

SAFETY DATA SHEET

Creation Date 31-Oct-2014

Revision Date 20-Jan-2015

Revision Number 1

1. Identification

Product Name Shandon Cytospin Collection Fluid

Cat No. : 2940, 6768001, 6768315, 9990310, 9990323, 9990323E

Synonyms No information available

Recommended Use Laboratory chemicals.

Uses advised against No Information available

Details of the supplier of the safety data sheet

Company	Emergency Telephone Number
Richard Allan Scientific	Chemtrec US: (800) 424-9300
A Subsidiary of Thermo Fisher Scientific	Chemtrec EU: 001 (202) 483-7616
4481 Campus Drive	
Kalamazoo, MI 49008	
Tel: (800) 522-7270	

2. Hazard(s) identification

Classification

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

Flammable liquids	Category 3
Carcinogenicity	Category 1A
Specific target organ toxicity (single exposure)	Category 1
Target Organs - Central nervous system (CNS).	
Specific target organ toxicity - (repeated exposure)	Category 2
Target Organs - Kidney, Liver.	

Label Elements

Signal Word

Danger

Hazard Statements

Flammable liquid and vapor
May cause drowsiness or dizziness
May cause cancer
Causes damage to organs
May cause 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
 Do not breathe dust/fume/gas/mist/vapors/spray
 Wash face, hands and any exposed skin thoroughly after handling
 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: Call a POISON CENTER or doctor/physician

Inhalation

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
 Call a POISON CENTER or doctor/physician if you feel unwell

Skin

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

Fire

In case of fire: Use CO₂, 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)**Other hazards**

WARNING! This product contains a chemical known in the State of California to cause birth defects or other reproductive harm.

Unknown Acute Toxicity

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

3. Composition / information on ingredients

Component	CAS-No	Weight %
FD&C yellow No. 5	1934-21-0	< 0.001
Water	7732-18-5	52 - 54
Ethyl alcohol	64-17-5	40 - 41
Isopropyl alcohol	67-63-0	2.0 - 2.5
Methyl alcohol	67-56-1	1.5 - 2.5
Polyethylene glycol	25322-68-3	2.0 - 2.5
Methylene blue trihydrate	7220-79-3	< 0.001

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.

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. Obtain medical attention.
Ingestion	Do not induce vomiting. Obtain medical attention.
Most important symptoms/effects	Breathing difficulties. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting
Notes to Physician	Treat symptomatically

5. Fire-fighting measures

Suitable Extinguishing Media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Unsuitable Extinguishing Media	No information available
Flash Point	27.2 °C / 80.96 °F
Method -	No information available
Autoignition Temperature	No information available
Explosion Limits	
Upper	19 vol %
Lower	2.6 vol %
Sensitivity to Mechanical Impact	No information available
Sensitivity to Static Discharge	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 (CO₂)

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

Health	Flammability	Instability	Physical hazards
3	3	0	N/A

6. Accidental release measures

Personal Precautions	Remove all sources of ignition. Use personal protective equipment. 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. See Section 12 for additional ecological information.
Methods for Containment and Clean Up	Remove all sources of ignition. Soak up with inert absorbent material. Keep in suitable, closed containers for disposal. Take precautionary measures against static discharges.

7. Handling and storage

Handling	Wear personal protective equipment. Ensure adequate ventilation. Use explosion-proof equipment. Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharges. Do not get in eyes, on skin, or on clothing. Do not breathe vapors or spray mist.
Storage	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
Ethyl alcohol	STEL: 1000 ppm	(Vacated) TWA: 1000 ppm (Vacated) TWA: 1900 mg/m ³ TWA: 1000 ppm TWA: 1900 mg/m ³	IDLH: 3300 ppm TWA: 1000 ppm TWA: 1900 mg/m ³
Isopropyl alcohol	TWA: 200 ppm STEL: 400 ppm	(Vacated) TWA: 400 ppm (Vacated) TWA: 980 mg/m ³ (Vacated) STEL: 500 ppm (Vacated) STEL: 1225 mg/m ³ TWA: 400 ppm TWA: 980 mg/m ³	IDLH: 2000 ppm TWA: 400 ppm TWA: 980 mg/m ³ STEL: 500 ppm STEL: 1225 mg/m ³
Methyl alcohol	TWA: 200 ppm STEL: 250 ppm Skin	(Vacated) TWA: 200 ppm (Vacated) TWA: 260 mg/m ³ (Vacated) STEL: 250 ppm (Vacated) STEL: 325 mg/m ³ Skin TWA: 200 ppm TWA: 260 mg/m ³	IDLH: 6000 ppm TWA: 200 ppm TWA: 260 mg/m ³ STEL: 250 ppm STEL: 325 mg/m ³

Component	Quebec	Mexico OEL (TWA)	Ontario TWAEV
Ethyl alcohol	TWA: 1000 ppm TWA: 1880 mg/m ³	TWA: 1000 ppm TWA: 1900 mg/m ³	STEL: 1000 ppm
Isopropyl alcohol	TWA: 400 ppm TWA: 985 mg/m ³ STEL: 500 ppm STEL: 1230 mg/m ³	TWA: 400 ppm TWA: 980 mg/m ³ STEL: 500 ppm STEL: 1225 mg/m ³	TWA: 200 ppm STEL: 400 ppm
Methyl alcohol	TWA: 200 ppm TWA: 262 mg/m ³ STEL: 250 ppm STEL: 328 mg/m ³ Skin	TWA: 200 ppm TWA: 260 mg/m ³ STEL: 250 ppm STEL: 310 mg/m ³	TWA: 200 ppm STEL: 250 ppm Skin

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

Engineering Measures

Ensure adequate ventilation, especially in confined areas. Use explosion-proof electrical/ventilating/lighting/equipment. Ensure that eyewash stations and safety showers are close to the workstation location.

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.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice.

9. Physical and chemical properties

Physical State

Liquid

Appearance

Light green

Odor

Characteristic

Odor Threshold

No information available

pH

No information available

Melting Point/Range

No data available

Boiling Point/Range	23.8 - 29.4 °C / 74.8 - 84.9 °F
Flash Point	27.2 °C / 80.96 °F
Evaporation Rate	No information available
Flammability (solid,gas)	No information available
Flammability or explosive limits	
Upper	19 vol %
Lower	2.6 vol %
Vapor Pressure	46 mmHg
Vapor Density	1.5
Relative Density	0.950
Solubility	Soluble 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, Peroxides, Acids, Acid anhydrides, Acid chlorides, Metals
Hazardous Decomposition Products	Carbon monoxide (CO), Carbon dioxide (CO ₂)
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
Ethyl alcohol	7060 mg/kg (Rat)	Not listed	20000 ppm/10H (Rat)
Isopropyl alcohol	5840 mg/kg (Rat)	13900 mg/kg (Rat) 12870 mg/kg (Rabbit)	72.6 mg/L (Rat) 4 h
Methyl alcohol	6200 mg/kg (Rat)	15800 mg/kg (Rabbit)	64000 ppm (Rat) 4 h 83.2 mg/L (Rat) 4 h
Polyethylene glycol	28 g/kg (Rat)	20 g/kg (Rabbit) 20 mL/kg (Rabbit)	Not listed

Toxicologically Synergistic Products	No information available
---	--------------------------

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
FD&C yellow No. 5	1934-21-0	Not listed	Not listed	Not listed	Not listed	Not listed

Water	7732-18-5	Not listed	Not listed	Not listed	Not listed	Not listed
Ethyl alcohol	64-17-5	Group 1	Not listed	A3	X	Not listed
Isopropyl alcohol	67-63-0	Not listed	Not listed	Not listed	Not listed	Not listed
Methyl alcohol	67-56-1	Not listed	Not listed	Not listed	Not listed	Not listed
Polyethylene glycol	25322-68-3	Not listed	Not listed	Not listed	Not listed	Not listed
Methylene blue trihydrate	7220-79-3	Not listed	Not listed	Not listed	Not listed	Not listed

IARC: (International Agency for Research on Cancer)

ACGIH: (American Conference of Governmental Industrial Hygienists)

IARC: (International Agency for Research on Cancer)

Group 1 - Carcinogenic to Humans

Group 2A - Probably Carcinogenic to Humans

Group 2B - Possibly Carcinogenic to Humans

A1 - Known Human Carcinogen

A2 - Suspected Human Carcinogen

A3 - Animal Carcinogen

ACGIH: (American Conference of Governmental Industrial Hygienists)

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.

STOT - single exposure

Central nervous system (CNS)

STOT - repeated exposure

Kidney Liver

Aspiration hazard

No information available

Symptoms / effects, both acute and delayed

Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting

Endocrine Disruptor Information

No information available

Other Adverse Effects

Tumorigenic effects have been reported in experimental animals. See actual entry in RTECS for complete information.

12. Ecological information

Ecotoxicity

Do not empty into drains.

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Ethyl alcohol	EC50 (72h) = 275 mg/l (Chlorella vulgaris)	Fathead minnow (Pimephales promelas) LC50 = 14200 mg/l/96h	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
Isopropyl alcohol	1000 mg/L EC50 > 96 h 1000 mg/L EC50 > 72 h	1400000 µg/L LC50 96 h 11130 mg/L LC50 96 h 9640 mg/L LC50 96 h	= 35390 mg/L EC50 Photobacterium phosphoreum 5 min	13299 mg/L EC50 = 48 h 9714 mg/L EC50 = 24 h
Methyl alcohol	Not listed	Pimephales promelas: LC50 > 10000 mg/L 96h	EC50 = 39000 mg/L 25 min EC50 = 40000 mg/L 15 min EC50 = 43000 mg/L 5 min	EC50 > 10000 mg/L 24h
Polyethylene glycol	Not listed	LC50 = 10 g/L/96h	Not listed	Not listed

Persistence and Degradability

No information available

Bioaccumulation/ Accumulation

No information available.

Mobility

Component	log Pow
Ethyl alcohol	-0.32
Isopropyl alcohol	0.05
Methyl alcohol	-0.74

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
Methyl alcohol - 67-56-1	U154	-

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
 Proper Shipping Name ETHANOL SOLUTION
 Hazard Class 3
 Packing Group III

15. Regulatory information

All of the components in the product are on the following Inventory lists: X = listed No information available

International Inventories

Component	TSCA	DSL	NDSL	EINECS	ELINCS	NLP	PICCS	ENCS	AICS	IECSC	KECL
FD&C yellow No. 5	X	X	-	217-699-5	-		X	X	X	X	X
Water	X	X	-	231-791-2	-		X	-	X	X	X
Ethyl alcohol	X	X	-	200-578-6	-		X	X	X	X	X
Isopropyl alcohol	X	X	-	200-661-7	-		X	X	X	X	X
Methyl alcohol	X	X	-	200-659-6	-		X	X	X	X	X
Polyethylene glycol	X	X	-	-	-	>1<4.5 mol ethoxylated units, consisting of 50% w/w or more of species of the same molecular	X	X	X	X	X

						weight					
--	--	--	--	--	--	--------	--	--	--	--	--

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 %
Isopropyl alcohol	67-63-0	2.0 - 2.5	1.0
Methyl alcohol	67-56-1	1.5 - 2.5	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 Not applicable

Clean Air Act

Component	HAPS Data	Class 1 Ozone Depleters	Class 2 Ozone Depleters
Methyl alcohol	X		-

OSHA Occupational Safety and Health Administration

Not applicable

CERCLA

Component	Hazardous Substances RQs	CERCLA EHS RQs
Methyl alcohol	5000 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	Category
Ethyl alcohol	64-17-5	Developmental	-	Developmental Carcinogen
Methyl alcohol	67-56-1	Developmental	-	Developmental

State Right-to-Know

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

Methyl alcohol	X	X	X	X	X
Methylene blue trihydrate	-	-	-	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
 Richard Allan Scientific
 A Subsidiary of Thermo Fisher Scientific
 Tel: (800) 522-7270

Creation Date 31-Oct-2014
Revision Date 20-Jan-2015
Print Date 20-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