

Safety Data Sheet According to the federal final rule of hazard communication revised on 2012 (HazCom 2012) Effective Date: 17 May 2022 Revision 10 DCR # 3289

1.1. telentification :: Resin suspension in storage buffer or chromatography media. 1.2. Relevant identified uses or instruce and uses advised against Use of the substance or mixture and uses advised against. 1.3. Details of the supplier of the safety data sheet Storage buffer for chromatography media. 1.4. Energency: telephone humber Energency: telephone humber Energency: telephone number Energency: telephone humber Energency: Calculation of the substance or mixture CHS-US classification Storage telephone humber Energency: Classification Storage telephone humber Energency: Classification Hazard pictograms (GHS-US) : Danger Hazard pictograms (GHS-US) : Ebage Paeway from heat, hot suffaces, open flames, sparks No smoking P233. Keep containage to organ Product down of (GHS-US) :		
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Product code : 370098F4 12. Relevant identified uses of the substance or mixture and uses advised against Use of the substance/mixture : 580rage buffer for chromatography media. 13. Details of the supplier of the safety data sheet Storagene Bioegerations, Inc. 1149 Aking Avenue, Caribada (CA 2008) Storagene Bioegerations, Inc. 1149 Aking Avenue, Caribada (CA 2008) Contract Person: James Danirotri 14. Emergency telephone number Emergency number : (951) 447-9994 SECTION 2: Hazard(S) Identification 21. Classification of the substance or mixture OHS-US classification Filem. Liq. 3 HZ25 - Filemmable liquid and vapor Eye Int. 24. HT91 - Causes damage to organs STOT SE 1 H370 - Causes damage to organs STOT SE 1 H370 - Causes damage to organs ETCION 2: Hazard (S) Identification of the 22. Label elements CHS-US labelling Hazard pictograms (GHS-US) Signal word (CHS-US) Hazard pictograms (GHS-US) File at the H-substance or relation File at the H-substance or relation File 22. Label elements Signal word (CHS-US) File 24. Use explosion-proof electrical. Lighting, ventilating Hazard statements (GHS-US) File 24. Use explosion-proof electrical. Lighting, ventilating equipment P24: Use explosion-proof electrical. Lighting, ventilating equipment	Product form	: Resin suspension in storage buffer
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Storagene Bioseparations, Inc. 1949 Keligg Avenue, Carlsback, CA 92008 Telephone Number (760) 928-0465 Contact Person. James Danford jainford@sterogene.com 1.4. Emergency telephone number Emergency number : (951) 447-994 SECTION 2: Hazard(s) identification 21. Classification of the substance or mixture GHS-US classification Film. Liq. 3. Hz26 - Flammable liquid and vapor Eye Imi. 24. H319 - Causes sensus eye irritation STOT SE1 I H319 - Causes and mage to organs Full text of H-statements: see section 16 22. Label elements GHS-US labelling Hazard pictograms (GHS-US) Signal word (GHS-US) Figure 1. 24. H319 - Causes and mage to organs Full text of H-statements (GHS-US) Signal word (GHS-US) Hazard statements (GHS-US) Figure 2. Label elements 21. Label elements 22. Label elements 23. Label elements 24. Label elements 24. Label elements 25. Signal word (GHS-US) Hazard statements (GHS-US) Figure 2. Label elements (GHS-US) Figure 2. Label elements (GHS-US) 24. Class serious eye initiation Figure 2. Label elements (GHS-US) 25. Parto : Keep away from heat, hot surfaces, open flames, sparks No smoking P260 - Groundbond container and receiving equipment P242 - Use only non-sparking tods P240 - Groundbond container and receiving equipment P242 - Use only non-sparking tods P243 - Take preautionary measures against static discharge P240 - Due there always from heat, hot surfaces, open flames, sparks No smoking P243 - Take preautionary measures against static discharge P240 - Due there always from heat, hot surfaces, open flames, sparks No smoking P243 - Use only non-sparking tods P244 - Use explosion-proof element P244 - Use explosion-proof element (Chai): Take of timmediately all contaminated dothing. Rinse Sign Wash for the static discharge P240 - Due there always system metiling is product P240 - Wase rege protection, protective (prove P230-P331-P1 regver findation paristis: get medical advice attention P3374-P373 - If neys infitiatin paris	Use of the substance/mixture	
Stergene Bioseparations, Inc. 14. 2040 14. Emergency tolephone number Emergency number (769) 929-0455 Contact Person: James Danford jdanford@sterogene.com 14. Emergency number (769) 929-0455 Contact Person: James Danford Jdanford@sterogene.com 21. Classification of the substance or initure CHS-US labeling Hazard pictograms (CHS-US) Signal word (CHS-US) Hazard pictograms (CHS-US) Figure 1. 2. Label elements Signal word (CHS-US) Hazard statements (CHS-US) Figure 2. Label elements Signal word (CHS-US) Hazard statements (CHS-US) Figure 2. Label elements Signal word (CHS-US) Figure 2. Label elements Figure 2. Label elements Signal word (CHS-US) Figure 2. Label elements Figure 2. Label ele	1.3 Details of the supplier of the safety of	lata sheet
Emergency number : (951) 447-9994 SECTION 2: Hazard(s) identification 2.1. Classification of the substance or mixture GHS-US classification Film. Liq. 3, H226 - Flammable liquid and vapor Eye lirtl. 2A H319 - Causes serious eye initiation STOT 5E 1 H370 - Causes damage to organs Full text of H-statements: see section 16 2.2. Label elements GHS-US labelling Hazard pictograms (GHS-US) Signal word (GHS-US) Factor Sector Sect	Sterogene Bioseparations, Inc. 1949 Kellogg Avenue, Carlsbad, CA 92008 Telephone Number: (760) 929-0455 Contact Person: James Danford jdanford@sterogene.com	
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GHS-US labelling Hazard pictograms (GHS-US) :	Flam. Liq. 3H226 -Flammable liquid and vapEye Irrit. 2AH319 -Causes serious eye irritatiSTOT SE 1H370 -Causes damage to organs	ion
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H319 - Causes serious eye irritation H370 - Causes damage to organsPrecautionary statements (GHS-US): P210 - Keep away from heat, hot surfaces, open flames, sparks No smoking P233 - Keep container tightly closed P240 - Ground/bond container and receiving equipment P241 - Use explosion-proof electrical, lighting, ventilating equipment P242 - Use only non-sparking tools P260 - Do not breathe vapors, spray, mist P264 - Wash hands thoroughly after handling P270 - Do not breathe vapors, spray, mist P264 - Wash hands thoroughly after handling P270 - Do not eat, drink or smoke when using this product P280 - Wear eye protection, protective gloves P303+P361+P353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contai lenses, if present and easy to do. Continue rinsing P307+P311 - If exp irritation persists: get medical advice/attention P370+P378 - In case of fire: Use alcohol resistant foam, carbon dioxide (CO2), dry extinguishing powder to extinguish P403+P235 - Store in a well-ventilated place. Keep cool P405 - Store locked up P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation	Signal word (GHS-US)	
 P233 - Keep container tightly closed P240 - Ground/bond container and receiving equipment P241 - Use explosion-proof electrical, lighting, ventilating equipment P242 - Use only non-sparking tools P243 - Take precautionary measures against static discharge P260 - Do not breatthe vapors, spray, mist P264 - Wash hands thoroughly after handling P270 - Do not eat, drink or smoke when using this product P280 - Wear eye protection, protective gloves P303+P361+P353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contail lenses, if present and easy to do. Continue rinsing P307+P378 - In case of fire: Use alcohol resistant foam, carbon dioxide (CO2), dry extinguishing powder to extinguish P403+P235 - Store in a well-ventilated place. Keep cool P405 - Store locked up P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation 	Hazard statements (GHS-US)	H319 - Causes serious eye irritation
	Precautionary statements (GHS-US)	 P233 - Keep container tightly closed P240 - Ground/bond container and receiving equipment P241 - Use explosion-proof electrical, lighting, ventilating equipment P242 - Use only non-sparking tools P243 - Take precautionary measures against static discharge P260 - Do not breathe vapors, spray, mist P264 - Wash hands thoroughly after handling P270 - Do not eat, drink or smoke when using this product P280 - Wear eye protection, protective gloves P303+P361+P353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing P307+P311 - If exposed: Call a poison center/doctor P337+P313 - If eye irritation persists: get medical advice/attention P370+P378 - In case of fire: Use alcohol resistant foam, carbon dioxide (CO2), dry extinguishing powder to extinguish P405 - Store locked up P501 - Dispose of contents/container to hazardous or special waste collection point, in

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2.3. Other hazards

Other hazards which do not result in classification

: This material contains methanol, which, when ingested, has caused acidosis, ocular toxicity ranging from diminished visual capacity to complete blindness, and death.

Not applicable

2.4.

SECTION 3: Composition/information on ingredients

Unknown acute toxicity (GHS US)

3.1. Substance

The only hazards identified with this material are those associated with the storage buffer.

Name	Product identifier	%	GHS-US classification
Ethanol	(CAS No) 64-17-5	19	Flam. Liq. 2, H225 Eye Irrit. 2A, H319 Asp. Tox. 1, H304
methanol	(CAS No) 67-56-1	1	Flam. Liq. 2, H225 Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Inhalation), H331 STOT SE 1, H370

Full text of H-statements: see section 16

SECTION 4: First aid measures	
4.1. Description of first aid measures	
First-aid measures general	: IF exposed or concerned: Get medical advice/attention.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: Rinse skin with water/shower. Remove/take off immediately all contaminated clothing.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: get medical advice/attention.
First-aid measures after ingestion	: Call a poison center or a doctor if you feel unwell.
4.2. Most important symptoms and effec	ts, both acute and delayed
Symptoms/injuries after inhalation	: May cause headache and dizziness.
Symptoms/injuries after skin contact	: May cause skin irritation / dermatitis. May cause skin dryness or cracking.
Symptoms/injuries after eye contact : Eye irritation.	
Symptoms/injuries after ingestion	: This material contains methanol, which, when ingested, has caused acidosis, ocular toxicity ranging from diminished visual capacity to complete blindness, and death.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures		
5.1. Extinguishing media		
Suitable extinguishing media	: Water spray. Dry powder. Alcohol resistant foam. Carbon dioxide.	
Unsuitable extinguishing media	Do not use water jet.	
5.2. Special hazards arising from the sub-	stance or mixture	
Fire hazard	: Flammable liquid and vapor. Incomplete combustion releases dangerous carbon monoxide, carbon dioxide and other toxic gases.	
Explosion hazard : No direct explosion hazard.		
Reactivity	: Flammable liquid and vapor. Stable under normal conditions of use.	
5.3. Advice for firefighters		
Firefighting instructions	: Exercise caution when fighting any chemical fire. Use fire-extinguishing media appropriate for surrounding materials.	
Protective equipment for firefighters : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.		
SECTION 6: Accidental release meas	ures	

6.1.	Personal precautions, protective equipment and emergency procedures		
6.1.1.	For non-emergency personnel		
Emerge	ncy procedures	: Ventilate spillage area. No open flames, no sparks, and no smoking. Do not breathe vapors, spray, and mist. Avoid contact with skin and eyes.	

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6.1.2. For er	nergency responders	
Protective equip	ment	: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
6.2. Enviro	onmental precautions	
Avoid release to	the environment.	
6.3. Metho	ds and material for containm	ent and cleaning up
For containment		: Stop leak, if possible without risk.
Methods for clea	aning up	: Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters.
Other informatio	n	: Dispose of materials or solid residues at an authorized site.
6.4. Refere	ence to other sections	
For further inform	nation refer to section 8: Expos	ure-controls/personal protection.
SECTION 7:	Handling and storage	
7.1. Preca	utions for safe handling	
Precautions for s	safe handling	: Ensure good ventilation of the work station. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground/bond container and receiving equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Flammable vapors may accumulate in the container. Use explosion-proof equipment. Wear personal protective equipment. Do not breathe vapors, spray, and mist. Avoid contact with skin and eyes.

Hygiene measures	: Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, incl	Conditions for safe storage, including any incompatibilities		
Storage conditions	: Store in a well-ventilated place. Keep cool. Keep container tightly closed. Store locked up.		
Incompatible materials	: Strong acids. Strong oxidizers.		

SECTION 8: Exposure controls/personal protection

Control parameters 8.1.

Ethanol (64-17-5)			
ACGIH	ACGIH STEL (ppm)	1000 ppm	
ACGIH	Remark (ACGIH)	URT irr	
OSHA	OSHA PEL (TWA) (mg/m ³)	1900 mg/m³	
OSHA	OSHA PEL (TWA) (ppm)	1000 ppm	
methanol (67-56-1)			
ACGIH	ACGIH TWA (ppm)	200 ppm	
ACGIH	ACGIH STEL (ppm)	250 ppm	
ACGIH	Remark (ACGIH)	Headache; eye dam; dizziness; nausea	
OSHA	OSHA PEL (TWA) (mg/m ³)	260 mg/m ³	
OSHA	OSHA PEL (TWA) (ppm)	200 ppm	

8.2. Exposure controls	
Appropriate engineering controls	: Ensure good ventilation of the work station. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.
Hand protection	: Impermeable protective gloves.
Eye protection	: Safety glasses.
Skin and body protection	: Wear suitable protective clothing.
Respiratory protection	: In case of insufficient ventilation, wear suitable respiratory equipment.

Environmental exposure controls

- : Avoid release to the environment.

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SECTION 9: Physical and chemic	cal properties	
9.1. Information on basic physical a	nd chemical properties	
Physical state	: Aqueous solution	
Color	: Colorless	
Odor	: Alcohol Odor	
Odor threshold	: No data available	
рН	: No data available	
Melting point	: Not applicable	
Freezing point	: No data available	
Boiling point	: No data available	
Flash point	: No data available	
Relative evaporation rate (butyl acetate=1)	: No data available	
Flammability (solid, gas)	: No data available	
Explosive limits	: No data available	
Explosive properties	: No data available	
Oxidizing properties	: No data available	
Vapor pressure	: No data available	
Relative density	: No data available	
Relative vapor density at 20 °C	: No data available	
Solubility	: No data available	
Log Pow	: No data available	
Auto-ignition temperature	: No data available	
Decomposition temperature	: No data available	
Viscosity	: No data available	
Viscosity, kinematic	: No data available	
Viscosity, dynamic	: No data available	

9.2. Other information

No additional information available

SECTION 11: Toxicological information

SECT	ION 10: Stability and reactivity
10.1.	Reactivity
Flamma	able liquid and vapor. Stable under normal conditions of use.
10.2.	Chemical stability
Stable	under normal conditions.
10.3.	Possibility of hazardous reactions
No dan	gerous reactions known under normal conditions of use. No polymerization.
10.4.	Conditions to avoid
Avoid c	contact with hot surfaces. No flames, no sparks. Eliminate all sources of ignition.
10.5.	Incompatible materials
Strong	acids. Strong oxidizers.
10.6.	Hazardous decomposition products
	normal conditions of storage and use, hazardous decomposition products should not be produced. Incomplete combustion releases dangerous monoxide, carbon dioxide and other toxic gases.

11.1. Information on toxic	ological effects		
Likely routes of exposure		: Oral; Inhalation; Skin and eye contact	
Acute toxicity		: Not classified	
Ethanol (64-17-5)			
LD50 oral rat		7060 mg/kg	
LC50 inhalation rat (mg/l)		124.7 mg/l/4h	
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methanol (67-56-1)		
LD50 oral rat	6200 mg/kg	
LC50 inhalation rat (ppm)	22500 ppm (Exposure time: 8 h)	
Skin corrosion/irritation	: Not classified	
Serious eye damage/irritation	: Causes serious eye irritation.	
Respiratory or skin sensitization	: Not classified	
Germ cell mutagenicity	: Not classified	
Carcinogenicity	: Not classified	
Reproductive toxicity	: Not classified	
Specific target organ toxicity (single exposure)	: Causes damage to organs.	
Specific target organ toxicity (repeated exposure)	: Not classified	
Aspiration hazard	: Not classified	
Symptoms/injuries after inhalation	: May cause headache and dizziness.	
Symptoms/injuries after skin contact	: May cause skin irritation / dermatitis. May cause skin dryness or cracking.	
Symptoms/injuries after eye contact	: Eye irritation.	
Symptoms/injuries after ingestion	: This material contains methanol, which, when ingested, has caused acidosis, ocular toxicity ranging from diminished visual capacity to complete blindness, and death.	

SECTION 12: Ecological information		
12.1. Toxicity		
Ecology - general	: The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.	
Ethanol (64-17-5)		
LC50 fish 1	12.0 - 16.0 ml/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static])	
LC50 other aquatic organisms 1	5012 mg/l 48 hours - Daphnia	
EC50 Daphnia 1	9268 - 14221 mg/l (Exposure time: 48 h - Species: Daphnia magna)	
LC50 fish 2	> 100 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])	
EC50 Daphnia 2	2 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])	
ErC50 (algae)	275 mg/l	
ErC50 (other aquatic plants)	4432 mg/l	
NOEC (acute)	9.6 mg/l Daphnia magna	
methanol (67-56-1)		
LC50 fish 1	28200 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])	

12.2. Persistence and degradability

No additional information available

12.3. Mobility in soil

LC50 fish 2

No additional information available

SECTION 13: Disposal consideratio	ns
13.1. Waste treatment methods	
Waste treatment methods	: Dispose of in conformance with all applicable federal, state and local laws and regulations.
Additional information	: Flammable vapors may accumulate in the container.

> 100 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])

Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

SECTION 14: Transport information

Department of Transportation (DOT)

Not regulated by DOT

: 49CFR 173.150(e)(1,2) states that aqueous solutions of alcohol containing 24 percent or less alcohol by volume and no other hazardous material can be re-classified as a combustible liquid and are not subject to the requirements.

Air transport

Not regulated by IATA - Not regulated for transport by air.

: IATA Special Provision A58 states that aqueous solutions containing 24 percent or less alcohol by volume are not subject to the regulations.

SECTION 15: Regulatory information

15.1. US Federal regulations		
Ethanol (64-17-5)		
Listed on the United States TSCA (Toxic Substances Control Act) inventory		
Methanol (67-56-1)		
Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313		
SARA Section 313 - Emission Reporting	1.0 %	

15.2. International regulations CANADA

Ethanol (64-17-5)	
Listed on the Canadian DSL (Domestic Sub	stances List)
WHMIS Classification Class B Division 2 - Flammable Liquid Class D Division 2 Subdivision B - Toxic material causing other toxic effects	
methanol (67-56-1)	
Listed on the Canadian DSL (Domestic Sub	stances List)
WHMIS Classification	Class B Division 2 - Flammable Liquid Class D Division 1 Subdivision B - Toxic material causing immediate and serious toxic effects Class D Division 2 Subdivision A - Very toxic material causing other toxic effects Class D Division 2 Subdivision B - Toxic material causing other toxic effects

EU-Regulations

No additional information available

15.3. US State regulations

Ethanol (64-17-5)				
U.S California - Proposition 65 - Carcinogens List	U.S California - Proposition 65 - Developmental Toxicity	U.S California - Proposition 65 - Reproductive Toxicity - Female	U.S California - Proposition 65 - Reproductive Toxicity - Male	Non-significant risk level (NSRL)
No	No	No	No	
methanol (67-56-1)				
U.S California - Proposition 65 - Carcinogens List	U.S California - Proposition 65 - Developmental Toxicity	U.S California - Proposition 65 - Reproductive Toxicity - Female	U.S California - Proposition 65 - Reproductive Toxicity - Male	Non-significant risk level (NSRL)
No	Yes	No	No	

Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

SECTION 16: Other information	on
Sources of Key data	: Data arise from reference works and literature.
Revision date	: 15 Dec 2020
Abbreviations and acronyms	: ACGIH - American Conference of Government Industrial Hygienists
	Eye dam – Eye damage
	PEL- Permissible Exposure Level
	STEL- Short-Term Exposure Limit
	TWA- Time Weighted Average
	URT irr -upper respiratory tract irritation

Full text of H-statements:

Acute Tox. 3 (Dermal)	Acute toxicity (dermal) Category 3
Acute Tox. 3 (Inhalation)	Acute toxicity (inhalation) Category 3
Acute Tox. 3 (Oral)	Acute toxicity (oral), Category 3
Asp. Tox. 1	Aspiration hazard, Category 1
Eye Irrit. 2A	Serious eye damage/eye irritation, Category 2A
Flam. Liq. 2	Flammable liquids Category 2
Flam. Liq. 3	Flammable liquids, Category 3
STOT SE 1	Specific target organ toxicity (single exposure) Category 1
H225	Highly flammable liquid and vapor
H226	Flammable liquid and vapor
H301	Toxic if swallowed
H304	May be fatal if swallowed and enters airways
H311	Toxic in contact with skin
H319	Causes serious eye irritation
H331	Toxic if inhaled
H370	Causes damage to organs

The information contained herein is presented in good faith and is believed to be correct as of the date prepared, but does not purport to be all inclusive. Regulatory requirements are subject to change and may differ depending on location. It is the customer's responsibility to ensure that its activities are in compliance with local, state, federal or provincial laws.

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