

## Material Safety Data Sheet

### SECTION 1 IDENTIFICATION

**Product Name:** Pyraclostrobin 0.4% GR

**Other Means of identification:** /

**Recommended use of the chemical and restrictions on use:** This material is a kind of pesticide.

**Company / Undertaking Identification**

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### SECTION 2 COMPOSITION/COMPOSITION INFORMATION

**Product active ingredient Chemical name:**

a) 24 endobrassinase

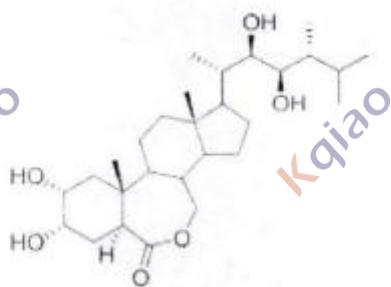
**English name:** 24-epibrassin inolide

**CAS login number:** 78821-43-9

**CIPAC Digital Code:** None

**Chemical names:** (22R, 23R, 24R) -2 $\alpha$ , 3 $\alpha$ , 22, 23 mono-methyl-B-7-oxa-5 $\alpha$  is one bile flute and six phenols

**Structural formula:**



**Experimental formula:** C<sub>28</sub>H<sub>48</sub>O<sub>6</sub>

**Relative molecular mass (as per 2012 international relative atomic mass) :** 480.7

**Biological activity:** plant growth regulator

**Melting point:** 256" -258 0C

**Solubility (mg/ L, 20°C) :** 5 in water, soluble in methanol, ethanol, tetrahydroentam, propyl self

Such as a variety of organic solvents

**Stability:** Stable under weakly acidic and weakly alkaline conditions

**b) Gibberellanic acid A4 +A7**

**ISO Common name:** Gibberellic acid (A4+A7)

**CAS Registration Number:** 8030-53-3, 468-44-0 (GA4), 510-75-8 (GA7)

**CIPAC digital code:** 307

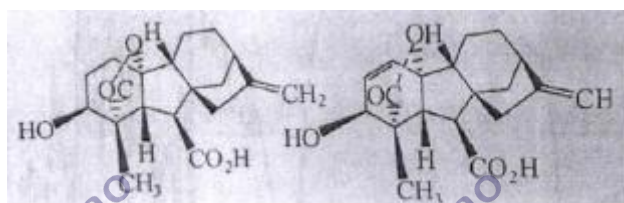
**Chemical name:** (1 $\alpha$ , 2-day, 4 $\alpha\alpha$ , other day, 10 $\beta$ ) -2, 4-a together with methyl-8 monomethylidene

Methylgibberellin kang-1, 10-dichroic acid-1, 4 $\alpha$ -endonase (GA4), (1 $\alpha$ , 2  $\beta$ , 4a  $\alpha$ , 4b  $\beta$ , 10  $\beta$ )

-2, 4- $\alpha$ -jing-1-methyl-8-methylene-gibberella-3-ene-1, 10 dihydrocarboxylic acid -1, 4  $\alpha$ -one

intrinsic content (GA7)

**Structural formula:**



**Molecular formula:** C<sub>19</sub>H<sub>24</sub>O<sub>5</sub> (A4), C<sub>19</sub>H<sub>22</sub>O<sub>5</sub> (A7)

**Relative molecular mass:** 332. 4 (A4), 330. 4 (A7) (as per 2007 international relative original Submass)

**Biological activity:** growth regulator

**Solubility (g/L, 20 °C) :** pure water 65.1, acetone, ethanol, methanol > 730, ethyl acetate

437, hexane, 12.2, toluene 176.

**Stability:** stable under alkaline conditions, acidic environment also has a certain stability, light, heat stability Agreed.

### SECTION 3 RISK PROFILE (MAINLY INCLUDES INFORMATION ON HAZARDS TO PEOPLE AND THE ENVIRONMENT)

**Danger category:** Low toxicity.

**Invasion route:** percutaneous, oral, ingestion.

**Health hazards:** dizziness, headache, nausea, vomiting, etc.

**Environmental hazards:** This product is toxic to bees, fish and other aquatic organisms, silkworm, should be closely closed during application

Note the effect on the surrounding bee colony, do not use in flowering plants, silkworm house and mulberry garden near; Keep away from

Application of medicine in aquaculture areas, rivers and ponds; The release area of natural enemies such as trichogramma is prohibited. Prohibited in the river pond

For cleaning and applying equipment in other water bodies, the medicinal liquid and its waste liquid shall not pollute the environment of all kinds of water bodies, soil and so on.

Used containers should be properly disposed of, not used for other purposes, and not discarded at will.

**Ignition hazard:** flammable in case of open fire, high heat, not potentially explosive.

#### SECTION 4 FIRST AID MEASURES

##### **Description of necessary first aid measures**

**If inhaled:** If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

**In case of skin contact:** Wash off with soap and plenty of water. Consult a physician.

**In case of eye contact:** Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

**If Ingestion:** Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

#### SECTION 5 FIREFIGHTING MEASURES

**Suitable extinguishing media:** Foam. Dry chemical powder. Carbon dioxide. Water spray or fog  
- Large fires only.

**Special hazards arising from the chemical:** Combustible. Slight fire hazard when exposed to heat or flame. Heating may cause expansion or decomposition leading to violent rupture of containers. On combustion, may emit toxic fumes of carbon monoxide (CO). May emit acid smoke. Mists containing combustible materials may be explosive.

**Special protective actions for fire-fighters:** Wear full body protective clothing with breathing apparatus. Prevent, by any means available, spillage from entering drains or water course. Use water delivered as a fine spray to control fire and cool adjacent area. Avoid spraying water onto liquid pools. DO NOT approach containers suspected to be hot. Cool fire exposed containers with water spray from a protected location. If safe to do so, remove containers from path of fire.

## SECTION 6 ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures:** Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas.

**Environmental precautions:** Stop leak if safe to do so. Prevent, by any means available, spillage from entering drains or water course.

**Methods and materials for containment and cleaning up:** Minor Spills: Contain and absorb spill with sand, earth, inert material or vermiculite. Wipe up. Major Spills: Contain spill with sand, earth or vermiculite. Collect recoverable product into labelled containers for recycling. Absorb remaining product with sand, earth or vermiculite. Collect solid residues and seal in labelled drums for disposal. Wash area and prevent runoff into drains.

## SECTION 7 HANDLING AND STORAGE

**Precautions for safe handling:** Avoid all personal contact, including inhalation. Wear protective clothing when risk of exposure occurs. Use in a well-ventilated area. Prevent concentration in hollows and sumps. DO NOT enter confined spaces until atmosphere has been checked. Avoid smoking, naked lights or ignition sources. Avoid contact with incompatible materials. When handling, DO NOT eat, drink or smoke. Keep containers securely sealed when not in use. Avoid physical damage to containers.

**Conditions for safe storage, including any incompatibilities:** Store in original containers. Keep containers securely sealed. Store in a cool, dry, well-ventilated area. Store away from incompatible materials and foodstuff containers. Protect containers against physical damage and check regularly for leaks. Observe manufacturer's storage and handling recommendations contained within this SDS.

## SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

**Control parameters:** /

**Appropriate engineering controls:** Local exhaust ventilation usually required. If risk of overexposure exists, wear approved respirator. Correct fit is essential to obtain adequate protection. Supplied-air type respirator may be required in special circumstances.

**Individual protection measures**

**Eye/face protection:** Safety glasses with side shields. Chemical goggles. Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants.

**Skin protection:** Wear chemical protective gloves, eg. PVC. Wear safety footwear or safety gumboots, eg. Rubber. Impervious clothing, Flame retardant antistatic protective clothing, The type of protective equipment must be selected according to the concentration and amount of the

dangerous substance at the specific workplace.

**Respiratory protection:** Selection of the Class and Type of respirator will depend upon the level of breathing zone contaminant and the chemical nature of the contaminant.

**Thermal hazards:** /

## SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance (physical state, colour etc)</b>	Sulfur yellow transparent flowing homogeneous liquid, with a slight pungent odor.
<b>pH</b>	3.0-6.0
<b>Density(20°C)</b>	0.966g/mL
<b>Melting point/freezing point</b>	N/A
<b>Relative vapor density</b>	N/A
<b>Vapor pressure(kPa)</b>	N/A
<b>Heat of combustion(kJ/mol)</b>	N/A
<b>Critical temperature(°C)</b>	N/A
<b>Critical pressure(Mpa)</b>	N/A
<b>Octanol/water partition coefficient:</b>	N/A
<b>Flash point</b>	37.4°C
<b>Upper explosive limits%(V/V)</b>	N/A
<b>Lower explosive limits%(V/V)</b>	N/A
<b>Solubility(ies)</b>	N/A
<b>Main uses</b>	Plant growth regulator
<b>Other physical and chemical properties</b>	N/A

## SECTION 10 STABILITY AND REACTIVITY

**Chemical stability:** Product is considered stable.

**Forbidden compound:** Strong oxidizing agent

**Avoid contact conditions:** Open flame, high heat

**Aggregation hazard:** Cannot occur

**Decomposition products:** N/A

## SECTION 11 TOXICOLOGICAL INFORMATION

**Acute transoral (rats) Toxicity test:** LD<sub>50</sub>: female > 5000mg/kg. Be classified in moderate-toxic.

**Acute percutaneous (rat) toxicity test:** LD<sub>50</sub>: both male and female > 5000mg/kg. Be classified in moderate-toxic.

**Irritation/corrosion test for acute eye (New Zealand rabbit) :** mild irritation;

**Skin (New Zealand white rabbit) Irritation/corrosion test:** no irritation;

**Skin allergy (sensitized by white guinea pigs) test:** It is a weak sensitizer.

**Subacute toxicity:** N/A

**Chronic toxicity:** N/A

**Irritation:** Eye irritation is mild, skin irritation is non-irritating;

**Mutagenicity:** No mutagenicity

**Teratogenicity:** no teratogenicity

**Carcinogenicity:** No carcinogenicity

**Other:** No data available

## SECTION 12 ECOLOGICAL INFORMATION

### **Toxicity:**

Birds: Acute oral LD<sub>50</sub>(7d) > 43.0 mg a.i./kg b w.

Fish (rainbow trout) : LC<sub>50</sub> (96 h) = 0.257 mg a.i./L.

Bees: LD<sub>50</sub> (48h) = 39.1 µg a.i./bee

Daphnia: EC<sub>50</sub> (48 h) = 0.264 mg a.i./L.

**Persistence and degradability:** /

**Bioaccumulative potential:** /

**Mobility in soil:** /

**Other adverse effects:** /

## SECTION 13 DISPOSAL CONSIDERATIONS

**Nature of waste:** hazardous waste

**Disposal methods of waste products:** Before disposal, relevant national and local regulations should be referred to. Incineration is recommended for disposal. It's mixed with fuel and then burned. The gas discharged from the incinerator is removed through a scrubber. Chemical decomposition, soil injection or sanitary landfill treatment.

**Waste container disposal method:** Before disposal, please refer to the relevant national and local regulations, or return the packaging container to the factory for processing.

**Waste disposal precautions:** Do not dispose of waste chemicals by discharging them into the sewer. Refer to Section 8 for safety protection of handlers.

## SECTION 14 TRANSPORT INFORMATION

**UN Number:** /

**UN proper shipping name:** /

**Transport hazard class(es) :** 6.1.

**Packing group, if applicable:** /

**Special precautions for shipping:** When transported by rail, calcium-plastic corrugated boxes can be used for outer packaging. However, the package must pass the test and be approved by the Railway Bureau. Before transportation, check whether the packaging container is complete and sealed, and ensure that the container does not leak, collapse, fall, or damage during transportation. It is strictly prohibited to mix with acids, oxidants, food and food additives. Transport vehicles should be equipped with the appropriate variety and quantity of fire equipment and leakage emergency treatment equipment. During transportation, it should be protected from sunlight, rain and high temperature. Road transport should follow the prescribed route, do not stay in residential areas and densely populated areas.

## SECTION 15 REGULATORY INFORMATION

### Regulations:

Regulations on the Safety Management of Chemical Dangerous Substances (adopted at the 52nd Executive Meeting of The State Council on January 9, 2002), Implementation Rules of Regulations on the Safety Management of Chemical Dangerous Substances (Hualofa [1992] No. 677), Regulations on the safe use of chemicals in workplaces [1996] No. 423), Relevant provisions have been made for the safe use, production, storage, transportation, loading and unloading of chemical dangerous goods: The classification and marking of commonly used dangerous chemicals (GB 13690-92) classifies the substance as Class 6.1 poisons.

## SECTION 16 OTHER INFORMATION

### References

1. Zhou Guotai, Safety Technology of Dangerous Chemical Products, Chemical Industry Press, 1997.
2. Toxic Chemicals Management Office of the State Environmental Protection Bureau and Beijing Research Institute of Chemical Industry, Environmental Data Manual of Chemical Toxicity Regulations, China Environmental Science

Press, 1992.

3.Canadian Centre for Occupational Health and Safety,CHEMINFO Database.1998

4.Canadian Centre for Occupational Health and Safety,RTECS Database

Completion date: November 30, 2020.

Form filling department: Shandong Kangqiao Biotechnology Co., LTD.

Data review unit: Shandong Kangqiao Biotechnology Co., LTD.

Description: The value is unchanged.

Note 1: When products contain two or more hazardous substances, Safety Data Sheets should be prepared based on the risk of the mixture.

Note 2: Manufacturer / supplier should ensure the correctness of the information contained in the safety data sheets, and updated in a timely manner.

Note 3: As a result of product features without the existence of certain information or no data available (such as boiling point does not exist for the solid) in the table with "/" logo.