Fisher Scientific

Part of Thermo Fisher Scientific

SAFETY DATA SHEET

Revision Date 20-Aug-2015 **Revision Number** 2

1. Identification

Product Name Fisher Bio-Fresh Preserved Specimens

Cat No. : S0002S S0092S S0182S S0184S S07053 S1004S S1006S S1012S S1014S S1020S S1022S S1030S S1035S S1036S S1062S S1066S S1090S S1126S S1185S S1202S S1207S S1214S S1224S S1282S S1320S S1360S S1452S S1456S S1476S S1494S S1494S10 S1499S S1500S S1501 S1502 S1503S S1504 S1505 S1508 S1509S S1510S S1711S S1715S S1722S S2022S S2195S S2206S S2303S S2400S S2400S10 S2401 S2402 S2402VS S2403S S2403S10 S2404S S2470S S2500S S2502 S2505S S2528S S3002 S3056S S3062S S3072S S3080S S3088S S3093S S3094S S3115S S4001 S4002 S400210 S4002100 S400250S S4003 S5001 S5001P S5002 S5002P S5105 S5110S S5111S S5112S S5113 S5114 S5115 S5116 S5117S S5118 S5125S S5126S S5127S S5128S S5129S S5130S S5130S S65076 S65080 S65082 S8202S S8203S S8207S S9001 S9002 S900210 S9002100 S900250 S9003S S9004 S9201 S9202 S9203 S920310 S9203100 S920350 S9204S S9205S S9207S S9208 S9210 S9216S S9218S S9222 S9224S S9226S S9228 S9253 S9254 S9255 S9257S S9277S S97166 NC0340952 NC0918589

Synonyms No information available

Recommended Use Laboratory chemicals.

Uses advised against No Information available

Details of the supplier of the safety data sheet

Company
Fisher Scientific
One Reagent Lane
Fair Lawn, NJ 07410
Tel: (201) 796-7100

Emergency Telephone Number
CHEMTREC®, Inside the USA: 800-424-9300
CHEMTREC®, Outside the USA: 001-703-527-3887

2. Hazard(s) identification

Classification
Classification under 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute oral toxicity	Category 4
Acute dermal toxicity	Category 4
Acute Inhalation Toxicity - Dusts and Mists	Category 4

Skin Corrosion/irritation	Category 2
Serious Eye Damage/Eye Irritation	Category 2
Skin Sensitization	Category 1
Carcinogenicity	Category 1A

Label Elements

Signal Word
Danger

Hazard Statements
Harmful if swallowed
Harmful in contact with skin
Harmful if inhaled
Causes eye irritation
Causes skin irritation
May cause an allergic skin reaction
May cause cancer

Prevention
Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Do not eat, drink or smoke when using this product
Wear protective gloves/protective clothing/eye protection/face protection
Use only outdoors or in a well-ventilated area
Wash face, hands and any exposed skin thoroughly after handling
Do not breathe dust/fume/gas/mist/vapors/spray
Contaminated work clothing should not be allowed out of the workplace

Response
IF exposed or concerned: Get medical attention/advice

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

Skin
Call a POISON CENTER or doctor/physician if you feel unwell
Take off contaminated clothing and wash before reuse
IF ON SKIN: Wash with plenty of soap and water
If skin irritation occurs: Get medical advice/attention
If skin irritation or rash occurs: Get medical advice/attention

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
Rinse mouth
IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell

Hazards not otherwise classified (HNOC)
None identified

3. Composition / Information on Ingredients

Component	CAS-No	Weight %

Water	7732-18-5	balance
1,2-Propylene glycol	57-55-6	<10
Ethylene glycol monophenyl ether	122-99-6	<2
Formaldehyde	50-00-0	0.1-0.7
Phenol	108-95-2	<0.06
Methyl alcohol	67-56-1	<0.04

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. Obtain medical attention.

Ingestion Do not induce vomiting. Obtain medical attention.

Most important symptoms/effects No information available.
Notes to Physician Treat symptomatically

5. Fire-fighting measures

Suitable Extinguishing Media Dry chemical. Carbon dioxide (CO_2). Water spray. Foam.

Unsuitable Extinguishing Media No information available

Flash Point Not applicable
Method - No information available

Autoignition Temperature No information available
Explosion Limits
Upper No data available
Lower No data available
Sensitivity to Mechanical Impact No information available
Sensitivity to Static Discharge No information available

Specific Hazards Arising from the Chemical
Thermal decomposition can lead to release of irritating gases and vapors. Keep product and empty container away from heat and sources of ignition.

Hazardous Combustion Products
Carbon monoxide (CO) Carbon dioxide (CO_2)
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.

NFPA

Health	Flammability	Instability	Physical hazards
2	1	0	N/A

6. Accidental release measures

Personal Precautions Use personal protective equipment. Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Remove all sources of ignition. Avoid contact with skin, eyes and clothing.

Environmental Precautions Should not be released into the environment. See Section 12 for additional ecological information.

Methods for Containment and Clean Soak up with inert absorbent material. Pick up and transfer to properly labelled containers.

Up

7. Handling and storage

Handling Ensure adequate ventilation. Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Do not eat, drink or smoke when using this product. Do not breathe vapors or spray mist. Remove and wash contaminated clothing before re-use. Wash hands before breaks and immediately after handling the product.

Storage Keep containers tightly closed in a dry, cool and well-ventilated place.

8. Exposure controls / personal protection

Exposure Guidelines

Component	ACGIH TLV	OSHA PEL	NIOSH IDLH
Formaldehyde	Ceiling: 0.3 ppm	(Vacated) TWA: 3 ppm (Vacated) STEL: 10 ppm (Vacated) Ceiling: 5 ppm TWA: 0.75 ppm STEL: 2 ppm	IDLH: 20 ppm TWA: 0.016 ppm Ceiling: 0.1 ppm
Phenol	TWA: 5 ppm Skin	(Vacated) TWA: 5 ppm (Vacated) TWA: 19 mg/m³ Skin TWA: 5 ppm TWA: 19 mg/m³	IDLH: 250 ppm TWA: 5 ppm TWA: 19 mg/m³ Ceiling: 15.6 ppm Ceiling: 60 mg/m³
Methyl alcohol	TWA: 200 ppm STEL: 250 ppm Skin	(Vacated) TWA: 200 ppm (Vacated) TWA: 260 mg/m³ (Vacated) STEL: 250 ppm (Vacated) STEL: 325 mg/m³ Skin TWA: 200 ppm TWA: 260 mg/m³	IDLH: 6000 ppm TWA: 200 ppm TWA: 260 mg/m³ STEL: 250 ppm STEL: 325 mg/m³

Component	Quebec	Mexico OEL (TWA)	Ontario TWAEV
1,2-Propylene glycol			TWA: 10 mg/m³ TWA: 50 ppm TWA: 155 mg/m³
Ethylene glycol monophenyl ether			TWA: 25 ppm TWA: 141 mg/m³ Skin
Formaldehyde	Ceiling: 2 ppm Ceiling: 3 mg/m³	Ceiling: 2 ppm Ceiling: 3 mg/m³	STEL: 1.0 ppm CEV: 1.5 ppm
Phenol	TWA: 5 ppm TWA: 19 mg/m³ Skin	TWA: 5 ppm TWA: 19 mg/m³ STEL: 10 ppm STEL: 38 mg/m³	TWA: 5 ppm Skin
Methyl alcohol	TWA: 200 ppm TWA: 262 mg/m³ STEL: 250 ppm STEL: 328 mg/m³ Skin	TWA: 200 ppm TWA: 260 mg/m³ STEL: 250 ppm STEL: 310 mg/m³	TWA: 200 ppm STEL: 250 ppm Skin

Legend

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. 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	Solid containing liquid.
Appearance	Colorless Liquid
Odor	mild pungent
Odor Threshold	No information available
pH	No information available
Melting Point/Range	No data available
Boiling Point/Range	Not applicable
Flash Point	Not applicable
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	No information available
Vapor Density	No information available
Specific Gravity	No information available
Solubility	No information available
Partition coefficient; n-octanol/water	No data available
Autoignition Temperature	No information available
Decomposition Temperature	No information available
Viscosity	No information available
VOC Content(%)	10.68

10. Stability and reactivity

Reactive Hazard None known, based on information available

Stability Stable.

Conditions to Avoid Incompatible products.

Incompatible Materials Strong oxidizing agents

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

Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Water	LD50 > 90 mL/kg (Rat)	Not listed	Not listed
1,2-Propylene glycol	LD50 = 20 g/kg (Rat)	LD50 = 20800 mg/kg (Rabbit)	Not listed
Ethylene glycol monophenyl ether	LD50 = 1260 mg/kg (Rat)	LD50 = 5 mL/kg (Rabbit)	Not listed

Formaldehyde	500 mg/kg (Rat)	LD50 = 270 mg/kg (Rabbit)	0.578 mg/L (Rat) 4 h
Phenol	LD50 = 340 mg/kg (Rat) LD50 = 317 mg/kg (Rat)	LD50 = 630 mg/kg (Rabbit)	LC50 = 316 mg/m³ (Rat) 4 h
Methyl alcohol	LD50 = 6200 mg/kg (Rat)	LD50 = 15800 mg/kg (Rabbit)	64000 ppm (Rat) 4 h 83.2 mg/L (Rat) 4 h

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 May cause irritation of respiratory tract

Sensitization May cause sensitization by skin contact

Carcinogenicity This product contains one or more substances which are classified by IARC as carcinogenic to humans (Group I), probably carcinogenic to humans (Group 2A) or possibly carcinogenic to humans (Group 2B).

Component	CAS-No	IARC	NTP	ACGIH	OSHA	Mexico
Water	7732-18-5	Not listed	Not listed	Not listed	Not listed	Not listed
1,2-Propylene glycol	57-55-6	Not listed	Not listed	Not listed	Not listed	Not listed
Ethylene glycol monophenyl ether	122-99-6	Not listed	Not listed	Not listed	Not listed	Not listed
Formaldehyde	50-00-0	Group 1	Known	A2	X	A2
Phenol	108-95-2	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

IARC: (International Agency for Research on Cancer)

NTP: (National Toxicity Program)

ACGIH: (American Conference of Governmental Industrial Hygienists)

Mexico - Occupational Exposure Limits - Carcinogens

IARC: (International Agency for Research on Cancer)
Group 1 - Carcinogenic to Humans
Group 2A - Probably Carcinogenic to Humans
Group 2B - Possibly Carcinogenic to Humans
NTP: (National Toxicity Program)
Known - Known Carcinogen
Reasonably Anticipated - Reasonably Anticipated to be a Human Carcinogen
ACGIH: (American Conference of Governmental Industrial Hygienists)
A1 - Known Human Carcinogen
A2 - Suspected Human Carcinogen
A3 - Animal Carcinogen
Mexico - Occupational Exposure Limits - Carcinogens
A1 - Confirmed Human Carcinogen
A2 - Suspected Human Carcinogen
A3 - Confirmed Animal Carcinogen
A4 - Not Classifiable as a Human Carcinogen
A5 - Not Suspected as a Human Carcinogen

Mutagenic Effects No information available

Reproductive Effects No information available.

Developmental Effects No information available.

Teratogenicity No information available.

STOT - single exposure None known
STOT - repeated exposure None known

Aspiration hazard No information available

Symptoms / effects,both acute and delayed No information available
Endocrine Disruptor Information No information available

Other Adverse Effects The toxicological properties have not been fully investigated.

12. Ecological Information

Ecotoxicity
Do not empty into drains.

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
1,2-Propylene glycol	EC50: = 19000 mg/L, 96h (Pseudokirchneriella subcapitata)	LC50: = 710 mg/L, 96h (Pimephales promelas) LC50: = 51400 mg/L, 96h static (Pimephales promelas) LC50: 41 - 47 mL/L, 96h static (Oncorhynchus mykiss) LC50: = 51600 mg/L, 96h static (Oncorhynchus mykiss)	= 710 mg/L EC50 Photobacterium phosphoreum 30 min	EC50: > 10000 mg/L, 24h (Daphnia magna) EC50: > 1000 mg/L, 48h Static (Daphnia magna)
Ethylene glycol monophenyl ether	EC50: > 500 mg/L, 72h (Desmodesmus subspicatus)	LC50: 220 - 460 mg/L, 96h static (Leuciscus idus) LC50: = 366 mg/L, 96h static (Pimephales promelas) LC50: 337 - 352 mg/L, 96h flow-through (Pimephales promelas)	EC50 = 32.4 mg/L 5 min EC50 = 880 mg/L 17 h	EC50: > 500 mg/L, 48h (Daphnia magna)
Formaldehyde	Not listed	Leuciscus idus: LC50 = 15 mg/L 96h	Not listed	EC50 = 20 mg/L 96h EC50 = 2 mg/L 48h
Phenol	EC50: 187 - 279 mg/L, 72h static (Desmodesmus subspicatus) EC50: 0.0188 - 0.1044 mg/L, 96h static (Pseudokirchneriella subcapitata) EC50: = 46.42 mg/L, 96h (Pseudokirchneriella subcapitata)	4-7 mg/L LC50 96 h 32 mg/L LC50 96 h	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: 10.2 - 15.5 mg/L, 48h (Daphnia magna) EC50: 4.24 - 10.7 mg/L, 48h Static (Daphnia magna)
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

Persistence and Degradability No information available
Bioaccumulation/ Accumulation No information available.

Mobility No information available.

Component	log Pow
1,2-Propylene glycol	-0.9
Ethylene glycol monophenyl ether	1.13
Formaldehyde	-0.35
Phenol	1.47
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
Formaldehyde - 50-00-0	U122	-
Phenol - 108-95-2	U188	-
Methyl alcohol - 67-56-1	U154	-

14. Transport information

DOT Not regulated
TDG Not regulated
IATA Not regulated
IMDG/IMO Not regulated

15. Regulatory information

All of the components in the product are on the following Inventory lists: Australia X = listed China Canada The product is classified and labeled according to EC directives or corresponding national laws The product is classified and labeled in accordance with Directive 1999/45/EC Europe TSCA Korea Philippines

International Inventories

Component	TSCA	DSL	NDSL	EINECS	ELINCS	NLP	PICCS	ENCS	AICS	IECSC	KECL
Water	X	X	-	231-791-2	-		X	-	X	X	X
1,2-Propylene glycol	X	X	-	200-338-0	-		X	X	X	X	X
Ethylene glycol monophenyl ether	X	X	-	204-589-7	-		X	X	X	X	X
Formaldehyde	X	X	-	200-001-8	-		X	X	X	X	X
Phenol	X	X	-	203-632-7	-		X	X	X	X	X
Methyl alcohol	X	X	-	200-659-6	-		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 Not applicable

Component	CAS-No	Weight %	SARA 313 - Threshold Values %
Ethylene glycol monophenyl ether	122-99-6	<2	1.0
Formaldehyde	50-00-0	0.1-0.7	0.1
Phenol	108-95-2	<0.06	1.0
Methyl alcohol	67-56-1	<0.04	1.0

SARA 311/312 Hazardous Categorization

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

Clean Water Act Not applicable

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

Formaldehyde	X	100 lb	-	-
Phenol	X	1000 lb	X	X

Clean Air Act Not applicable

Component	HAPS Data	Class 1 Ozone Depletors	Class 2 Ozone Depletors
Ethylene glycol monophenyl ether	X		-
Formaldehyde	X		-
Phenol	X		-
Methyl alcohol	X		-

OSHA Occupational Safety and Health Administration
Not applicable

Component	Specifically Regulated Chemicals	Highly Hazardous Chemicals
Formaldehyde	2 ppm STEL 0.5 ppm Action Level 0.75 ppm TWA	TQ: 1000 lb

CERCLA
Not applicable

Component	Hazardous Substances RQs	CERCLA EHS RQs
Formaldehyde	100 lb	100 lb
Phenol	1000 lb	1000 lb
Methyl alcohol	5000 lb	-

California Proposition 65 This product does not contain any Proposition 65 chemicals

Component	CAS-No	California Prop. 65	Prop 65 NSRL	Category
Formaldehyde	50-00-0	Carc. (Gaseous only)	40 µg/day	Carcinogen
Methyl alcohol	67-56-1	Developmental	-	Developmental

State Right-to-Know Not applicable

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Water	-	-	X	-	-
1,2-Propylene glycol	-	X	X	-	X
Ethylene glycol monophenyl ether	-	X	X	X	-
Formaldehyde	X	X	X	X	X
Phenol	X	X	X	X	X
Methyl alcohol	X	X	X	X	X

U.S. Department of Transportation

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

U.S. Department of Homeland Security
This product does not contain any DHS chemicals.

Component	DHS Chemical Facility Anti-Terrorism Standard
Formaldehyde	11250 lb STQ (solution)

Other International Regulations

Mexico - Grade No information available

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 D1B Toxic materials

D2A Very toxic materials
D2B Toxic materials

16. Other information

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

Revision Date 20-Aug-2015
Print Date 20-Aug-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