

# SAFETY DATA SHEETS

According to the UN GHS revision 9

Version: 1.0  
Creation Date: July 15, 2019  
Revision Date: July 15, 2019

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## SECTION 1: Identification

### 1.1 GHS Product identifier

**Product name** Methyl salicylate

### 1.2 Other means of identification

**Product number** -  
**Other names** 2-HYDROXY-BENZOIC ACID METHYL ESTER; 2-Hydroxybenzoic acid methyl ester; Benzoic acid, 2-hydroxy-, methyl ester

### 1.3 Recommended use of the chemical and restrictions on use

**Identified uses** Industrial and scientific research use.  
**Uses advised against** no data available

### 1.4 Supplier's details

**Company** Shanghai Yien Chemical Technology Co., Ltd  
**Address** Building 6, 28 Yingong Road, Fengxian District, Shanghai  
Chemical Industry Zone, Shanghai, 201400, China  
**Telephone** +86-400-133-2688

### 1.5 Emergency phone number

**Emergency phone number** +86-400-133-2688  
**Service hours** Monday to Friday, 9am-5pm (Standard time zone: UTC/GMT +8 hours).

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## SECTION 2: Hazard identification

### 2.1 Classification of the substance or mixture

Acute toxicity - Category 4, Oral  
Serious eye damage, Category 1

### 2.2 GHS label elements, including precautionary statements

**Pictogram(s)**



**Signal word** Danger  
**Hazard statement(s)** H302 Harmful if swallowed  
H318 Causes serious eye damage  
**Precautionary statement(s)**

|                   |  |
|-------------------|--|
| <b>Prevention</b> | P264 Wash ... thoroughly after handling.<br>P270 Do not eat, drink or smoke when using this product.<br>P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection/...                                |
| <b>Response</b>   | P301+P317 IF SWALLOWED: Get medical help.<br>P330 Rinse mouth.<br>P305+P354+P338 IF IN EYES: Immediately rinse with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.<br>P317 Get medical help. |
| <b>Storage</b>    | none   |
| <b>Disposal</b>   | P501 Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.  |

### 2.3 Other hazards which do not result in classification

no data available

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## SECTION 3: Composition/information on ingredients

### 3.1 Substances

| Chemical name     | Common names and synonyms | CAS number | EC number | Concentration |
|-------------------|---------------------------|------------|-----------|---------------|
| Methyl salicylate | Methyl salicylate         | 119-36-8   | 204-317-7 | 100%          |

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## SECTION 4: First-aid measures

### 4.1 Description of necessary first-aid measures

#### If inhaled

Fresh air, rest. Refer for medical attention.

#### Following skin contact

Remove contaminated clothes. Rinse and then wash skin with water and soap. Refer for medical attention .

#### Following eye contact

First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then refer for medical attention.

#### Following ingestion

Induce vomiting (ONLY IN CONSCIOUS PERSONS!). Give a slurry of activated charcoal in water to drink. Refer for medical attention .

### 4.2 Most important symptoms/effects, acute and delayed

Harmful if swallowed, inhaled, absorbed through skin. Vapor mist is irritating to the eyes, mucous membranes, upper respiratory tract and skin. Ingestion of relatively small amount causes severe poisoning and death. Causes nausea, vomiting, acidosis, pulmonary edema, pneumonia, convulsions and death. (USCG, 1999)

### 4.3 Indication of immediate medical attention and special treatment needed, if necessary

#### Minimum/Potential Fatal Human Dose

4= very toxic: probable oral lethal dose (human) 50-500 mg/kg, between 1 teaspoon & 1 oz for 70 kg person (150 lb).

#### Absorption, Distribution and Excretion

May be absorbed rapidly through intact skin. bowel absorption is somewhat erratic ... absorbed at least in part as the intact ester and small amt are even excreted as such by the kidneys .

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## **SECTION 5: Fire-fighting measures**

### **5.1 Suitable extinguishing media**

Water, foam, carbon dioxide, dry chemical.

### **5.2 Specific hazards arising from the chemical**

This chemical is combustible. (NTP, 1992)

### **5.3 Special protective actions for fire-fighters**

Use water spray, powder, alcohol-resistant foam, carbon dioxide.

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## **SECTION 6: Accidental release measures**

### **6.1 Personal precautions, protective equipment and emergency procedures**

Do NOT let this chemical enter the environment. Collect leaking and spilled liquid in sealable containers as far as possible. Absorb remaining liquid in sand or inert absorbent. Then store and dispose of according to local regulations.

### **6.2 Environmental precautions**

Do NOT let this chemical enter the environment. Collect leaking and spilled liquid in sealable containers as far as possible. Absorb remaining liquid in sand or inert absorbent. Then store and dispose of according to local regulations.

### **6.3 Methods and materials for containment and cleaning up**

Collect and arrange disposal. Keep the chemical in suitable and closed containers for disposal. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment. Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations.

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## **SECTION 7: Handling and storage**

### **7.1 Precautions for safe handling**

NO open flames. Handling in a well ventilated place. Wear suitable protective clothing. Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Use non-sparking tools. Prevent fire caused by electrostatic discharge steam.

### **7.2 Conditions for safe storage, including any incompatibilities**

Separated from strong oxidants and strong bases. METHYL SALICYLATE SHOULD BE STORED AND DISPENSED IN TIGHT CONTAINERS.

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## **SECTION 8: Exposure controls/personal protection**

### **8.1 Control parameters**

#### **Occupational Exposure limit values**

no data available

#### **Biological limit values**

no data available

### **8.2 Appropriate engineering controls**

Ensure adequate ventilation. Handle in accordance with good industrial hygiene and safety practice. Set up emergency exits and the risk-elimination area.

### **8.3 Individual protection measures, such as personal protective equipment (PPE)**

#### **Eye/face protection**

Wear safety goggles or eye protection in combination with breathing protection.

### Skin protection

Protective gloves. Protective clothing.

### Respiratory protection

Use ventilation, local exhaust or breathing protection.

### Thermal hazards

no data available

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## SECTION 9: Physical and chemical properties and safety characteristics

|   |  |
|---|--|
| <b>Physical state</b>   | Liquid.  |
| <b>Colour</b>   | Colourless to slightly yellow .  |
| <b>Odour</b>  | LIQUID HAVING THE CHARACTERISTIC ODOR OF WINTERGREEN   |
| <b>Melting point/freezing point</b>                             | -0.8 °C. Remarks:This melting point value has been measured.;-8.3 °C. Remarks:This melting point value is taken from another study (Schneider, 1897).  |
| <b>Boiling point or initial boiling point and boiling range</b> | 40 - 50 °C. Atm. press.:3 mm Hg. Remarks:This boiling point value is measured.;222 °C. Atm. press.:760 mm Hg. Remarks:This BP value is taken from another study (Pouchert C.J. & Behnke J., 1993). |
| <b>Flammability</b>   | Combustible.   |
| <b>Lower and upper explosion limit/flammability limit</b>       | no data available  |
| <b>Flash point</b>  | 95.5 °C.   |
| <b>Auto-ignition temperature</b>                                | 850 °F. Remarks:No data on the pressure of the measurement.  |
| <b>Decomposition temperature</b>                                | no data available  |
| <b>pH</b>   | no data available  |
| <b>Kinematic viscosity</b>                                      | dynamic viscosity (in mPa s) = 1.535. Temperature:25°C.  |
| <b>Solubility</b>   | less than 1 mg/mL at 66° F (NTP, 1992)   |
| <b>Partition coefficient n-octanol/water</b>                    | log Pow = 2.55. Remarks:No data on the temperature of the selected value of the data base is reported.   |
| <b>Vapour pressure</b>  | 1 mm Hg. Temperature:54 °C.  |
| <b>Density and/or relative density</b>                          | 1.178. Temperature:25°C.   |
| <b>Relative vapour density</b>                                  | 5.26 (vs air)  |
| <b>Particle characteristics</b>                                 | no data available  |

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## SECTION 10: Stability and reactivity

### 10.1 Reactivity

Reacts with strong oxidants and strong bases.

### 10.2 Chemical stability

Sensitive to light and heat

### 10.3 Possibility of hazardous reactions

SLIGHT, WHEN EXPOSED TO HEAT OR FLAME; CAN REACT WITH OXIDIZING MATERIALS.METHYL SALICYLATE is an ester. Esters react with acids to liberate heat along with alcohols and acids. Strong oxidizing acids may cause a vigorous reaction that is sufficiently exothermic to ignite the reaction products. Heat is also generated by the interaction of esters with caustic solutions. Flammable hydrogen is generated by mixing esters with alkali metals and hydrides. This chemical is incompatible with oxidizers. It is also incompatible with strong bases. It may react with iron salts. (NTP, 1992)

### 10.4 Conditions to avoid

no data available

## 10.5 Incompatible materials

Incompatibilities: decomp by alkalies to form methyl alc & salicylate.

## 10.6 Hazardous decomposition products

no data available

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## SECTION 11: Toxicological information

### Acute toxicity

- Oral: LD50 - rat (male/female) - 887 mg/kg bw. Remarks:Slope 1.5 (1.2-1.8).
- Inhalation: LC50 - rat (male) - > 0.9 mg/L air (analytical).
- Dermal: LD50 - rabbit - > 5 000 mg/kg bw.

### Skin corrosion/irritation

no data available

### Serious eye damage/irritation

no data available

### Respiratory or skin sensitization

no data available

### Germ cell mutagenicity

no data available

### Carcinogenicity

no data available

### Reproductive toxicity

no data available

### STOT-single exposure

The substance is irritating to the eyes and skin. The substance may cause effects on the central nervous system. This may result in shock and death. The effects may be delayed. Medical observation is indicated.

### STOT-repeated exposure

no data available

### Aspiration hazard

No indication can be given about the rate at which a harmful concentration of this substance in the air is reached on evaporation at 20°C.

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## SECTION 12: Ecological information

### 12.1 Toxicity

- Toxicity to fish: LC50 - Pimephales promelas - 19.8 mg/L - 96 h.
- Toxicity to daphnia and other aquatic invertebrates: EC50 - Daphnia magna - 870 mg/L - 48 h.
- Toxicity to algae: EC50 - Desmodesmus subspicatus (previous name: Scenedesmus subspicatus) - 27 mg/L - 72 h.
- Toxicity to microorganisms: EC10 - Pseudomonas putida - 140 mg/L - 16 h.

### 12.2 Persistence and degradability

Methyl salicylate in a five day BOD test exhibited a value of 55-57% of the theoretical BOD(1,2). Another 5-day BOD determination yielded 65% of the theoretical BOD(3). Methyl salicylate was completely degraded by a microbial mixture when incubated for 7

days at 30 deg C(4). Significant biodegradation of methyl salicylate in the environment would be expected from this result; however no data concerning biodegradation in natural waters or soil could be located.

### 12.3 Bioaccumulative potential

The log octanol/water partition coefficient for methyl salicylate is 2.55(1). The BCF estimated from this log Kow using a regression equation is 4 which indicates that the ester will not bioconcentrate in fish(SRC).

### 12.4 Mobility in soil

The Koc for methyl salicylate estimated from molecular structure is 128(1) and is 33(3,SRC) estimated from its water solubility, 7400 mg/L(2), using a regression equation. According to a suggested classification scheme(4), these low Koc values suggest that methyl salicylate would be highly or very highly mobile in soil(SRC).

### 12.5 Other adverse effects

no data available

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## SECTION 13: Disposal considerations

### 13.1 Disposal methods

#### Product

The material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.

#### Contaminated packaging

Containers can be triply rinsed (or equivalent) and offered for recycling or reconditioning. Alternatively, the packaging can be punctured to make it unusable for other purposes and then be disposed of in a sanitary landfill. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials.

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## SECTION 14: Transport information

### 14.1 UN Number

|   |  |  |
|---|--|--|
| ADR/RID: Not dangerous goods. (For reference only, please check.) | IMDG: Not dangerous goods. (For reference only, please check.) | IATA: Not dangerous goods. (For reference only, please check.) |
|---|--|--|

### 14.2 UN Proper Shipping Name

|   |  |  |
|---|--|--|
| ADR/RID: Not dangerous goods. (For reference only, please check.) | IMDG: Not dangerous goods. (For reference only, please check.) | IATA: Not dangerous goods. (For reference only, please check.) |
|---|--|--|

### 14.3 Transport hazard class(es)

|   |  |  |
|---|--|--|
| ADR/RID: Not dangerous goods. (For reference only, please check.) | IMDG: Not dangerous goods. (For reference only, please check.) | IATA: Not dangerous goods. (For reference only, please check.) |
|---|--|--|

### 14.4 Packing group, if applicable

|   |  |  |
|---|--|--|
| ADR/RID: Not dangerous goods. (For reference only, please check.) | IMDG: Not dangerous goods. (For reference only, please check.) | IATA: Not dangerous goods. (For reference only, please check.) |
|---|--|--|

### 14.5 Environmental hazards

|             |          |          |
|-------------|----------|----------|
| ADR/RID: No | IMDG: No | IATA: No |
|-------------|----------|----------|

### 14.6 Special precautions for user

no data available

## 14.7 Transport in bulk according to IMO instruments

no data available

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## SECTION 15: Regulatory information

### 15.1 Safety, health and environmental regulations specific for the product in question

| Chemical name  | Common names and synonyms | CAS number | EC number   |
|--|---------------------------|------------|-------------|
| Methyl salicylate  | Methyl salicylate         | 119-36-8   | 204-317-7   |
| European Inventory of Existing Commercial Chemical Substances (EINECS)   |                           |            | Listed.     |
| EC Inventory   |                           |            | Listed.     |
| United States Toxic Substances Control Act (TSCA) Inventory              |                           |            | Listed.     |
| China Catalog of Hazardous chemicals 2015                                |                           |            | Not Listed. |
| New Zealand Inventory of Chemicals (NZIoC)                               |                           |            | Listed.     |
| Philippines Inventory of Chemicals and Chemical Substances (PICCS)       |                           |            | Listed.     |
| Vietnam National Chemical Inventory                                      |                           |            | Listed.     |
| Chinese Chemical Inventory of Existing Chemical Substances (China IECSC) |                           |            | Listed.     |
| Korea Existing Chemicals List (KECL)                                     |                           |            | Listed.     |

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## SECTION 16: Other information

### Information on revision

**Creation Date** July 15, 2019

**Revision Date** July 15, 2019

### Abbreviations and acronyms

- CAS: Chemical Abstracts Service
- ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
- RID: Regulation concerning the International Carriage of Dangerous Goods by Rail
- IMDG: International Maritime Dangerous Goods
- IATA: International Air Transportation Association
- TWA: Time Weighted Average
- STEL: Short term exposure limit
- LC50: Lethal Concentration 50%
- LD50: Lethal Dose 50%
- EC50: Effective Concentration 50%

### References

- IPCS - The International Chemical Safety Cards (ICSC), website: <http://www.ilo.org/dyn/icsc/showcard.home>
- HSDB - Hazardous Substances Data Bank, website: <https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm>
- IARC - International Agency for Research on Cancer, website: <http://www.iarc.fr/>
- eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website: [http://www.echemportal.org/echemportal/index?pageID=0&request\\_locale=en](http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en)
- CAMEO Chemicals, website: <http://cameochemicals.noaa.gov/search/simple>
- ChemIDplus, website: <http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp>
- ERG - Emergency Response Guidebook by U.S. Department of Transportation, website: <http://www.phmsa.dot.gov/hazmat/library/erg>
- Germany GESTIS-database on hazard substance, website: <http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp>
- ECHA - European Chemicals Agency, website: <https://echa.europa.eu/>

**Any questions regarding this SDS, Please send your inquiry to [sds@xixisys.com](mailto:sds@xixisys.com)**

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