

SAFETY DATA SHEET**SECTION 1: PRODUCT AND COMPANY IDENTIFICATION**

PRODUCT NAME: HAVEN[®]

MANUFACTURER: Marrone Bio Innovations

ADDRESS: 1540 Drew Ave., Davis CA, 95618

EMERGENCY PHONE: INFOTRAC Chemical Response System

US and Canada 1-800-535-5053 (24 hours)
International 1-352-323-3500 (24 hours)

OTHER CALLS: Marrone Bio Innovations 530-750-2800 (9am to 5 pm PST)

FAX PHONE: Marrone Bio Innovations 530-750-2808

PRODUCT USE: Bio-based sun protectant

SECTION 2: HAZARDS IDENTIFICATION**EMERGENCY OVERVIEW:**

Causes mild skin irritation

Causes eye irritation

HAZARD SYMBOLS:

Pictogram: None

Signal Word: **Warning****HAZARD STATEMENT(S):**

H316 Causes mild skin irritation

H320 Causes eye irritation

PRECAUTIONARY STATEMENTS

P264 Wash all exposed areas thoroughly after handling.

P305 + P351 + P338 **IF IN EYES:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P332 + P313 If skin irritation occurs: Get medical attention

P337 + P313 If eye irritation persists: Get medical attention.

POTENTIAL ROUTES OF ENTRY: Oral, eye, and inhalation, gastrointestinal**CARCINOGENICITY:**

OSHA: Not listed

ACGIH: Not listed

NTP: Not listed.

IARC: Not listed

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SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms: MBI-505 SC EP, MBI-505 EP

COMPONENT	CAS NUMBER	PERCENT BY WEIGHT (%)
Stearyl alcohol (active ingredient)	112-92-5	10
Propylene glycol	57-55-6	5
Other (inert ingredients)	Several (Not applicable)	85

SECTION 4: FIRST AID MEASURES

EYES: Hold eye open and rinse slowly and gently with water for at least 15 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eyes. Do not use an eye ointment. Call poison control center or doctor for treatment advice.

SKIN: Remove contaminated clothing. Rinse skin immediately with plenty of water for at least 15-20 minutes. Call a poison control center or doctor for treatment advice.

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

INHALATION: Remove person to fresh air. If the person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for treatment.

SECTION 5: FIRE-FIGHTING MEASURES

FLAMMABLE LIMITS IN AIR, (% BY VOLUME)

UPPER: Not applicable.

LOWER: Not applicable.

FLASH POINT: Unknown

AUTOIGNITION TEMPERATURE: Not applicable.

NFPA HAZARD CLASSIFICATION

HEALTH: Unknown

FLAMMABILITY: Unknown

REACTIVITY: Unknown

HMIS HAZARD CLASSIFICATION

HEALTH: Unknown

FLAMMABILITY: Unknown

REACTIVITY: Unknown

EXTINGUISHING MEDIA: Use water spray, alcohol-resistant foam, dry chemical, or carbon dioxide.

SPECIAL FIRE FIGHTING PROCEDURES: Wear self-contained breathing apparatus for firefighting.

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon oxides

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ACCIDENTAL RELEASE MEASURES: Wear suitable clothing such as eye protection, long-sleeved shirt, pants and shoes with socks. If spilled, contain - prevent run off into drains and waterways. Absorb liquid with an inert absorbent material. Seal absorbent material in a closed labeled container and dispose of in accordance with local ordinances.

SECTION 7: HANDLING AND STORAGE

HANDLING AND STORAGE: Store in the closed, original container in a well-ventilated area out of direct sunlight. Keep containers closed when not in use. Empty container completely and dispose of in accordance with all applicable federal, state and local environmental regulations.

OTHER PRECAUTIONS: No special precautions.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: Spill controls should be provided for working with large quantities.

VENTILATION: No TLV assigned. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors and aerosols below the exposure levels. Ensure that eyewash stations and safety showers are proximal to the work-station location.

RESPIRATORY PROTECTION: Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

EYE PROTECTION: Eye/Face Protection: Wear appropriate eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations 29 CFR 1910.133 or European Standard EN 166.

SKIN PROTECTION: Wear gloves made of Latex or other impervious material.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Clothing to prevent prolonged skin contact as needed such as long-sleeved shirt, long pants and shoes with socks.

WORK HYGIENIC PRACTICES: Wash any contamination from skin or eyes immediately. Wash hands and exposed skin before eating, drinking, smoking, after work, or using the toilet.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE:	Liquid
COLOR:	Light tan to brown
ODOR:	Soapy
pH:	5 to 7
DENSITY:	1 g/mL
SOLUBILITY IN WATER:	Miscible in water
BOILING POINT/RANGE:	Not determined
FREEZING/MELTING POINT:	Not determined
FLASH POINT:	Not determined
EVAPORATION RATE:	Not determined

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FLAMMABILITY (SOLID, GAS):	Not determined
UPPER FLAMMABILITY LIMITS:	Not determined
LOWER FLAMMABILITY LIMITS:	Not determined
VAPOR PRESSURE:	Not determined
VAPOR DENSITY:	Not determined
RELATIVE DENSITY:	Not determined
SOLUBILITY IN OTHER SOLVENTS:	Not determined
PARTITION COEFFICIENT:	Not determined
AUTOIGNITION TEMPERATURE:	Not determined
DECOMPOSITION TEMPERATURE:	Not determined
KINEMATIC VISCOSITY:	Not determined
DYNAMIC VISCOSITY:	Not determined
EXPLOSIVE PROPERTIES:	Not determined
OXIDIZING PROPERTIES:	Not determined

SECTION 10: STABILITY AND REACTIVITY

STABILITY: Stable.

INCOMPATIBILITY (MATERIAL TO AVOID): None known

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS: None known

HAZARDOUS POLYMERIZATION: Not known to occur

CONDITIONS TO AVOID (POLYMERIZATION): None

SECTION 11: TOXICOLOGICAL INFORMATION

ACUTE ORAL TOXICITY LD ₅₀ :	>5000 mg/kg (rat). Not classified.
ACUTE DERMAL TOXICITY LD ₅₀ :	>5000 mg/kg (rat). Not classified.
ACUTE INHALATION LC ₅₀ :	5.17 mg/L. Not classified.
EYE IRRITATION:	Category 2B (rabbit)
SKIN IRRITATION:	Category 3 (rabbit).
SKIN SENSITIZATION:	Not a skin contact sensitizer. Not classified

SECTION 12: ECOLOGICAL INFORMATION

Bees and beneficial organisms: Honey bee (48-hour acute contact toxicity OECD 214) LD₅₀ > 100 µg/ bee
Honey bee (48-hour acute oral toxicity OECD 213) LD₅₀ > 100 µg/ bee

Avian Oral Limit: (OPPTS 850.2100) LD₅₀ >2000 mg/kg-bw

For terrestrial uses only: 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 water or rinsate.

Sensitive areas: The product should only be applied when the potential for drift to adjacent sensitive areas (e.g. residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g. when wind is blowing away from the sensitive areas). Do not allow residue from the application site to contact people, structures people occupy at any time and the associated property, parks and recreation areas, non-target crops, aquatic and wetland areas, woodlands, pastures, rangelands, or animals. As a precaution, do not allow product

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to drift to blooming crops or weeds if bees are foraging. Minimize spray drift away from the target area to reduce effects to other non-target insects.

Bioconcentration potential: This material is not expected to bioconcentrate in organisms.

SECTION 13: DISPOSAL CONSIDERATIONS

Do not reuse containers. Dispose of in accordance with all applicable federal, state, and local environmental regulations.

SECTION 14: TRANSPORTATION INFORMATION

U.S. DOT: Not regulated

IATA DGR: Not regulated

IMDG: Not regulated

SECTION 15: REGULATORY INFORMATION**INTERNATIONAL REGULATIONS**

TSCA: Exempt

U.S. FEDERAL REGULATIONS

CERCLA: "Reportable Quantities" (RQs) and/or "Threshold Planning Quantities" (TPQs) exist for the following ingredients: No ingredients listed in this section.

Spills or releases resulting in the loss of any ingredient at or above its RQ requires immediate notification to the National Response Center [(800) 424-8802] and to your Local Emergency Planning Committee.

SARA 302 COMPONENTS: No components in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA TITLE III HAZARD CLASSIFICATION SECTIONS 311 AND 312:

Immediate (acute) Health:	None
Delayed (chronic) Health:	None
Fire:	None
Sudden Release of Pressure:	None
Reactivity:	None

SARA 313 COMPONENTS: This material does not contain any chemical components with known CAS numbers that exceed the threshold reporting levels established by SARA Title III, Section 313.

US STATE RIGHT-TO-KNOW REGULATIONS:

CALIFORNIA PROPOSITION 65 COMPONENTS: This product does NOT contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

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NEW JERSEY RIGHT-TO-KNOW COMPONENTS:

	CAS No.
Propylene glycol	57-55-6

PENNSYLVANIA RIGHT-TO-KNOW COMPONENTS:

	CAS No.
Propylene glycol	57-55-6

MASSACHUSETTS RIGHT-TO-KNOW COMPONENTS: None

SECTION 16: OTHER INFORMATION

Date Issued:	14 December 2018
Revision Date:	6
Revision Note:	correct typographical errors

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