

Material Safety Data Sheet

SDS-PAGE Resolving Gel

58221 - (KIT)
89982 - (individual)

Section 1 - Chemical Product and Company Identification

MSDS Name: SDS-PAGE Resolving Gel

Catalog Numbers:

Synonyms:

Company Identification:

Fisher Diagnostics
Fisher Scientific Company, LLC
8365 Valley Pike
Middletown, VA 22645-0307

For information, call: 800-524-0294

Emergency Number: 800-524-0294

For CHEMTREC assistance, call: 800-424-9300

For International CHEMTREC assistance, call: 703-527-3887

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
79-06-1	Acrylamide	39.0	201-173-7
110-26-9	Methylenediacrylamide	1.0	203-750-9
7732-18-5	Water	Balance	231-791-2

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: Not available.

Warning! Harmful if swallowed. May cause allergic skin reaction. May be harmful if absorbed through the skin. May cause respiratory and digestive tract irritation. May cause eye and skin irritation. May cause central nervous system effects. May cause cancer based on animal studies. Potential cancer hazard.

Target Organs: Nervous system.

Potential Health Effects

Eye: May cause eye irritation.

Skin: May cause skin irritation. May cause skin sensitization, an allergic reaction, which becomes evident upon re-exposure to this material. If absorbed, causes symptoms similar to those of inhalation. May be harmful if absorbed through the skin. May cause local irritation characterized by blistering and desquamation of the palms and soles combined with blueness of the hands and feet.

Ingestion: Harmful if swallowed. May cause irritation of the digestive tract. May cause central nervous system depression, characterized by excitement, followed by headache, dizziness, drowsiness, and nausea. Advanced stages may cause collapse, unconsciousness, coma and possible death due to respiratory failure.

Inhalation: May cause respiratory tract irritation. May cause central, peripheral, and autonomic nervous system effects. Central nervous system effects, which appear to predominate in acute cases are characterized by abnormal fatigue, memory difficulties and dizziness. Autonomic nervous system involvement is indicated by excessive sweating, peripheral vasodilation and difficulties in micturition and defecation.

Peripheral neuropathy symptoms which are more common with repeated low-dose exposure or following a latency period of up to several weeks after acute exposure can include: muscular weakness, paresthesia, numbness in feet, lower legs, and lower arms, unsteadiness, and difficulties in walking and standing.

Chronic: Chronic inhalation may cause effects similar to those of acute inhalation.

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 immediately.

Skin: Get medical aid immediately. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.

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 immediately.

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 dry chemical, carbon dioxide, water spray or alcohol-resistant foam. Water or foam may cause

frothing. Use water spray to cool fire-exposed containers.

Flash Point: Not available.

Autoignition Temperature: Not available.

Explosion Limits, Lower: Not available.

Upper: Not available.

NFPA Rating: Not published.

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Sweep up or absorb material, then place into a suitable clean, dry, closed container for disposal.

Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Avoid contact with eyes, skin, and clothing. Keep away from heat, sparks and flame. Do not ingest or inhale. Use with adequate ventilation.

Storage: Store in a tightly closed container. Keep from contact with oxidizing materials. Store in a cool, dry, well-ventilated area away from incompatible substances.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls: Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Acrylamide	0.03 mg/m ³ TWA (inhalable fraction and vapor); Skin - potential significant contribution to overall exposure by the cutaneous route	0.03 mg/m ³ TWA 60 mg/m ³ IDLH	0.3 mg/m ³ TWA
Methylenediacrylamide	none listed	none listed	none listed
Water	none listed	none listed	none listed

OSHA Vacated PELs: Acrylamide: 0.03 mg/m³ TWA Methylenediacrylamide: No OSHA Vacated PELs are listed for this chemical. Water: No OSHA Vacated PELs are listed for this chemical.

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: Not available.

Appearance: Not available.

Odor: not available

pH: Not available.

Vapor Pressure: Not available.

Vapor Density: Not available.

Evaporation Rate: Not available.

Viscosity: Not available.

Boiling Point: Not available.

Freezing/Melting Point: Not available.

Decomposition Temperature: Not available.

Solubility: Not available.

Specific Gravity/Density: Not available.

Molecular Formula: Not available.

Molecular Weight: Not available.

Section 10 - Stability and Reactivity

Chemical Stability: Stable. However, may decompose if heated.

Conditions to Avoid: Acids, metals, excess heat, reducing agents, strong oxidants, bases.

Incompatibilities with Other Materials: Strong oxidizers, reducing agents, acids, bases, and metals

Hazardous Decomposition Products: Carbon monoxide, oxides of nitrogen, carbon dioxide, toxic fumes of sodium oxide.

Hazardous Polymerization: Has not been reported.

Section 11 - Toxicological Information

RTECS#:

CAS# 79-06-1: AS3325000

CAS# 110-26-9: AS3678000

CAS# 7732-18-5: ZC0110000

LD50/LC50:

CAS# 79-06-1:

Draize test, rabbit, eye: 100 mg/24H Moderate;

Draize test, rabbit, skin: 50 mg/3D Mild;

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

Oral, mouse: LD50 = 107 mg/kg;

Oral, rabbit: LD50 = 150 mg/kg;

Oral, rat: LD50 = 124 mg/kg;

Skin, rabbit: LD50 = 1680 uL/kg;

Skin, rat: LD50 = 400 mg/kg;

CAS# 110-26-9:

Oral, mouse: LD50 = 380 mg/kg;

Oral, rat: LD50 = 390 mg/kg;

CAS# 7732-18-5:

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

Carcinogenicity:

CAS# 79-06-1:

- **ACGIH:** A3 - Confirmed animal carcinogen with unknown relevance to humans
- **California:** carcinogen, initial date 1/1/90
- **NTP:** Suspect carcinogen
- **IARC:** Group 2A carcinogen

CAS# 110-26-9: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

CAS# 7732-18-5: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

Epidemiology: ACGIH has determined that acrylamide should be treated as a suspected human carcinogen.

Teratogenicity: No data available.

Reproductive Effects: Reproductive effects have been reported for Tris.

Mutagenicity: Human mutation data has been reported for Tris. Mutation data has been reported for Sodium Dodecyl Sulfate.

Neurotoxicity: No data available.

Other Studies:

Section 12 - Ecological Information

No information available.

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 Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

RCRA P-Series: None listed.

RCRA U-Series:

CAS# 79-06-1: waste number U007.

Section 14 - Transport Information

	US DOT	Canada TDG
Shipping Name:	Not regulated as a hazardous material	No information available.
Hazard Class:		
UN Number:		
Packing Group:		

Section 15 - Regulatory Information

US FEDERAL

TSCA

CAS# 79-06-1 is listed on the TSCA inventory.

CAS# 110-26-9 is listed on the TSCA inventory.

CAS# 7732-18-5 is listed on the TSCA inventory.

Health & Safety Reporting List

CAS# 79-06-1: Effective 10/4/82, Sunset 10/4/92

Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

Section 12b

None of the chemicals are listed under TSCA Section 12b.

TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

CERCLA Hazardous Substances and corresponding RQs

CAS# 79-06-1: 5000 lb final RQ; 2270 kg final RQ

SARA Section 302 Extremely Hazardous Substances

CAS# 79-06-1: 1000 lb TPQ (lower threshold); 10000 lb TPQ (upper threshold)

SARA Codes

CAS # 79-06-1: immediate, delayed, sudden release of pressure, reactive.

CAS # 110-26-9: immediate, delayed, reactive.

Section 313

This material contains Acrylamide (CAS# 79-06-1, 39.0%), which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373.

Clean Air Act:

CAS# 79-06-1 is listed as a hazardous air pollutant (HAP).

This material does not contain any Class 1 Ozone depleters.

This material does not contain any Class 2 Ozone depleters.

Clean Water Act:

None of the chemicals in this product are listed as Hazardous Substances under the CWA.

None of the chemicals in this product are listed as Priority Pollutants under the CWA.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA:

None of the chemicals in this product are considered highly hazardous by OSHA.

STATE

CAS# 79-06-1 can be found on the following state right to know lists: California, New Jersey, Pennsylvania, Minnesota, Massachusetts.

CAS# 110-26-9 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

CAS# 7732-18-5 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

California Prop 65**The following statement(s) is(are) made in order to comply with the California Safe Drinking Water Act:**

WARNING: This product contains Acrylamide, a chemical known to the state of California to cause cancer.

California No Significant Risk Level: CAS# 79-06-1: 0.2 μ g/day NSRL

European/International Regulations**European Labeling in Accordance with EC Directives****Hazard Symbols:**

Not available.

Risk Phrases:**Safety Phrases:****WGK (Water Danger/Protection)**

CAS# 79-06-1: 3

CAS# 110-26-9: 2

CAS# 7732-18-5: No information available.

Canada - DSL/NDSL

CAS# 79-06-1 is listed on Canada's DSL List.

CAS# 110-26-9 is listed on Canada's DSL List.

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

Canada - WHMIS

WHMIS: Not available.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

Canadian Ingredient Disclosure List

CAS# 79-06-1 is listed on the Canadian Ingredient Disclosure List.

Section 16 - Additional Information

MSDS Creation Date: 4/01/1998

Revision #3 Date: 10/03/2005

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 Fisher 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 Fisher has been advised of the possibility of such damages.

Material Safety Data Sheet SDS-PAGE Propage Buffer

58221 - (KIT)

89983 - (individual)

Section 1 - Chemical Product and Company Identification

MSDS Name: SDS-PAGE Propage Buffer

Catalog Numbers:

Synonyms:

Company Identification:

Fisher Diagnostics

Fisher Scientific Company, LLC
8365 Valley Pike
Middletown, VA 22645-0307

For information, call: 800-524-0294
Emergency Number: 800-524-0294
For CHEMTREC assistance, call: 800-424-9300
For International CHEMTREC assistance, call: 703-527-3887

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
126-72-7	Tris	6.1	204-799-9
79-06-1	Acrylamide	<1.0	201-173-7
110-26-9	Methylenediacrylamide	<1.0	203-750-9
151-21-3	Sodium lauryl sulfate	<1.0	205-788-1
7732-18-5	Water	Balance	231-791-2

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: Not available.

Caution! May cause severe eye and skin irritation. May be harmful if swallowed. May cause respiratory and digestive tract irritation. May cause adverse reproductive effects.

Target Organs: None known.

Potential Health Effects

Eye: May cause severe eye irritation.

Skin: May cause severe skin irritation.

Ingestion: May cause irritation of the digestive tract. May be harmful if swallowed.

Inhalation: May cause respiratory tract irritation.

Chronic: No information found.

Section 4 - First Aid Measures

Eyes: Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.

Skin: Get medical aid immediately. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.

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 immediately.

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.

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: Use agent most appropriate to extinguish fire.

Flash Point: Not available.

Autoignition Temperature: Not available.

Explosion Limits, Lower: Not available.

Upper: Not available.

NFPA Rating: Not published.

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Sweep up or absorb material, then place into a suitable clean, dry, closed container for disposal.

Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. Use with adequate ventilation. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid ingestion and inhalation.

Storage: Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls: Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Tris	none listed	none listed	none listed
Acrylamide	0.03 mg/m ³ TWA (inhalable fraction and vapor); Skin - potential significant contribution to overall exposure by the cutaneous route	0.03 mg/m ³ TWA 60 mg/m ³ IDLH	0.3 mg/m ³ TWA
Methylenediacrylamide	none listed	none listed	none listed
Sodium lauryl sulfate	none listed	none listed	none listed
Water	none listed	none listed	none listed

OSHA Vacated PELs: Tris: No OSHA Vacated PELs are listed for this chemical. Acrylamide: 0.03 mg/m³ TWA Methylenediacrylamide: No OSHA Vacated PELs are listed for this chemical. Sodium lauryl sulfate: No OSHA Vacated PELs are listed for this chemical. Water: No OSHA Vacated PELs are listed for this chemical.

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

Appearance: Not available.

Odor: Not available.

pH: Not available.

Vapor Pressure: Not available.

Vapor Density: Not available.

Evaporation Rate: Not available.

Viscosity: Not available.

Boiling Point: Not available.

Freezing/Melting Point: Not available.

Decomposition Temperature: Not available.

Solubility: Not available.

Specific Gravity/Density: Not available.

Molecular Formula: Not available.

Molecular Weight: Not available.

Section 10 - Stability and Reactivity

Chemical Stability: Stable. However, may decompose if heated.

Conditions to Avoid: Incompatible materials.

Incompatibilities with Other Materials: Oxidizing agents, reducing agents, acids, bases.

Hazardous Decomposition Products: Nitrogen oxides, carbon monoxide, carbon dioxide, sodium oxide, bromine.

Hazardous Polymerization: Has not been reported.

Section 11 - Toxicological Information

RTECS#:

CAS# 126-72-7: UB0350000

CAS# 79-06-1: AS3325000

CAS# 110-26-9: AS3678000

CAS# 151-21-3: WT1050000

CAS# 7732-18-5: ZC0110000

LD50/LC50:

CAS# 126-72-7:

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

Draize test, rabbit, skin: 2 mg/24H Severe;

Oral, mouse: LD50 = 6800 mg/kg;

Oral, rat: LD50 = 810 mg/kg;

Skin, rabbit: LD50 = >8 gm/kg;

CAS# 79-06-1:

Draize test, rabbit, eye: 100 mg/24H Moderate;

Draize test, rabbit, skin: 50 mg/3D Mild;

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

Oral, mouse: LD50 = 107 mg/kg;

Oral, rabbit: LD50 = 150 mg/kg;
Oral, rat: LD50 = 124 mg/kg;
Skin, rabbit: LD50 = 1680 uL/kg;
Skin, rat: LD50 = 400 mg/kg;

CAS# 110-26-9:

Oral, mouse: LD50 = 380 mg/kg;
Oral, rat: LD50 = 390 mg/kg;

CAS# 151-21-3:

Draize test, rabbit, eye: 100 mg/24H Moderate;
Draize test, rabbit, eye: 250 ug Mild;
Draize test, rabbit, eye: 2 mg;
Draize test, rabbit, eye: 10 mg Moderate;
Draize test, rabbit, skin: 50 mg/24H Severe;
Draize test, rabbit, skin: 25 mg/24H Moderate;
Draize test, rabbit, skin: 250 mg/24H Moderate;
Draize test, rabbit, skin: 10 mg/24H;
Draize test, rabbit, skin: 50 mg/24H Mild;
Inhalation, rat: LC50 = >3900 mg/m3/1H;
Oral, rat: LD50 = 1288 mg/kg;

CAS# 7732-18-5:

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

Carcinogenicity:

CAS# 126-72-7:

- **ACGIH:** Not listed.
- **California:** carcinogen, initial date 1/1/88
- **NTP:** Suspect carcinogen
- **IARC:** Group 2A carcinogen

CAS# 79-06-1:

- **ACGIH:** A3 - Confirmed animal carcinogen with unknown relevance to humans
- **California:** carcinogen, initial date 1/1/90
- **NTP:** Suspect carcinogen
- **IARC:** Group 2A carcinogen

CAS# 110-26-9: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

CAS# 151-21-3: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

CAS# 7732-18-5: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

Epidemiology: No data available.

Teratogenicity: No data available.

Reproductive Effects: No data available.

Mutagenicity: Human mutation data has been reported for Tris.

Neurotoxicity: No data available.

Other Studies:

Section 12 - Ecological Information

No information available.

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 Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

RCRA P-Series: None listed.

RCRA U-Series:

CAS# 126-72-7: waste number U235.

CAS# 79-06-1: waste number U007.

Section 14 - Transport Information

	US DOT	Canada TDG
Shipping Name:	Not regulated as a hazardous material	No information available.
Hazard Class:		
UN Number:		
Packing Group:		

Section 15 - Regulatory Information

US FEDERAL

TSCA

CAS# 126-72-7 is listed on the TSCA inventory.
CAS# 79-06-1 is listed on the TSCA inventory.
CAS# 110-26-9 is listed on the TSCA inventory.
CAS# 151-21-3 is listed on the TSCA inventory.
CAS# 7732-18-5 is listed on the TSCA inventory.

Health & Safety Reporting List

CAS# 79-06-1: Effective 10/4/82, Sunset 10/4/92

Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

Section 12b

CAS# 126-72-7: Section 5

TSCA Significant New Use Rule

CAS# 126-72-7: This product is for research and development use only. It is subject to a SNUR which has specific requirements and restrictions. The specific citation for this product is 40CFR citation 721.6000.

CERCLA Hazardous Substances and corresponding RQs

CAS# 126-72-7: 10 lb final RQ; 4.54 kg final RQ CAS# 79-06-1: 5000 lb final RQ; 2270 kg final RQ

SARA Section 302 Extremely Hazardous Substances

CAS# 79-06-1: 1000 lb TPQ (lower threshold); 10000 lb TPQ (upper thres hold)

SARA Codes

CAS # 79-06-1: immediate, delayed, sudden release of pressure, reactive.

CAS # 110-26-9: immediate, delayed, reactive.

CAS # 151-21-3: immediate.

Section 313

This material contains Tris (CAS# 126-72-7, 6.1%), which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373.

This material contains Acrylamide (CAS# 79-06-1, <1.0%), which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373.

Clean Air Act:

CAS# 79-06-1 is listed as a hazardous air pollutant (HAP).

This material does not contain any Class 1 Ozone depletors.

This material does not contain any Class 2 Ozone depletors.

Clean Water Act:

None of the chemicals in this product are listed as Hazardous Substances under the CWA.

None of the chemicals in this product are listed as Priority Pollutants under the CWA.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA:

None of the chemicals in this product are considered highly hazardous by OSHA.

STATE

CAS# 126-72-7 can be found on the following state right to know lists: California, New Jersey, Pennsylvania, Minnesota, Massachusetts.

CAS# 79-06-1 can be found on the following state right to know lists: California, New Jersey, Pennsylvania, Minnesota, Massachusetts.

CAS# 110-26-9 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

CAS# 151-21-3 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

CAS# 7732-18-5 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

California Prop 65

The following statement(s) is(are) made in order to comply with the California Safe Drinking Water Act:

WARNING: This product contains Tris, a chemical known to the state of California to cause cancer. WARNING: This product contains Acrylamide, a chemical known to the state of California to cause cancer.

California No Significant Risk Level: CAS# 126-72-7: 0.3 μ g/day NSRL CAS# 79-06-1: 0.2 μ g/day NSRL

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols:

Not available.

Risk Phrases:

Safety Phrases:

WGK (Water Danger/Protection)

CAS# 126-72-7: No information available.

CAS# 79-06-1: 3

CAS# 110-26-9: 2

CAS# 151-21-3: 2

CAS# 7732-18-5: No information available.

Canada - DSL/NDSL

CAS# 79-06-1 is listed on Canada's DSL List.

CAS# 110-26-9 is listed on Canada's DSL List.

CAS# 151-21-3 is listed on Canada's DSL List.

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

CAS# 126-72-7 is listed on Canada's NDSL List.

Canada - WHMIS

WHMIS: Not available.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

Canadian Ingredient Disclosure List

CAS# 126-72-7 is listed on the Canadian Ingredient Disclosure List.
CAS# 79-06-1 is listed on the Canadian Ingredient Disclosure List.
CAS# 151-21-3 is listed on the Canadian Ingredient Disclosure List.

Section 16 - Additional Information

MSDS Creation Date: 4/01/1998
Revision #3 Date: 3/04/2004

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 Fisher 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 Fisher has been advised of the possibility of such damages.

Material Safety Data Sheet SDS-PAGE Stacking Gel

58221 - (KIT)
89981 - (individual)

Section 1 - Chemical Product and Company Identification

MSDS Name: SDS-PAGE Stacking Gel

Catalog Numbers:

Synonyms:

Company Identification:

Fisher Diagnostics
Fisher Scientific Company, LLC
8365 Valley Pike
Middletown, VA 22645-0307

For information, call: 800-524-0294

Emergency Number: 800-524-0294

For CHEMTREC assistance, call: 800-424-9300

For International CHEMTREC assistance, call: 703-527-3887

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
126-72-7	Tris	9.1	204-799-9
79-06-1	Acrylamide	3.9	201-173-7
110-26-9	Methylenediacrylamide	<1	203-750-9
151-21-3	Sodium lauryl sulfate	1.0	205-788-1
7732-18-5	Water	Balance	231-791-2

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: Not available.

Warning! Harmful if swallowed. May cause severe eye and skin irritation. May cause allergic skin reaction. May be harmful if absorbed through the skin. May cause respiratory and digestive tract irritation. May cause central nervous system effects. May cause cancer based on animal studies. Potential cancer hazard.

Target Organs: Nervous system.

Potential Health Effects

Eye: May cause severe eye irritation.

Skin: May cause severe skin irritation. May cause skin sensitization, an allergic reaction, which becomes evident upon re-exposure to this material. If absorbed, causes symptoms similar to those of inhalation. May be harmful if absorbed through the skin. May cause local irritation characterized by blistering and desquamation of the palms and soles combined with blueness of the hands and feet.

Ingestion: Harmful if swallowed. May cause irritation of the digestive tract. May cause central nervous system depression, characterized by excitement, followed by headache, dizziness, drowsiness, and nausea. Advanced stages may cause collapse, unconsciousness, coma and possible death due to respiratory failure.

Inhalation: May cause respiratory tract irritation. May cause central, peripheral, and autonomic nervous system effects. Central nervous system effects, which appear to predominate in acute cases are characterized by abnormal fatigue, memory difficulties and dizziness. Autonomic nervous system involvement is indicated by excessive sweating, peripheral vasodilation and difficulties in micturition and defecation. Peripheral neuropathy symptoms which are more common with repeated low-dose exposure or following a latency period of up to several weeks after acute exposure can include: muscular weakness, paresthesia, numbness in feet, lower legs, and lower arms, unsteadiness, and difficulties in walking and standing.

Chronic: Chronic inhalation may cause effects similar to those of acute inhalation.

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 immediately.

Skin: Get medical aid immediately. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.

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 immediately.

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 dry chemical, carbon dioxide, water spray or alcohol-resistant foam. Water or foam may cause frothing. Use water spray to cool fire-exposed containers.

Flash Point: Not available.

Autoignition Temperature: Not available.

Explosion Limits, Lower: Not available.

Upper: Not available.

NFPA Rating: Not published.

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Sweep up or absorb material, then place into a suitable clean, dry, closed container for disposal.

Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Avoid contact with eyes, skin, and clothing. Keep away from heat, sparks and flame. Do not ingest or inhale. Use with adequate ventilation.

Storage: Store in a tightly closed container. Keep from contact with oxidizing materials. Store in a cool, dry, well-ventilated area away from incompatible substances.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls: Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Tris	none listed	none listed	none listed
Acrylamide	0.03 mg/m ³ TWA (inhalable fraction and vapor); Skin - potential significant contribution to overall exposure by the cutaneous route	0.03 mg/m ³ TWA 60 mg/m ³ IDLH	0.3 mg/m ³ TWA
Methylenediacrylamide	none listed	none listed	none listed
Sodium lauryl sulfate	none listed	none listed	none listed
Water	none listed	none listed	none listed

OSHA Vacated PELs: Tris: No OSHA Vacated PELs are listed for this chemical. Acrylamide: 0.03 mg/m³ TWA Methylenediacrylamide: No OSHA Vacated PELs are listed for this chemical. Sodium lauryl sulfate: No OSHA Vacated PELs are listed for this chemical. Water: No OSHA Vacated PELs are listed for this chemical.

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

Appearance: Not available.

Odor: Not available.

pH: Not available.

Vapor Pressure: Not available.

Vapor Density: Not available.

Evaporation Rate: Not available.

Viscosity: Not available.

Boiling Point: Not available.

Freezing/Melting Point: Not available.

Decomposition Temperature: Not available.

Solubility: Not available.

Specific Gravity/Density: Not available.

Molecular Formula: Not available.

Molecular Weight: Not available.

Section 10 - Stability and Reactivity

Chemical Stability: Stable. However, may decompose if heated.

Conditions to Avoid: Acids, metals, excess heat, reducing agents, strong oxidants, bases.

Incompatibilities with Other Materials: Strong oxidizers, reducing agents, acids, bases, and metals

Hazardous Decomposition Products: Carbon monoxide, oxides of nitrogen, carbon dioxide, toxic fumes of sodium oxide.

Hazardous Polymerization: Has not been reported.

Section 11 - Toxicological Information

RTECS#:

CAS# 126-72-7: UB0350000

CAS# 79-06-1: AS3325000

CAS# 110-26-9: AS3678000

CAS# 151-21-3: WT1050000

CAS# 7732-18-5: ZC0110000

LD50/LC50:

CAS# 126-72-7:

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

Draize test, rabbit, skin: 2 mg/24H Severe;

Oral, mouse: LD50 = 6800 mg/kg;

Oral, rat: LD50 = 810 mg/kg;

Skin, rabbit: LD50 = >8 gm/kg;

CAS# 79-06-1:

Draize test, rabbit, eye: 100 mg/24H Moderate;

Draize test, rabbit, skin: 50 mg/3D Mild;

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

Oral, mouse: LD50 = 107 mg/kg;

Oral, rabbit: LD50 = 150 mg/kg;

Oral, rat: LD50 = 124 mg/kg;

Skin, rabbit: LD50 = 1680 uL/kg;

Skin, rat: LD50 = 400 mg/kg;

CAS# 110-26-9:

Oral, mouse: LD50 = 380 mg/kg;

Oral, rat: LD50 = 390 mg/kg;

CAS# 151-21-3:

Draize test, rabbit, eye: 100 mg/24H Moderate;

Draize test, rabbit, eye: 250 ug Mild;

Draize test, rabbit, eye: 2 mg;

Draize test, rabbit, eye: 10 mg Moderate;

Draize test, rabbit, skin: 50 mg/24H Severe;

Draize test, rabbit, skin: 25 mg/24H Moderate;

Draize test, rabbit, skin: 250 mg/24H Moderate;

Draize test, rabbit, skin: 10 mg/24H;

Draize test, rabbit, skin: 50 mg/24H Mild;

Inhalation, rat: LC50 = >3900 mg/m³/1H;

Oral, rat: LD50 = 1288 mg/kg;

CAS# 7732-18-5:

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

Carcinogenicity:

CAS# 126-72-7:

- **ACGIH:** Not listed.

- **California:** carcinogen, initial date 1/1/88

- **NTP:** Suspect carcinogen

- **IARC:** Group 2A carcinogen

CAS# 79-06-1:

- **ACGIH:** A3 - Confirmed animal carcinogen with unknown relevance to humans

- **California:** carcinogen, initial date 1/1/90

- **NTP:** Suspect carcinogen

- **IARC:** Group 2A carcinogen

CAS# 110-26-9: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

CAS# 151-21-3: Not listed by ACGIH, IARC, NTP, or CA Prop 65.
CAS# 7732-18-5: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

Epidemiology: ACGIH calls acrylamide a confirmed animal carcinogen with unknown relevance to humans. An epidemiological study involving 8854 workers, 2293 exposed to acrylamide, did not show any significant increase in cancer mortality related to acrylamide exposure.

Teratogenicity: No data available.

Reproductive Effects: Reproductive effects have been reported for Tris.

Mutagenicity: Human mutation data has been reported for Tris. Mutation data has been reported for Sodium Dodecyl Sulfate.

Neurotoxicity: No data available.

Other Studies:

Section 12 - Ecological Information

No information available.

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 Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

RCRA P-Series: None listed.

RCRA U-Series:

CAS# 126-72-7: waste number U235.

CAS# 79-06-1: waste number U007.

Section 14 - Transport Information

	US DOT	Canada TDG
Shipping Name:	Not regulated as a hazardous material	No information available.
Hazard Class:		
UN Number:		
Packing Group:		

Section 15 - Regulatory Information

US FEDERAL

TSCA

CAS# 126-72-7 is listed on the TSCA inventory.

CAS# 79-06-1 is listed on the TSCA inventory.

CAS# 110-26-9 is listed on the TSCA inventory.

CAS# 151-21-3 is listed on the TSCA inventory.

CAS# 7732-18-5 is listed on the TSCA inventory.

Health & Safety Reporting List

CAS# 79-06-1: Effective 10/4/82, Sunset 10/4/92

Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

Section 12b

CAS# 126-72-7: Section 5

TSCA Significant New Use Rule

CAS# 126-72-7: This product is for research and development use only. It is subject to a SNUR which has specific requirements and restrictions. The specific citation for this product is 40CFR citation 721.6000.

CERCLA Hazardous Substances and corresponding RQs

CAS# 126-72-7: 10 lb final RQ; 4.54 kg final RQ CAS# 79-06-1: 5000 lb final RQ; 2270 kg final RQ

SARA Section 302 Extremely Hazardous Substances

CAS# 79-06-1: 1000 lb TPQ (lower threshold); 10000 lb TPQ (upper thres hold)

SARA Codes

CAS # 79-06-1: immediate, delayed, sudden release of pressure, reactive.

CAS # 110-26-9: immediate, delayed, reactive.

CAS # 151-21-3: immediate.

Section 313

This material contains Tris (CAS# 126-72-7, 9.1%), which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373.

This material contains Acrylamide (CAS# 79-06-1, 3.9%), which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373.

Clean Air Act:

CAS# 79-06-1 is listed as a hazardous air pollutant (HAP).

This material does not contain any Class 1 Ozone depleters.

This material does not contain any Class 2 Ozone depleters.

Clean Water Act:

None of the chemicals in this product are listed as Hazardous Substances under the CWA.

None of the chemicals in this product are listed as Priority Pollutants under the CWA.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA:

None of the chemicals in this product are considered highly hazardous by OSHA.

STATE

CAS# 126-72-7 can be found on the following state right to know lists: California, New Jersey, Pennsylvania, Minnesota, Massachusetts.

CAS# 79-06-1 can be found on the following state right to know lists: California, New Jersey, Pennsylvania, Minnesota, Massachusetts.

CAS# 110-26-9 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

CAS# 151-21-3 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

CAS# 7732-18-5 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

California Prop 65**The following statement(s) is(are) made in order to comply with the California Safe Drinking Water Act:**

WARNING: This product contains Tris, a chemical known to the state of California to cause cancer. WARNING: This product contains Acrylamide, a chemical known to the state of California to cause cancer.

California No Significant Risk Level: CAS# 126-72-7: 0.3 $\mu\text{g}/\text{day}$ NSRL CAS# 79-06-1: 0.2 $\mu\text{g}/\text{day}$ NSRL

European/International Regulations**European Labeling in Accordance with EC Directives****Hazard Symbols:**

Not available.

Risk Phrases:**Safety Phrases:****WGK (Water Danger/Protection)**

CAS# 126-72-7: No information available.

CAS# 79-06-1: 3

CAS# 110-26-9: 2

CAS# 151-21-3: 2

CAS# 7732-18-5: No information available.

Canada - DSL/NDSL

CAS# 79-06-1 is listed on Canada's DSL List.

CAS# 110-26-9 is listed on Canada's DSL List.

CAS# 151-21-3 is listed on Canada's DSL List.

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

CAS# 126-72-7 is listed on Canada's NDSL List.

Canada - WHMIS

WHMIS: Not available.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

Canadian Ingredient Disclosure List

CAS# 126-72-7 is listed on the Canadian Ingredient Disclosure List.

CAS# 79-06-1 is listed on the Canadian Ingredient Disclosure List.

CAS# 151-21-3 is listed on the Canadian Ingredient Disclosure List.

Section 16 - Additional Information

MSDS Creation Date: 4/01/1998

Revision #3 Date: 3/04/2004

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 Fisher 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 Fisher has been advised of the possibility of such damages.