



# MATERIAL SAFETY DATA SHEET

Trilin<sup>®</sup> 5

Date Prepared: June 20, 2001

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

### PRODUCT IDENTIFICATION

Product Name: Trilin<sup>®</sup> 5

### HAZARDS CLASSIFICATION (0-minimal, 1-slight, 2-moderate, 3-serious, 4-severe)

NFPA: HEALTH-1 FIRE-2 REACTIVITY-0

HMIS: HEALTH-1 FIRE-2 REACTIVITY-0

### MANUFACTURER

Company Name: Griffin Corporation  
Address: PO Box 1847, Rocky Ford Road  
Valdosta, GA 31603-1847

### EMERGENCY TELEPHONE NUMBERS (For additional numbers, see Section 16.)

Griffin L.L.C. (USA): (+1) (800) 237 1854

Prosar: (+1) (888) 324 7598

Chemtec: (+1) (800) 424 9300

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## 2. COMPOSITION/ INFORMATION ON INGREDIENTS

Component Name	% by Wt.	CAS#
Trifluralin	50.8	1582-09-8
Monochlorotoluene	41.0	25168-05-2

Components not precisely identified are proprietary or not hazardous.

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## 3. HAZARDS IDENTIFICATION

### EMERGENCY OVERVIEW

Causes irritation with possible tissue damage to the eyes. Slightly irritating to the skin. Slightly toxic orally, dermally, and by ingestion. See below for route-specific details.

### POTENTIAL HEALTH EFFECTS

Inhalation: Toxic if inhaled.  
Eye Irritation: Moderately irritating to the eyes.  
Skin Irritation: Moderately irritating. Not considered a contact sensitizer.  
Skin Absorption: Slightly toxic when absorbed through the skin.  
Ingestion: Slightly toxic if swallowed. Based on animal data, ingestion of 1/4 pound or more of active ingredient (1/2 pint of formulation) could be fatal to humans.

Hazards Identification continued:



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### POTENTIAL HEALTH EFFECTS

Chronic: An analysis of the data from lifetime studies on rats and mice supports the conclusion that trifluralin is not carcinogenic. A two year study administering 25 mg/kg to dogs for two years produced non-toxicologic effects. Four successive generations of rats fed dietary concentrations of trifluralin as high as 10 mg/kg had no impaired reproduction nor abnormalities. Administration of trifluralin to pregnant rabbits at doses as high as 100 mg/kg, and to rats at doses up to 255 mg/kg produced no adverse effects on mother or offspring.

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### 4. FIRST AID MEASURES

Inhalation: Remove victim to fresh air. If not breathing, give artificial respiration preferably mouth-to-mouth. Get professional medical attention immediately.

Eye Contact: Hold eyelids open and flush with water for 15-20 minutes until no evidence of chemical remains. Get professional medical attention immediately.

Skin Contact: Remove contaminated clothing and shoes. Wash with plenty of soap and water for 15-20 minutes until no evidence of chemical remains. Get professional medical attention immediately.

Ingestion: Drink 1 to 2 glasses of water and induce vomiting by touching back of throat with finger. Do not induce vomiting or give anything by mouth to an unconscious person. Get professional medical attention immediately.

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### 5. FIRE FIGHTING MEASURES

Flash Point & Method: 125° F (TCC)  
Flammable Limits: 2.3 ± 0.1 mol. % at 95°C  
Autoignition Temperature: 305°C

#### FIRE FIGHTING HAZARDS & PROCEDURES

General Hazard: Classified as a flammable liquid. Closed containers may rupture due to pressure build-up when subjected to excessive heat or flame. Prevent human exposure to fire, smoke, fumes or products of combustion.

Extinguishing Media: Use dry chemical, carbon dioxide, water spray or foam.

Fire Fighting Equipment: Wear protective clothing and self-contained breathing apparatus.

Hazardous Combustion Products: Thermal decomposition may release toxic and/or hazardous gases.

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### 6. ACCIDENTAL RELEASE MEASURES

Spill or Leak Procedures: Cover spill with absorbent material such as sweeping compound or lime. Sweep up and place in suitable (fiberboard) containers for disposal.

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### 7. HANDLING AND STORAGE

General Information: Store in a clean, dry, well ventilated area. Do not store near feed, food or within the reach of children. Do not store near heat or open flame.

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### 8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

#### PESTICIDE APPLICATORS & WORKERS

These workers must refer to the Product Label and Directions For Use attached to the product for Agricultural Use Requirements in accordance with the EPA Worker Protection Standard 40 CFR part 170.

#### MANUFACTURING, COMMERCIAL BLENDING, & PACKAGING WORKERS

Ventilation: Provide local exhaust ventilation and/or general dilution ventilation to meet published exposure limits.

Respiratory Protection: If needed, use a respirator approved for organic solvents.

Eye Protection: Wear protective eyewear to prevent contact with this substance.

Protective Clothing: Applicators and other handlers must wear long-sleeved shirt and long pants, chemical resistant gloves (such as barrier laminate, or viton, 14 mils), shoes plus socks.

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### 9. PHYSICAL AND CHEMICAL PROPERTIES

Vapor Pressure: 2.7 mm Hg at 25°C

Specific Gravity: 1.21

Density: 10.1 lbs/gal

Solubility in Water: Disperses to form an emulsion. The solubility of trifluralin technical is <1 ppm in water.

pH: 5.8

Boiling Point: 96 - 97°C

Melting Point: No data

Odor: Aromatic odor

Color: Clear, deep orange

Physical State: Liquid

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### 10. STABILITY AND REACTIVITY

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General: This material is stable under normal conditions.  
Incompatibility: Avoid freezing; store above 40°F, 5°C.  
Hazardous Decomposition: Thermal decomposition may release toxic and/or hazardous gases.  
Hazardous Polymerization: Material is not known to polymerize.

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## 11. TOXICOLOGICAL INFORMATION

### ACUTE

Inhalation: Acute LC<sub>50</sub> > 4.7 mg/L (rat - 4 hour)  
Eye Irritation: Considered to be moderately irritating to the eye of a rabbit.  
Skin Irritation: Primary Irritation Index = 2.6. Considered to be a moderate irritant to the skin of a rabbit.  
Skin Absorption: Acute dermal LD<sub>50</sub> > 5,000 mg/kg  
Ingestion: Oral LD<sub>50</sub> = 4,550 mg/kg

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## 12. ECOLOGICAL INFORMATION

For detailed ecological information, write to the address listed in Section 1 of this Material Safety Data Sheet or call 912/242-8635 and ask for Regulatory Affairs.

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## 13. DISPOSAL CONSIDERATIONS

Comply with appropriate disposal regulations. Landfill solids at permitted sites. Use registered transporters.

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## 14. TRANSPORT INFORMATION

Department of Transportation (DOT):

Proper Shipping Name: RQ Flammable Liquid, N.O.S. (Trifluralin 50.8%, Monochlorotoluene 41.0%)  
Class: Flammable Liquid  
Identification Number: UN 1993  
Packing Group: III  
RQ: Trifluralin = 10 lbs (4.54 kg) / pkg  
Label: Class 9  
Placard: Flammable  
Special Note: MARINE POLLUTANT in bulk

International Air Transport Association (IATA): **For packages < 119 gallons**

Proper Shipping Name: RQ Flammable Liquid, N.O.S. (Trifluralin 50.8%, Monochlorotoluene 41.0%)  
Class: 3  
Identification Number: UN 1993  
Packing Group: III  
RQ: Trifluralin = 10 lbs (4.54 kg) / pkg

International Maritime Organization (IMO): **For all packages**



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Proper Shipping Name: RQ Flammable Liquid, N.O.S. (Trifluralin 50.8%, Monochlorotoluene 41.0%)  
Class: 3.3  
Identification Number: UN 1993  
Packing Group: III  
RQ: Trifluralin = 10 lbs (4.54 kg) / pkg  
Special Note: MARINE POLLUTANT  
Flash Point = 51° C

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## 15. REGULATORY INFORMATION

OSHA: This product is considered hazardous under the OSHA Hazardous Communication Standard (29 CFR 1910.1200).

TSCA: All product components are on the TSCA Chemical Inventory.

CERCLA: Releases of this material to air, land, or water are not reportable to the National Response Center under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) or to the state and local emergency planning committees under the Superfund Amendments and Reauthorization Act (SARA) Title III Section 304.

RCRA: When a decision is made to discard this material as supplied, it does not meet RCRA's characteristic definition of ignitability, corrosivity, or reactivity, and is not listed in 40 CFR 261.33.

SARA TITLE III

302: Not listed

311/312 Hazard Categories: This product has been reviewed according to the EPA "Hazard Categories" and is categorized as an immediate health hazard, a delayed health hazard and a fire hazard.

313 Reportable Ingredients: This product contains trifluralin which is listed in Section 313 of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR Part 372.

## 16. OTHER INFORMATION

### GRIFFIN L.L.C. ADDRESSES:

Griffin (Europe) S.A.  
c/o Minervastraat 8  
B-1930 Zaventem  
Belgium

Griffin FE (Malaysia) S/B  
P.O. Box 6506  
18 Jalan Persiaran Barat  
46050 Petaling Jaya  
Malaysia

Griffin do Brazil  
Av. Selma Parada, 201  
Galeria Office Park, Bloco II, Salas 211/234  
13091-901 Campinas-SP

011 32 2 720 6644

011 60 3 7957 4773

011 55 19 3 207 0100



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726 Garden Tower  
368 HuanShi Dong Road  
Guangzhou China 510064  
011 86 20 8387 2869

Griffin Australia PTY Ltd.  
18 Manning Street  
Milton QLD 4064  
Australia  
011 61 7 3369 5400

Griffin de Colombia S.A.  
Bogota Office  
Calle 114 #9-01 Torre A Piso 14  
Bogota, Colombia  
011 57 1 629 2383/2202

Griffin De Mexico, S. De R.L. De C.V.  
Av. Vallarta No. 6503 Piso 10-B  
Col. Ciudad Granja  
Zapopan, Jalisco C.cp. 45010  
011 523 1100-850, 859, 847, 853

### REVISION SUMMARY

This Material Safety Data Sheet replaces the one dated November 3, 2000 and has been revised using the standard Griffin Corporation ANSI Z400.1 compliant format. Changes have been made in Sections 1, 14, and 16.

Trilin<sup>®</sup> is a registered trademark of Griffin Corporation.

**The information in this Material Safety Data Sheet relates to this specific material. It may not be valid for this material if used in combination with any other materials or in any process. It is the users' responsibility to satisfy themselves as to the suitability and completeness of this information for their own particular use.**