SAFETY DATA SHEET

1. Product Identification:

Product Name: REAP-THRU HERBICIDE

Manufacturer: Repar 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.: 69361-1
Product Use: Plant Growth Regulator

2. Health Hazard(s) Identification:


Amber Colored Clear Liquid with a Weak Caramel Odor

HEALTH HAZARDS: CAUTION! Causes substantial but temporary eye injury.

PHYSICAL HAZARDS: May release toxic fumes if burned.

ENVIRONMENTAL HAZARDS: Moderately toxic to aquatic organisms.

3. Composition/Ingredient Information:

Active Ingredients: CAS Number Percentage by Weight
Methyl 2-chloro-9-hydroxy-9H-fluorene-9-carboxylate 2536-31-4 11.0%
Methyl 2,7-dichloro-9-hydroxy-9H-fluorene-9-carboxylate 21634-96-8 2.0%
Methyl 9-hydroxy-9H-fluorene-9-carboxylate 1216-44-0 2.9%
Common Name for Mixture of Active Ingredients: Chlorfluorenol Methyl Ester
(CFM) 37339-61-0 15.9%
Other Ingredients:
Organic solvents and emulsifiers N/A 84.1%

*Inert ingredient identity is confidential business information

4. First Aid Measures:

If in Eyes:
- Hold eye open and rinse slowly with a steady, gentle stream of water for 15-20 minutes.
- Remove contact lenses, if present, after the first 5 minutes, then continue rinsing the eye.
- Call a poison control center or doctor for treatment advice.

If Swallowed:
- 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 doctor.
- Do not give anything by mouth to an unconscious person.

If On Skin Or Clothing:
- Take off contaminated clothing.
- Rinse skin immediately with plenty of water for 15-20 minutes.
- Call a poison control center or doctor for treatment advice.

If Inhaled:
- Move person to fresh air.
- If 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 advice.

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For Medical Emergency Assistance, call the National Pesticide Information Center 1-800-858-7378.

NOTE TO PHYSICIAN: No specific antidote. Causes reversible corneal opacity. Treat symptomatically. Probable mucosal damage may contridicate the use of gastric lavage.

5. Fire Fighting Measures:

EXTINGUISHING MEDIA: Use water fog, foam, or CO2

SPECIFIC HAZARDS ARISING FROM THE CHEMICAL: Emits toxic fumes of carbon monoxide and carbon dioxide. During fire, hydrochloric acid may be formed.

SPECIAL PROTECTIVE ACTIONS FOR FIRE FIGHTERS: Firefighters should wear full protective clothing and self-contained breathing apparatus (SCBA) to protect against inhalation of combustion products. Do not let the fire burn. Flood with copious amounts of water.

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: Keep spilled liquid away from drains, surface and ground water.

CONTAINMENT AND CLEANUP: In case of spillage, absorb with corn cobs, absorbent clay or similar materials. Sweep up and dispose. Avoid personal contact.

7. Handling and Storage:

HANDLING AND STORAGE PRECAUTIONS:

HANDLING: Do not get into eyes, on skin, on clothing. Wear goggles or face shield and chemical resistant gloves when handling. Avoid breathing spray mist or fumes. Wash thoroughly with soap and water after handling. Remove and wash contaminated clothing before reuse. Avoid contact with strong oxidizing agents through handling. Avoid unintentional spilling or release into environment.

STORAGE: Do not contaminate water, food, or feed by storage. Store in original container in a locked storage area. Avoid temperatures below 41°F. In case of accidental storage below 41°F, allow to thaw in original container at 50 - 80°F and agitate in container before using. Avoid long term storage above 122°F as some separation of ingredients may occur. Agitate in original container before using if exposure to prolonged high temperature is suspected.

8. Exposure Control/Personal Protection:

EXPOSURE GUIDELINES: Occupational exposure limit (OEL) and biological limit values (BLV) for Chlorfluorenol – CAS No.: 37339-61-0 not established. Control banding approach not available.

APPROPRIATE ENGINEERING CONTROLS: Use sufficient ventilation to avoid buildup of vapors

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: Wear chemical safety goggles (ANSI Z87.1).

SKIN PROTECTION: Long-sleeved shirt and long pants as well as shoes plus socks should be worn.

RESPIRATORY PROTECTION: 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).

HAND PROTECTION: Waterproof gloves

9. Physical & Chemical Properties:

APPEARANCE: Amber (yellow) colored clear liquid
ODOR: Weak caramel odor
ODOR THRESHOLD: ND
pH: NA
MELTING POINT: NA
Stability & Reactivity

10. Stability & Reactivity:

REACTIVITY: Unknown
STABILITY: Stable under normal storage conditions.
HAZARDOUS REACTIONS: None known
CONDITIONS TO AVOID: Heat or open flame
INCOMPATIBLE MATERIALS: Strong oxidizing agents
HAZARDOUS DECOMPOSITION PRODUCTS: Toxic fumes of carbon monoxide, carbon dioxide and possibly hydrochloric acid.

Ecological Information

11. Toxicological Information:

Toxicological Data for Reap-Thru Herbicide:

- Oral LD₅₀ (rat): 2,800 mg/kg bw
- Dermal LD₅₀ (rabbit): >2,000 mg/kg bw
- Inhalation LC₅₀ (rat): >2.18 mg/L over 4 h
- Skin irritation (rabbit): Slight irritant
- Skin sensitization (guinea pig): Not sensitizing
- Eye irritation (rabbit): Irritant
- Specific target organ toxicity (STOT):
  - STOT-single exposure: ND
  - STOT-repeated exposure: ND
- Aspiration hazard: ND

ROUTES OF EXPOSURE:

- INHALATION: Breathing of spray mist is expected to be a primary route of exposure and may produce nose, throat and respiratory tract irritation.
- SKIN: Dermal contact is expected to be a primary route of exposure and can cause skin irritation. Not considered a sensitizing agent.
- EYE CONTACT: May result in corrosion to the eyes or reversible eye damage.
- INGESTION: May cause dulling of senses.

ADVERSE EFFECTS AND SYMPTOMS: ND

NUMERICAL MEASURES OF TOXICITY: ND

Toxicological Data for CFM Technical:

- Mutagenicity: Found to be non-mutagenic.
- Carcinogenicity: Not a carcinogen.
- Reproductive Toxicity: Does not show any developmental toxicity.

Ecological Information

12. Ecological Information:

Ecological Data for CFM Technical:

- LC₅₀ (96 h): Bluegill sunfish 7.45 mg/L
- EC₅₀ (48 h): Daphnia magna 22.4 mg/L
- LC₅₀ (96 h): Rainbow trout 5.91 ml/kg

PERSISTANCE AND DEGRADABILITY: 99% is gone from soil after application.

MOBILITY IN SOIL: Movement of CFM in soil is slight while degradation product is very mobile.

Disposal Considerations

13. Disposal Considerations:

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

PESTICIDE DISPOSAL: Pesticides wastes are acutely hazardous. Open dumping is prohibited. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance. Pesticide spray mixture or rinsate water that cannot be used according to label instructions must be disposed of on site or at an approved waste disposal facility.

CONTAINER DISPOSAL:

Nonrefillable containers 5 gallons or less: Do not reuse or refill this container. Offer for recycling, if available. Triple rinse or pressure rinse container (or equivalent) promptly after draining. Triple rinse as follows: Empty the remaining contents into application equipment or mix tank and drain for 10 seconds after the flow begins to drip. Rinse the rinsate into the application equipment or a mix tank that contains rinse water for use or disposal. Insert pressure rinsing nozzle in the side of the container and at about 40 psi for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

Refillable container 5 gallons or less: Container disposal: Refillable container: Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of this container.

Transport Information:

14. Transport Information:

SHIPPING DESCRIPTION:

(ground transport)

Containers ≤ 119 gallons – Not regulated by USDOT
Containers > 119 gallons – NA1993, Combustible liquid, N.O.S. (contains petroleum distillate), PG III

DOT HAZARD CLASS: Combustible liquid, N.O.S.
IDENTIFICATION NUMBER: NA1993
DOT PACKING GROUP: PG III

Regulatory Information:

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:

CAUTION: Harmful if inhaled. Avoid breathing spray mist.
## DISCUSSION:

The information presented herein is based on available data from reliable sources and is correct to the best of Repar’s knowledge. Repar makes no warranty, express or implied, regarding the accuracy of the data or the results obtained from the use of this product. Nothing herein may be construed as recommending any practice or any product in violation of any law or regulations. The user is solely responsible for determining the suitability of any material or product for a specific purpose and for adopting any appropriate safety precautions.

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:** June 2, 2015

**REFERENCE:** Revised for GHS compliance

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<th>HEALTH</th>
<th>FLAMMABILITY</th>
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4=Severe 3=Serious 2=Moderate 1=Slight 0=Minimal