



# Fisher Scientific

Part of Thermo Fisher Scientific

## SAFETY DATA SHEET

Creation Date 13-Feb-2012

Revision Date 26-Jan-2015

Revision Number 1

### 1. Identification

**Product Name** Cytoseal™ 60

**Cat No. :** 23244257

**Synonyms** No information available

**Recommended Use** Laboratory chemicals.

**Uses advised against** No Information available

**Details of the supplier of the safety data sheet**

<b>Company</b> Richard Allan Scientific A Subsidiary of Thermo Fisher Scientific 4481 Campus Drive Kalamazoo, MI 49008 Tel: (800) 522-7270	<b>Emergency Telephone Number</b> Chemtrec US: (800) 424-9300 Chemtrec EU: 001 (202) 483-7616
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### 2. Hazard(s) identification

#### **Classification**

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Flammable liquids	Category 2
Skin Corrosion/Irritation	Category 2
Serious Eye Damage/Eye Irritation	Category 2
Reproductive Toxicity	Category 1B
Specific target organ toxicity (single exposure)	Category 3
Target Organs - Central nervous system (CNS).	
Specific target organ toxicity - (repeated exposure)	Category 1
Target Organs - Kidney, Liver, Heart, Blood.	
Aspiration Toxicity	Category 1

#### **Label Elements**

##### **Signal Word**

Danger

##### **Hazard Statements**

Highly flammable liquid and vapor  
May be fatal if swallowed and enters airways  
Causes skin irritation  
Causes serious eye irritation  
May cause drowsiness or dizziness  
May damage fertility or the unborn child  
Causes damage to organs through prolonged or repeated exposure



### Precautionary Statements

#### Prevention

Obtain special instructions before use  
 Do not handle until all safety precautions have been read and understood  
 Use personal protective equipment as required  
 Wash face, hands and any exposed skin thoroughly after handling  
 Wear eye/face protection  
 Do not breathe dust/fume/gas/mist/vapors/spray  
 Do not eat, drink or smoke when using this product  
 Use only outdoors or in a well-ventilated area  
 Keep away from heat/sparks/open flames/hot surfaces. - No smoking  
 Keep container tightly closed  
 Ground/bond container and receiving equipment  
 Use explosion-proof electrical/ventilating/lighting/equipment  
 Use only non-sparking tools  
 Take precautionary measures against static discharge  
 Keep cool

#### Response

IF exposed or concerned: Get medical attention/advice

#### Inhalation

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

#### Skin

If skin irritation occurs: Get medical advice/attention

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower  
 Wash contaminated clothing before reuse

#### Eyes

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
 If eye irritation persists: Get medical advice/attention

#### Ingestion

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician  
 Do NOT induce vomiting

#### Fire

In case of fire: Use CO<sub>2</sub>, dry chemical, or foam for extinction

#### Storage

Store locked up  
 Store in a well-ventilated place. Keep container tightly closed

#### Disposal

Dispose of contents/container to an approved waste disposal plant

#### Hazards not otherwise classified (HNOC)

Toxic to aquatic life with long lasting effects

#### Unknown Acute Toxicity

.? % of the mixture consists of ingredients of unknown toxicity.

### 3. Composition / information on ingredients

Component	CAS-No	Weight %
Acrylic Resin	28262-63-7	25 - 28
Butyl benzyl phthalate	85-68-7	4 - 6
2,6-Di-tert-butyl-p-cresol	128-37-0	< 1.0

Toluene	108-88-3	65 - 68
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#### 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. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with a respiratory medical device. Immediate medical attention is required.
<b>Ingestion</b>	Do not induce vomiting. Call a physician or Poison Control Center immediately.
<b>Most important symptoms/effects</b>	Breathing difficulties. Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting
<b>Notes to Physician</b>	Treat symptomatically

#### 5. Fire-fighting measures

<b>Suitable Extinguishing Media</b>	CO <sub>2</sub> , dry chemical, dry sand, alcohol-resistant foam. Use water spray to cool unopened containers.
<b>Unsuitable Extinguishing Media</b>	Water may be ineffective
<b>Flash Point</b>	4.44 °C / 40 °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>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 form explosive mixtures with air. Vapors may travel to source of ignition and flash back. Containers may explode when heated.

#### Hazardous Combustion Products

Carbon monoxide (CO) Carbon dioxide (CO<sub>2</sub>)

#### 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. Thermal decomposition can lead to release of irritating gases and vapors.

#### NFPA

<b>Health</b>	<b>Flammability</b>	<b>Instability</b>	<b>Physical hazards</b>
3	3	0	N/A

#### 6. Accidental release measures

<b>Personal Precautions</b>	Use personal protective equipment. Remove all sources of ignition. Take precautionary measures against static discharges. Do not get in eyes, on skin, or on clothing.
<b>Environmental Precautions</b>	Should not be released into the environment. See Section 12 for additional ecological information. Avoid release to the environment. Collect spillage.
<b>Methods for Containment and Clean Up</b>	Remove all sources of ignition. Soak up with inert absorbent material. Take precautionary measures against static discharges. Keep in suitable, closed containers for disposal.

## 7. Handling and storage

<b>Handling</b>	Use only under a chemical fume hood. Wear personal protective equipment. Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharges. Do not breathe vapors or spray mist. Do not get in eyes, on skin, or on clothing.
<b>Storage</b>	Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat and sources of ignition. Flammables area.

## 8. Exposure controls / personal protection

### Exposure Guidelines

Component	ACGIH TLV	OSHA PEL	NIOSH IDLH
2,6-Di-tert-butyl-p-cresol	TWA: 2 mg/m <sup>3</sup>	(Vacated) TWA: 10 mg/m <sup>3</sup>	TWA: 10 mg/m <sup>3</sup>
Toluene	TWA: 20 ppm	(Vacated) TWA: 100 ppm (Vacated) TWA: 375 mg/m <sup>3</sup> Ceiling: 300 ppm (Vacated) STEL: 150 ppm (Vacated) STEL: 560 mg/m <sup>3</sup> TWA: 200 ppm	IDLH: 500 ppm TWA: 100 ppm TWA: 375 mg/m <sup>3</sup> STEL: 150 ppm STEL: 560 mg/m <sup>3</sup>

Component	Quebec	Mexico OEL (TWA)	Ontario TWA EV
2,6-Di-tert-butyl-p-cresol	STEL: 10 mg/m <sup>3</sup>	TWA: 10 mg/m <sup>3</sup> STEL: 20 mg/m <sup>3</sup>	TWA: 2 mg/m <sup>3</sup>
Toluene	TWA: 50 ppm TWA: 188 mg/m <sup>3</sup> Skin	TWA: 50 ppm TWA: 188 mg/m <sup>3</sup>	TWA: 20 ppm

### Legend

ACGIH - American Conference of Governmental Industrial Hygienists

OSHA - Occupational Safety and Health Administration

NIOSH IDLH: The National Institute for Occupational Safety and Health Immediately Dangerous to Life or Health

<b>Engineering Measures</b>	Use only under a chemical fume hood. Use explosion-proof electrical/ventilating/lighting/equipment. Ensure that eyewash stations and safety showers are close to the workstation location.
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### Personal Protective Equipment

<b>Eye/face Protection</b>	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.
<b>Skin and body protection</b>	Wear appropriate protective gloves and clothing to prevent skin exposure.
<b>Respiratory Protection</b>	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.
<b>Hygiene Measures</b>	Handle in accordance with good industrial hygiene and safety practice.

## 9. Physical and chemical properties

<b>Physical State</b>	Liquid
<b>Appearance</b>	Colorless
<b>Odor</b>	aromatic
<b>Odor Threshold</b>	No information available
<b>pH</b>	No information available
<b>Melting Point/Range</b>	No data available
<b>Boiling Point/Range</b>	110.6 °C / 231 °F

Flash Point	4.44 °C / 40 °F
Evaporation Rate	No information available
Flammability (solid,gas)	No information available
Flammability or explosive limits	
Upper	No data available
Lower	No data available
Vapor Pressure	47 mmHg @ 20 °C
Vapor Density	No information available
Relative Density	0.97
Solubility	Insoluble in water
Partition coefficient; n-octanol/water	No data available
Autoignition Temperature	No information available
Decomposition Temperature	No information available
Viscosity	No information available

## 10. Stability and reactivity

Reactive Hazard	None known, based on information available
Stability	Stable under normal conditions.
Conditions to Avoid	Incompatible products. Heat, flames and sparks.
Incompatible Materials	Strong oxidizing agents, Strong acids
Hazardous Decomposition Products	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
Oral LD50	Based on ATE data, the classification criteria are not met. ATE > 2000 mg/kg.
Dermal LD50	Based on ATE data, the classification criteria are not met. ATE > 2000 mg/kg.
Vapor LC50	Based on ATE data, the classification criteria are not met. ATE > 20 mg/l.

### Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Butyl benzyl phthalate	2330 mg/kg ( Rat )	6700 mg/kg ( Rat )	6.7 mg/L ( Rat ) 4 h
2,6-Di-tert-butyl-p-cresol	890 mg/kg ( Rat ) >2000 mg/kg ( Rat )	2000 mg/kg ( Rat )	Not listed
Toluene	> 5000 mg/kg ( Rat )	12000 mg/kg ( Rabbit )	26700 ppm ( Rat ) 1 h

Toxicologically Synergistic Products	No information available
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### Delayed and immediate effects as well as chronic effects from short and long-term exposure

Irritation	Irritating to eyes and skin
Sensitization	No information available
Carcinogenicity	The table below indicates whether each agency has listed any ingredient as a carcinogen.

Component	CAS-No	IARC	NTP	ACGIH	OSHA	Mexico
Acrylic Resin	28262-63-7	Not listed	Not listed	Not listed	Not listed	Not listed
Butyl benzyl phthalate	85-68-7	group 3	Not listed	Not listed	Not listed	Not listed
2,6-Di-tert-butyl-p-cresol	128-37-0	Not listed	Not listed	Not listed	Not listed	Not listed
Toluene	108-88-3	Not listed	Not listed	Not listed	Not listed	Not listed

<b>Mutagenic Effects</b>	Mutagenic effects have occurred in humans.
<b>Reproductive Effects</b>	Experiments have shown reproductive toxicity effects on laboratory animals.
<b>Developmental Effects</b>	Developmental effects have occurred in experimental animals.
<b>Teratogenicity</b>	Teratogenic effects have occurred in experimental animals.
<b>STOT - single exposure</b>	Central nervous system (CNS)
<b>STOT - repeated exposure</b>	Kidney Liver Heart Blood
<b>Aspiration hazard</b>	No information available
<b>Symptoms / effects, both acute and delayed</b>	Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting
<b>Endocrine Disruptor Information</b>	

Component	EU - Endocrine Disruptors Candidate List	EU - Endocrine Disruptors - Evaluated Substances	Japan - Endocrine Disruptor Information
Butyl benzyl phthalate	Group I Chemical	High Exposure Concern	Not applicable

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

## 12. Ecological information

### Ecotoxicity

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Butyl benzyl phthalate	0.02 - 0.25 mg/L EC50 96 h 0.2 - 28.2 mg/L EC50 72 h	Lepomis macrochirus: LC50=1.7 mg/L 96h Salmo gairdneri: LC50=1.1 mg/L 96h	Not listed	0.97 mg/L EC50 = 48 h 0.76 mg/L EC50 > 48 h 0.9 - 1.1 mg/L EC50 48 h 1.28 mg/L EC50 = 48 h
2,6-Di-tert-butyl-p-cresol	EC50 = 0.758 mg/L 96h EC50 = 6 mg/L 72 h	LC50 = 0.199 mg/L 96h	EC50 = 7.82 mg/L 5 min EC50 = 8.57 mg/L 15 min EC50 = 8.98 mg/L 30 min	EC50 >0.31 mg/L 48h
Toluene	12.5 mg/L EC50 = 72 h 433 mg/L EC50 > 96 h	50-70 mg/L LC50 96 h 5-7 mg/L LC50 96 h 15-19 mg/L LC50 96 h 28 mg/L LC50 96 h 12 mg/L LC50 96 h	EC50 = 19.7 mg/L 30 min	11.5 mg/L EC50 = 48 h 5.46 - 9.83 mg/L EC50 48 h

**Persistence and Degradability** No information available

**Bioaccumulation/ Accumulation** No information available.

### Mobility

Component	log Pow
Butyl benzyl phthalate	4.91
2,6-Di-tert-butyl-p-cresol	4.17
Toluene	2.65

## 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
Toluene - 108-88-3	U220	-

## 14. Transport information

### DOT

UN-No

UN1866

Proper Shipping Name	RESIN SOLUTION
Hazard Class	3
Packing Group	II
<b>TDG</b>	
UN-No	UN1866
Proper Shipping Name	RESIN SOLUTION
Hazard Class	3
Packing Group	II
<b>IATA</b>	
UN-No	UN1866
Proper Shipping Name	RESIN SOLUTION
Hazard Class	3
Packing Group	II
<b>IMDG/IMO</b>	
UN-No	UN1866
Proper Shipping Name	RESIN SOLUTION
Hazard Class	3
Packing Group	II

## 15. Regulatory information

### International Inventories

Component	TSCA	DSL	NDSL	EINECS	ELINCS	NLP	PICCS	ENCS	AICS	IECSC	KECL
Acrylic Resin	X	X	-	-	-		X	X	X	X	X
Butyl benzyl phthalate	X	X	-	201-622-7	-		X	X	X	X	X
2,6-Di-tert-butyl-p-cresol	X	X	-	204-881-4	-		X	X	X	X	X
Toluene	X	X	-	203-625-9	-		X	X	X	X	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 %
Toluene	108-88-3	65 - 68	1.0

#### SARA 311/312 Hazardous Categorization

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

#### Clean Water Act

Component	CWA - Hazardous	CWA - Reportable	CWA - Toxic Pollutants	CWA - Priority Pollutants

	Substances	Quantities		
Butyl benzyl phthalate	-	-	X	X
Toluene	X	1000 lb	X	X

**Clean Air Act**

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

OSHA Occupational Safety and Health Administration  
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
Butyl benzyl phthalate	100 lb	-
Toluene	1000 lb 1 lb	-

**California Proposition 65** This product contains the following Proposition 65 chemicals:

Component	CAS-No	California Prop. 65	Prop 65 NSRL	Category
Butyl benzyl phthalate	85-68-7	Developmental	-	Developmental
Toluene	108-88-3	Developmental Female Reproductive	-	Developmental

**State Right-to-Know**

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Butyl benzyl phthalate	X	X	X	X	-
2,6-Di-tert-butyl-p-cresol	X	X	X	-	X
Toluene	X	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** Serious risk, Grade 3

**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** B2 Flammable liquid  
D2A Very toxic materials



## 16. Other information



**Prepared By** Regulatory Affairs  
Thermo Fisher Scientific  
Email: EMSDS.RA@thermofisher.com

**Creation Date** 13-Feb-2012  
**Revision Date** 26-Jan-2015  
**Print Date** 26-Jan-2015  
**Revision Summary** This document has been updated to comply with the US OSHA HazCom 2012 Standard replacing the current legislation under 29 CFR 1910.1200 to align with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS)

**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 SDS**