



MATERIAL SAFETY DATA SHEET

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In Case of Emergency, Call
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1. CHEMICAL IDENTIFICATION

Product Name: TypRus™
EPA Signal Word: WARNING
Active Ingredient (%): Gibberellins A₄ + A₇ (0.2%)
Chemical Name: Gibberellic Acid A₄, A₇

EPA Registration No: 55146-85
CAS No.: 468-44-0

2. COMPOSITION/INFORMATION ON INGREDIENTS

Material	PEL	% by weight	ACGIH Other	OSHA TLV	NTP/IARC/OSHA Carcinogen
Gibberellins A ₄ + A ₇		2.0	Not listed	Not listed	Not listed
Inerts		98.0	Not listed	Not listed	Not listed

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

May cause eye, skin and/or respiratory tract irritation, headache, nausea and drowsiness from excessive exposure to high vapor concentrations.

POTENTIAL HEALTH EFFECTS

Inhalation: May cause dizziness, blurred vision, nausea, vomiting or headaches.
Eye Irritation: Moderately to severely irritating.
Skin Irritation: Slightly irritating under normal use.
Skin Absorption: May cause sensitization in certain susceptible persons.
Ingestion: May be harmful if ingested.

4. FIRST AID MEASURES

Inhalation: Remove person to fresh air. If not breathing, give artificial respiration. If breathing is difficult give oxygen. Get medical attention.
Eye Contact: Flush with large volumes of water for at least 15 minutes. Get medical attention.
Skin Contact: Wash with large volumes of soap and water. If irritation occurs, get medical attention.
Ingestion: Do not induce vomiting. Drink promptly a large quantity of milk, egg whites, gelatin solution, or if these are not available, drink large quantities of water. Avoid alcohol. Never give anything by mouth to an unconscious person.

5. FIRE FIGHTING MEASURES

Flash Point & Method: 165°F
Flammable Limits: Upper: 9.7 Lower: 1.5
Autoignition Temperature: 540°F

FIRE FIGHTING HAZARDS & PROCEDURES

General Hazard: Combustible liquid
Extinguishing Media: Alcohol foam, carbon dioxide, dry chemical, water spray for dilution to non-flammable mixture.
Fire Fighting Equipment: Firefighters should have eye protection and wear self-contained breathing apparatus. Use water spray to cool containers exposed to fire.
Hazardous Combustion Products: Oxides of carbon

6. ACCIDENTAL RELEASE MEASURES

Land Spill: Pick up on sand, earth or other non-combustible, absorbent material. Flush area with water to remove last traces. Collect wash water/material for disposal. Wear appropriate protective equipment.
Water Spill: Not a usual hazard due to use pattern.

7. HANDLING AND STORAGE

General Information: Store in a cool, dry, well ventilated location. Outside or detached storage is preferred. Separate from oxidizers. Keep containers tightly closed. No smoking or eating in handling area. Avoid contact with skin, eyes and clothing. Avoid breathing mists and vapors. Avoid prolonged and repeated exposure. Use appropriate personal protective equipment. Do not wear contact lenses when working with this material.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

MANUFACTURING, COMMERCIAL BLENDING, & PACKAGING WORKERS

Respiratory Protection: Outdoor use, not usually required. Avoid contact with spray mists and vapors.
Eye Protection: Protective eyewear (goggles or face shield)
Protective Clothing: Long-sleeved shirt and long pants, shoes plus socks

Follow good industrial hygiene practices. Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet. Wash all protective clothing and equipment separately and before reuse.

9. PHYSICAL AND CHEMICAL PROPERTIES

Vapor Pressure: mmHg 0.2 at 68°F (20°C)
Density: 9.6 pounds/gallon
Solubility in Water: Miscible with water, alcohols, ether, benzene and acetone
pH: 3.8 (1% aqueous solution)
Freezing/Melting Point: -112°F (-80°C)
Viscosity: As water
Odor: Mild characteristic odor
Color: Clear, water white to pale yellow, mobile liquid
Physical State: Liquid

10. STABILITY AND REACTIVITY

STABILITY AND REACTIVITY

General:	Stable
Incompatible Materials:	Oxidizers, strong acids, strong bases
Conditions to Avoid:	Heat, sparks, flame or other sources of ignition
Hazardous Decomposition:	Oxides of carbon
Hazardous Polymerization:	None known

11. TOXICOLOGICAL INFORMATION

ACUTE

Intraperitoneal:	LD50 – 400 mg/Kg - Rat
Intervenous:	LD50 – 725 mg/Kg - Rabbit
Dermal:	LD50 – 5 g/Kg – Guinea pig
Oral:	LD50 – 1600 mg/Kg – Rat, 2300 mg/Kg - Mouse

Acute Effects: Moderately irritating to eyes, skin and mucous membranes. Moderately toxic by ingestion.

Subchronic Effects: Subchronic exposures (oral, dermal and inhalation) at relatively high levels, have demonstrated systemic toxicity, reproductive toxicity, and central nervous system depression in either rats, rabbits or dogs. An oral developmental screening study in rats expressed a lower mean fetal body weight at 100 mg/kg/day.

CHRONIC:

Special Health Effects:	Not available
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12. ECOLOGICAL INFORMATION

Chemical Fate:	Readily biodegrades in soil, sludge and water.
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13. DISPOSAL CONSIDERATION

Not a listed US EPA hazardous waste. Dispose of in accordance with Federal, state and local regulations.

14. TRANSPORT INFORMATION

DOT Shipping Name: Combustible liquid, N. O. S., NA 1993, Packing Group III. Label: None
Department of Transportation (DOT): 49 CFR 173.150: Combustible liquids in non-bulk packaging are not regulated by DOT.

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

NFPA:	HEALTH-2	FIRE-2	REACTIVITY-0
HMIS:	HEALTH-2	FIRE-2	REACTIVITY-0

15. REGULATORY INFORMATION

OSHA:	Not listed
TSCA:	Not listed
CERCLA:	Not listed
RCRA:	Not listed

SARA TITLE III
311/312 Hazard Categories: Not listed
313 Reportable Ingredients: Not listed

STATE REGULATIONS

California:	Not listed
New Jersey:	Not listed
Massachusetts:	Not listed
Pennsylvania:	Not listed

16. OTHER INFORMATION

The information and recommendations contained herein are based upon data believed to be correct. However no guarantee or warranty of any kind expressed or implied is made with respect to the information contained herein.

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