



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)

- Anise Star Oil

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

Name: Anise Star Oil **Revision Date:** 26 FEB 2026

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

1.1 Product Identifiers

- Product Name: Anise Star Oil
- Synonyms: Star Anise Oil; Illicium verum oil; Natural anise essential oil
- Product Number: ASO-20260226
- Brand: SIGALD
- CAS-No.: 8007-70-3
- MDL Number: MFCD00148089
- Main Component: Anethole (CAS: 104-46-1, ≥85%)
- Molecular Weight: Variable (natural mixture)

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
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1.3 Emergency telephone

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

1.4 Relevant Identified Uses and Uses Advised Against

- **Identified Uses:** Fragrance & flavor industry raw material; cosmetic formulation; food additive; pharmaceutical intermediate; household deodorant; oral care product ingredient.
- **Uses Advised Against:** Direct undiluted skin contact; excessive oral consumption; use in infant cosmetics (0-3 years old) without dilution; use near open flame/high temperature without protection.

SECTION 2: Hazards Identification

2.1 GHS Classification

- Flammable Liquid, Category 4 (H227)
- Eye Irritation, Category 2 (H319)
- Skin Irritation, Category 2 (H315)
- Aquatic Acute Toxicity, Category 3 (H402)
- Aquatic Chronic Toxicity, Category 3 (H412)

2.2 GHS Label Elements

- **Hazard Pictograms:** (Exclamation mark)
- **Signal Word:** Warning
- **Hazard Statements:**
 - H227: Combustible liquid
 - H315: Causes skin irritation
 - H319: Causes serious eye irritation
 - H402: Harmful to aquatic life
 - H412: Harmful to aquatic life with long-term effects
- **Precautionary Statements:**
 - P210: Keep away from heat, sparks, open flames and hot surfaces
 - P264: Wash hands thoroughly after handling
 - P273: Avoid release to the environment

- P280: Wear protective gloves/eye 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
- P332+P313: If skin irritation occurs: Get medical advice/attention
- P337+P313: If eye irritation persists: Get medical advice/attention
- P362: Take off contaminated clothing and wash before reuse
- P370+P378: In case of fire: Use dry powder, CO₂ or foam for extinction
- P391: Collect spillage
- P501: Dispose of contents/container to an approved waste disposal plant

2.3 Physical and Chemical Hazards

Combustible liquid (flash point >60°C); no explosive hazard; slight oxidation may occur upon long-term exposure to air/light; no corrosive or oxidizing properties.

2.4 Health Hazards

- **Acute:** Causes mild skin irritation and serious eye irritation; inhalation of high-concentration vapor may cause mild respiratory tract irritation (cough, throat dryness); undiluted contact may aggravate skin irritation in sensitive individuals.
- **Chronic:** No known chronic toxic effects or target organ damage with normal diluted use; no skin sensitization potential reported.

2.5 Environmental Hazards

Harmful to aquatic organisms with acute and long-term effects; low bioaccumulation potential in aquatic food chains; no obvious adverse effects on soil microorganisms at low concentrations.

2.6 Other Hazards

No additional hazards identified.

SECTION 3: Composition/Information on Ingredients

- **Substance / Mixture:** Natural essential oil mixture (plant extract from *Illicium verum*)
 - **Main Active Component:** Anethole (C₁₀ H₁₂O, CAS 104-46-1, 85.0-92.0%)
 - **Other Minor Components:** Limonene, linalool, anisaldehyde (natural trace amounts)
- 表格

Hazardous Ingredients	CAS No.	Concentration (w/w)	GHS Classification
Anethole	104-46-1	85.0-92.0%	H315, H319, H402, H412
Anise Star Oil (mixture)	8007-70-3	100%	H227, H315, H319, H402, H412

SECTION 4: First Aid Measures

4.1 Description of First-Aid Measures

- **If Inhaled:** Move victim to fresh air, keep at rest in a comfortable breathing position. If cough or chest tightness persists, consult a doctor.
- **In Case of Skin Contact:** Immediately rinse skin with plenty of running water and mild soap for 10-15 minutes; remove contaminated clothing and wash before reuse.
- **In Case of Eye Contact:** Rinse eyes thoroughly with plenty of running water for 15-20 minutes (hold eyelids open); remove contact lenses if present and easy to do. Consult a doctor immediately if irritation persists.
- **If Swallowed:** Rinse mouth with water; do not induce vomiting. Call a poison center or doctor if gastrointestinal discomfort (nausea, abdominal pain) occurs.

4.2 Most Important Symptoms and Effects

- **Acute:** Skin redness, slight itching; eye redness, pain, tearing; mild cough, throat irritation (high-concentration vapor inhalation).



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- **Delayed:** No known delayed toxic effects with normal exposure.

4.3 Indication of Immediate Medical Attention

Seek medical attention for severe eye irritation, persistent skin irritation, excessive oral ingestion or severe respiratory discomfort.

4.4 Notes to Physician

Treat symptomatically; inform the physician of the main component (anethole) and CAS number of the product.

SECTION 5: Firefighting Measures

5.1 Extinguishing Media

- **Suitable:** Dry powder, carbon dioxide (CO₂), alcohol-resistant foam, water spray (for cooling containers only).
- **Unsuitable:** High-pressure water jet (may spread the combustible liquid).

5.2 Special Hazards Arising from the Substance

High-temperature combustion may produce carbon oxides (CO, CO₂) and mild aromatic fumes; no toxic combustion products. Vapor may form flammable mixtures with air at high temperature (>100°C).

5.3 Advice for Firefighters

- Wear standard fire-fighting gear (helmet, fire suit, self-contained breathing apparatus) to avoid inhalation of combustion fumes and vapor.
- Cool containers exposed to fire with water spray until well after the fire is out; fight fire from a safe distance; prevent fire water from entering water bodies.

SECTION 6: Accidental Release Measures

6.1 Personal Precautions

- Wear nitrile rubber gloves, chemical safety goggles and disposable face mask when cleaning up spills.
- Ensure good ventilation in the spill area; eliminate all ignition sources (no smoking, sparks); keep away from heat and open flames.

6.2 Environmental Precautions

- Prevent spilled liquid from entering drains, sewers, rivers or other water bodies; use inert absorbent materials to contain spillage and avoid environmental contamination.

6.3 Methods and Materials for Containment and Cleaning Up

- **Small Spill:** Absorb with inert materials (sand, diatomaceous earth, vermiculite), transfer to a sealed fire-resistant container for disposal; wipe the area with ethanol and water mixture.
- **Large Spill:** Contain with sand dikes or barriers; pump into sealed HDPE drums for recycling or professional disposal; do not flush directly with water.

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 area; avoid breathing vapor, undiluted skin contact and eye contact.
- Use diluted (1:10-1:50) for skin/cosmetic/oral care application; no undiluted direct use.
- Keep away from heat, sparks, open flames and hot surfaces; use explosion-proof electrical equipment for large-scale operation.
- Do not eat, drink or smoke during handling; wash hands and face thoroughly with soap and water after operation.

7.2 Conditions for Safe Storage



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- **Storage Conditions:** Store in a cool, dark, well-ventilated fire-resistant warehouse at 10-25°C; keep container tightly sealed to prevent vapor loss and oxidation; avoid direct sunlight and high temperature (>30°C).
- **Incompatibilities:** Strong oxidizing agents (hydrogen peroxide, potassium permanganate), concentrated mineral acids, strong bases, heavy metal salts.
- **Storage Class (TRGS 510):** 3 (Flammable Liquids, Category 4)
- **Shelf Life:** 24 months (unopened, under specified storage conditions; nitrogen-filled packaging for long-term storage).

SECTION 8: Exposure Controls/Personal Protection

8.1 Control Parameters

- **Occupational Exposure Limit (OEL):** Anethole - TWA: 5 ppm (23 mg/m³) (US ACGIH); Anise Star Oil - no unified OEL (follow anethole standard).

8.2 Exposure Controls

- **Engineering Controls:** Install local exhaust ventilation at operation points; use closed-loop equipment for large-scale production to reduce vapor emission.
- **Personal Protective Equipment (PPE):**
 - Eye/Face Protection: Chemical safety goggles (prevent splashing and vapor irritation); face shield recommended for large-scale handling.
 - Skin Protection: Nitrile rubber gloves (thickness ≥0.11 mm), chemical-resistant protective clothing (avoid latex gloves).
 - Respiratory Protection: Organic vapor cartridge respirator for routine handling; no respiratory protection needed under well-ventilated conditions.
 - Hand Protection: Replace nitrile gloves if damaged or contaminated.

8.3 Hygiene Measures

- Provide eye wash and emergency hand wash facilities in the workplace; change contaminated clothing immediately.
- Avoid touching eyes, mouth and nose with contaminated hands; do not reuse contaminated gloves and cleaning materials.

SECTION 9: Physical and Chemical Properties

1. Physical State: Clear mobile liquid
2. Color: Colorless to pale yellow
3. Odor: Strong, sweet characteristic anise/licorice aromatic scent
4. Boiling Point: 234-238°C (main component anethole)
5. Flash Point: 78°C (Closed Cup)
6. Autoignition Temperature: > 400°C
7. Refractive Index (20°C): 1.5520-1.5600
8. Relative Density (20/20°C): 0.978-0.988
9. Optical Rotation (20°C): -2.0° to +1.0°
10. Solubility: Soluble in ethanol, ether, propylene glycol, vegetable oil; slightly soluble in water (<0.1 g/100 mL at 25°C)
11. Vapor Pressure (25°C): < 0.0005 hPa
12. Viscosity (25°C): 10-20 mPa·s
13. Acid Value: ≤ 1.0 mg KOH/g
14. Decomposition Temperature: > 200°C (slight thermal decomposition, no toxic products)
15. Evaporation Rate: Slow (slower than water)

SECTION 10: Stability and Reactivity

10.1 Chemical Stability

Stable under recommended storage conditions (10-25°C, sealed, dark); slight oxidation may occur upon long-term exposure to air/light (color darkens slightly, no hazard).

10.2 Possibility of Hazardous Reactions

No hazardous reactions under normal use and storage conditions; no polymerization potential.

10.3 Conditions to Avoid

High temperature (>30°C), direct sunlight, long-term exposure to air, contact with strong oxidizing agents/acids/alkalis, open flame and heat sources.

10.4 Incompatible Materials

Concentrated sulfuric acid, nitric acid, hydrogen peroxide, potassium permanganate, concentrated sodium hydroxide, iron chloride, copper sulfate.

10.5 Hazardous Decomposition Products

Carbon monoxide (CO), carbon dioxide (CO₂) (high-temperature combustion); slight aromatic oxides from oxidation (no toxic decomposition products).

SECTION 11: Toxicological Information

11.1 Information on Toxicological Effects

• Acute Toxicity:

- Oral (Rat, LD₅₀): 3200 mg/kg (Anise Star Oil); 2600 mg/kg (Anethole)
- Dermal (Rabbit, LD₅₀): > 5000 mg/kg (Anise Star Oil)
- Inhalation (Rat, LC₅₀): > 4000 mg/m³ (4-hour exposure, vapor)

- **Skin Corrosion/Irritation:** Category 2, causes mild skin irritation (Rabbit, 4-hour exposure)

- **Serious Eye Damage/Eye Irritation:** Category 2, causes serious eye irritation (Rabbit, 24-hour exposure)

- **Skin/Respiratory Sensitization:** No sensitizing effects (Guinea pig test, negative)

- **Germ Cell Mutagenicity:** Negative (Ames test, in vitro)

- **Carcinogenicity:** Not classified as carcinogenic (IARC Group 3)

- **Reproductive Toxicity:** No reproductive toxicity (Rat test, normal diluted dosage)

- **Specific Target Organ Toxicity:** No target organ toxicity with normal diluted exposure

- **Aspiration Hazard:** Low (low viscosity, no aspiration risk under normal use)

SECTION 12: Ecological Information

12.1 Toxicity

- Fish (Zebrafish, LC₅₀): 32 mg/L (96-hour exposure)

- Daphnia (EC₅₀): 18 mg/L (48-hour exposure)

- Algae (EC₅₀): 40 mg/L (72-hour exposure)

12.2 Persistence and Degradability

Fully biodegradable (BOD₅/COD = 0.68) in natural aquatic environments; degradation rate > 75% in 28 days.

12.3 Bioaccumulative Potential

Low bioaccumulation potential (BCF < 150, fish test); no biomagnification in aquatic food chains.

12.4 Mobility in Soil

Low mobility in soil; binds to soil organic matter (Koc = 460); readily degraded by soil microorganisms.

12.5 PBT/vPvB Assessment

Not classified as PBT/vPvB (meets biodegradability and low bioaccumulation criteria).

12.6 Other Adverse Effects

Harmful to aquatic invertebrates at high concentrations; no eutrophication risk; no adverse effects on terrestrial plants at normal use concentrations.

SECTION 13: Disposal Considerations



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13.1 Waste Treatment Methods

- **Product Waste:** Unused or contaminated Anise Star Oil shall be disposed of to licensed waste treatment facilities; incineration with flue gas treatment is recommended; do not dump into the environment.
- **Packaging Waste:** Rinse packaging with ethanol to remove residuals, then dispose of as flammable non-hazardous packaging waste or recycle after professional decontamination.
- **Spilled Waste:** Collect all spilled material and dispose of as product waste; do not mix with domestic waste or pour into drainage systems.

13.2 Disposal Notes

Comply with China's Solid Waste Pollution Control Law and EU REACH waste disposal regulations; handle as combustible waste; avoid environmental release during disposal.

SECTION 14: Transport Information

14.1 UN Number

ADR/RID: 1993; IMDG: 1993; IATA-DGR: 1993

14.2 UN Proper Shipping Name

ADR/RID: Flammable liquids, n.o.s. (Anise Star Oil); IMDG: Flammable liquids, n.o.s. (Anise Star Oil); IATA-DGR: Flammable liquids, n.o.s. (Anise Star Oil)

14.3 Transport Hazard Class(es)

ADR/RID: 3; IMDG: 3; IATA-DGR: 3 (Packing Group III)

14.4 Packaging Group

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

14.5 Environmental Hazards

ADR/RID: No; IMDG Marine Pollutant: No; IATA-DGR: No

14.6 Special Precautions for User

- Transport in sealed, light-proof HDPE plastic drums or brown glass bottles (small package); use fire-resistant packaging for bulk transport.
- Avoid collision, extrusion, direct sunlight, high temperature and rain during transport; keep away from heat, sparks, open flames and oxidizing agents.
- Transport in accordance with flammable liquid transport regulations; no mixed transport with food, beverages, drugs, infant products and strong oxidizing agents.
- Ensure good ventilation in transport vehicles; no smoking during transport.

SECTION 15: Regulatory Information

15.1 National and International Regulations

- **China:** GB 2760-2021 (approved food flavor additive); Cosmetic Safety Technical Specification (2015 version, approved for cosmetic use); Hazardous Chemicals Safety Management Regulation (Class 3 flammable liquid)
- **EU:** REACH (registered); CLP (GHS classification as H227, H315, H319, H402, H412); Cosmetics Regulation (EC 1223/2009, approved for cosmetic use); IFRA (International Fragrance Association) standards compliant
- **US:** TSCA (listed on inventory); FDA (approved for food flavor use); OSHA (flammable liquid standard compliant)
- **International:** GHS Rev.9 (classification compliance); IMDG Code (Class 3 flammable liquid); Codex Alimentarius (approved food additive)

15.2 Other Regulations

Comply with local fragrance, food and cosmetic raw material safety standards; comply with aquatic environmental protection and flammable liquid storage/transport regulations; meet EU Food Contact Materials Regulation (EC 1935/2004) for food grade products.

SECTION 16: Other Information



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- **Further Information:** This MSDS is based on current scientific and regulatory information, complying with GB/T 16483, GB/T 17519, GHS, IMDG and IATA standards. It is for safe handling, storage, transport and disposal of the product. The supplier is not liable for damage caused by improper use or non-compliance with safety precautions.
- **Revision Note:** This is the first revision of the MSDS for Anise Star Oil (CAS 8007-70-3) of brand SIGALD.
- **Contact for Further Information:** NEWAY SINOPHC TECH. LIMITED, Tel: +86-021-50350029

