

Safety Data Sheet Summary LIQUID*Plex*™-LAC Reagents for Illumina®

Supplier Address: Telephone:	Integrated DNA Technologies, Inc. (IDT) 2425 55th Street Boulder, CO 80301 877-771-1093
Fax:	303-736-7150
Email:	archer-tech@idtdna.com
Web:	www.archerdx.com
Emergency Telephone:	For Spill, Leak, Fire, Exposure, or Accident CHEMTREC Within USA and Canada: 1-800-424-9300 CCN871892 Outside USA and Canada: +1 703-527-3887 (collect calls accepted)

LIQUIDPlex[™]-LAC Reagents for Illumina® contains the following parts:

Sales Kit Number	Part Number	SDS Number	Part Description
	SA0205	SDS0014	Complete End Repair – 8 reactions
	SA0196	SDS0016	Ligation Step 1 – 8 reactions
	SA0197	SDS0018	Ligation Step 2 – 8 reactions
SK0195	SA0361	SDS0082	First PCR for Illumina®-HGC, 8 reactions
	SA0843	SDS0160	Second PCR for Illumina®-HGC, 8 reactions
	SA0209	SDS0073	Ligation Cleanup Buffer – 8 reactions
	SA0210	SDS0075	Ligation Cleanup Beads – 8 reactions



Complete End Repair

1 Product and company identification

Product identifier:	Complete End Repair
SDS number:	SDS0014
Version:	3
Internal ID:	SA0205
	SA0377
	SA0637
Relevant identified uses	
of the substance or mixture and uses advised against:	For research use only. Not for use in diagnostic procedures.
Supplier details:	Integrated DNA Technologies, Inc. (IDT) 2425 55th Street Boulder, CO 80301
Phone:	877-771-1093
Fax:	303-736-7150
Email:	archer-tech@idtdna.com
Web:	http://www.archerdx.com/
Emergency telephone	
number:	For Spill, Leak, Fire, Exposure, or Accident
	CHEMTREC Within USA and Canada: 1-800-424-9300 CCN871892 Outside USA and Canada: +1 703-527-3887 (collect calls accepted)
Further information:	This sheet was prepared on a voluntary basis.

2 Hazards identification

Classification of the substance or mixture

Not a hazardous substance or mixture (GHS-US, 1272/2008- EU)

Label elements

Not a hazardous substance or mixture (GHS-US, 1272/2008- EU)

Other hazards

None

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Complete End Repair

3 Composition/information on ingredients

Ingredients

This product contains no substances that are hazardous as defined in Section 2.

4 First aid measures

Description of first aid measures

General information:	In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).		
Inhalation:	In case of inhalation: move affected person to fresh air and keep at rest. If not breathing, give artificial respiration. If symptoms are severe or persist, seek medical advice immediately.		
Skin contact:	Immediately remove all contaminated clothing. After contact with skin, wash immediately with plenty of water and soap. If skin irritation or rash occurs: Get medical advice/attention.		
Eye contact:	Rinse immediately with plenty of water for at least 15 minutes. Keep eye wide open while rinsing. Remove contact lenses, if present and easy to do. Continue rinsing for several minutes. Get medical attention if any discomfort continues.		
Ingestion:	Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth thoroughly with water. When in doubt or if symptoms are observed, get medical advice/attention.		
Most important symptoms and effects, both acute and delayed:	The most important known symptoms and effects are described in labelling (see Section 2) and/or in Section 11.		
Indication of any immediate medical attention and special treatment needed:	No data available		

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Complete End Repair

5 Firefighting measures

Extinguishing media

Suitable extinguishing media: Extinguish with water fog, alcohol-resistant foam, dry chemical. or carbon dioxide.

Specific hazards arising from the chemical:

Carbon oxides (CO, CO2)

Chlorine compounds

Magnesium oxides

Nitrogen oxides (NOx)

Special hazards arising from the substance or mixture:

Exposure to decomposition products may be a hazard to health.

Advice for firefighters:

In case of fire: Wear self-contained breathing apparatus.

6 Accidental release measures

Personal precautions, protective equipment, and emergency procedures

Avoid inhalation of dust, vapors, mist, or gas. Ensure adequate ventilation. Evacuate untrained or unnecessary personnel to safe areas. For personal protection see Section 8.

Environmental precautions

Do not allow to enter surface water or drains. Discharge into the environment must be avoided. Prevent spread over a wide area (e.g., by containment or oil barriers).

Methods and materials for containment and cleaning up

Clear up spills immediately. Avoid creating dust. Clean any contaminated surfaces thoroughly. Mop up small spills. Dike area with sand or other inert material for large spills. Disposal should be in accordance with Section 13. Keep in suitable, closed containers for disposal.

Reference to other sections

Safe handling: See Section 7. Personal Protective Equipment: See Section 8. Disposal: See Section 13.

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Complete End Repair

7 Handling and storage

Precautions for safe handling

Advice on safe handling: Avoid contact with eyes or repeated or prolonged contact with skin.

Avoid inhalation.

Launder or discard contaminated clothing.

Smoking, eating, and drinking should be prohibited in application area.

Normal measures for preventative fire protection.

Wear suitable protective clothing (See section 8).

Advice on protection against fire and explosion:

See Section 5.

Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels:

Keep in original or labeled container. Keep container closed and store in cool, dry place. Recommended storage temperature: 4°C/ 40°F.

Further information on storage conditions:

Protect against: Light. UV-radiation/sunlight. Extreme heat. Extreme cold. Moisture.

Specific end use(s): Apart from the uses mentioned in Section 1 no other specific uses are stipulated.

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Complete End Repair

8 Exposure controls/personal protection

Control parameters: Hazardous components without workplace control parameters

Ingredients	CAS-No.
Magnesium chloride, hexahydrate	7791-18-6

Exposure controls

Appropriate engineering controls:

General industrial hygiene practice. Provide adequate ventilation, showers, and eyewash stations.

Protective and hygiene measures:

Always close containers tightly after the removal of product. Change contaminated clothing. Wash hands after working with product. When using do not eat, drink, or smoke.

- **Eye/face protection:** Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).
- **Skin protection:** Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching gloves outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.
- **Respiratory protection:** If necessary, use respirator as a backup to engineering controls. Use respirators and approved under appropriate government standards such as OSHA 29 CFR 1910.134 or European Standard EN 149.

Environmental exposure controls:

Keep container tightly closed when not in use. Do not let product enter drains.

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Complete End Repair

9 Physical and chemical properties

Information on basic physical and chemical properties **Physical state** Lyophilized powder Color White Odor Not determined pН Not applicable **Melting point** Not determined Initial boiling point and boiling range Not applicable Flash point Not applicable Sustaining combustion Not available Lower explosive limits Not available Upper explosive limits Not available Ignition temperature Not available Not available **Oxidizing properties** Vapor pressure (at 20°C) Not applicable Density (at 20°C) Not available Water solubility Not determined Solubility in other solvents Not available Not determined Auto-ignition temperature Not available **Decomposition temperature**

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Complete End Repair

10 Stability and reactivity

Reactivity:	Stable under recommended use and storage conditions. Hydroscopic.
Chemical Stability:	Stable under recommended use and storage conditions. Hydroscopic.
Possibility of hazardous rea	ctions:
	No data available.
Conditions to Avoid:	Strong oxidizing agents
Incompatible materials:	None known
Hazardous decomposition p	roducts:
	Hazardous decomposition products formed under fire conditions: carbon oxides (CO, CO2), other possibly toxic smoke or fumes. In the event of fire: see Section 5.

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Complete End Repair

11 Toxicological information

Information on toxicological effects

Toxicokinetic, metabolism and distribution: No information available.

Acute toxicity:

Inhalation: No data available

Dermal: No data available

Ingredients

Magnesium chloride, hexahydrate:

Acute oral toxicity: LD50 Oral (Rat): 8,100 mg/kg

Irritation and corrosivity

Eye: May be irritating. Symptoms of eye irritation include pain, tearing, reddening, and swelling.

Skin: May be irritating. Symptoms include rash and redness.

Inhalation: May be irritating. Symptoms of respiratory irritation include runny nose, sore throat, cough, chest discomfort, shortness of breath and reduced lung function.

Sensitizing effects

No data available

Carcinogenic/mutagenic/toxic effects for reproduction

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

STOT-single exposure

No data available

STOT-repeated exposure

No data available

Aspiration hazard

No data available

Specific effects in experiment on an animal

No information available

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Complete End Repair

12 Ecological information

Toxicity

No information available.

Persistence and degradability

No information available

Bio accumulative potential

No information available.

Mobility in soil

No information available.

Results of PBT and vPvB assessment

No information available.

Other adverse effects

No information available.

Further information

Do not allow uncontrolled discharge of product into the environment.

13 Disposal considerations

Waste treatment methods

Waste generators must determine whether a waste is hazardous and consult local, state, and national hazardous was regulations to ensure complete accurate classification to endure proper disposal.

14 Transport information

DOT (US)

Not a hazardous material.

IMDG

Not a dangerous goods.

ΙΑΤΑ

Not dangerous goods.

Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

Special precautions for user

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Complete End Repair

See Section 8.

15 Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA 302 components:

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 components:

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 hazards:

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

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Complete End Repair

16 Other information

Disclaimer:

DISCLAIMER: The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigation to determine the suitability of information for their particular purposes. In no event shall IDT 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, whatsoever arising, even if IDT has been advised of the possibility of such damages.

Abbreviations and acronyms:

CAS Chemical Abstracts Service

IMDG: International Maritime Code for Dangerous Goods IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

N/A: not applicable

OSHA: Occupational Safety and Health Administration

PBT: Persistent bioaccumulative toxic

SARA: Superfund Amendments and Reauthorization Act

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.



Ligation Step 1

1 Product and company identification

Product identifier:	Ligation Step 1
SDS number:	SDS0016
Version:	3
Internal ID:	SA0196
	SA0223
	SA0375

Relevant identified uses of the substance or mixture and uses advised against:

and uses advised against:	For research use only. Not for use in diagnostic procedures.	
Supplier details: Phone:	Integrated DNA Technologies, Inc. (IDT) 2425 55th Street Boulder, CO 80301 877-771-1093	
Fax:	303-736-7150	
Email:	archer-tech@idtdna.com	
Web:	http://www.archerdx.com/	
Emergency telephone		
number:	For Spill, Leak, Fire, Exposure, or Accident	
	CHEMTREC Within USA and Canada: 1-800-424-9300 CCN871892 Outside USA and Canada: +1 703-527-3887 (collect calls accepted)	
Further information:	This sheet was prepared on a voluntary basis.	

2 Hazards identification

Classification of the substance or mixture

Not a hazardous substance or mixture (GHS-US, 1272/2008- EU)

Label elements

Not a hazardous substance or mixture (GHS-US, 1272/2008- EU)

Other hazards

None

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Ligation Step 1

3 Composition/information on ingredients

Ingredients

This product contains no substances that are hazardous as defined in Section 2.

4 First aid measures

Description of first aid measures

General Information:	In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).		
Inhalation:	In case of inhalation: move affected person to fresh air and keep at rest. If not breathing, give artificial respiration. If symptoms are severe or persist, seek medical advice immediately.		
Skin Contact:	Immediately remove all contaminated clothing. After contact with skin, wash immediately with plenty of water and soap. If skin irritation or rash occurs: Get medical advice/attention.		
Eye Contact:	Rinse immediately with plenty of water for at least 15 minutes. Keep eye wide open while rinsing. Remove contact lenses, if present and easy to do. Continue rinsing for several minutes. Get medical attention if any discomfort continues.		
Ingestion:	Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth thoroughly with water. When in doubt or if symptoms are observed, get medical advice/attention.		
Most important symptoms and effects, both acute and delayed	: The most important known symptoms and effects are described in labelling (see Section 2) and/or in Section 11.		
Indication of any immediate medical attention and special treatment needed:	No data available		

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Ligation Step 1

5 Firefighting measures

Extinguishing media

Suitable extinguishing media: Extinguish with water fog, alcohol-resistant foam, dry chemical, or carbon dioxide.

Specific hazards arising from the chemical:

Carbon oxides (CO, CO2)

Chlorine compounds

Magnesium oxides

Nitrogen oxides (NOx)

Special hazards arising from the substance or mixture:

Exposure to decomposition products may be a hazard to health.

Advice for firefighters:

In case of fire: Wear self-contained breathing apparatus.

6 Accidental release measures

Personal precautions, protective equipment, and emergency procedures

Avoid inhalation of dust, vapors, mist, or gas. Ensure adequate ventilation. Evacuate untrained or unnecessary personnel to safe areas. For personal protection see Section 8.

Environmental precautions

Do not allow to enter surface water or drains. Discharge into the environment must be avoided. Prevent spread over a wide area (e.g., by containment or oil barriers).

Methods and materials for containment and cleaning up

Clear up spills immediately. Avoid creating dust. Clean any contaminated surfaces thoroughly. Mop up small spills. Dike area with sand or other inert material for large spills. Disposal should be in accordance with Section 13. Keep in suitable, closed containers for disposal.

References to other sections

Safe handling: See Section 7. Personal Protective Equipment: See Section 8.

Disposal: See Section 13.

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Ligation Step 1

7 Handling and storage

Precautions for safe handling

Advice on safe handling: Ensure adequate ventilation, especially in confined areas.

Avoid contact with eyes or repeated or prolonged contact with skin. Avoid inhalation.

Launder or discard contaminated clothing.

Smoking, eating, and drinking should be prohibited in application area.

Normal measures for preventative fire protection.

Wear suitable protective clothing (See section 8).

Advice on protection against fire and explosion:

See Section 5.

Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels:

Keep in original or labeled container.

Keep container closed and store in cool, dry place.

Recommended storage temperature 4°C/40°F.

Further information on storage conditions:

Protect against: Light. UV-radiation/sunlight. Extreme heat. Extreme cold. Moisture.

Specific end use(s): Apart from the uses mentioned in Section 1 no other specific uses are stipulated.

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8 Exposure controls/personal protection

Control parameters:

: Ingredients with workplace control parameters

Ingredients	CAS-No.	Value type (Form of exposure)	Control parameters/ Permissible concentration	Basis
Glycerol	56-81-5	TWA (mist, respirable fraction)	5 mg/m3	OSHA Z-1
		TWA (mist, total dust)	15 mg/m3	OSHA Z-1
		TWA (Total)	10 mg/m3	OSHA P0
		TWA (Respirable fraction)	5 mg/m3	OSHA P0
		TWA	10 mg/m3	ACGIH

Hazardous components without workplace control parameters

Ingredients	CAS-No.
Magnesium chloride, hexahydrate	7791-18-6

Exposure controls

Appropriate engineering controls:

General industrial hygiene practice. Provide adequate ventilation, showers, and eyewash stations.

Protective and hygiene measures:

Always close containers tightly after the removal of product. Change contaminated clothing. Wash hands after working with product. When using do not eat, drink, or smoke.

- **Eye/face protection:** Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).
- Skin protection: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching gloves outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

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Ligation Step 1

Respiratory protection: If necessary, use respirator as a backup to engineering controls. Use respirators and approved under appropriate government standards such as OSHA 29 CFR 1910.134 or European Standard EN 149.

Environmental exposure controls:

Keep container tightly closed when not in use. Do not let product enter drains.

9 Physical and chemical properties

Information on basic physical and chemical properties

Physical state	Lyophilized powder
Color	White
Odor	Not determined
рН	Not applicable
Melting point	Not determined
Initial boiling point and boiling range	Not applicable
Flash point	Not applicable
Sustaining combustion	Not available
Lower explosive limits	Not available
Upper explosive limits	Not available
Ignition temperature	Not available
Oxidizing properties	Not available
Vapor pressure (at 20°C)	Not applicable
Density (at 20°C)	Not available
Water solubility	Not determined
Solubility in other solvents	Not available
Auto-ignition temperature	Not determined
Decomposition temperature	Not available

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Ligation Step 1

10 Stability and reactivity

Reactivity:	Stable under recommended use and storage conditions. Hydroscopic.
Chemical stability:	This product is chemically stable under recommended use and storage conditions. Hydroscopic.
Possibility of hazardous reactions:	
	Can react briskly with oxidizers, danger of explosion
Conditions to avoid:	Strong oxidizing agents.
	Incompatible materials
	Ignition sources
	Heat
Incompatible materials:	Strong oxidizing agents
Hazardous decomposition products:	

Hazardous decomposition products formed under fire conditions: carbon oxides (CO, CO2), other possibly toxic smoke or fumes. In the event of fire: see Section 5.

11 Toxicological information

Information on toxicological effects

Toxicokinetic, metabolism and distribution: No information available.

Acute toxicity:

Inhalation: No data available

Dermal: No data available

Ingredients

Magnesium chloride, hexahydrate:

Acute oral toxicity: LD50 Oral (Rat): 8,100 mg/kg

Glycerol:

Acute oral toxicity: LD50 Oral (Rat): 12,000 mg/kg Acute dermal toxicity: LD50 Dermal Rabbit: 10,000 mg/kg

Irritation and corrosivity

Eye: May be irritating. Symptoms of eye irritation include pain, tearing, reddening, and swelling.

Skin: May be irritating. Symptoms include rash and redness.

Inhalation: May be irritating. Symptoms of respiratory irritation include runny nose, sore throat, cough, chest discomfort, shortness of breath and reduced lung function.

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Safety Data Sheet Ligation Step 1

Sensitizing effects

No data available

Carcinogenic/mutagenic/toxic effects for reproduction

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

STOT-single exposure

No data available

STOT-repeated exposure

No data available

Aspiration hazard

No data available

Specific effects in experiment on an animal

No information available

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Ligation Step 1

12 Ecological information

Toxicity

Ingredients:

Glycerol:

Toxicity to fish: LC0 (Leuciscus idus (Golden orfe)):> 250 mg/l

Exposure time: 48 h

Persistence and degradability

No data available

Bio accumulative potential

No information available.

Mobility in soil

No information available.

Results of PBT and vPvB assessment

No information available.

Other adverse effects

No information available.

Further information

Do not allow uncontrolled discharge of product into the environment.

13 Disposal considerations

Waste treatment methods

Waste generators must determine whether a waste is hazardous and consult local, state, and national hazardous was regulations to ensure complete accurate classification to endure proper disposal.



Ligation Step 1

14 Transport information

DOT (US)

Not a hazardous material.

IMDG

Not a dangerous goods.

ΙΑΤΑ

Not dangerous goods.

Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

Special precautions for user

See Section 8.

15 Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA 302 components:

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 components:

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 hazards:

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

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Ligation Step 1

16 Other information

Disclaimer:

DISCLAIMER: The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigation to determine the suitability of information for their particular purposes. In no event shall IDT 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, whatsoever arising, even if IDT has been advised of the possibility of such damages.

Abbreviations and acronyms:

CAS Chemical Abstracts Service

IMDG: International Maritime Code for Dangerous Goods IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

N/A: not applicable

OSHA: Occupational Safety and Health Administration

PBT: Persistent bioaccumulative toxic

SARA: Superfund Amendments and Reauthorization Act

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.



Ligation Step 2

1 Product and company identification

Product identifier:	Ligation Step 2
SDS number:	SDS0018
Version:	3
Internal ID:	SA0197
	SA0224
	SA0376
Relevant identified uses	

of the substance or mixture and uses advised against: Supplier details:	For research use only. Not for use in diagnostic procedures. Integrated DNA Technologies, Inc. (IDT) 2425 55th Street Boulder, CO 80301
Phone:	877-771-1093
Fax:	303-736-7150
Email:	archer-tech@idtdna.com
Web:	http://www.archerdx.com/
Emergency telephone	
number:	For Spill, Leak, Fire, Exposure, or Accident
	CHEMTREC Within USA and Canada: 1-800-424-9300 CCN871892 Outside USA and Canada: +1 703-527-3887 (collect calls accepted)
Further information:	This sheet was prepared on a voluntary basis.

2 Hazards identification

Classification of the substance or mixture

Not a hazardous substance or mixture (GHS-US, 1272/2008- EU)

Label elements

Not a hazardous substance or mixture (GHS-US, 1272/2008- EU)

Other hazards

None

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Ligation Step 2

3 Composition/information on ingredients

Ingredients

This product contains no substances that are hazardous as defined in Section 2.

4 First aid measures

Description of first aid measures

General information:	In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).
Inhalation:	In case of inhalation: move affected person to fresh air and keep at rest. If not breathing, give artificial respiration. If symptoms are severe or persist, seek medical advice immediately.
Skin contact:	Immediately remove all contaminated clothing. After contact with skin, wash immediately with plenty of water and soap. If skin irritation or rash occurs: Get medical advice/attention.
Eye contact:	Rinse immediately with plenty of water for at least 15 minutes. Keep eye wide open while rinsing. Remove contact lenses, if present and easy to do. Continue rinsing for several minutes. Get medical attention if any discomfort continues.
Ingestion:	Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth thoroughly with water. When in doubt or if symptoms are observed, get medical advice/attention.
Most important symptoms and effects, both acute and delayed:	The most important known symptoms and effects are described in labelling (see Section 2) and/or in Section 11.
Indication of any immediate medical attention and special treatment needed:	No data available

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Ligation Step 2

5 Firefighting measures

Extinguishing media

Suitable extinguishing media: Extinguish with water fog, alcohol-resistant foam, dry chemical, or carbon dioxide.

Specific hazards arising from the chemical:

Carbon oxides (CO, CO2)

Chlorine compounds

Magnesium oxides

Nitrogen oxides (NOx)

Special hazards arising from the substance or mixture:

Exposure to decomposition products may be a hazard to health.

Advice for firefighters:

In case of fire: Wear self-contained breathing apparatus.

6 Accidental release measures

Personal precautions, protective equipment, and emergency procedures

Avoid inhalation of dust, vapors, mist, or gas. Ensure adequate ventilation. Evacuate untrained or unnecessary personnel to safe areas. For personal protection see Section 8.

Environmental precautions

Do not allow to enter surface water or drains. Discharge into the environment must be avoided. Prevent spread over a wide area (e.g., by containment or oil barriers).

Methods and materials for containment and cleaning up

Clear up spills immediately. Avoid creating dust. Clean any contaminated surfaces thoroughly. Mop up small spills. Dike area with sand or other inert material for large spills. Disposal should be in accordance with Section 13. Keep in suitable, closed containers for disposal.

Reference to other sections

Safe handling: See Section 7. Personal Protective Equipment: See Section 8. Disposal: See Section 13.

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Ligation Step 2

7 Handling and storage

Precautions for safe handling

Advice on safe handling: Ensure adequate ventilation, especially in confined areas.

Avoid contact with eyes or repeated or prolonged contact with skin. Avoid inhalation.

Launder or discard contaminated clothing.

Smoking, eating, and drinking should be prohibited in application area.

Normal measures for preventative fire protection.

Advice on protection against fire and explosion:

See Section 5.

Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels:

Keep in original or labeled container. Keep container closed and store in cool, dry place. Recommended storage temperature: 4°C/ 40°F.

Further information on storage conditions:

Protect against: Light. UV-radiation/sunlight. Extreme heat. Extreme cold. Moisture.

Specific end use(s): Apart from the uses mentioned in Section 1 no other specific uses are stipulated.

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Ligation Step 2

8 Exposure controls/personal protection

Control parameters: Hazardous components without workplace control parameters

Ingredients	CAS-No.
Magnesium chloride, hexahydrate	7791-18-6

Exposure controls

Appropriate engineering controls:

General industrial hygiene practice. Provide adequate ventilation, showers, and eyewash stations.

Protective and hygiene measures:

Always close containers tightly after the removal of product. Change contaminated clothing. Wash hands after working with product. When using do not eat, drink, or smoke.

- **Eye/face protection:** Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).
- **Skin protection:** Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching gloves outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.
- **Respiratory protection:** If necessary, use respirator as a backup to engineering controls. Use respirators and approved under appropriate government standards such as OSHA 29 CFR 1910.134 or European Standard EN 149.

Environmental exposure controls:

Keep container tightly closed when not in use. Do not let product enter drains.

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Ligation Step 2

9 Physical and chemical properties

Information on basic physical and chemical properties **Physical state** Lyophilized powder Color White Odor Not determined pН Not applicable **Melting point** Not determined Initial boiling point and boiling range Not applicable Flash point Not applicable Sustaining combustion Not available Not available Lower explosive limits Upper explosive limits Not available Ignition temperature Not available Not available **Oxidizing properties** Vapor pressure (at 20°C) Not applicable Density (at 20°C) Not available Water solubility Not determined Solubility in other solvents Not available Not determined Auto-ignition temperature Not available **Decomposition temperature**

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Ligation Step 2

10 Stability and reactivity

Reactivity:	Stable under recommended use and storage conditions. Hydroscopic.	
Chemical Stability:	Stable under recommended use and storage conditions. Hydroscopic.	
Possibility of hazardous reactions:		
	No data available.	
Conditions to Avoid:	Strong oxidizing agents	
Incompatible materials:	None known	
Hazardous decomposition products:		
	Hazardous decomposition products formed under fire conditions: carbon oxides (CO, CO2), other possibly toxic smoke or fumes. In the event of fire: see Section 5.	

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Ligation Step 2

11 Toxicological information

Information on toxicological effects

Toxicokinetic, metabolism and distribution: No information available.

Acute toxicity:

Inhalation: No data available

Dermal: No data available

Ingredients

Magnesium chloride, hexahydrate:

Acute oral toxicity: LD50 Oral (Rat): 8,100 mg/kg

Irritation and corrosivity

Eye: May be irritating. Symptoms of eye irritation include pain, tearing, reddening, and swelling.

Skin: May be irritating. Symptoms include rash and redness.

Inhalation: May be irritating. Symptoms of respiratory irritation include runny nose, sore throat, cough, chest discomfort, shortness of breath and reduced lung function.

Sensitizing effects

No data available

Carcinogenic/mutagenic/toxic effects for reproduction

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

STOT-single exposure

No data available

STOT-repeated exposure

No data available

Aspiration hazard

No data available

Specific effects in experiment on an animal

No information available

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Ligation Step 2

12 Ecological information

Toxicity

No information available.

Persistence and degradability

No information available

Bio accumulative potential

No information available.

Mobility in soil

No information available.

Results of PBT and vPvB assessment

No information available.

Other adverse effects

No information available.

Further information

Do not allow uncontrolled discharge of product into the environment.

13 Disposal considerations

Waste treatment methods

Waste generators must determine whether a waste is hazardous and consult local, state, and national hazardous was regulations to ensure complete accurate classification to endure proper disposal.

14 Transport information

DOT (US)

Not a hazardous material.

IMDG

Not a dangerous goods.

ΙΑΤΑ

Not dangerous goods.

Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

Special precautions for user

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Ligation Step 2

See Section 8.

15 Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA 302 components:

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 components:

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 hazards:

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

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Ligation Step 2

16 Other information

Disclaimer:

DISCLAIMER: The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigation to determine the suitability of information for their particular purposes. In no event shall IDT 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, whatsoever arising, even if IDT has been advised of the possibility of such damages.

Abbreviations and acronyms:

CAS Chemical Abstracts Service

IMDG: International Maritime Code for Dangerous Goods IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

N/A: not applicable

OSHA: Occupational Safety and Health Administration

PBT: Persistent bioaccumulative toxic

SARA: Superfund Amendments and Reauthorization Act

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.



First PCR for Illumina®-HGC

1 Product and company identification

Product identifier: SDS number: Version: Internal ID:	First PCR for Illumina®-HGC SDS0082 2 SA0361 SA0643 SA0660
Relevant identified uses of the substance or mixture and uses advised against:	For research use only. Not for use in diagnostic procedures.
Supplier details:	Integrated DNA Technologies, Inc. (IDT) 2425 55th Street Boulder, CO 80301 877-771-1093
Fax:	303-736-7150
Email:	archer-tech@idtdna.com
Web:	http://www.archerdx.com/
Emergency telephone number:	For Spill, Leak, Fire, Exposure, or Accident CHEMTREC Within USA and Canada: 1-800-424-9300 CCN871892 Outside USA and Canada: +1 703-527-3887 (collect calls accepted)
Further information:	This sheet was prepared on a voluntary basis.

2 Hazards identification

Classification of the substance or mixture

Not a hazardous substance or mixture (GHS-US, 1272/2008- EU)

Label elements

Not a hazardous substance or mixture (GHS-US, 1272/2008- EU)

Other hazards

None

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First PCR for Illumina®-HGC

3 Composition/information on ingredients

Ingredients

This product contains no substances that are hazardous as defined in Section 2.

4 First aid measures

Description of first aid measures

General information:	In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).
Inhalation:	In case of inhalation: move affected person to fresh air and keep at rest. If not breathing, give artificial respiration. If symptoms are severe or persist, seek medical advice immediately.
Skin contact:	Immediately remove all contaminated clothing. After contact with skin, wash immediately with plenty of water and soap. If skin irritation or rash occurs: Get medical advice/attention.
Eye contact:	Rinse immediately with plenty of water for at least 15 minutes. Keep eye wide open while rinsing. Remove contact lenses, if present and easy to do. Continue rinsing for several minutes. Get medical attention if any discomfort continues.
Ingestion:	Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth thoroughly with water. When in doubt or if symptoms are observed, get medical advice/attention.
Most important symptoms and effects, both acute and delayed: The most important known symptoms and effects are described in labelling (see Section 2) and/or in Section 11.	
Indication of any immediate medical attention and special treatment needed:	No data available

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First PCR for Illumina®-HGC

5 Firefighting measures

Extinguishing media

Suitable extinguishing media: Extinguish with water fog, alcohol-resistant foam, dry chemical, or carbon dioxide.

Specific hazards arising from the chemical:

Carbon oxides (CO, CO2)

Sulfur oxides

Nitrogen oxides (NOx)

Special hazards arising from the substance or mixture:

Exposure to decomposition products may be a hazard to health.

In case of fire: Wear self-contained breathing apparatus.

Advice for firefighters:

6 Accidental release measures

Personal precautions, protective equipment, and emergency procedures

Avoid inhalation of dust, vapors, mist, or gas. Ensure adequate ventilation. Evacuate untrained or unnecessary personnel to safe areas. For personal protection see Section 8.

Environmental precautions

Do not allow to enter surface water or drains. Discharge into the environment must be avoided. Prevent spread over a wide area (e.g., by containment or oil barriers).

Methods and materials for containment and cleaning up

Clear up spills immediately. Avoid creating dust. Clean any contaminated surfaces thoroughly. Mop up small spills. Dike area with sand or other inert material for large spills. Disposal should be in accordance with Section 13. Keep in suitable, closed containers for disposal.

References to other sections

Safe handling: See Section 7.

Personal Protective Equipment: See Section 8.

Disposal: See Section 13.

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First PCR for Illumina®-HGC

7 Handling and storage

Precautions for safe handling

Advice on safe handling: Ensure adequate ventilation, especially in confined areas.

Smoking, eating, and drinking should be prohibited in application area.

Normal measures for preventative fire protection.

Wear suitable protective clothing (See section 8).

Avoid contact with eyes or repeated or prolonged contact with skin. Avoid inhalation.

Launder or discard contaminated clothing.

Advice on protection against fire and explosion:

See Section 5.

Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels:

Keep in original or labeled container. Keep container closed and store in cool, dry place. Recommended storage temperature: 4°C/40°F.

Further information on storage conditions:

Protect against: Light. UV-radiation/sunlight. Extreme heat. Extreme cold. Moisture.

Specific end use(s): Apart from the uses mentioned in Section 1 no other specific uses are stipulated.

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First PCR for Illumina®-HGC

8 Exposure controls/personal protection

Control parameters:

Ingredients with workplace control parameter

Component	CAS-No.	Value type (Form of exposure)	Control parameters/ Permissible concentration	Basis
Dimethyl sulfoxide	67-68-5	TWA	250 ppm	US WEEL
Glycerol	56-81-5	TWA (mist, respirable fraction)	5 mg/m3	OSHA Z-1
		TWA (mist total dust)	15 mg/m3	OSAH Z-1
		TWA (Mist – total dust)	10 mg/m3	OSAH P0
		TWA (Mist – respirable fraction)	5 mg/m3	OSHA P0

Exposure controls

Appropriate engineering controls:

General industrial hygiene practice. Provide adequate ventilation, showers, eyewash stations.

Protective and hygiene measures:

Always close containers tightly after the removal of product. Change contaminated clothing. Wash hands after working with product. When using do not eat, drink, or smoke.

- **Eye/face protection:** Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).
- Skin protection: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching gloves outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.
- **Respiratory protection:** If necessary, use respirator as a backup to engineering controls. Use respirators and approved under appropriate government standards such as OSHA 29 CFR 1910.134 or European Standard EN 149.

Environmental exposure controls:

Keep container tightly closed when not in use. Do not let product enter drains.

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First PCR for Illumina®-HGC

9 Physical and chemical properties

Information on basic physical and chemical properties **Physical state** Lyophilized powder Color White Odor Not determined pН Not available **Melting point** Not determined Initial boiling point and boiling range Not applicable Flash point Not applicable Not available Sustaining combustion Not available Lower explosive limits Upper explosive limits Not available Ignition temperature Not available **Oxidizing properties** Not available Vapor pressure (at 20°C) Not applicable Density (at 20°C) Not available Water solubility Not determined Solubility in other solvents Not available Not determined Auto-ignition temperature Not available **Decomposition temperature**

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First PCR for Illumina®-HGC

10 Stability and reactivity

Reactivity:	Stable under recommended use and storage conditions. Hydroscopic.
Chemical stability:	Stable under recommended use and storage conditions. Hydroscopic.
Possibility of hazardous rea	ctions:
	No data available.
Conditions to avoid:	Strong oxidizing agents
Incompatible materials:	None known
Hazardous decomposition p	products:
	Hazardous decomposition products formed under fire conditions: carbon oxides (CO, CO2), other possibly toxic smoke or fumes. In the event of fire: see Section 5.

11 Toxicological information

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First PCR for Illumina®-HGC

Information on toxicological effects

Toxicokinetic, metabolism and distribution: No information available.

Acute toxicity:

Inhalation: No data available

Dermal: No data available

Dimethyl sulfoxide:

Acute oral toxicity: LD50 Oral (Rat): 14,500 mg/kg

Acute inhalation toxicity: LC50 (Rat): 40,250 mg/l, 40250 ppm

Exposure time: 4 h

Test atmosphere: dust/mist

Acute dermal toxicity: LD50 Dermal (Rabbit): > 5,000 mg/kg

Glycerol:

Acute oral toxicity: LD50 Oral (Rat): 12,000 mg/kg Acute dermal toxicity: LD50 Dermal (Rabbit): 10,000 mg/kg

Irritation and corrosivity

Eye: May be irritating. Symptoms of eye irritation include pain, tearing, reddening, and swelling.

Skin: May be irritating. Symptoms include rash and redness.

Inhalation: May be irritating. Symptoms of respiratory irritation include runny nose, sore throat, cough, chest discomfort, shortness of breath and reduced lung function.

Sensitizing effects

No data available

Carcinogenic/mutagenic/toxic effects for reproduction

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

STOT-single exposure

No data available

STOT-repeated exposure

No data available

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First PCR for Illumina®-HGC

Aspiration hazard

No data available

Specific effects in experiment on an animal

No information available

12 Ecological information

Toxicity

No data available.

Components:

Dimethyl sulfoxide:

Toxicity to fish: LC50 (Pimephales promelas (fathead minnow)): 34,000 mg/l

Exposure time: 96 h

LC50 (Oncorhynchus mykiss (rainbow trout)): 35,000 mg/l

Exposure time: 96 h

Toxicity to daphnia and other: EC50 (Daphnia pulex (Water flea)): 27,000 mg/l aquatic invertebrates

Glycerol:

Toxicity to fish: LC0 (Leuciscus idus (Golden orfe)): > 250 mg/l

Exposure time: 48 h

Persistence and degradability

No data available

Bio accumulative potential

No information available.

Mobility in soil

No information available.

Results of PBT and vPvB assessment

No information available.

Other adverse effects

No information available.

Further information

Do not allow uncontrolled discharge of product into the environment.

13 Disposal considerations

Waste treatment methods

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First PCR for Illumina®-HGC

Waste generators must determine whether a waste is hazardous and consult local, state, and national hazardous was regulations to ensure complete accurate classification to endure proper disposal.

14 Transport information

DOT (US)

Not a hazardous material.

IMDG

Not a dangerous goods.

ΙΑΤΑ

Not dangerous goods.

Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

Special precautions for user

See Section 8.

15 Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA 302 components:

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 components:

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 hazards:

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

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First PCR for Illumina®-HGC

16 Other information

Disclaimer:

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Abbreviations and acronyms:

CAS Chemical Abstracts Service

IMDG: International Maritime Code for Dangerous Goods IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

N/A: not applicable

OSHA: Occupational Safety and Health Administration

PBT: Persistent bioaccumulative toxic

SARA: Superfund Amendments and Reauthorization Act

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.



Second PCR for Illumina®-HGC, 8 Reactions

1 Product and company identification

Product identifier:	Second PCR for Illumina®-HGC, 8 Reactions
SDS number:	SDS0160
Version:	1
Internal ID:	SA0843
Relevant identified uses	
of the substance or mixture	
and uses advised against:	For research use only. Not for use in diagnostic procedures.
Supplier details:	Integrated DNA Technologies, Inc. (IDT)
	2425 55th Street
	Boulder, CO 80301
Phone:	877-771-1093
Fax:	303-736-7150
Email:	archer-tech@idtdna.com
Web:	http://www.archerdx.com/
Emergency telephone	
number:	For Spill, Leak, Fire, Exposure, or Accident
	CHEMTREC
	Within USA and Canada: 1-800-424-9300 CCN871892
	Outside USA and Canada: +1 703-527-3887
	(collect calls accepted)
Further information:	This sheet was prepared on a voluntary basis.

2 Hazards identification

Classification of the substance or mixture

Not a hazardous substance or mixture (GHS-US, 1272/2008- EU)

Label elements

Not a hazardous substance or mixture (GHS-US, 1272/2008- EU)

Other hazards

None

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Second PCR for Illumina®-HGC, 8 Reactions

3 Composition/information on ingredients

Ingredients

This product contains no substances that are hazardous as defined in Section 2.

4 First aid measures

Description of first aid measures

General information:	In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).
Inhalation:	In case of inhalation: move affected person to fresh air and keep at rest. If not breathing, give artificial respiration. If symptoms are severe or persist, seek medical advice immediately.
Skin contact:	Immediately remove all contaminated clothing. After contact with skin, wash immediately with plenty of water and soap. If skin irritation or rash occurs: Get medical advice/attention.
Eye contact:	Rinse immediately with plenty of water for at least 15 minutes. Keep eye wide open while rinsing. Remove contact lenses, if present and easy to do. Continue rinsing for several minutes. Get medical attention if any discomfort continues.
Ingestion:	Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth thoroughly with water. When in doubt or if symptoms are observed, get medical advice/attention.
Most important	
symptoms and effects,	
both acute and delayed:	The most important known symptoms and effects are described in labelling (see Section 2) and/or in Section 11.

Indication of any	
immediate medical	
attention and special	
treatment needed:	No data available

5 Firefighting measures

Extinguishing media

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Second PCR for Illumina®-HGC, 8 Reactions

Suitable extinguishing media:

Extinguish with water fog, alcohol-resistant foam, dry chemical, or carbon dioxide.

Specific hazards arising from the chemical:

Carbon oxides (CO, CO2)

Sulfur oxides

Nitrogen oxides (NOx)

Special hazards arising from the substance or mixture:

Exposure to decomposition products may be a hazard to health.

Advice for firefighters: In case of fire: Wear self-contained breathing apparatus.

6 Accidental release measures

Personal precautions, protective equipment, and emergency procedures

Avoid inhalation of dust, vapors, mist, or gas. Ensure adequate ventilation. Evacuate untrained or unnecessary personnel to safe areas. For personal protection see Section 8.

Environmental precautions

Do not allow to enter surface water or drains. Discharge into the environment must be avoided. Prevent spread over a wide area (e.g., by containment or oil barriers).

Methods and materials for containment and cleaning up

Clear up spills immediately. Avoid creating dust. Clean any contaminated surfaces thoroughly. Mop up small spills. Dike area with sand or other inert material for large spills. Disposal should be in accordance with Section 13. Keep in suitable, closed containers for disposal.

References to other sections

Safe handling: See Section 7.

Personal Protective Equipment: See Section 8.

Disposal: See Section 13.

7 Handling and storage

Precautions for safe handling

Advice on safe handling: Ensure adequate ventilation, especially in confined areas.

Smoking, eating, and drinking should be prohibited in application area.

Normal measures for preventative fire protection.

Wear suitable protective clothing (See section 8).

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Second PCR for Illumina®-HGC, 8 Reactions

Avoid contact with eyes or repeated or prolonged contact with skin. Avoid inhalation.

Launder or discard contaminated clothing.

Advice on protection against fire and explosion:

See Section 5.

Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels:

Keep in original or labeled container.

Keep container closed and store in cool, dry place.

Recommended storage temperature: 4°C/40°F.

Further information on storage conditions:

Protect against: Light. UV-radiation/sunlight. Extreme heat. Extreme cold. Moisture.

Specific end use(s): Apart from the uses mentioned in Section 1 no other specific uses are stipulated.

8 Exposure controls/personal protection

Control parameters:

Ingredients with workplace control parameter

Component	CAS-No.	Value type (Form of exposure)	Control parameters/ Permissible concentration	Basis
Dimethyl sulfoxide	67-68-5	TWA	250 ppm	US WEEL
Glycerol	56-81-5	TWA (mist, respirable fraction)	5 mg/m3	OSHA Z-1
		TWA (mist total dust)	15 mg/m3	OSAH Z-1
		TWA (Mist – total dust)	10 mg/m3	OSAH P0
		TWA (Mist – respirable fraction)	5 mg/m3	OSHA PO

Exposure controls

Appropriate engineering controls:

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Second PCR for Illumina®-HGC, 8 Reactions

General industrial hygiene practice. Provide adequate ventilation, showers, eyewash stations.

Protective and hygiene measures:

Always close containers tightly after the removal of product. Change contaminated clothing. Wash hands after working with product. When using do not eat, drink, or smoke.

- **Eye/face protection:** Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).
- Skin protection: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching gloves outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.
- **Respiratory protection:** If necessary, use respirator as a backup to engineering controls. Use respirators and approved under appropriate government standards such as OSHA 29 CFR 1910.134 or European Standard EN 149.

Environmental exposure controls:

Keep container tightly closed when not in use. Do not let product enter drains.

9 Physical and chemical properties

Information on basic physical and chemical properties

Physical state	Lyophilized powder
Color	White
Odor	Not determined
рН	Not available
Melting point	Not determined
Initial boiling point and boiling range	Not applicable
Flash point	Not applicable
Sustaining combustion	Not available
Lower explosive limits	Not available
Upper explosive limits	Not available
Ignition temperature	Not available
Oxidizing properties	Not available

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Second PCR for Illumina®-HGC, 8 Reactions

Vapor pressure (at 20°C) Density (at 20°C) Water solubility Solubility in other solvents Auto-ignition temperature Decomposition temperature

Not applicable Not available Not determined Not available Not determined Not available

10 Stability and reactivity

 Reactivity:
 Stable under recommended use and storage conditions. Hydroscopic.

 Chemical stability:
 Stable under recommended use and storage conditions. Hydroscopic.

Possibility of hazardous reactions:

No data available.

Conditions to avoid:	Strong oxidizing agents
----------------------	-------------------------

Incompatible materials: None known

Hazardous decomposition products:

Hazardous decomposition products formed under fire conditions: carbon oxides (CO, CO2), other possibly toxic smoke or fumes. In the event of fire: see Section 5.

11 Toxicological information

Information on toxicological effects

Toxicokinetic, metabolism and distribution: No information available.

Acute toxicity:

Inhalation: No data available

Dermal: No data available

Dimethyl sulfoxide:

Acute oral toxicity: LD50 Oral (Rat): 14,500 mg/kg

Acute inhalation toxicity: LC50 (Rat): 40,250 mg/l, 40250 ppm

Exposure time: 4 h

Test atmosphere: dust/mist

Acute dermal toxicity: LD50 Dermal (Rabbit): > 5,000 mg/kg

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Second PCR for Illumina®-HGC, 8 Reactions

Glycerol:

Acute oral toxicity: LD50 Oral (Rat): 12,000 mg/kg

Acute dermal toxicity: LD50 Dermal (Rabbit): 10,000 mg/kg

Irritation and corrosivity

Eye: May be irritating. Symptoms of eye irritation include pain, tearing, reddening, and swelling.

Skin: May be irritating. Symptoms include rash and redness.

Inhalation: May be irritating. Symptoms of respiratory irritation include runny nose, sore throat, cough, chest discomfort, shortness of breath and reduced lung function.

Sensitizing effects

No data available

Carcinogenic/mutagenic/toxic effects for reproduction

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

STOT-single exposure

No data available

STOT-repeated exposure

No data available

Aspiration hazard

No data available

Specific effects in experiment on an animal

No information available

12 Ecological information

Toxicity

No data available.

Components:

Dimethyl sulfoxide:

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Second PCR for Illumina®-HGC, 8 Reactions

Toxicity to fish: LC50 (Pimephales promelas (fathead minnow)): 34,000 mg/l Exposure time: 96 h LC50 (Oncorhynchus mykiss (rainbow trout)): 35,000 mg/l Exposure time: 96 h Toxicity to daphnia and other: EC50 (Daphnia pulex (Water flea)): 27,000 mg/l aquatic invertebrates **Glycerol:** Toxicity to fish: LC0 (Leuciscus idus (Golden orfe)): > 250 mg/l Exposure time: 48 h Persistence and degradability No data available **Bio accumulative potential** No information available. Mobility in soil No information available. Results of PBT and vPvB assessment No information available. Other adverse effects No information available. **Further information** Do not allow uncontrolled discharge of product into the environment. **13** Disposal considerations

Waste treatment methods

Waste generators must determine whether a waste is hazardous and consult local, state, and national hazardous was regulations to ensure complete accurate classification to endure proper disposal.

14 Transport information

DOT (US)

Not a hazardous material.

IMDG

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Second PCR for Illumina®-HGC, 8 Reactions

Not a dangerous goods.

ΙΑΤΑ

Not dangerous goods.

Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

Special precautions for user

See Section 8.

15 Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA 302 components:

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 components:

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 hazards:

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

16 Other information

Disclaimer:

DISCLAIMER: The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigation to determine the suitability of information for their particular purposes. In no event shall IDT 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, whatsoever arising, even if IDT has been advised of the possibility of such damages.

Abbreviations and acronyms:

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Second PCR for Illumina®-HGC, 8 Reactions

CAS Chemical Abstracts Service

IMDG: International Maritime Code for Dangerous Goods IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

N/A: not applicable

OSHA: Occupational Safety and Health Administration

PBT: Persistent bioaccumulative toxic

SARA: Superfund Amendments and Reauthorization Act

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

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Ligation Cleanup Buffer

1 Product and company identification

Product identifier:	Ligation Cleanup Buffer	
SDS number:	SDS0073	
Version:	4	
Internal ID:	SA0209, SA0656, SA0690	
Relevant identified uses of the substance or mixture		
and uses advised against:	For research use only. Not for use in diagnostic procedures.	
Supplier details:	Integrated DNA Technologies, Inc. (IDT) 2425 55th Street Boulder, CO 80301	
Phone:	877-771-1093	
Fax:	303-736-7150	
Email:	archer-tech@idtdna.com	
Web:	www.archerdx.com	
Emergency telephone		
number:	For Spill, Leak, Fire, Exposure, or Accident	
	CHEMTREC Within USA and Canada: 1-800-424-9300 CCN871892 Outside USA and Canada: +1 703-527-3887 (collect calls accepted)	
Further information:	This sheet was prepared on a voluntary basis.	

2 Hazards identification

Classification of the substance or mixture

Not a hazardous substance or mixture (GHS-US, 1272/2008- EU)

Label elements

Not a hazardous substance or mixture (GHS-US, 1272/2008- EU)

Other hazards

None



Ligation Cleanup Buffer

3 Composition/information on ingredients

Ingredients

This product contains no substances that are hazardous as defined in Section 2.

4 First aid measures

Description of first aid measures

General information:	In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).
Inhalation:	In case of inhalation: move affected person to fresh air and keep at rest. If symptoms are severe or persist, seek medical advice immediately.
Skin contact:	Immediately remove all contaminated clothing. After contact with skin, wash immediately with plenty of water and soap. If skin irritation or rash occurs: Get medical advice/attention.
Eye contact:	Rinse immediately with plenty of water for several minutes. Keep eye wide open while rinsing. Remove contact lenses, if present and easy to do. Continue rinsing for several minutes. Get medical attention if any discomfort continues.
Ingestion:	Do NOT induce vomiting. Rinse mouth thoroughly with water. When in doubt or if symptoms are observed, get medical advice/attention.
Most important symptoms and effects, both acute and delayed:	The most important known symptoms and effects are described in Section 2 (Label elements) and/or in Section 11.
Indication of any immediate medical attention and special treatment needed:	No data available



Ligation Cleanup Buffer

5 Firefighting measures

Extinguishing media

Suitable extinguishing media: Extinguish with water fog, alcohol-resistant foam, dry chemical. or carbon dioxide.

Specific hazards arising from the chemical:

Carbon oxides

Sodium oxides

Hydrogen chloride gas

Special hazards arising from the substance or mixture:

Exposure to decomposition products may be a hazard to health.

In case of fire: Wear self-contained breathing apparatus.

Advice for firefighters:

6 Accidental release measures

Personal precautions, protective equipment, and emergency procedures

Avoid inhalation of fume/gas/mist/vapors. For personal protection see Section 8.

Environmental precautions

Do not allow to enter into surface water or drains. Discharge into the environment must be avoided. Prevent spread over a wide area (e.g., by containment or oil barriers).

Methods and materials for containment and cleaning up

Clear up spills immediately. Clean any contaminated surfaces thoroughly. Disposal should be in accordance with Section 13. Keep in suitable, closed containers for disposal.

Reference to other sections

Safe handling: See Section 7. Personal Protective Equipment: See Section 8. Disposal: See Section 13.



Ligation Cleanup Buffer

7 Handling and storage

Precautions for safe handling

Advice on safe handling: Ensure adequate ventilation, especially in confined areas.

Smoking, eating, and drinking should be prohibited in application area.

Normal measures for preventative fire protection.

Wear suitable protective clothing (See section 8).

For precautions see Section 2.

Advice on protection against fire and explosion:

See Section 5.

Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels:

Keep container tightly closed in dry and well-ventilated place.

Further information on storage conditions:

Protect against: Light. UV-radiation/sunlight. Extreme heat. Extreme cold. Moisture.

Specific end use(s): Apart from the uses mentioned in Section 1 no other specific uses are stipulated.



Ligation Cleanup Buffer

8 Exposure controls/personal protection

Control parameters: This product, as supplied, does not contain any substances with established occupational exposure limits.

Exposure controls

Appropriate engineering controls:

General industrial hygiene practice. Provide adequate ventilation, showers, and eyewash stations.

Protective and hygiene measures:

Always close containers tightly after the removal of product. Change contaminated clothing. Wash hands after working with product. When using do not eat, drink, or smoke.

- **Eye/face protection:** Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).
- **Skin protection:** Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching gloves outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.
- **Respiratory protection:** If necessary, use respirator as a backup to engineering controls. Use respirators and approved under appropriate government standards such as OSHA 29 CFR 1910.134 or European Standard EN 149.

Environmental exposure controls:

Keep container tightly closed when not in use. Do not let product enter drains.



Ligation Cleanup Buffer

9 Physical and chemical properties

Information on basic physical and chemical properties		
Physical state	Liquid	
Color	Colorless	
Odor	Odorless	
рН	5 - 10	
Melting point	Not available	
Initial boiling point and boiling range	Not available	
Flash point	Not available	
Sustaining combustion	Not available	
Lower explosive limits	Not available	
Upper explosive limits	Not available	
Ignition temperature	Not available	
Oxidizing properties	Not available	
Vapor pressure (at 20°C)	Not available	
Density (at 20°C)	Not available	
Water solubility	Not available	
Solubility in other solvents	Not available	
Auto-ignition temperature	Not available	
Decomposition temperature	Not available	



Ligation Cleanup Buffer

10 Stability and reactivity

Reactivity:	No information available.
Chemical Stability:	This product is chemically stable under normal conditions of storage, use and temperature.
Possibility of hazardous reactions:	
	No data available.
Conditions to Avoid:	Exposure to air or moisture over prolonged periods.
	Strong heating (decomposition)
Incompatible materials:	Strong oxidizing agents.
Hazardous decomposition products:	

Hazardous decomposition products formed under fire conditions – Nature of decomposition products not known. In the event of fire: see Section 5.



Ligation Cleanup Buffer

11 Toxicological information

Information on toxicological effects

Toxicokinetic, metabolism and distribution: No information available.

Acute toxicity:

Inhalation: No data available

Dermal: No data available

Irritation and corrosivity

No data available

Sensitizing effects

No data available

Carcinogenic/mutagenic/toxic effects for reproduction

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

STOT-single exposure

No data available

STOT-repeated exposure

No data available

Aspiration hazard

No data available

Specific effects in experiment on an animal

No information available



Ligation Cleanup Buffer

12 Ecological information

Toxicity

No data available.

Persistence and degradability

No data available

Bio accumulative potential

No information available.

Mobility in soil

No information available.

Results of PBT and vPvB assessment

No information available.

Other adverse effects

No information available.

Further information

Do not allow uncontrolled discharge of product into the environment.

13 Disposal considerations

Waste treatment methods

Waste generators must determine whether a waste is hazardous and consult local, state, and national hazardous was regulations to ensure complete accurate classification to endure proper disposal.

14 Transport information

DOT (US)

Not a hazardous material.

IMDG

Not a dangerous goods.

IATA

Not dangerous goods.

Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

Special precautions for user

See Section 8.



Ligation Cleanup Buffer

15 Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA 302 components:

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 components:

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 hazards:

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



Ligation Cleanup Buffer

16 Other information

Disclaimer:

DISCLAIMER: The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigation to determine the suitability of information for their particular purposes. In no event shall IDT 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, whatsoever arising, even if IDT has been advised of the possibility of such damages.

Abbreviations and acronyms:

CAS Chemical Abstracts Service

IMDG: International Maritime Code for Dangerous Goods IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

N/A: not applicable

OSHA: Occupational Safety and Health Administration

PBT: Persistent bioaccumulative toxic

SARA: Superfund Amendments and Reauthorization Act

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.



Ligation Cleanup Beads

1 Product and company identification

Product identifier:	Ligation Cleanup Beads
SDS number:	SDS0075
Version:	4
Internal ID:	SA0210, SA0655, SA0689
Relevant identified uses of the substance or mixture	
and uses advised against:	For research use only. Not for use in diagnostic procedures.
Supplier details:	Integrated DNA Technologies, Inc. (IDT) 2425 55th Street Boulder, CO 80301
Phone:	877-771-1093
Fax:	303-736-7150
Email:	archer-tech@idtdna.com
Web:	www.archerdx.com
Emergency telephone	
number:	For Spill, Leak, Fire, Exposure, or Accident
	CHEMTREC Within USA and Canada: 1-800-424-9300 CCN871892 Outside USA and Canada: +1 703-527-3887 (collect calls accepted)
Further information:	This sheet was prepared on a voluntary basis.

2 Hazards identification

Classification of the substance or mixture

Not a hazardous substance or mixture (GHS-US, 1272/2008- EU)

Label elements

Not a hazardous substance or mixture (GHS-US, 1272/2008- EU)

Other hazards

None



Ligation Cleanup Beads

3 Composition/information on ingredients

Ingredients

This product contains no substances that are hazardous as defined in Section 2.

4 First aid measures

Description of first aid measures

General information:	In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).
Inhalation:	In case of inhalation: move affected person to fresh air and keep at rest. If symptoms are severe or persist, seek medical advice immediately.
Skin contact:	Immediately remove all contaminated clothing. After contact with skin, wash immediately with plenty of water and soap. If skin irritation or rash occurs: Get medical advice/attention.
Eye contact:	Rinse immediately with plenty of water for several minutes. Keep eye wide open while rinsing. Remove contact lenses, if present and easy to do. Continue rinsing for several minutes. Get medical attention if any discomfort continues.
Ingestion:	Do NOT induce vomiting. Rinse mouth thoroughly with water. When in doubt or if symptoms are observed, get medical advice/attention.
Most important symptoms and effects, both acute and delayed:	The most important known symptoms and effects are described in Section 2 (Label elements) and/or in Section 11.
Indication of any immediate medical attention and special treatment needed:	No data available



Ligation Cleanup Beads

5 Firefighting measures

Extinguishing media

Suitable extinguishing media: Extinguish with water fog, alcohol-resistant foam, dry chemical, or carbon dioxide.

Specific hazards arising from the chemical:

No data available.

Special hazards arising from the substance or mixture:

No data available.

Advice for firefighters:

Standard procedure for chemical fires.

6 Accidental release measures

Personal precautions, protective equipment, and emergency procedures

Avoid inhalation of fume/gas/mist/vapors. For personal protection see Section 8.

Environmental precautions

Do not allow to enter into surface water or drains. Discharge into the environment must be avoided. Prevent spread over a wide area (e.g., by containment or oil barriers).

Methods and materials for containment and cleaning up

Clear up spills immediately. Clean any contaminated surfaces thoroughly. Disposal should be in accordance with Section 13. Keep in suitable, closed containers for disposal.

Reference to other sections

Safe handling: See Section 7. Personal Protective Equipment: See Section 8. Disposal: See Section 13.



Ligation Cleanup Beads

7 Handling and storage

Precautions for safe handling

Advice on safe handling: Ensure adequate ventilation, especially in confined areas.

Smoking, eating, and drinking should be prohibited in application area.

Normal measures for preventative fire protection.

Wear suitable protective clothing (See section 8).

For precautions see Section 2.

Advice on protection against fire and explosion:

See Section 5.

Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels:

Keep container tightly closed in dry and well-ventilated place.

Further information on storage conditions:

Protect against: Light. UV-radiation/sunlight. Extreme heat. Extreme cold. Moisture.

Specific end use(s): Apart from the uses mentioned in Section 1 no other specific uses are stipulated.



Ligation Cleanup Beads

8 Exposure controls/personal protection

Control parameters: This product, as supplied, does not contain any substances with established occupational exposure limits.

Exposure controls

Appropriate engineering controls:

General industrial hygiene practice. Provide adequate ventilation, showers, and eyewash stations.

Protective and hygiene measures:

Always close containers tightly after the removal of product. Change contaminated clothing. Wash hands after working with product. When using do not eat, drink, or smoke.

- **Eye/face protection:** Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).
- **Skin protection:** Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching gloves outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.
- **Respiratory protection:** If necessary, use respirator as a backup to engineering controls. Use respirators and approved under appropriate government standards such as OSHA 29 CFR 1910.134 or European Standard EN 149.

Environmental exposure controls:

Keep container tightly closed when not in use. Do not let product enter drains.



Ligation Cleanup Beads

9 Physical and chemical properties

Information on basic physical and chemical properties		
Physical state	Liquid	
Color	Clear with brown beads	
Odor	Odorless	
рН	5 - 10	
Melting point	Not available	
Initial boiling point and boiling range	Not available	
Flash point	Not available	
Sustaining combustion	Not available	
Lower explosive limits	Not available	
Upper explosive limits	Not available	
Ignition temperature	Not available	
Oxidizing properties	Not available	
Vapor pressure (at 20°C)	Not available	
Density (at 20°C)	Not available	
Water solubility	Not available	
Solubility in other solvents	Not available	
Auto-ignition temperature	Not available	
Decomposition temperature	Not available	



Ligation Cleanup Beads

10 Stability and reactivity

Conditions to Avoid:

Reactivity:	No information available.
Chemical Stability:	This product is chemically stable under normal conditions of storage, use and temperature.

Possibility of hazardous reactions:

No data available.

Hazardous reaction has not been reported.

Incompatible materials: No dangerous reactions known under normal conditions of use.

Hazardous decomposition products:

No data available.



Ligation Cleanup Beads

11 Toxicological information

Information on toxicological effects

Toxicokinetic, metabolism and distribution: No information available.

Acute toxicity:

Inhalation: No data available

Dermal: No data available

Irritation and corrosivity

No data available

Sensitizing effects

No data available

Carcinogenic/mutagenic/toxic effects for reproduction

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

STOT-single exposure

No data available

STOT-repeated exposure

No data available

Aspiration hazard

No data available

Specific effects in experiment on an animal

No information available



Ligation Cleanup Beads

12 Ecological information

Toxicity

No data available.

Persistence and degradability

No data available

Bio accumulative potential

No information available.

Mobility in soil

No information available.

Results of PBT and vPvB assessment

No information available.

Other adverse effects

No information available.

Further information

Do not allow uncontrolled discharge of product into the environment.

13 Disposal considerations

Waste treatment methods

Waste generators must determine whether a waste is hazardous and consult local, state, and national hazardous was regulations to ensure complete accurate classification to endure proper disposal.

14 Transport information

DOT (US)

Not a hazardous material.

IMDG

Not a dangerous goods.

IATA

Not dangerous goods.

Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

Special precautions for user

See Section 8.



Ligation Cleanup Beads

15 Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA 302 components:

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 components:

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 hazards:

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



Ligation Cleanup Beads

16 Other information

Disclaimer:

DISCLAIMER: The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigation to determine the suitability of information for their particular purposes. In no event shall IDT 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, whatsoever arising, even if IDT has been advised of the possibility of such damages.

Abbreviations and acronyms:

CAS Chemical Abstracts Service

IMDG: International Maritime Code for Dangerous Goods IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

N/A: not applicable

OSHA: Occupational Safety and Health Administration

PBT: Persistent bioaccumulative toxic

SARA: Superfund Amendments and Reauthorization Act

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.