove contaminated clothing and shoes. Wash skin with plenty of soap and running water for 10-15 minutes. If irritation, redness or rash occurs, get medical advice.
- **In Case of Eye Contact:** Rinse eyes thoroughly with plenty of running water for 10-15 minutes, holding eyelids open. Remove contact lenses if present and easy to do. If irritation persists, immediately consult an ophthalmologist.
- **If Swallowed:** Rinse mouth with water. Do not induce vomiting. If large quantity is swallowed or nausea/vomiting occurs, seek medical attention immediately and show the product label/MSDS.

4.2 Most Important Symptoms and Effects

- Acute: Redness, itching, burning of skin/eyes; mild cough, throat irritation (inhalation); nausea (ingestion).
- Delayed: No known delayed toxic effects.

4.3 Indication of Immediate Medical Attention

- Seek medical help if irritation persists, large quantity is ingested, or respiratory symptoms worsen.

SECTION 5: Firefighting Measures

5.1 Extinguishing Media

- **Suitable:** Water spray (cool container), dry chemical, foam, carbon dioxide (CO_2).
- **Unsuitable:** No unsuitable extinguishing media identified.

5.2 Special Hazards Arising from the Substance

- Combustion may produce minor toxic fumes (carbon monoxide, carbon dioxide).
- No explosive decomposition under fire conditions.

5.3 Advice for Firefighters

- Wear self-contained breathing apparatus (SCBA) and full fire-fighting protective gear.
- Cool exposed containers with water spray to prevent rupture from heat.
- Fight fire from a safe distance; avoid direct contact with combustion products.

SECTION 6: Accidental Release Measures

6.1 Personal Precautions

- Wear nitrile gloves, safety glasses and protective clothing. Avoid breathing vapors/spray. Ensure good ventilation.
- Evacuate non-essential personnel from the spill area.

6.2 Environmental Precautions



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- Prevent spillage from entering drains, sewers, rivers or other water bodies. Contain runoff with sand/earth if needed.

6.3 Methods and Materials for Containment and Cleaning Up

- **Small Spill:** Absorb with inert material (sand, diatomaceous earth, vermiculite). Place absorbed material in sealed plastic bags for disposal. Wipe the area with ethanol/water mixture and ventilate.
- **Large Spill:** Contain with dikes or bunds. Transfer the liquid to a sealed, labeled container using a pump. Dispose of waste in accordance with local regulations.

SECTION 7: Handling and Storage

7.1 Precautions for Safe Handling

- Operate in a well-ventilated fume hood or open area. Avoid generating vapors or aerosols.
- Do not eat, drink or smoke while handling. Wash hands and face thoroughly after use.
- Avoid contact with skin, eyes and respiratory tract.

7.2 Conditions for Safe Storage

- **Storage Temperature:** 5-30°C (cool, dry place); avoid extreme temperatures.
- **Container:** Sealed glass or HDPE plastic containers; keep tightly closed when not in use.
- **Light/Sunlight:** Protect from direct sunlight and UV light (may cause slight degradation).
- **Incompatibilities:** Strong oxidizing agents, strong acids, strong bases, halogens.
- **Storage Class:** 3 (Combustible Liquids)
- **Shelf Life:** 24 months (unopened, under specified storage conditions).

SECTION 8: Exposure Controls/Personal Protection

8.1 Control Parameters

- Occupational Exposure Limit (OEL): No official national/international limit; TWA (8h) recommended: 10 mg/m³ (voluntary).

8.2 Exposure Controls

- **Engineering Controls:** Local exhaust ventilation (LEV) for large-scale handling; general ventilation for routine use.
- **Personal Protective Equipment (PPE):**
 - Eye/Face Protection: Chemical safety goggles (large-scale handling); face shield (spill risk).
 - Skin Protection: Nitrile rubber gloves (thickness ≥ 0.11 mm); chemical-resistant lab coat/overalls.
 - Respiratory Protection: Half-face respirator with organic vapor cartridge (if vapor concentration is high or ventilation is poor).
 - Hand Protection: Replace gloves if damaged or contaminated.

SECTION 9: Physical and Chemical Properties

Property	Value	Unit	Test Method
Physical State	Liquid	-	Visual Inspection
Color	Colorless to pale yellow	-	Visual Inspection
Odor	Floral, musky, woody	Characteristic -	Sensory Evaluation
Melting Point	-60 to -55	°C	DSC
Boiling Point	270-275	°C	Distillation
Flash Point	115 (min)	°C	Closed Cup
Autoignition Temperature	> 350	°C	ASTM E659
Relative Density (20/20°C)	0.920-0.928	g/cm ³	Hydrometer

Property	Value	Unit	Test Method
Refractive Index (20°C)	1.490-1.498	-	Abbe Refractometer
Viscosity (25°C)	5-8	mPa·s	Rotational Viscometer
Water Solubility	Insoluble (<0.1 g/L)	g/L	Shake Flask Method
Solubility	Miscible with ethanol, ether, acetone, vegetable oils	-	Visual Inspection
Vapor Pressure (25°C)	< 0.01	hPa	Static Method
Flammability	Combustible	-	Closed Cup Flash Point

SECTION 10: Stability and Reactivity

10.1 Chemical Stability

- Stable under normal storage and use conditions (5-30°C, sealed, away from light/oxidants).

10.2 Possibility of Hazardous Reactions

- No hazardous reactions under normal use; may react with strong oxidizing agents/acids/bases to form minor byproducts.

10.3 Conditions to Avoid

- High temperature (> 100°C), direct sunlight, UV radiation, contact with incompatible materials.

10.4 Incompatible Materials

- Strong oxidizers (e.g., hydrogen peroxide, chlorine), concentrated acids (H₂SO₄, HCl), concentrated alkalis (NaOH, KOH), halogens (Cl₂, Br₂).

10.5 Hazardous Decomposition Products

- Under high temperature/combustion: Carbon monoxide (CO), carbon dioxide (CO₂); no other toxic decomposition products.

SECTION 11: Toxicological Information

11.1 Information on Toxicological Effects

Acute Toxicity:

- Oral (Rat, LD₅₀): > 5000 mg/kg
- Dermal (Rabbit, LD₅₀): > 2000 mg/kg
- Inhalation (Rat, LC₅₀): > 1000 mg/m³ (4h exposure)
- Skin Irritation (Rabbit):** Moderate irritation (4h exposure) – redness, edema (reversible).
- Eye Irritation (Rabbit):** Severe irritation (24h exposure) – redness, corneal opacity (reversible within 72h).
- Respiratory Irritation:** Mild irritation in high concentration (rat inhalation studies).
- Sensitization:** No skin/respiratory sensitization potential (guinea pig studies).
- Carcinogenicity:** Not classified by IARC, EPA or NTP.
- Reproductive Toxicity:** No adverse reproductive effects (rat studies at low/medium doses).

SECTION 12: Ecological Information

- Aquatic Toxicity:** Zebrafish LC₅₀ (96h) = 800 mg/L; Daphnia EC₅₀ (48h) = 1200 mg/L (low toxicity).
- Persistence and Degradability:** Biodegradable (BOD₅/COD = 0.45) in aerobic aquatic environments.
- Bioaccumulative Potential:** Log K_{oc} = 3.2 (low bioaccumulation; no biomagnification in food chain).



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- **Mobility in Soil:** Low mobility (adsorbs to soil organic matter).
- **Other Adverse Effects:** No known adverse effects on terrestrial/aquatic ecosystems at normal use levels.

SECTION 13: Disposal Considerations

13.1 Waste Treatment Methods

- **Product Waste:** Dispose of through licensed hazardous waste treatment facilities. Incineration is recommended (with proper emission control for combustion fumes).
- **Contaminated Packaging:** Rinse packaging with ethanol; dispose of as hazardous waste or recycle (if permitted by local regulations).
- **Note:** Do not discharge to the environment; comply with local/national/international waste disposal laws.

SECTION 14: Transport Information

14.1 UN Number & Shipping Name

- ADR/RID: 3082, **Environmentally hazardous substances, liquid, n.o.s.** (α-Iso-Methylionone)
- IMDG: 3082, **Environmentally hazardous substances, liquid, n.o.s.**
- IATA-DGR: 3082, **Environmentally hazardous substances, liquid, n.o.s.**

14.2 Transport Hazard Class

- ADR/RID: 9; IMDG: 9; IATA-DGR: 9

14.3 Packaging Group

- III (Minor hazard)

14.4 Environmental Hazards

- IMDG Marine Pollutant: **Yes (P-Symbol)**; ADR/RID: Environmentally hazardous.

14.5 Special Transport Precautions

- Transport in sealed, leak-proof containers; avoid direct sunlight/heat.
- Do not transport with strong oxidizers, acids, bases or food/food additives.
- Label containers with GHS hazard pictograms and product identification.

SECTION 15: Regulatory Information

15.1 National & International Regulations

- **China:** Complies with Hazardous Chemical Safety Management Regulation; listed in National Cosmetic Raw Material Directory.
- **EU (REACH):** Registered on REACH Inventory; no SVHC (Substances of Very High Concern) classification.
- **US (TSCA):** Listed on TSCA Inventory; compliant with FDA regulations for fragrance use in cosmetics/food.
- **GHS:** Classified in accordance with GHS Rev. 9.
- **IFRA:** Compliant with International Fragrance Association (IFRA) standards for cosmetic use.

SECTION 16: Other Information

- This MSDS is based on current scientific and technical knowledge, complying with GB/T 16483, GB/T 17519 and international GHS standards.
- The supplier is not liable for damage caused by improper handling, storage, use or non-compliance with safety precautions.
- For additional technical information, contact the supplier's technical department (+86-021-50350029).