



SAFETY DATA SHEET

1. Product Identification:

Product Name: Homobrassinolide 0.1%

Manufacturer: Repair Corporation
Telephone: 202-223-1424
Address: P.O. Box 4321
City, State, Zip: Silver Spring, MD 20914
Emergency Phone: 202-223-1424 (Monday-Friday, 10:00 a.m. – 6:00 p.m.)
24 Hour Emergency Phone (CHEMTREC): 1-800-424-9300
U.S. EPA Registration No.: 69361-49
Product Use: Plant growth regulator

2. Health Hazard(s) Identification:

(As defined by OSHA Hazard Communication Standard, 29 CFR 1910.1200)

Pale yellow/clear liquid

HEALTH HAZARDS: WARNING! May be harmful if swallowed

PHYSICAL HAZARDS: May release toxic fumes if burned.

ENVIRONMENTAL HAZARDS: Slightly toxic to aquatic organisms



3. Composition/Ingredient Information:

Chemical Names:

Active Ingredient:	CAS Number	Percentage by Weight
(2 α , 3 α , 22S, 23S, 24S)-2,3,22, 23-tetrahydroxy-24 ethyl- β -homo-7-oxa-5 α -cholestan-6-one	80483-89-2	0.1%

Common Name of Active Ingredient:

Homobrassinolide (HBR)	80483-89-2	0.1%
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Other Ingredients:

Inert Ingredients	99.9%
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*Inert ingredient identity is confidential business information

4. First Aid Measures:

If Swallowed:

- Have person sip on glass of water if able to swallow
- Do not induce vomiting unless told to do so by a poison control center or doctor.
- Do not give anything by mouth to an unconscious person.
- Call poison control center or doctor for treatment advice.

If on Skin or Clothing:

- Take off contaminated clothing.
- Wash skin with soap and plenty of water for 15-20 minutes.
- Call a poison control center or physician for treatment advice.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

NOTE TO PHYSICIAN: No specific antidote. Treat symptomatically. The compound does not cause any definite symptoms that would be diagnostic

5. Fire Fighting Measures:

EXTINGUISHING MEDIA: Small fire: use dry chemical powder. Large fire: Use water spray, fog, or foam.

SPECIFIC HAZARDS ARISING FROM THE CHEMICAL: May be combustible at high temperature. When heated to decomposition emits acrid smoke and irritating flames.

SPECIAL PROTECTIVE ACTIONS FOR FIRE FIGHTERS: Wear self contained breathing apparatus if necessary.

6. Accidental Release Measures:

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:

PERSONAL PRECAUTIONS: Follow protective measures indicated in Section 8: Exposure Control/Personal Protection for both emergency and non emergency personnel.

ENVIRONMENTAL PRECAUTIONS: Do not let product enter drains.

METHODS FOR CLEANING UP: Absorb on inert material. Shovel into containers for proper disposal. Finish cleaning by spreading water onto contaminated surface, and dispose of according to local and regional authority requirements.

7. Handling and Storage:

HANDLING AND STORAGE PRECAUTIONS:

HANDLING: Handle with care to prevent accidental release of product and exposure to excess heat, oxidizing agents, reducing agent, acids and alkalis. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove and wash contaminated clothing before reuse.

STORAGE: Store in a cool, dry place and in such a manner as to prevent cross contamination with other pesticides, fertilizers, food and feed. Store in original container and out of reach of children, preferably in a locked storage area. Store away from oxidizing agents, reducing agents, acids and alkalis.

8. Exposure Control/Personal Protection:

EXPOSURE GUIDELINES: Occupational exposure limit (OEL) and biological limit values (BLV) for Homobrassinolide – CAS No.: 80483-89-2 not established. Control banding approach not available.

APPROPRIATE ENGINEERING CONTROLS: Sufficient ventilation to minimize exposure to vapors should be used.

WORK/HYGIENE PRACTICES: Emergency shower and eyewash facilities should be in close proximity (ANSI Z358.1). Launder contaminated clothing and wash hands and face after use. Discard clothing or other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

The following personal protective equipment should be used in conjunction with exposure control measures

EYE/FACE PROTECTION: Splash goggles

SKIN PROTECTION: Long sleeve shirt, long pants, (or full suit for large spills) and shoes plus socks

HAND PROTECTION: Chemical-resistant gloves, such as barrier laminate or Viton.

RESPIRATORY: NIOSH/MSHA approved respirator, following manufacturer's recommendations, should be used as a precautionary measure where airborne contaminants may occur. (OSHA Standard 29 CFR 1910. 134).

9. Physical & Chemical Properties:

APPEARANCE:	Pale yellow/clear liquid
ODOR:	No odor
ODOR THRESHOLD:	NA
pH:	4.87 (1% aqueous solution)
MELTING POINT:	NA
BOILING POINT:	NA
FLASH POINT:	NA
EVAPORATION RATE:	ND
FLAMMABILITY (solid, gas):	Not flammable
LOWER FLAMMABILITY LIMIT:	NA
UPPER FLAMMABILITY LIMIT:	NA
VAPOR PRESSURE:	NA
VAPOR DENSITY:	ND
RELATIVE DENSITY (H₂O = 1):	1.038 (1.0-1.10) g/ml @ 77°F (25°C)
SOLUBILITY WATER:	Readily soluble in water
PARTITION COEFFICIENT (n-octanol/water):	NA
AUTO-IGNITION TEMPERATURE:	ND
DECOMPOSITION TEMPERATURE:	ND
VISCOSITY:	44 cps @ 80.6°F (27°C)

10. Stability & Reactivity:

REACTIVITY: hygroscopic, reactive to oxidizing/reducing agents, under acidic/basic conditions.

STABILITY: Stable under recommended storage conditions for more than one year.

HAZARDOUS REACTIONS: None known, polymerization will not occur

CONDITIONS TO AVOID: Incompatible materials, excess heat, exposure to moist

air or water.

INCOMPATIBLE MATERIALS: Oxidizing agents, reducing agents, acids, alkalis

HAZARDOUS DECOMPOSITION PRODUCTS: Irritating flames and acrid smoke containing carbon oxides as a result of heating

11. Toxicological Information:

Toxicological Data for Homobrassinolide 0.1%:

Oral LD ₅₀ (rat):	> 5000 mg/kg b.w.
Dermal LD ₅₀ (rat):	> 5000 mg/kg b.w.
Inhalation LC ₅₀ (rat):	> 4.45 mg/L
Skin irritation (rabbit):	Non-irritating
Skin sensitization (guinea pigs):	Non-sensitizer
Eye irritation (rabbit):	Non-irritating

Toxicological Data for Homobrassinolide Technical:

Mutagenicity :	Not mutagenic
Carcinogenicity:	Not carcinogenic
Reproductive Toxicity:	Not reproductive toxicant
Specific target organ toxicity (STOT):	
STOT-single exposure:	ND
STOT-repeated exposure:	ND
Aspiration hazard:	ND

ROUTES OF EXPOSURE:

SKIN: May be harmful if absorbed through skin.

INGESTION: May be harmful if swallowed.

ADVERSE EFFECTS AND SYMPTOMS: ND

DELAYED OR IMMEDIATE EFFECTS FROM SHORT OR LONG TERM EXPOSURE: ND

NUMERICAL MEASURES OF TOXICITY: ND

INTERACTIVE EFFECTS: ND

12. Ecological Information:

Ecological Data for Homobrassinolide Technical:

Acute Toxicity LC ₅₀ (96hrs)	Guppy	24.56 mg / L
Acute Toxicity LC ₅₀ (96hrs)	Zebra Fish	14.38 mg / L
Immobilization EC ₅₀ (48hrs)	Daphnia	8.90 mg / L

PERSISTENCE AND DEGRADABILITY: This was not tested because HBR is applied in such low concentrations.

BIOACCUMULATIVE POTENTIAL: ND

MOBILITY IN SOIL: ND

13. Disposal Considerations:

Do not contaminate water, food, or feed by disposal.

PESTICIDE DISPOSAL: Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

CONTAINER DISPOSAL: Non-refillable container. Do not reuse or refill this container. Offer for recycling, if available. Triple rinse container (or equivalent) promptly after emptying.

14. Transport Information:

SHIPPING DESCRIPTION: Not regulated by USDOT
(Ground transport)

DOT HAZARD CLASS: N/A

IDENTIFICATION NUMBER: N/A

DOT PACKING GROUP: N/A

15. Regulatory Information:

This chemical is a pesticide product registered with the U.S. 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, and for workplace labels of non-pesticide chemicals.

Following is the hazard information as required on the pesticide label:

SIGNAL WORD: CAUTION

Harmful if swallowed or absorbed through the skin. Avoid contact with skin, eyes or clothing.

16. Other Information:

HMIS HAZARD RATING	HEALTH	0
	FLAMMABILITY	0
	PHYSICAL HAZARD	0
	4=Severe 3=Serious 2=Moderate 1=Slight 0=Minimal	

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This Safety Data Sheet (SDS) serves different purposes than and DOES NOT REPLACE OR MODIFY THE EPA APPROVED PRODUCT LABELING (attached to and accompanying the product container). This SDS provides important health, safety, and environmental information for employers, employees, emergency responders and others handling large quantities of the product in activities generally other than product use, while the labeling provides that information specifically for product use in the ordinary course. Use, storage and disposal of pesticide products are regulated by the EPA under the authority of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) through the product labeling, and all necessary and appropriate precautionary, use, storage, and disposal information is set forth on that labeling.

It is a violation of federal law to use a pesticide product in any manner not prescribed on the EPA-approved label.

REVISED DATE: May 9, 2016

REFERENCE: Revised for GHS compliance