

# 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** Salicylic acid

### 1.2 Other means of identification

**Product number** -  
**Other names** Salicylic acid; Freezone; Duoplant

### 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 Baishun Biotechnology Co., Ltd  
**Address** No. 26, Lane 918, Lianye Road, Zhelin Town, Fengxian District, Shanghai, 201400, China  
**Telephone** +86-21-37581181

### 1.5 Emergency phone number

**Emergency phone number** +86-21-37581181  
**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  
Reproductive toxicity, Category 2

### 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. P270 Do not eat, drink or smoke when using this product. P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection/...
<b>Response</b>	P203 Obtain, read and follow all safety instructions before use. P301+P317 IF SWALLOWED: Get medical help. P330 Rinse mouth. P305+P354+P338 IF IN EYES: Immediately rinse with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P317 Get medical help. P318 IF exposed or concerned, get medical advice.
<b>Storage</b>	P405 Store locked up.
<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
Salicylic acid	Salicylic acid	69-72-7	200-712-3	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.

#### 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

Rinse mouth. Induce vomiting (ONLY IN CONSCIOUS PERSONS!). Refer for medical attention .

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

Inhalation of dust irritates nose and throat. Vomiting may occur spontaneously if large amounts are swallowed. Contact with eyes causes irritation, marked pain, and corneal injury which should heal. Prolonged or repeated skin contact may cause marked irritation or even a mild burn. (USCG, 1999)

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

Management of acute salicylic acid poisoning includes prevention of absorption, correction of acid-base, fluid and electrolyte imbalance and enhancing of the drug elimination. Respiratory alkalosis needs no specific treatment, but severe acidosis requires at least a partial correction with sodium bicarbonate. Hypokalemia may be aggravated by administration of sodium bicarbonate. Thus, potassium may need repletion. However, if large amounts of water and electrolytes are given to the patient, the sodium and water load may precipitate pulmonary edema. Sedative and depressive drugs must be avoided. Tetany may be corrected with the use of calcium gluconate. Due to the delayed effects of salicylate overdose, the patient must be kept under observation for at least 24 hours.

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

### **5.1 Suitable extinguishing media**

Water, foam, carbon dioxide, dry chem

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

Special Hazards of Combustion Products: Irritating vapors of unburned material and phenol may form in fire. Behavior in Fire: Sublimes and forms vapor or dust that may explode (USCG, 1999)

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

Use water spray, carbon dioxide, powder. In case of fire: keep drums, etc., cool by spraying with water.

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

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

Personal protection: particulate filter respirator adapted to the airborne concentration of the substance. Sweep spilled substance into covered containers. If appropriate, moisten first to prevent dusting.

### **6.2 Environmental precautions**

Personal protection: P2 filter respirator for harmful particles. Sweep spilled substance into covered containers. If appropriate, moisten first to prevent dusting.

### **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. Closed system, dust explosion-proof electrical equipment and lighting. Prevent deposition of dust. 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. Salicylic acid should be stored in well-closed containers. Salicylic acid collodion should be stored in tight containers at 15-30 deg C. Because the collodion is flammable, it should not be stored near heat or an open flame. Salicylic acid plaster should be stored in well-closed containers, preferably at 15-30 deg C. The Trans-Ver-Sal plaster should be stored at a temperature less than 37.8 deg C.

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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.

#### Respiratory protection

Use 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>	Solid. Powder.
<b>Colour</b>	White.
<b>Odour</b>	SYNTHETIC ACID IS ODORLESS
<b>Melting point/freezing point</b>	159 °C.
<b>Boiling point or initial boiling point and boiling range</b>	256 °C. Remarks:No data on atm pressure.
<b>Flammability</b>	Combustible.
<b>Lower and upper explosion limit/flammability limit</b>	Lower 1.1% @ 392 deg F (200 deg C)
<b>Flash point</b>	157°C
<b>Auto-ignition temperature</b>	549 °C. Remarks:Atm. press. unknown.
<b>Decomposition temperature</b>	no data available
<b>pH</b>	pH of saturated solution: 2.4
<b>Kinematic viscosity</b>	no data available
<b>Solubility</b>	In water: 1 800 mg/L. Temperature:20 °C. Remarks:PH unknown..Diethylether.
<b>Partition coefficient n-octanol/water</b>	log Pow = 2.25. Temperature:25 °C. Remarks:PH unknown.
<b>Vapour pressure</b>	0 hPa. Temperature:25 °C. Remarks:From Stephenson and Malanowski 1987.
<b>Density and/or relative density</b>	1.44. Temperature:20 °C.
<b>Relative vapour density</b>	4.8 (vs air)
<b>Particle characteristics</b>	no data available

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## SECTION 10: Stability and reactivity

### 10.1 Reactivity

The solution in water is a weak acid. Reacts with strong oxidants.

### 10.2 Chemical stability

Gradually discolors in sunlight

### 10.3 Possibility of hazardous reactions

SLIGHT WHEN EXPOSED TO HEAT OF FLAME; CAN REACT WITH OXIDIZING MATERIALSDust explosion possible if in powder or granular form, mixed with air.SALICYLIC ACID is a carboxylic acid. Carboxylic acids donate hydrogen ions if a base is present to accept them. They react in this way with all bases, both organic (for

example, the amines) and inorganic. Their reactions with bases, called "neutralizations", are accompanied by the evolution of substantial amounts of heat. Neutralization between an acid and a base produces water plus a salt. Carboxylic acids with six or fewer carbon atoms are freely or moderately soluble in water; those with more than six carbons are slightly soluble in water. Soluble carboxylic acid dissociate to an extent in water to yield hydrogen ions. The pH of solutions of carboxylic acids is therefore less than 7.0. Many insoluble carboxylic acids react rapidly with aqueous solutions containing a chemical base and dissolve as the neutralization generates a soluble salt. Carboxylic acids in aqueous solution and liquid or molten carboxylic acids can react with active metals to form gaseous hydrogen and a metal salt. Such reactions occur in principle for solid carboxylic acids as well, but are slow if the solid acid remains dry. Even "insoluble" carboxylic acids may absorb enough water from the air and dissolve sufficiently in it to corrode or dissolve iron, steel, and aluminum parts and containers. Carboxylic acids, like other acids, react with cyanide salts to generate gaseous hydrogen cyanide. The reaction is slower for dry, solid carboxylic acids. Insoluble carboxylic acids react with solutions of cyanides to cause the release of gaseous hydrogen cyanide. Flammable and/or toxic gases and heat are generated by the reaction of carboxylic acids with diazo compounds, dithiocarbamates, isocyanates, mercaptans, nitrides, and sulfides. Carboxylic acids, especially in aqueous solution, also react with sulfites, nitrites, thiosulfates (to give H<sub>2</sub>S and SO<sub>3</sub>), dithionites (SO<sub>2</sub>), to generate flammable and/or toxic gases and heat. Their reaction with carbonates and bicarbonates generates a harmless gas (carbon dioxide) but still heat. Like other organic compounds, carboxylic acids can be oxidized by strong oxidizing agents and reduced by strong reducing agents. These reactions generate heat. A wide variety of products is possible. Like other acids, carboxylic acids may initiate polymerization reactions; like other acids, they often catalyze (increase the rate of) chemical reactions.

#### **10.4 Conditions to avoid**

no data available

#### **10.5 Incompatible materials**

Incompatibility: Iron salts, spirit nitrous ether, lead acetate, iodine.

#### **10.6 Hazardous decomposition products**

When heated to decomp it emits acrid smoke and irritating fumes.

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### **SECTION 11: Toxicological information**

#### **Acute toxicity**

- Oral: LD<sub>50</sub> - rat (male) - 891 mg/kg bw.
- Inhalation: LCLo - rat (female) - > 700 mg/m<sup>3</sup> air (nominal).
- Dermal: LD<sub>50</sub> - rat (male/female) - > 2 000 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, skin and respiratory tract. The substance may cause effects on the central nervous system and acid-base balance in the body. This may result in delirium and tremors.

#### **STOT-repeated exposure**

Repeated or prolonged contact with skin may cause dermatitis.

#### **Aspiration hazard**

Evaporation at 20°C is negligible; a nuisance-causing concentration of airborne particles can, however, be reached quickly when dispersed.

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## **SECTION 12: Ecological information**

### **12.1 Toxicity**

- Toxicity to fish: LC50 - Pimephales promelas - 1 370 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) - > 100 mg/L - 72 h.
- Toxicity to microorganisms: EC10 - Pseudomonas putida - 140 mg/L - 16 h.

### **12.2 Persistence and degradability**

AEROBIC: Salicylic acid biodegraded rapidly under differing sets of agricultural practices in Pahokee muck soil(1). In October, soil planted to grass, fallow soil, and soil with sugar cane cover at 25 deg C, 43, 17 and 21%, respectively, of the radiolabeled salicylic acid was emitted as CO<sub>2</sub>/cu cm of soil/min(1). In January, 26, 7 and 11%, respectively, of the starting material was emitted as CO<sub>2</sub>/cu cm of soil/min(1).[(1) Tate RL III; Appl Environ Microbiol 37: 1085-90 (1979)] Full text: PMC243358

### **12.3 Bioaccumulative potential**

An estimated BCF of 3 was calculated for salicylic acid(SRC), using a log Kow of 2.26(1) and a regression-derived equation(2). According to a classification scheme(3), this BCF suggests the potential for bioconcentration in aquatic organisms is low(SRC).

### **12.4 Mobility in soil**

The Koc of salicylic acid is estimated as 404(SRC), using a log Kow of 2.26(1) and a regression-derived equation(2). According to a classification scheme(3), this estimated Koc value suggests that salicylic acid is expected to have moderate mobility in soil. The pKa of salicylic acid is 2.98(4), indicating that this compound will primarily exist in anion form in the environment and anions generally do not adsorb more strongly to soils containing organic carbon and clay than their neutral counterparts(5).

### **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
Salicylic acid	Salicylic acid	69-72-7	200-712-3
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/>

## Other Information

Volatility becomes noticeable above 50-60°C. Anyone who has shown aspirin sensitization should never come in contact with this substance.

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

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