

CH Biotech R&D Co., Ltd.

Safety Data Sheet

Section 1 Identification

Product identifier

Product name: **Promote**

Recommended use: To enhance shoot and root growth, photosynthesis, abiotic stress resistance, mineral uptake, and production of various crops

Produced by: CH Biotech LLC
601 Kettering Drive
Ontario, CA 91761, USA

Telephone: +1-909-472-3033

Chemtrec: +1-800-424-9300

Section 2 Hazard(s) identification

Classification according to 29 CFR 1910.1200



Label elements

Signal word **DANGER**

Reproductive Toxicity Category 1B

Hazard statement

H360 May damage fertility or the unborn child.

Precautionary statement

Prevention

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

Response

P308+P313 IF exposed or concerned: Get medical advice/attention.

Storage

P405 Store locked up.

Disposal

P501

Dispose of contents/container in accordance with local, regional, national, and international regulations/legislation.

Section 3 Composition/information on ingredients

<u>Identity</u>	<u>CAS No.</u>	<u>Typical % (w/w)</u>
Kinetin	525-79-1	0.12
Gamma Aminobutyric Acid	56-12-2	1.00
Choline Chloride	67-48-1	2.00

Ingredients not specifically listed are non-hazardous or are to be considered proprietary or confidential business information per paragraph (i) of 29 CFR 1910.1200.

Section 4 First-aid measures

If in eyes:	Immediately flush eyes with plenty of water for at least 15 minutes. If redness, itching or a burning sensation develops, have eyes examined and treated by medical personnel.
If on skin:	Immediately wash material off the skin with plenty of soap and water. If unable to wash immediately or tingling, numbness or a burning sensation develops apply skin cream or an oil-based solution to the affected area. If irritation persists, get medical attention.
If swallowed:	Provided the patient is conscious, wash out mouth with water. Immediately contact medical personnel or an emergency facility. If spontaneous vomiting occurs, have victim lean forward with head down to avoid breathing in of vomitus, rinse mouth and administer water.
If inhaled:	Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth to mouth. If breathing is labored, give oxygen. Obtain medical attention.

Most important symptoms/effects, acute and delayed:

Eye Contact:	May cause eye irritation
Skin Contact:	May cause skin irritation
Ingestion:	May cause gastrointestinal irritation
Inhalation:	May cause respiratory tract irritation

Obtain immediate medical attention if symptoms occur.

Section 5 Fire-fighting measures

Extinguishing Media:

Use appropriate medium for underlying cause of fire.

Specific hazards arising from the chemical:

No data available.

Special protective equipment and precautions for fire-fighters:
Wear protective clothing and self-contained breathing apparatus.

Section 6 Accidental release measures

Personal precautions, protective equipment, and emergency procedures:
Avoid breathing vapors, mist or gas and contact with skin or eyes. For personal protection see section 8.

Environmental precautions:
Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high-water mark. Do not contaminate water when disposing of equipment wash waters or rinsate.

Methods and materials for containment and cleaning up:
Large spills: Stop the flow of material if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. After removal flush contaminated area thoroughly with water.
Small spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Keep in suitable, closed containers for disposal.

Reference to other sections:
For disposal see section 13.

Section 7 Handling and storage

Precautions for safe handling:
Avoid inhalation of mists, vapors/spray and contact with eyes, skin, and clothing. Wear personal protective equipment. Do not use in areas without adequate ventilation. Avoid prolonged exposure. Wash thoroughly after handling. Do not empty into drains. Handle and open container with care. Use care in handling/storage. Wash before eating, drinking and/or smoking.

Conditions for safe storage:
Store in original container. Keep container tightly closed when not in use. Store in a cool, dry, locked place out of the reach of children. Protect from direct sunlight.

Section 8 Exposure controls/personal protection

Control parameters:
No data available.

Appropriate engineering controls:
Provide adequate general and local exhaust ventilation. Observe Occupational Exposure Limits and minimize the risk of inhalation of vapors and spray mists. Provide eyewash station and safety shower.

Personal protective equipment

Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Body protection

Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific workplace. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Respiratory protection is not required. Where protection from nuisance levels of dusts is desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Section 9 Physical and chemical properties

Appearance:	Colorless liquid
Odor:	No detectable odor
Odor threshold:	N/D
pH:	3.55 (1% w/v, 25 °C)
Freezing point:	N/D
Boiling point:	N/D
Flash point:	N/D
Evaporation rate:	N/D
Flammability (solid, gas):	N/D
Upper/lower flammability or explosive limits:	N/D
Vapor pressure:	N/D
Vapor density:	N/D
Density:	1.04 g/mL (20 °C)
Solubility:	Soluble in water
Partition coefficient, n-octanol/water:	N/D
Auto-ignition temperature:	N/D
Decomposition temperature:	N/D
Viscosity:	1.3 cSt (20 °C)
Particle characteristics:	N/D

Note: These physical/chemical data are typical values based on material tested but may vary from sample to sample. Typical values should not be construed as a guaranteed analysis of any specific lot or as specification items.

Section 10 Stability and reactivity

Reactivity:	Stable
Chemical stability:	Stable under recommended storage conditions.
Possibility of hazardous reactions:	No data available
Conditions to avoid:	No data available
Incompatible materials:	Strong oxidizing agents
Hazardous decomposition products:	No data available
In the event of fire:	See section 5.

Section 11 Toxicological information

Acute Oral:	LD ₅₀ > 5000 mg/kg (rats)
Acute Dermal:	LD ₅₀ > 5000 mg/kg (rats)
Acute Inhalation:	LC ₅₀ > 2.06 mg/L (rats)
Dermal Irritation:	Non-irritating (rabbits)
Eye Irritation:	Practically non-irritating (rabbits)
Dermal Sensitization:	Not a dermal sensitizer (guinea pigs)
Germ Cell Mutagenicity:	No data available
Carcinogenicity:	No data available
Reproductive Toxicity:	No data available
Specific Target Organ Toxicity:	No data available
Aspiration Hazard:	No data available

Information on the likely routes of exposure:
Dermal contact.

Symptoms related to the physical, chemical and toxicological characteristics:
No data available. See section 4.

Delayed and immediate effects and also chronic effects from short- and long-term exposure:
No data available.

Section 12 Ecological information

The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment. This product is not intended for use in aquatic settings.

Section 13 Disposal considerations

Wastes may be disposed of on site or at an approved waste disposal facility. Triple rinse (or equivalent), adding rinse water to spray tank. Offer container for recycling or dispose of in a sanitary landfill or by other procedures approved by appropriate authorities. Recycling decontaminated containers is the best option of container disposal. The Agricultural Container Recycling Council (ACRC) operates the national recycling program. To contact your state and local ACRC recycler visit the ACRC web page at <http://www.acrecycle.org/>. Do not contaminate water, food or feed by storage or disposal.

Section 14 Transport information

Not regulated by DOT. The product is not classified as hazardous material during transportation.

Section 15 Regulatory information

This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals.

Section 16 Other information

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Legend: N/D = Not Determined

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