

# Safety Data Sheet

## TWORT'S FAST GREEN MODIFIED

### Section 1 - Chemical Product and Company Identification

**SDS Name:** Twort's Fast Green Modified

**Catalog Numbers:** SO-800CLX

**Company Identification:** ROWLEY BIOCHEMICAL  
10 ELECTRONICS AVENUE  
DANVERS, MA 01923

**For information, call:** 978-739-4883

**Emergency Number:** 800-424-9300

**For CHEMTREC assistance, call:** 800-424-9300

### Section 2 - Hazards Identification

#### GHS Classifications

##### HEALTH HAZARDS

**H303**-Acute Oral Toxicity: **5**

**H313** Acute Dermal Toxicity: **5**

**H332**-Acute Inhalation toxicity: **4**

**H316**-Skin Corrosion/Skin Irritation: **3**

**H320**-Eye damage/Irritation: **2B**

**H341**-Germ Cell Mutagenicity: **2**

**H361**-Reproductive Toxicity: **2**

**H371**-Specific Target Organ Toxicity: **2**

##### PHYSICAL HAZARDS

Not Classified

##### ENVIRONMENTAL HAZARDS

Aquatic acute environmental Hazards: Not Classified

Chronic environmental Hazards: Not classified

## Pictograms or Hazard symbols and Hazard statement.



Warning! Harmful if inhaled.

Warning! Causes eye irritation  
Warning! May be harmful if swallowed  
Warning! Causes mild skin irritation.



Warning! May cause reproductive and fetal effects.  
Causes damage to the following organs liver, kidney, and heart due to prolonged or repeated exposure.  
Mutagenic for mammalian somatic cells.

## Precautionary Statement Prevention

H303 + H313

**P312** Call a physician if you feel unwell.

H332

**P261** Avoid breathing fumes/mist/vapors.

**P271** Use only outdoors or in a well-ventilated area.

**P304 + P340** If inhaled, remove person to fresh air and keep comfortable for breathing.

H316

**P332 + P313** If skin irritation occurs, get medical advice/attention.

H320

**P264** Wash 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.

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

H341+H361

**P201** Obtain special instructions before use.

**P202** Do not handle until all safety precautions have been read and understood.

**P281** Use personal protective equipment as required.

**P308 + P313** If exposed or concerned, get medical advice/attention.

**P405** Store locked up.

H371

**P260** Do not breathe fume/gas/mist/vapors.

**P270** Do not eat, drink, or smoke when using this product.

**P309+P311** IF exposed or if you feel unwell: Call a POISON CENTER or doctor/physician.

**WARNING! Harmful if swallowed.** Contains methanol; not for internal or external use. Do not breathe vapors; use with adequate ventilation. **Causes mild skin irritation and eye irritation.** Wash thoroughly after handling. Wear protective gloves. **Chronic: May cause reproductive and fetal effects.** Do not handle until all safety precautions have been read and understood. **Target Organs:** Kidneys, heart, central nervous system, liver, upper respiratory tract, skin, reproductive system, blood, brain.

### Section 3 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent
64-17-5	Ethyl alcohol	7.8 v/v
67-56-1	Methyl alcohol	0.4 v/v
2353-45-9	Fast Green	0.16 w/v
7732-18-5	Water	91.8% v/v

### Section 4 - First Aid Measures

**Eye Exposure:** In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

**Dermal Exposure:** In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes.

**Oral Exposure:** If Swallowing seek immediate medical advice.

**Inhalation Exposure:** If inhaled, remove to fresh air. If breathing becomes difficult, call a physician.

### Section 5 - Fire Fighting Measures

**General Information:** Containers can build up pressure if exposed to heat and/or fire. As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Vapors may form an explosive mixture with air. Vapors can travel to a source of ignition and flash back. Will burn if involved in a fire. Flammable Liquid. Can release vapors that form explosive mixtures at temperatures above the flashpoint. Use water spray to keep fire-exposed containers cool. Containers may explode in the heat of a fire.

**Extinguishing Media:** For small fires, use dry chemical, carbon dioxide, water spray or alcohol-resistant foam. For large fires, use water spray, fog, or alcohol-resistant foam. Use water spray to cool fire-exposed containers. Water may be ineffective. Do NOT use straight streams of water.

Ethanol.

**Flash Point:** 16.6 deg C ( 61.88 deg F)

**Autoignition Temperature:** 363 deg C ( 685.40 deg F)

**Explosion Limits, Lower:**3.3 vol %

**Upper:** 19.0 vol %

**NFPA Rating:** (estimated) Health: 2; Flammability: 0; Instability: 0

#### Section 6 - Accidental Release Measures

#### **Procedure(s) of Personal Precaution(s):**

Wear protective gear. Eliminates all sources of ignition.

**Methods for Cleaning up:** Absorb with sand, earth or vermiculite. Carefully sweep up and containerize for proper disposal.

#### Section 7 - Handling and Storage

Use care when handling. Wash thoroughly after handling. Store capped at room temperature. Keep away from incompatible materials. Protect from heat. Vapors heavier than air, may travel considerable distance and ignite or explode.

#### Section 8 - Exposure Controls, Personal Protection

**Engineering Controls:** Use explosion-proof ventilation equipment. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

#### **Exposure Limits**

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Ethanol	1000 ppm TWA	1000 ppm TWA; 1900 mg/m <sup>3</sup> TWA 3300 ppm IDLH	1000 ppm TWA; 1900 mg/m <sup>3</sup> TWA
Methanol	200 ppm TWA; 250 ppm STEL	250 ppm STEL; 200 ppm TWA; 250 ppm STEL	200 ppm TWA

**OSHA Vacated PELs:** Ethanol: 1000 ppm TWA; 1900 mg/m<sup>3</sup> TWA  
Methanol: 200 ppm TWA

#### **Personal Protective Equipment**

**Eyes:** Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

**Skin:** Wear appropriate protective gloves to prevent skin exposure.

**Clothing:** Wear appropriate protective clothing to prevent skin exposure.

**Respirators:** A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant a respirator's use.

#### Section 9 - Physical and Chemical Properties

**Physical State:** Solution  
**Appearance:** Green  
**Odor:** Alcohol-like  
**pH:** N/A  
**Vapor Pressure:** N/A  
**Vapor Density:** N/A  
**Evaporation Rate:** N/A  
**Viscosity:** N/A  
**Boiling Point:** 78 deg C  
**Solubility:** Soluble

## Section 10 - Stability and Reactivity

**Chemical Stability:** Stable under normal temperatures and pressures.  
**Conditions to Avoid:** Incompatible materials, ignition sources, excess heat, oxidizers.  
**Incompatibilities with Other Materials:** Strong oxidizing agents, acids, alkali metals, ammonia, hydrazine, peroxides, sodium, acid anhydrides, calcium hypochlorite, chromyl chloride, nitrosyl perchlorate, bromine pentafluoride, perchloric acid, silver nitrate, mercuric nitrate, potassium-tert-butoxide, magnesium perchlorate, acid chlorides, platinum, uranium hexafluoride, silver oxide, iodine heptafluoride, acetyl bromide, disulfuryl difluoride, tetrachlorosilane + water, acetyl chloride, permanganic acid, ruthenium (VIII) oxide, uranyl perchlorate, potassium dioxide.  
**Hazardous Decomposition Products:** Carbon monoxide, irritating and toxic fumes and gases, carbon dioxide.  
**Hazardous Polymerization:** Will not occur.

## Section 11 - Toxicological Information

**Routes of entry:** Absorbed through skin, eye contact, inhalation or ingestion.

**RTECS#:** Ethyl alcohol -KQ6300000  
Methyl Alcohol -PC1400000  
Fast Green FCF – BQ4425000

**LD50/LC50:**

CAS# 64-17-5: Ethyl alcohol:  
Oral, mouse: LD50 = 3450 mg/kg.  
Oral, rat: LD50 = 7060 mg/kg.  
Oral, rat: LD50 = 9000 mg/kg; <BR.

CAS# 67-56-1: Methyl Alcohol:  
Rabbit oral: 5628 mg/kg.  
Rabbit skin: 15800 /24 H Moderate  
Rabbit inhalation: 64000/ 4 hours.

CAS# 2353-45-9: Fast Green FCF: LD50: >2000 mg/kg. LC50: Not Available

**Solution Carcinogenicity:**

CAS # 64-17-5 and CAS# 67-56-1 Not listed by ACGIH, IARC, NTP, or CA Prop 65.  
CAS# 2353-45-9 Classified as Group 3 by IARC (Not Classifiable as to its carcinogenicity to humans) Vol.16, Sup 7 1987.

**Epidemiology:** Ethanol has been shown to produce fetotoxicity in the embryo or fetus of laboratory animals. Prenatal exposure to ethanol is associated with a distinct pattern of

congenital malformations that have collectively been termed the "fetal alcohol syndrome".

**Teratogenicity:** Methanol: Classified possible for human. Ethanol: Classified proven for humans.

**Reproductive Effects:** Ethanol: classified proven as a developmental toxin. Classified possible reproductive toxin for both male and female.

**Neurotoxicity:** Methanol: May cause damage to the brain, central nervous system and optic nerves.

**Mutagenicity:** Ethanol: May affect genetic material. Methanol: mutagenic for mammalian somatic cells. Mutagenic for bacteria and/or yeast.

**Other Studies:** Standard Draize Test(Skin, rabbit) = 20 mg/24H (Moderate) Standard Draize Test: Administration into the eye (rabbit) = 500 mg (Severe).

## Section 12 - Ecological Information

**Ecotoxicity:** CAS# 67-56-1: Methyl Alcohol: LC50: 29,400 mg/l 96 Hr; Fathead Minnow. CAS# 64-17-5: Ethyl alcohol: 14,000 mg/l 96 Hr; Rainbow Trout. 11,200 mg/l 24 Hr; Fingerling Trout. CAS# 2353-45-9: Fast Green FCF: Not Listed

**Environmental:** Methanol in water is rapidly biodegraded and volatilized. Aquatic hydrolysis, oxidation, photolysis, adsorption to sediment, and bioconcentration are not significant fate process. Methanol exists almost entirely in the vapor phase in the ambient atmosphere. It is degraded by reaction with photochemically produced hydroxyl radicals and has an estimated half-life of 17.8 days. Methanol is physically removed from air by rain due to solubility properties. Methanol can react with NO<sub>2</sub> in polluted to form methyl nitrate. The half life of methanol in air ranges from 71 hours to 173 hours based on photooxidation half life in air.

**Physical:** No information available.

**Other:** No information available.

## Section 13 - Disposal Considerations

### **Appropriate method of disposal of substance or preparation:**

Handled as hazardous waste and sent to an RCRA approved incinerator or disposed in an RCRA approved waste facility.

## Section 14 – Transport Information

### **DOT**

Non-Regulated

## Section 15 - Regulatory Information

### Canada Regulatory Information

WHMIS Classification: This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.

### **California Prop 65**

WARNING: Ethanol, is a chemical known to the state of California to cause developmental reproductive toxicity.

California No Significant Risk Level: None of the chemicals in this product are listed.

**European/International Regulations**  
**European Labeling in Accordance with EC Directives**

**Risk Phrases:**

R20/21/22 Harmful by inhalation, in contact with skin and if swallowed

R36/38 Irritating to eyes and skin

R48/21/22 Harmful: danger of serious damage to health by prolonged exposure in contact with skin and if swallowed

R61 May cause harm to the unborn child

**Safety Phrases:**

S37/39 Wear suitable gloves and eye/face protection

S20/21 When using do not eat, drink or smoke

S2 Keep out of the reach of children

S7/9 Keep container tightly closed and container in a well-ventilated place

Section 16 - Additional Information
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**MSDS Creation Date:** 10/21/12

**Revision #1. MH/RC 11/14/13**

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