

Material Safety Data Sheet
Kontakt APTT Reagent
Section 1 - Chemical Product and Company Identification
MSDS Name:

Kontakt APTT Reagent

Catalog Numbers:

022923, 022924, 100308, 100312, 250308, 250312

Synonyms:

None.

Company Identification:
 Fisher Diagnostics
 Fisher Scientific Company LLC
 8365 Valley Pike
 Middletown, VA 22645-0307
Company Phone Number:

(800) 528-0494

Emergency Phone Number:

(800) 528-0494

CHEMTREC Phone Number:

800-424-9300

CHEMTREC (International):

703-527-3887

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name:	Percent	EINECS/ ELINCS		
7732-18-5	Water	Balance	231-791-2		
Not available	Rabbit Brain Phospholipid	1.2%	Not available		
25322-68-3	Polyethylene glycol	0.4%	Not available		
108-95-2	Phenol	0.4 %	203-632-7	T	24/25 34
144-02-5	Barbitol	0.29%	205-613-9		
7647-01-0	Hydrogen chloride	0.1%	231-595-7	C	34 37
7365-45-9	HEPES	0.05%	230-907-9		
60-00-4	Ethylenediamine tetraacetic acid (edta)	0.037%	200-449-4		
Not available	Magnesium aluminum silicate	0.03%	Not available		
Not available	BSA Fraction V	0.01%	Not available		

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Appearance: clear, colorless liquid

Caution! May be absorbed through intact skin. May cause respiratory and digestive tract irritation. May cause eye and skin irritation.

Target Organs: none.

Potential Health Effects**Eye:**

Contact may cause transient eye irritation.

Skin:

Low hazard for usual industrial handling. May be absorbed through the skin.

Ingestion:

Ingestion of large amounts may cause gastrointestinal irritation. Low hazard for usual industrial handling.

Inhalation:

May cause respiratory tract irritation.

Chronic:

No information found.

Section 4 - First Aid Measures**Eyes:**

Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

Skin:

Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops or persists.

Ingestion:

If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid.

Inhalation:

Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

Notes to Physician:

Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures**General Information:**

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

Extinguishing Media:

For small fires, use water spray, dry chemical, carbon dioxide or chemical foam.

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Autoignition Temperature:

Not applicable.

Explosion Limits:

Lower: Not available. Upper: Not available.

Flash Point:

Not applicable.

NFPA Rating:

(estimated) Health: 1; Flammability: 0; Reactivity: 0

Section 6 - Accidental Release Measures

General Information:

Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks:

Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Clean up spills immediately, observing precautions in the Protective Equipment section.

Section 7 - Handling and Storage

Handling:

Wash thoroughly after handling. Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Avoid contact with skin and eyes. Avoid ingestion and inhalation.

Storage:

Store in a cool place in the original container and protect from sunlight. Keep container closed when not in use.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls:

Good general ventilation should be sufficient to control airborne levels. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

Exposure Limits

Chemical Name:	ACGIH	NIOSH	OSHA
Water	None of the components are on this list.	None of the components are on this list.	None of the components are on this list.
Polyethylene glycol	None of the components are on this list.	None of the components are on this list.	None of the components are on this list.
Phenol	5 ppm TWA; Skin - potential significant contribution to overall exposure by the cutaneous r	5 ppm TWA; 19 mg/m ³ TWA 250 ppm IDLH 15.6 ppm Ceiling (15 min); 60 mg/m ³ Ceiling (15 min)	5 ppm TWA; 19 mg/m ³ TWA ; prevent or reduce skin absorption
Barbitol	None of the components are on this list.	None of the components are on this list.	None of the components are on this list.
Hydrogen chloride	2 ppm Ceiling	50 ppm IDLH 5 ppm Ceiling; 7 mg/m ³ Ceiling	5 ppm Ceiling; 7 mg/m ³ Ceiling
HEPES	None of the components are on this list.	None of the components are on this list.	None of the components are on this list.

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Ethylenediamine tetraacetic acid (edta)	None of the components are on this list.	None of the components are on this list.	None of the components are on this list.
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OSHA Vacated PELsPhenol: 5 ppm TWA; 19 mg/m³ TWA**Personal Protective Equipment****Eyes:**

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:

Wear appropriate protective gloves to prevent skin exposure.

Clothing:

Wear appropriate protective clothing to prevent skin exposure.

Respirators:

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.

Section 9 - Physical and Chemical Properties

Physical State: Liquid**Color:** clear, colorless**Odor:** Odorless.**pH:** No information found**Vapor Pressure:** No information found**Vapor Density:** No information found**Evaporation Rate:** No information found**Viscosity:** No information found**Boiling Point:** Not available.**Freezing/Melting Point:** No information found**Decomposition Temperature:** No information found**Solubility in water:** Not available.**Specific Gravity/Density:** No information found**Molecular Formula:** Not applicable.**Molecular Weight:** No information found

Section 10 - Stability and Reactivity

Chemical Stability:

Stable under normal temperatures and pressures.

Conditions to Avoid:

Incompatible materials.

Incompatibilities with Other Materials

Strong oxidants.

Hazardous Decomposition Products

No data available.

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Hazardous Polymerization

Has not been reported

Section 11 - Toxicological Information

RTECS:

CAS# 7732-18-5: ZC0110000.

CAS# 25322-68-3: TQ3500000; TQ3520000; TQ3560000; TQ3580000; TQ3600000; TQ3610000; TQ3620000;
TQ3630000; TQ3650000; TQ3675000; TQ3700000; TQ3800000; TQ3850000; TQ4025000; TQ4026000;
TQ4027000; TQ4028000; TQ4030000; TQ4040000; TQ4041000; TQ4050000; TQ4070000; TQ4100000;
TQ4105000; TQ4110000; TQ4950000; TQ5090000; TR1579850; ZD2465300.

CAS# 108-95-2: SJ3325000.

CAS# 144-02-5: CQ3850000.

CAS# 7647-01-0: MW4025000; MW4031000.

CAS# 7365-45-9: TL6809000.

CAS# 60-00-4: AH4025000.

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CAS# 7732-18-5:

Oral, rat: LD50 = >90 mL/kg.

CAS# 25322-68-3:

Draize test, rabbit, eye: 500 mg/24H Mild

Draize test, rabbit, eye: 100 uL Mild

Draize test, rabbit, eye: 500 mg Mild

Draize test, rabbit, eye: 500 mg Mild

Draize test, rabbit, eye: 500 mg Mild

Draize test, rabbit, eye: 500 mg Mild

Draize test, rabbit, eye: 500 mg/24H Mild

Draize test, rabbit, eye: 500 mg/24H Mild

Draize test, rabbit, eye: 500 mg Mild

Draize test, rabbit, eye: 500 mg/24H Mild

Draize test, rabbit, skin: 500 mg/24H Mild

Draize test, rabbit, skin: 500 mg/24H Mild

Draize test, rabbit, skin: 500 mg Mild

Oral, mouse: LD50 = 34 gm/kg

Oral, mouse: LD50 = 31 gm/kg

Oral, mouse: LD50 = 28915 mg/kg

Oral, mouse: LD50 = 36 gm/kg

Oral, rabbit: LD50 = 17300 mg/kg

Oral, rabbit: LD50 = 76 gm/kg

Oral, rabbit: LD50 = 14 gm/kg

Oral, rabbit: LD50 = 17300 mg/kg

Oral, rabbit: LD50 = 26800 mg/kg

Oral, rabbit: LD50 = 19 gm/kg

Oral, rabbit: LD50 = 28900 mg/kg

Oral, rabbit: LD50 = 76 gm/kg

Oral, rat: LD50 = 28 gm/kg

Oral, rat: LD50 = 31640 mg/kg

Oral, rat: LD50 = 27500 mg/kg

Oral, rat: LD50 = 22 gm/kg

Oral, rat: LD50 = 30200 mg/kg

Oral, rat: LD50 = 600 mg/kg

Oral, rat: LD50 = 30 gm/kg

Oral, rat: LD50 = 32 gm/kg

Oral, rat: LD50 = 1054 mg/kg

Oral, rat: LD50 = 51310 mg/kg

Carcinogenicity:

CAS# 7732-18-5: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65.

CAS# 25322-68-3: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65.

CAS# 108-95-2

IARC: Group 3 (not classifiable)

CAS# 144-02-5: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65.

CAS# 7647-01-0

IARC: Group 3 (not classifiable)

CAS# 7365-45-9: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65.

CAS# 60-00-4: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65.

Epidemiology:

No information found

Teratogenicity:

No information found

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No information found

Mutagenicity:

No information found

Neurotoxicity:

No information found

Other:

See actual entry in RTECS for complete information.

Section 12 - Ecological Information**Ecotoxicity:**

Daphnia: Fathead Minnow: EC50=4.0 mg/l; 96-hour; cas#108-95-2

Daphnia: Fathead Minnow: EC50=12.0 mg/l; 48-hour; cas#108-95-2

Environmental:

No information found

Physical:

No information found

Other:

NOEC for Lolium perenne and Raphanus sativus was 1 mg/l in a plant germination study. The 96-hour LC50 was 11 mg/l in Gammarus fasciatus and the 48-hour LC50 was 11.2 mg/L in Leuciscus idus.

Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste.

US EPA guidelines for the classification determination are listed in 40 CFR Part 261.3.

Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

RCRA P Series Wastes

None of the components are on this list.

RCRA U Series Wastes

CAS# 108-95-2: waste number U188.

Section 14 - Transport Information**US DOT****Canadian TDG****Proper Shipping Name:** No information found

No information found

Hazard Class:**UN Number:****Packing Group:**

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CAS# 7732-18-5 is listed on the TSCA Inventory.
CAS# 25322-68-3 is listed on the TSCA Inventory.
CAS# 108-95-2 is listed on the TSCA Inventory.
CAS# 144-02-5 is not listed on the TSCA Inventory. It is for research and development use only.
CAS# 7647-01-0 is listed on the TSCA Inventory.
CAS# 7365-45-9 is listed on the TSCA Inventory.
CAS# 60-00-4 is listed on the TSCA Inventory.

Health and Safety Reporting List

CAS# 108-95-2: Effective 6/1/87, Sunset 6/1/97

Chemical Test Rules**TSCA Section 12b**

None of the components are on this list.

TSCA Significant New Use Rule (SNUR)

None of the components are on this list.

CERCLA Hazardous Substances and corresponding RQs

CAS# 108-95-2: 1000 lb final RQ; 454 kg final RQ
CAS# 7647-01-0: 5000 lb final RQ; 2270 kg final RQ
CAS# 60-00-4: 5000 lb final RQ; 2270 kg final RQ

SARA Section 302 Extremely Hazardous Substances

CAS# 108-95-2: 500 lb lower threshold TPQ; 10000 lb upper threshold TPQ
CAS# 7647-01-0: 500 lb TPQ (gas only)

SARA Hazard Categories

CAS# 25322-68-3.
CAS# 108-95-2: acute, chronic, flammable.
CAS# 144-02-5: acute, chronic.
CAS# 7647-01-0: acute.
CAS# 7365-45-9: acute.

CERCLA/SARA Section 313

Phenol is not at a high enough concentration to be reportable under Section 313.
Hydrogen chloride is not at a high enough concentration to be reportable under Section 313.

Clean Air Act - Hazardous Air Pollutants (HAPs)

CAS# 108-95-2 is listed as a hazardous air pollutant (HAP).
CAS# 7647-01-0 is listed as a hazardous air pollutant (HAP).

Clean Air Act - Class 1 Ozone Depletors

None of the components are on this list.

Clean Air Act - Class 2 Ozone Depletors

None of the components are on this list.

Clean Water Act - Hazardous Substances

CAS# 108-95-2 is listed as a Hazardous Substance under the CWA.
CAS# 7647-01-0 is listed as a Hazardous Substance under the CWA.
CAS# 60-00-4 is listed as a Hazardous Substance under the CWA.

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CAS# 108-95-2 is listed as a Priority Pollutant under the CWA.

Clean Water Act - Toxic Pollutants

CAS# 108-95-2 is listed as a Toxic Pollutant under the CWA.

OSHA - Highly Hazardous

CAS# 7647-01-0 is considered highly hazardous by OSHA.

US State**State Right to Know**

Polyethylene glycol can be found on the following state Right-to-Know lists: Minnesota.

Phenol can be found on the following state Right-to-Know lists: California, New Jersey, Pennsylvania, Minnesota, Massachusetts.

Hydrogen chloride can be found on the following state Right-to-Know lists: California, New Jersey, Pennsylvania, Minnesota, Massachusetts.

Ethylenediamine tetraacetic acid (edta) can be found on the following state Right-to-Know lists: California, New Jersey, Pennsylvania, Massachusetts.

California Regulations

CAS# 7732-18-5: No information found

CAS# Not available: No information found

CAS# 25322-68-3: No information found

CAS# 108-95-2: No information found

CAS# 144-02-5: No information found

CAS# 7647-01-0: No information found

CAS# 7365-45-9: No information found

CAS# 60-00-4: No information found

CAS# Not available: No information found

CAS# Not available: No information found

European/International Regulations**European Labelling in Accordance with EC Directives:**

Hazard Symbols:

Risk Phrases:

Safety Phrases:

S 24/25 Avoid contact with skin and eyes.

WGK (Water Danger/Protection)

CAS# 7732-18-5: No information found

CAS# Not available: No information found

CAS# 25322-68-3: 1

CAS# 108-95-2: 2

CAS# 144-02-5: 2

CAS# 7647-01-0: 1

CAS# 7365-45-9: No information found

CAS# 60-00-4: 2

CAS# Not available: No information found

CAS# Not available: No information found

United Kingdom Occupational Exposure Limits

No information found

Canadian DSL/NDSL

CAS# 7732-18-5 is listed on Canada's DSL List.

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CAS# 25322-68-3 is listed on Canada's DSL List.
CAS# 108-95-2 is listed on Canada's DSL List.
CAS# 144-02-5 is listed on Canada's DSL List.
CAS# 7647-01-0 is listed on Canada's DSL List.
CAS# 7365-45-9 is listed on Canada's DSL List.
CAS# 60-00-4 is listed on Canada's DSL List.

Canadian WHMIS Classifications

This product does not have a WHMIS classification.

Canadian Ingredient Disclosure List

CAS# 7732-18-5 is not listed on Canada's Ingredient Disclosure List.
CAS# Not available is not listed on Canada's Ingredient Disclosure List.
CAS# 25322-68-3 is not listed on Canada's Ingredient Disclosure List.
CAS# 108-95-2 is listed on Canada's Ingredient Disclosure List.
CAS# 144-02-5 is not listed on Canada's Ingredient Disclosure List.
CAS# 7647-01-0 is listed on Canada's Ingredient Disclosure List.
CAS# 7365-45-9 is not listed on Canada's Ingredient Disclosure List.
CAS# 60-00-4 is not listed on Canada's Ingredient Disclosure List.
CAS# Not available is not listed on Canada's Ingredient Disclosure List.
CAS# Not available is not listed on Canada's Ingredient Disclosure List.

Exposure Limits

CAS# 108-95-2: OEL-ARAB Republic of Egypt:TWA 5 ppm (19 mg/m3);Skin
OEL-AUSTRALIA:TWA 5 ppm (19 mg/m3);Skin
OEL-BELGIUM:TWA 5 ppm (19 mg/m3);Skin
OEL-CZECHOSLOVAKIA:TWA 20 mg/m3;STEL 40 mg/m3
OEL-DENMARK:TWA 5 ppm (19 mg/m3);Skin
OEL-FINLAND:TWA 5 ppm (19 mg/m3);STEL 10 ppm (38 mg/m3);Skin
OEL-FRANCE:TWA 5 ppm (19 mg/m3);Skin
OEL-GERMANY:TWA 5 ppm (19 mg/m3);Skin
OEL-HUNGARY:TWA 4 mg/m3;STEL 8 mg/m3;Skin
OEL-JAPAN:TWA 5 ppm (19 mg/m3);Skin
OEL-THE NETHERLANDS:TWA 5 ppm (19 mg/m3);Skin
OEL-THE PHILIPPINES:TWA 5 ppm (10 mg/m3);Skin
OEL-POLAND:TWA 10 ppm
OEL-RUSSIA:TWA 5 ppm;STEL 0.3 mg/m3;Skin
OEL-SWEDEN:TWA 1 ppm (4 mg/m3);STEL 2 ppm (8 mg/m3);Skin
OEL-SWITZERLAND:TWA 5 ppm (19 mg/m3);STEL 10 ppm (38 mg/m3);Skin
OEL-THAILAND:TWA 5 ppm (19 mg/m3)
OEL-TURKEY:TWA 5 ppm (19 mg/m3);Skin
OEL-UNITED KINGDOM:TWA 5 ppm (19 mg/m3);STEL 10 ppm;Skin
OEL IN BULGARIA, COLOMBIA, JORDAN, KOREA check ACGIH TLV
OEL IN NEW ZEALAND, SINGAPORE, VIETNAM check ACGI TLV

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CAS# 7647-01-0: OEL-AUSTRALIA:TWA 5 ppm (7 mg/m³)
OEL-AUSTRIA:TWA 5 ppm (7 mg/m³)
OEL-BELGIUM:STEL 5 ppm (7.7 mg/m³)
OEL-DENMARK:STEL 5 ppm (7 mg/m³)
OEL-FINLAND:STEL 5 ppm (7 mg/m³);Skin
OEL-FRANCE:STEL 5 ppm (7.5 mg/m³)
OEL-GERMANY:TWA 5 ppm (7 mg/m³)
OEL-HUNGARY:STEL 5 mg/m³
OEL-JAPAN:STEL 5 ppm (7.5 mg/m³)
OEL-THE NETHERLANDS:TWA 5 ppm (7 mg/m³)
OEL-THE PHILIPPINES:TWA 5 ppm (7 mg/m³)
OEL-POLAND:TWA 5 mg/m³
OEL-RUSSIA:STEL 5 ppm (5 mg/m³)
OEL-SWEDEN:STEL 5 ppm (8 mg/m³)
OEL-SWITZERLAND:TWA 5 ppm (7.5 mg/m³);STEL 10 ppm (15 mg/m³)
OEL-THAILAND:TWA 5 ppm (7 mg/m³)
OEL-TURKEY:TWA 5 ppm (7 mg/m³)
OEL-UNITED KINGDOM:TWA 5 ppm (7 mg/m³);STEL 5 ppm (7 mg/m³)
OEL IN BULGARIA, COLOMBIA, JORDAN, KOREA check ACGIH TLV
OEL IN NEW ZEALAND, SINGAPORE, VIETNAM check ACGI TLV

Section 16 - Other Information

Color information has been
MSDS Creation Date: July 28, 1998
Revision Date: March 22, 2006

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.