

# Material Safety Data Sheet

Creation Date 01-Apr-2010

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Revision Number 1

## 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Name** FLAGELLA STAIN RYU

**Cat No.** R40041, R40096

**Synonyms** No information available.

**Recommended Use** Laboratory chemicals

**Company** Remel  
12076 Santa Fe Drive  
Lenexa, KS 66215 United States  
Telephone: 1-800-255-6730  
Fax: 1-800-621-8251

**Emergency Telephone Number** INFOTRAC 1-352-323-3500  
(International)  
1-800-535-5053 (North America)

## 2. HAZARDS IDENTIFICATION

### WARNING!

#### Emergency Overview

Flammable liquid and vapor. Irritating to eyes and skin. May cause irritation of respiratory tract. May cause central nervous system effects. Possible risks of irreversible effects.

**Appearance** No information available.

**Physical State** Liquid

**odor** No information available

**Target Organs** Blood, Reproductive System, Eyes, Kidney, Liver, Skin, Central nervous system (CNS)

### Potential Health Effects

#### Acute Effects

#### Principle Routes of Exposure

##### Eyes

Irritating to eyes.

##### Skin

Irritating to skin. May be harmful in contact with skin.

##### Inhalation

May cause irritation of respiratory tract. May be harmful if inhaled.

##### Ingestion

May be harmful if swallowed. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. May cause central nervous system effects.

#### Chronic Effects

This substance has caused adverse reproductive and fetal effects in humans. May cause adverse liver effects. May cause adverse kidney effects. Possible risks of irreversible effects.

See Section 11 for additional Toxicological information.

#### Aggravated Medical Conditions

Central nervous system disorders. Preexisting eye disorders. Kidney disorders. Liver disorders. Skin disorders.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Haz/Non-haz**

Component	CAS-No	Weight %
Phenol	108-95-2	2.4
Ethyl alcohol	64-17-5	10
Tannic acid	1401-55-4	10

### 4. FIRST AID MEASURES

<b>Eye Contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Obtain medical attention.
<b>Skin Contact</b>	Wash off immediately with plenty of water for at least 15 minutes. Obtain medical attention.
<b>Inhalation</b>	Move to fresh air. If breathing is difficult, give oxygen. Get medical attention immediately if symptoms occur.
<b>Ingestion</b>	Do not induce vomiting. Obtain medical attention.
<b>Notes to Physician</b>	Treat symptomatically.

### 5. FIRE-FIGHTING MEASURES

<b>Flash Point</b>	estimated: 49°C / 120.2°F
<b>Method</b>	No information available.
<b>Autoignition Temperature</b>	No information available.
<b>Explosion Limits</b>	
<b>Upper</b>	No data available
<b>Lower</b>	No data available
<b>Suitable Extinguishing Media</b>	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
<b>Unsuitable Extinguishing Media</b>	No information available.
<b>Hazardous Combustion Products</b>	No information available.
<b>Sensitivity to mechanical impact</b>	No information available.
<b>Sensitivity to static discharge</b>	No information available.

**Specific Hazards Arising from the Chemical**

Flammable. Risk of ignition. Vapors may travel to source of ignition and flash back. Vapors may form explosive mixtures with air. Containers may explode when heated.

**Protective Equipment and Precautions for Firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

<b>NFPA</b>	<b>Health 2</b>	<b>Flammability 2</b>	<b>Instability 0</b>	<b>Physical hazards N/A</b>
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## 6. ACCIDENTAL RELEASE MEASURES

<b>Personal Precautions</b>	Use personal protective equipment. Remove all sources of ignition. Take precautionary measures against static discharges.
<b>Environmental Precautions</b>	Should not be released into the environment.
<b>Methods for Containment and Clean Up</b>	Soak up with inert absorbent material. Keep in suitable and closed containers for disposal. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment.

## 7. HANDLING AND STORAGE

<b>Handling</b>	Wear personal protective equipment. Do not get in eyes, on skin, or on clothing. Avoid ingestion and inhalation. Keep away from open flames, hot surfaces and sources of ignition. Use only non-sparking tools. Use explosion-proof equipment. Take precautionary measures against static discharges.
<b>Storage</b>	Keep containers tightly closed in a dry, cool and well-ventilated place. Flammables area. Keep away from heat and sources of ignition.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

<b>Engineering Measures</b>	Ensure that eyewash stations and safety showers are close to the workstation location. Ensure adequate ventilation, especially in confined areas. Use explosion-proof electrical/ventilating/lighting/equipment.
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### Exposure Guidelines

Component	ACGIH TLV	OSHA PEL	NIOSH IDLH
Phenol	TWA: 5 ppm Skin	(Vacated) TWA: 5 ppm (Vacated) TWA: 19 mg/m <sup>3</sup> Skin TWA: 5 ppm TWA: 19 mg/m <sup>3</sup>	IDLH: 250 ppm TWA: 5 ppm TWA: 19 mg/m <sup>3</sup> Ceiling: 60 mg/m <sup>3</sup> Ceiling: 15.6 ppm
Ethyl alcohol	TWA: 1000 ppm	(Vacated) TWA: 1900 mg/m <sup>3</sup> (Vacated) TWA: 1000 ppm TWA: 1900 mg/m <sup>3</sup> TWA: 1000 ppm	IDLH: 3300 ppm TWA: 1000 ppm TWA: 1900 mg/m <sup>3</sup>

Component	Quebec	Mexico OEL (TWA)	Ontario TWA EV
Phenol	TWA: 19 mg/m <sup>3</sup> TWA: 5 ppm Skin	TWA: 19 mg/m <sup>3</sup> TWA: 5 ppm STEL: 10 ppm STEL: 38 mg/m <sup>3</sup>	TWA: 19 mg/m <sup>3</sup> TWA: 5 ppm Skin

Component	Quebec	Mexico OEL (TWA)	Ontario TWAEV
Ethyl alcohol	TWA: 1000 ppm TWA: 1880 mg/m <sup>3</sup>	TWA: 1000 ppm TWA: 1900 mg/m <sup>3</sup>	TWA: 1000 ppm TWA: 1900 mg/m <sup>3</sup>

**NIOSH IDLH:** Immediately Dangerous to Life or Health

#### Personal Protective Equipment

##### Eye/face Protection

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 and body protection

Wear appropriate protective gloves and clothing to prevent skin exposure.

##### Respiratory Protection

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

#### Physical State

Liquid

#### Appearance

No information available.

#### odor

No information available.

#### Odor Threshold

No information available.

#### pH

No information available.

#### Vapor Pressure

No information available.

#### Vapor Density

No information available.

#### Viscosity

No information available.

#### Boiling Point/Range

>35°C / 95°F

#### Melting Point/Range

No information available.

#### Decomposition temperature °C

No information available.

#### Flash Point

estimated: 49°C / 120.2°F

#### Evaporation Rate

No information available.

#### Specific Gravity

No information available.

#### Solubility

No information available.

#### log Pow

No data available

## 10. STABILITY AND REACTIVITY

#### Stability

Stable under normal conditions.

#### Conditions to Avoid

Heat, flames and sparks. Incompatible products.

#### Incompatible Materials

Oxidizing agents, Strong acids, Bases, Reducing agents

#### Hazardous Decomposition Products

Burning produces obnoxious and toxic fumes, Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>)

#### Hazardous Polymerization

Hazardous polymerization does not occur

#### Hazardous Reactions .

None under normal processing.

## 11. TOXICOLOGICAL INFORMATION

#### Acute Toxicity

#### Product Information

No acute toxicity information is available for this product

**Component Information**

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Phenol	317 mg/kg ( Rat )	525 mg/kg ( Rat ) 630 mg/kg ( Rabbit )	316 mg/m <sup>3</sup> ( Rat ) 4 h
Ethyl alcohol	7060 mg/kg ( Rat )	Not listed	20000 ppm/10H ( Rat )
Tannic acid	2260 mg/kg ( Rat )	Not listed	Not listed

**Irritation** Irritating to eyes and skin

**Toxicologically Synergistic Products** No information available.

**Chronic Toxicity**

**Carcinogenicity** The table below indicates whether each agency has listed any ingredient as a carcinogen.

Component	ACGIH	IARC	NTP	OSHA	Mexico
Ethyl alcohol	Not listed	Group 1	Not listed	X	Not listed

**IARC: (International Agency for Research on Cancer)**

IARC: (International Agency for Research on Cancer)

Group 1 - Carcinogenic to Humans

Group 2A - Probably Carcinogenic to Humans

Group 2B - Possibly Carcinogenic to Humans

**Sensitization** No information available.

**Mutagenic Effects** Mutagenic effects have occurred in humans.

**Reproductive Effects** Adverse reproductive effects have occurred in humans..

**Developmental Effects** Substances known to cause developmental toxicity in humans.

**Teratogenicity** Teratogenic effects have occurred in humans..

**Other Adverse Effects** See actual entry in RTECS for complete information.

**Endocrine Disruptor Information** No information available

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity**

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Phenol	EC50 96 h 150 mg/L	Not listed	EC50 21 - 36 mg/L 30 min EC50 = 23.28 mg/L 5 min EC50 = 25.61 mg/L 15 min EC50 = 28.8 mg/L 5 min EC50 = 31.6 mg/L 15 min	EC50 48 h 23.0 mg/L LC50 48 h 13 mg/L EC50 48 h 23.0 mg/L

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Ethyl alcohol	Not listed	Leucidus idus: LC50 = 8.14 mg/L/48h	Photobacterium phosphoreum:EC50 = 34634 mg/L/30 min Photobacterium phosphoreum:EC50 = 35470 mg/L/5 min	EC50 = 9268 mg/L/48h EC50 = 10800 mg/L/24h

**Persistence and Degradability** No information available

**Bioaccumulation/ Accumulation** No information available

**Mobility** .

Component	log Pow
Phenol	1.47
Ethyl alcohol	-0.32

### 13. DISPOSAL CONSIDERATIONS

**Waste Disposal Methods** Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification

Component	RCRA - U Series Wastes	RCRA - P Series Wastes
Phenol - 108-95-2	U188	-

### 14. TRANSPORT INFORMATION

#### DOT

UN-No UN1170  
 Proper Shipping Name ETHANOL SOLUTION  
 Hazard Class 3  
 Packing Group III

#### TDG

UN-No UN1170  
 Proper Shipping Name ETHANOL SOLUTION  
 Hazard Class 3  
 Packing Group III

#### IATA

UN-No UN1170  
 Proper Shipping Name ETHANOL SOLUTION  
 Hazard Class 3  
 Packing Group III

#### IMDG/IMO

UN-No UN1170

## 14. TRANSPORT INFORMATION

Proper Shipping Name ETHANOL SOLUTION  
 Hazard Class 3  
 Packing Group III

## 15. REGULATORY INFORMATION

## International Inventories

Component	TSCA	DSL	NDSL	EINECS	ELINCS	NLP	PICCS	ENCS	AICS	CHINA	KECL
Phenol	X	X	-	203-632-7	-		X	X	X	X	KE-28209 X
Ethyl alcohol	X	X	-	200-578-6	-		X	X	X	X	KE-13217 X
Tannic acid	X	X	-	215-753-2	-		X	-	X	X	KE-32994 X

## Legend:

X - Listed

E - Indicates a substance that is the subject of a Section 5(e) Consent order under TSCA.

F - Indicates a substance that is the subject of a Section 5(f) Rule under TSCA.

N - Indicates a polymeric substance containing no free-radical initiator in its inventory name but is considered to cover the designated polymer made with any free-radical initiator regardless of the amount used.

P - Indicates a commenced PMN substance

R - Indicates a substance that is the subject of a Section 6 risk management rule under TSCA.

S - Indicates a substance that is identified in a proposed or final Significant New Use Rule

T - Indicates a substance that is the subject of a Section 4 test rule under TSCA.

XU - Indicates a substance exempt from reporting under the Inventory Update Rule, i.e. Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(B)).

Y1 - Indicates an exempt polymer that has a number-average molecular weight of 1,000 or greater.

Y2 - Indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.

## U.S. Federal Regulations

TSCA 12(b) Not applicable

SARA 313

Component	CAS-No	Weight %	SARA 313 - Threshold Values %
Phenol	108-95-2	2.4	1.0

## SARA 311/312 Hazardous Categorization

Acute Health Hazard Yes  
 Chronic Health Hazard No  
 Fire Hazard Yes  
 Sudden Release of Pressure Hazard No  
 Reactive Hazard No

Clean Water Act

Component	CWA - Hazardous Substances	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants
Phenol	X	1000 lb	X	X

**Clean Air Act**

Component	HAPS Data	Class 1 Ozone Depleters	Class 2 Ozone Depleters
Phenol	X		-

**OSHA**

Not applicable

**CERCLA**

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Component	Hazardous Substances RQs	CERCLA EHS RQs
Phenol	1000 lb	1000 lb

**California Proposition 65**

This product contains the following Proposition 65 chemicals: Ethyl alcohol is only a considered a Proposition 65 developmental hazard when it is ingested as an alcoholic beverage.

Component	CAS-No	California Prop. 65	Prop 65 NSRL
Ethyl alcohol	64-17-5	Developmental	-

**State Right-to-Know**

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Phenol	X	X	X	X	X
Ethyl alcohol	X	X	X	-	X

**U.S. Department of Transportation**

Reportable Quantity (RQ): Y  
 DOT Marine Pollutant N  
 DOT Severe Marine Pollutant N

**U.S. Department of Homeland Security**

This product does not contain any DHS chemicals.

**Other International Regulations**

**Mexico - Grade** Moderate risk, Grade 2

**Canada**

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

**WHMIS Hazard Class**

B3 Combustible liquid  
 D2A Very toxic materials  
 D2B Toxic materials





## 16. OTHER INFORMATION

**Prepared By** Regulatory Affairs  
Thermo Fisher Scientific  
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**Revision Summary** "\*\*\*\*", and red text indicates revision

### Disclaimer

The information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

**End of MSDS**