

Creation Date 29-Jun-2010

Revision Date 29-Jun-2010

Revision Number 1

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

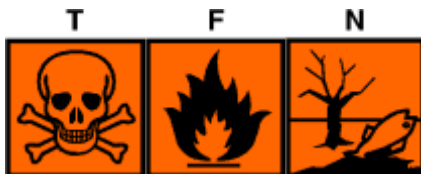
Product Name Cytoseal™ 280
Cat No. 8311-4
Synonyms No information available.
Recommended Use Laboratory chemicals

Company Richard Allan Scientific
 A Subsidiary of Thermo Fisher Scientific
 4481 Campus Drive
 Kalamazoo, MI 49008
 Tel: (800) 522-7270

Emergency Telephone Number Chemtrec US: (800) 424-9300
 Chemtrec EU: (202) 483-7616

2. HAZARDS IDENTIFICATION

The product is classified as dangerous in accordance with Directive 1999/45/EC or 67/548/EEC.



R -phrase(s)

R11 - Highly flammable
 R38 - Irritating to skin
 R61 - May cause harm to the unborn child
 R62 - Possible risk of impaired fertility
 R65 - Harmful: may cause lung damage if swallowed
 R67 - Vapors may cause drowsiness and dizziness
 R48/20 - Harmful: danger of serious damage to health by prolonged exposure through inhalation
 R51/53 - Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

3. COMPOSITION/INFORMATION ON INGREDIENTS

Haz/Non-haz

Component	Weight %	EC No.	Classification
-----------	----------	--------	----------------

Cytoseal™ 280
Revision Date 29-Jun-2010

Toluene 108-88-3	58 - 60	EEC No. 203-625-9	F;R11 Repr.Cat.3;R63 Xn;R48/20-65 Xi;R38 R67
Acrylic Resin 28262-63-7	30 - 34	-	-
Butyl benzyl phthalate 85-68-7	5 - 7	EEC No. 201-622-7	Repr.Cat.2;R61 Repr.Cat.3;R62 N;R50-53
2,6-Di-tert-butyl-p-cresol 128-37-0	< 1.0	EEC No. 204-881-4	Xn; R22 Xi; R36/37/38 N; R50/53

For the full text of the R phrases mentioned in this Section, see Section 16

4. FIRST AID MEASURES

Eye Contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Obtain medical attention.
Skin Contact	Wash off immediately with plenty of water for at least 15 minutes. Obtain medical attention.
Ingestion	Do not induce vomiting. Call a physician or Poison Control Center immediately.
Inhalation	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.
Notes to Physician	Treat symptomatically.

Cytoseal™ 280

Revision Date 29-Jun-2010

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

CO₂, dry chemical, dry sand, alcohol-resistant foam. Use water spray to cool unopened containers.

Extinguishing media which must not be used for safety reasons

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.

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.

Flash Point

7.22°C / 45°F

Method

No information available.

Autoignition Temperature

No information available.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions

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.

Environmental Precautions

Should not be released into the environment.

Methods for Containment and Clean Up

Remove all sources of ignition Soak up with inert absorbent material Take precautionary measures against static discharges Keep in suitable and closed containers for disposal

7. HANDLING AND STORAGE

Handling

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.

Storage

Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat and sources of ignition. Flammables area.

Specific use(s)

No information available.

Cytoseal™ 280

Revision Date 29-Jun-2010

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure limits

Component	European Union	The United Kingdom	Belgium	France	Spain	Germany
Toluene	TWA: 192 mg/m ³ TWA: 50 ppm STEL: 384 mg/m ³ STEL: 100 ppm Skin		STEL: 384 mg/m ³ STEL: 100 ppm TWA: 50 ppm TWA: 192 mg/m ³	VME: 192 mg/m ³ VME: 50 ppm VLCT: 100 ppm VLCT: 384 mg/m ³	VLA-EC: 384 mg/m ³ VLA-EC: 100 ppm VLA-ED: 50 ppm VLA-ED: 192 mg/m ³	
Butyl benzyl phthalate		STEL: 15 mg/m ³ TWA: 5 mg/m ³				
2,6-Di-tert-butyl-p-cresol		STEL: 30 mg/m ³ TWA: 10 mg/m ³	TWA: 10 mg/m ³	VME: 10 mg/m ³		MAK: 20 mg/m ³ Peak: 40 mg/m ³

Component	Italy	Portugal	The Netherlands	Finland	Austria
Toluene	TWA: 50 mg/m ³ TWA: 192 ppm	TWA: 50 ppm	STEL: 384 mg/m ³ TWA: 150 mg/m ³	TWA: 190 mg/m ³ TWA: 50 ppm STEL: 380 mg/m ³ STEL: 100 ppm	STEL: 380 mg/m ³ STEL: 100 ppm MAK: 190 mg/m ³ MAK: 50 ppm
Butyl benzyl phthalate					STEL: 5 mg/m ³ MAK: 3 mg/m ³
2,6-Di-tert-butyl-p-cresol		TWA: 2 mg/m ³		TWA: 10 mg/m ³ STEL: 20 mg/m ³	MAK: 10 mg/m ³

Component	Switzerland	Poland	Norway	Ireland	Denmark	Australia
Toluene	STEL: 200 ppm STEL: 760 mg/m ³ MAK: 190 mg/m ³ MAK: 50 ppm	NDSch: 200 mg/m ³ NDS: 100 mg/m ³	TWA: 25 ppm TWA: 94 mg/m ³	TWA: 188 mg/m ³ TWA: 50 ppm STEL: 100 ppm STEL: 560 mg/m ³ Skin	TWA: 25 ppm TWA: 94 mg/m ³	STEL: 150 ppm STEL: 574 mg/m ³ TWA: 191 mg/m ³ TWA: 50 ppm

Cytoseal™ 280

Revision Date 29-Jun-2010

Component	Switzerland	Poland	Norway	Ireland	Denmark	Australia
Butyl benzyl phthalate			TWA: 1 mg/m ³	TWA: 5 mg/m ³	TWA: 3 mg/m ³	
2,6-Di-tert-butyl-p-cresol	MAK: 10 mg/m ³			TWA: 10 mg/m ³	TWA: 10 mg/m ³	TWA: 10 mg/m ³

Occupational exposure controls

Engineering Measures

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

Personal Protective Equipment

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

Eye Protection

Tightly fitting safety goggles

Skin and body protection

Wear appropriate protective gloves and clothing to prevent skin exposure

Hand Protection

Protective gloves

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice

Environmental exposure controls

No information available.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State

Liquid

Appearance

Colorless

odor

aromatic

pH

No information available.

Vapor Pressure

47 mmHg @ 20 °C

Boiling Point/Range

110.6°C / 231°F

Melting Point/Range

No information available.

Flash Point

7.22°C / 45°F

Specific Gravity

0.97

10. STABILITY AND REACTIVITY

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 (CO₂)

Hazardous Polymerization

Hazardous polymerization does not occur.

Hazardous Reactions .

None under normal processing.

Cytoseal™ 280

Revision Date 29-Jun-2010

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
Toluene	636 mg/kg (Rat)	12124 mg/kg (Rat) 8390 mg/kg (Rabbit)	26700 ppm (Rat) 1 h 12.5 mg/L (Rat) 4 h
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)		

Chronic Toxicity

Carcinogenicity There are no known carcinogenic chemicals in this product

Sensitization No information available.

Neurological Effects No information available.

Mutagenic Effects Mutagenic effects have occurred in humans.

Reproductive Effects Experiments have shown reproductive toxicity effects on laboratory animals.

Developmental Effects Developmental effects have occurred in experimental animals.

Teratogenicity Teratogenic effects have occurred in experimental animals.

Target Organs Central nervous system (CNS), Eyes, Skin, Kidney, Liver, Blood, Heart.

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
Toluene	EC50 96 h >433 mg/L EC50 72 h 12.5 mg/L EC50 96 h >433 mg/L		EC50 = 19.7 mg/L 30 min	EC50 48 h 11.3 mg/L EC50 48 h 310 mg/L EC50 48 h 11.3 mg/L
Butyl benzyl phthalate	EC50 96 h 0.02 - 0.25 mg/L EC50 72 h 0.2 - 28.2 mg/L			EC50 48 h 3.0 mg/L EC50 48 h 0.97 mg/L

Cytoseal™ 280

Revision Date 29-Jun-2010

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
2,6-Di-tert-butyl-p-cresol	EC50 72 h 6 mg/L EC50 72 h >0.42 mg/L	LC50 >0.57 mg/L/96H (Goldfish)	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 (Daphnia)

Persistence and Degradability No information available

Bioaccumulative Potential No information available.

Mobility

Component	log Pow
Toluene	2.65
Butyl benzyl phthalate	3.57 - 4.91
2,6-Di-tert-butyl-p-cresol	4.17

13. DISPOSAL CONSIDERATIONS

Waste from Residues / Unused Products 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

Contaminated Packaging Empty containers should be taken for local recycling, recovery or waste disposal

14. TRANSPORT INFORMATION

IMDG/IMO

UN-No UN1866
Hazard Class 3
Packing Group II
Proper Shipping Name RESIN SOLUTION

ADR

UN-No UN1866
Hazard Class 3
Packing Group II
Proper Shipping Name RESIN SOLUTION

IATA

UN-No UN1866
Hazard Class 3
Packing Group II
Proper Shipping Name RESIN SOLUTION

Cytoseal™ 280

Revision Date 29-Jun-2010

15. REGULATORY INFORMATION

The product is classified as dangerous in accordance with Directive 1999/45/EC or 67/548/EEC

Labelling

Symbol(s)

F - Highly flammable T - Toxic N - Dangerous for the environment



R -phrase(s)

R11 - Highly flammable
 R38 - Irritating to skin
 R61 - May cause harm to the unborn child
 R62 - Possible risk of impaired fertility
 R65 - Harmful: may cause lung damage if swallowed
 R67 - Vapors may cause drowsiness and dizziness
 R48/20 - Harmful: danger of serious damage to health by prolonged exposure through inhalation
 R51/53 - Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

S -phrase(s)

S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible)
 S46 - If swallowed, seek medical advice immediately and show this container or label
 S60 - This material and its container must be disposed of as hazardous waste
 S61 - Avoid release to the environment. Refer to special instructions/safety data sheets
 S62 - If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label
 S53 - Avoid exposure - obtain special instructions before use
 S36/37 - Wear suitable protective clothing and gloves

International Inventories

Component	EINECS	ELINCS	NLP	TSCA	DSL	NDSL	PICCS	ENCS	CHINA	AICS	KECL
-----------	--------	--------	-----	------	-----	------	-------	------	-------	------	------

Cytoseal™ 280

Revision Date 29-Jun-2010

Component	EINECS	ELINCS	NLP	TSCA	DSL	NDSL	PICCS	ENCS	CHINA	AICS	KECL
Toluene	203-625-9	-		X	X	-	X	X	X	X	KE-33936 X
Acrylic Resin	-	-		XU	X	-	X	X	X	X	KE-25181 X
Butyl benzyl phthalate	201-622-7	-		X	X	-	X	X	X	X	KE-02200 X
2,6-Di-tert-butyl-p-cresol	204-881-4	-		X	X	-	X	X	X	X	KE-03079 X

16. OTHER INFORMATION

Text of R phrases mentioned in Section 2-3

R11 - Highly flammable
 R22 - Harmful if swallowed
 R38 - Irritating to skin
 R61 - May cause harm to the unborn child
 R62 - Possible risk of impaired fertility
 R63 - Possible risk of harm to the unborn child
 R65 - Harmful: may cause lung damage if swallowed
 R67 - Vapors may cause drowsiness and dizziness
 R36/37/38 - Irritating to eyes, respiratory system and skin
 R48/20 - Harmful: danger of serious damage to health by prolonged exposure through inhalation
 R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
 R51/53 - Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

Prepared By Regulatory Affairs
Creation Date 29-Jun-2010
Revision Date 29-Jun-2010
Revision Summary "****", and red text indicates revision
Restrictions on use No information available.
Training advice No information available.
Literary reference No information available.

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 Safety Data Sheet