MATERIAL SAFETY DATA SHEET

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Super Tin® 80WP Date Prepared: February 13, 1998

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT IDENTIFICATION

Product Name: Super Tin® 80WP

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

NFPA: HEALTH-4 FIRE-1 REACTIVITY-0 HMIS: HEALTH-3 FIRE-1 REACTIVITY-0

MANUFACTURER

Company Name: Griffin Corporation

Address: PO Box 1847, Rocky Ford Road

Valdosta, GA 31603-1847

EMERGENCY PHONE NUMBERS

Griffin Corporation: (800) 237 1854 Chemtrec: (800) 424 9300

2. COMPOSITION/ INFORMATION ON INGREDIENTS

Component Name	% by Wt.	CAS#	ACGIH TLV
Triphenyltin Hydroxide	80.0	76-87-9	0.1 mg Sn/m^3

Components not precisely identified are proprietary or not hazardous.

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

May cause severe eye irritation. May cause irritation to the upper respiratory tract and skin. May be fatal if swallowed. The US EPA has determined that TPTH causes birth defects in laboratory animals. Exposure to TPTH during pregnancy should be avoided. See below for route-specific details.

POTENTIAL HEALTH EFFECTS

Inhalation: Inhalation of particluates or vapors of organotins may irritate

the upper respiratory tract. Over exposure may also produce

coughing, headache, and nausea. The onset of these

symptoms may be delayed until several hours after exposure.

Eye Irritation: May cause immediate or delayed severe eye irritation. The

onset of irritation may not occur until several hours after

exposure.

Skin Irritation: May produce severe irritation or contact dermatitis which

may be delayed several hours. Prompt and thorough washing with soap and water will minimize or eliminate any potential

dermal effects.

Skin Absorption: Organotins may be absorbed through the skin.

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Hazards Identification continued:

Ingestion: The EPA has determined that Triphenyltin Hydroxide causes

birth defects in laboratory animals. Exposure to TPTH during pregnancy should be avoided. May be fatal if

swallowed.

4. FIRST AID MEASURES

Inhalation: Remove victim to fresh air. 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. Flush with water

for 15-20 minutes and wash with soap and water. NOTE TO PHYSICIAN: Application of a corticosteroid cream has been effective in treating severe skin irritation. If blisters develop,

they may require abrasion to promote healing.

Ingestion: Never give fluids or induce vomiting if patient is unconscious

or having convulsions. Get professional medical attention

immediately.

5. FIRE FIGHTING MEASURES

Flash Point & Method: Not determined Flammable Limits: Not determined Autoignition Temperature: Not determined

FIRE FIGHTING HAZARDS & PROCEDURES

General Hazard: Prevent human exposure to fire, smoke, fumes or products of

combustion.

Extinguishing Media: Use dry chemical, carbon dioxide, water fog, or foam. Fire Fighting Equipment: Wear protective clothing and self-contained breathing

apparatus.

Hazardous Combustion

Products: Diphenyltin hydroxide, monophenyltin hydroxides and metallic

tin under burning conditions. (Technical: Organic acid vapors.)

6. ACCIDENTAL RELEASE MEASURES

Spill or Leak Procedures: Sweep up and place in suitable (fiberboard) containers for later

disposal.

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7. HANDLING AND STORAGE

Storage Temperature: Store above -10°C and below 35°C. Average shelf life under

proper storage conditions is 2 years.

General Information: Store in a clean, dry area. Do not store near feed, food or

within the reach of children.

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

Provide local exhaust ventilation and/or general dilution Ventilation:

ventilation to meet published exposure limits.

Where adequate ventilation is not available, wear an approved Respiratory Protection:

pesticide respirator.

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

Applicators and other handlers must wear coveralls over long-

sleeved shirt and long pants, waterproof gloves, chemicalresistant footwear plus socks, chemical-resistant headgear for

overhead exposure and chemical-resistant apron.

9. PHYSICAL AND CHEMICAL PROPERTIES

Vapor Pressure: Not determined Density: 0.2623 g/mL

Solubility in Water: Wets in water to form a stable dispersion.

pH (1% dispersion in water): 9.3

Boiling Point: Not determined Melting Point: Not determined Odor: Slight odor Color: Beige

Fine powder Physical State:

STABILITY AND REACTIVITY 10.

General: This material is stable under normal conditions.

Incompatible Materials: Acids and oxidizers

Conditions to Avoid: Direct sunlight causes degradation to an inorganic tin salt. Diphenyltin hydroxide, monophenyltin hydroxides and metallic Hazardous Decomposition:

tin under burning conditions. (Technical: Organic acid

vapors.)

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Stability and Reactivity continued:

Hazardous Polymerization: Material is not known to polymerize.

11. TOXICOLOGICAL INFORMATION

ACUTE

Inhalation: Acute inhalation $LC_{50} = 0.039 \text{ mg/L}$ (rat - 4 hour).

Eve Irritation: Not determined

Skin Irritation: Primary Irritation Index = 4.3. Considered to be a severe skin

irritant. Material is not considered to be a contact skin

sensitizer.

Skin Absorption: Acute dermal $LD_{50} = 500 \text{ mg/kg}$.

Ingestion: Oral $LD_{50} = 160 \text{ mg/kg}$.

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.

13. DISPOSAL CONSIDERATIONS

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

14. TRANSPORT INFORMATION

Department of Transportation (DOT):

Proper Shipping Name: Organotin Pesticides, Solid, Toxic, N.O.S. (Triphenyltin

Hydroxide 80%)

Class: 6.1 Identification Number: UN 2786

Packing Group: I

Special Notes: MARINE POLLUTANT (bulk only)

International Air Transport Association (IATA):

Proper Shipping Name: Organotin Pesticides, Solid, Toxic, N.O.S. (Triphenyltin

Hydroxide 80%)

Class: 6.1

Identification Number: UN 2786

Packing Group: I

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Transport Information continued:

International Maritime Organization (IMO):

Proper Shipping Name: Organotin Pesticides, Solid, Toxic, N.O.S. (Triphenyltin

Hydroxide 80%)

Class: 6.1

Identification Number: UN 2786

Packing Group: I

Special Notes: MARINE POLLUTANT

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 and 40 CFR

Part 302.

RCRA: When a decision is made to discard this material as supplied, it

does not meet RCRA's characteristic definition of ignitability, corrositivity, 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 acute and chronic health

hazards (40 CFR 370.41).

313 Reportable Ingredients: This product does not contain materials listed in Section 313

of the Superfund Amendment and Reauthorization Act of 1986

and 40 CFR Part 372.

16. OTHER INFORMATION

REVISION SUMMARY

This Material Safety Data Sheet replaces the one dated 01/19/98 and has been revised using the standard Griffin Corporation ANSI Z400.1 compliant format. Changes were made in Section 14.

Super Tin® is a registered trademark of Griffin Corporation.

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Other Information continued:

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.