

IENCES® G-Biosciences, St Louis, MO, USA | 1-800-628-7730 | 1-314-991-6034 | technical@GBiosciences.com

A Geno Technology, Inc. (USA) brand name

Safety Data Sheet

Cat. # 786-1548

Annexin V-FITC Apoptosis Assay

Size: 20 assays



SECTION 1: Identification of the sub 1.1. Product identifier	stance/mixture and of the col	mpany/underta	King
Product form	: Mixture		
Product name	: Annexin V-FITC [100X]		
Product code	: 230A		
Product group	: Blend		
1.2. Relevant identified uses of the subs	tance or mixture and uses advis	ed against	
1.2.1. Relevant identified uses			
No additional information available			
1.2.2. Uses advised against No additional information available			
1.3. Details of the supplier of the safety of No additional information available	data sheet		
1.4. Emergency telephone number No additional information available			
SECTION 2: Hazards identification			
2.1. Classification of the substance or m	ixture		
Classification according to Regulation (EC) N Not classified	lo. 1272/2008 [CLP]		
Adverse physicochemical, human health and To our knowledge, this product does not present practice. 2.2. Label elements		ed in accordance wit	h good occupational hygiene and safe
Labelling according to Regulation (EC) No. 12	272/2008 [CLP]		
Labelling according to Regulation (EC) No. 12 No labelling applicable	272/2008 [CLP]		
Labelling according to Regulation (EC) No. 12 No labelling applicable 2.3. Other hazards	272/2008 [CLP]		
Labelling according to Regulation (EC) No. 12 No labelling applicable	272/2008 [CLP]		
Labelling according to Regulation (EC) No. 12 No labelling applicable 2.3. Other hazards No additional information available			
Labelling according to Regulation (EC) No. 12 No labelling applicable 2.3. Other hazards No additional information available SECTION 3: Composition/informatio			
Labelling according to Regulation (EC) No. 12 No labelling applicable 2.3. Other hazards No additional information available SECTION 3: Composition/information 3.1. Substances			
Labelling according to Regulation (EC) No. 12 No labelling applicable 2.3. Other hazards No additional information available SECTION 3: Composition/information 3.1. Substances Not applicable			
Labelling according to Regulation (EC) No. 12 No labelling applicable 2.3. Other hazards		%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Labelling according to Regulation (EC) No. 12 No labelling applicable 2.3. Other hazards No additional information available SECTION 3: Composition/information 3.1. Substances Not applicable 3.2. Mixtures	on on ingredients	%	Regulation (EC) No.
Labelling according to Regulation (EC) No. 12 No labelling applicable 2.3. Other hazards No additional information available SECTION 3: Composition/information 3.1. Substances Not applicable 3.2. Mixtures Name Annexin V-FITC	on on ingredients	%	Regulation (EC) No. 1272/2008 [CLP]
Labelling according to Regulation (EC) No. 12 No labelling applicable 2.3. Other hazards No additional information available SECTION 3: Composition/information 3.1. Substances Not applicable 3.2. Mixtures Name Annexin V-FITC SECTION 4: First aid measures	on on ingredients	% //	Regulation (EC) No. 1272/2008 [CLP]
Labelling according to Regulation (EC) No. 12 No labelling applicable 2.3. Other hazards No additional information available SECTION 3: Composition/information 3.1. Substances Not applicable 3.2. Mixtures Name Annexin V-FITC SECTION 4: First aid measures 4.1. Description of first aid measures	on on ingredients Product identifier		Regulation (EC) No.1272/2008 [CLP]Not classified
Labelling according to Regulation (EC) No. 12 No labelling applicable 2.3. Other hazards No additional information available SECTION 3: Composition/information 3.1. Substances Not applicable 3.2. Mixtures Name Annexin V-FITC SECTION 4: First aid measures First-aid measures after inhalation	Product identifier		Regulation (EC) No.1272/2008 [CLP]Not classified
Labelling according to Regulation (EC) No. 12 No labelling applicable 2.3. Other hazards No additional information available SECTION 3: Composition/information SIL Substances Not applicable 3.2. Mixtures Name Annexin V-FITC SECTION 4: First aid measures First-aid measures after inhalation First-aid measures after skin contact	Product identifier	ł keep comfortable fe	Regulation (EC) No.1272/2008 [CLP]Not classified
Labelling according to Regulation (EC) No. 12 No labelling applicable 2.3. Other hazards No additional information available SECTION 3: Composition/information SECTION 3: Composition/information 3.1. Substances Not applicable 3.2. Mixtures Name Annexin V-FITC SECTION 4: First aid measures First-aid measures after inhalation First-aid measures after eye contact First-aid measures after eye contact	Product identifier	I keep comfortable for caution.	Regulation (EC) No.1272/2008 [CLP]Not classified
Labelling according to Regulation (EC) No. 12 No labelling applicable 2.3. Other hazards No additional information available SECTION 3: Composition/information 3.1. Substances Not applicable 3.2. Mixtures Name Annexin V-FITC SECTION 4: First aid measures First-aid measures after inhalation First-aid measures after eye contact First-aid measures after eye contact First-aid measures after ingestion 4.2. Most important symptoms and effect	Product identifier	I keep comfortable for caution.	Regulation (EC) No.1272/2008 [CLP]Not classified
Labelling according to Regulation (EC) No. 12 No labelling applicable 2.3. Other hazards No additional information available SECTION 3: Composition/information 3.1. Substances Not applicable 3.2. Mixtures Name Annexin V-FITC SECTION 4: First aid measures First-aid measures after inhalation First-aid measures after eye contact First-aid measures after ingestion 4.2. Most important symptoms and effect No additional information available 4.3. Indication of any immediate medical	Product identifier	d keep comfortable fo caution. r if you feel unwell.	Regulation (EC) No.1272/2008 [CLP]Not classified
Labelling according to Regulation (EC) No. 12 No labelling applicable 2.3. Other hazards No additional information available SECTION 3: Composition/information 3.1. Substances Not applicable 3.2. Mixtures Name Annexin V-FITC SECTION 4: First aid measures First-aid measures after inhalation First-aid measures after eye contact First-aid measures after ingestion 4.2. Most important symptoms and effect No additional information available 4.3. Indication of any immediate medical Treat symptomatically. SECTION 5: Firefighting measures	Product identifier	d keep comfortable fo caution. r if you feel unwell.	Regulation (EC) No.1272/2008 [CLP]Not classified
Labelling according to Regulation (EC) No. 12 No labelling applicable 2.3. Other hazards No additional information available SECTION 3: Composition/information 3.1. Substances Not applicable 3.2. Mixtures Name	Product identifier	d keep comfortable fo caution. r if you feel unwell. needed	Regulation (EC) No.1272/2008 [CLP]Not classified
Labelling according to Regulation (EC) No. 12 No labelling applicable 2.3. Other hazards No additional information available SECTION 3: Composition/information 3.1. Substances Not applicable 3.2. Mixtures Name Annexin V-FITC SECTION 4: First aid measures First-aid measures after inhalation First-aid measures after eye contact First-aid measures after ingestion 4.2. Most important symptoms and effect No additional information available 4.3. Indication of any immediate medical Treat symptomatically. SECTION 5: Firefighting measures 5.1. Extinguishing media	Product identifier Product identifier Remove person to fresh air and Wash skin with plenty of water. Rinse eyes with water as a pred Call a poison center or a doctor Call a poison center or a doctor Call a poison center or a doctor Call a ttention and special treatment Water spray. Dry powder. Foan bistance or mixture	d keep comfortable fo caution. r if you feel unwell. needed	Regulation (EC) No.1272/2008 [CLP]Not classified
Labelling according to Regulation (EC) No. 12 No labelling applicable 2.3. Other hazards No additional information available SECTION 3: Composition/information 3.1. Substances Not applicable 3.2. Mixtures Name Annexin V-FITC SECTION 4: First aid measures First-aid measures after inhalation First-aid measures after eye contact First-aid measures after ingestion 4.2. Most important symptoms and effect No additional information available 4.3. Indication of any immediate medical Treat symptomatically. SECTION 5: Firefighting measures 5.1. Extinguishing media Suitable extinguishing media 5.2. Special hazards arising from the sul	Product identifier Product identifier Remove person to fresh air and Wash skin with plenty of water. Rinse eyes with water as a pred Call a poison center or a doctor Call a poison center or a doctor Call a poison center or a doctor Call a ttention and special treatment Water spray. Dry powder. Foan bistance or mixture	d keep comfortable fo caution. r if you feel unwell. needed	Regulation (EC) No. 1272/2008 [CLP] Not classified

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

SECTION 6: Accidental release measures		
6.1. Personal precautions, protective equipment and emergency procedures		
6.1.1. For non-emergency personnel		
Emergency procedures	: Ventilate spillage area.	
6.1.2. For emergency responders		
Protective equipment	: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".	
6.2. Environmental precautions		
Avoid release to the environment.		
6.3. Methods and material for containment	nt and cleaning up	
Methods for cleaning up	: Take up liquid spill into absorbent material.	
Other information	: Dispose of materials or solid residues at an authorized site.	
6.4. Reference to other sections		
For further information refer to section 13.		

SECTION 7: Handling and storage	
7.1. Precautions for safe handling	
Precautions for safe handling	: Ensure good ventilation of the work station. Wear personal protective equipment.
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, including a	any incompatibilities
Storage conditions	: Store in a well-ventilated place. Keep cool.
7.3. Specific end use(s)	

No additional information available

SECTION 8: Exposure controls/personal protection
8.1. Control parameters
No additional information available
8.2. Exposure controls
Appropriate engineering controls:
Ensure good ventilation of the work station.
Hand protection:
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.

SECTION 9: Physical and chemical properties		
9.1. Information on basic physical and che	emical properties	
Physical state	: Liquid	
Colour	: No data available	
Odour	: No data available	
Odour threshold	: No data available	
рН	: No data available	
Relative evaporation rate (butylacetate=1)	: No data available	
Melting point	: Not applicable	
Freezing point	: No data available	
Boiling point	: No data available	
Flash point	: No data available	
Auto-ignition temperature	: No data available	
Decomposition temperature	: No data available	

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Flammability (solid, gas)	: Not applicable
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Solubility	: No data available
Log Pow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available
9.2. Other information	

No additional information available

SECTION 10: Stability and reactivity
10.1. Reactivity
The product is non-reactive under normal conditions of use, storage and transport.
10.2. Chemical stability
Stable under normal conditions.
10.3. Possibility of hazardous reactions
No dangerous reactions known under normal conditions of use.
10.4. Conditions to avoid
None under recommended storage and handling conditions (see section 7).
10.5. Incompatible materials
No additional information available
10.6. Hazardous decomposition products
Hazardous decomposition products.

SECTION 11: Toxicological information	1
11.1. Information on toxicological effects	
Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified
Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified

SECTION 12: Ecological information	
12.1. Toxicity	
Ecology - general	: The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.
Acute aquatic toxicity	: Not classified
Chronic aquatic toxicity	: Not classified
12.2. Persistence and degradability	
No additional information available	
12.3. Bioaccumulative potential	
No additional information available	
12.4. Mobility in soil	
No additional information available	
12.5. Results of PBT and vPvB assessment	
No additional information available	
12.6. Other adverse effects	
No additional information available	

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

SECTION 13: Disposal considerations 13.1. Waste treatment methods Waste treatment methods

: Waste treatment methods.

SECTION 14: Transport information	
14.1. UN number UN-No. (ADR)	: Not applicable
UN-No. (IMDG)	: Not applicable
UN-No. (IATA)	: Not applicable
UN-No. (ADN)	: Not applicable
UN-No. (RID)	: Not applicable
14.2. UN proper shipping name Proper Shipping Name (ADR)	: Not applicable
Proper Shipping Name (IMDG)	: Not applicable
Proper Shipping Name (IATA)	: Not applicable
Proper Shipping Name (ADN)	: Not applicable
Proper Shipping Name (RID)	: Not applicable
14.3. Transport hazard class(es)	
ADR	
	: Not applicable
Transport hazard class(es) (ADR)	. Not applicable
Transport hazard class(es) (IMDG)	: Not applicable
ΙΑΤΑ	
Transport hazard class(es) (IATA)	: Not applicable
ADN	
Transport hazard class(es) (ADN)	: Not applicable
RID	
Transport hazard class(es) (RID)	: Not applicable
14.4. Packing group	
Packing group (ADR)	: Not applicable
Packing group (IMDG)	: Not applicable
Packing group (IATA)	: Not applicable
Packing group (ADN)	: Not applicable
Packing group (RID)	: Not applicable
14.5. Environmental hazards	
Dangerous for the environment	: No
Marine pollutant	: No
Other information	: No supplementary information available
14.6. Special precautions for user	
Overland transport	
Not applicable	
Transport by sea	
Not applicable	
Air transport	
Not applicable	
Inland waterway transport	
Not applicable	
Rail transport	
Not applicable	
14.7. Transport in bulk according to Annex I	l of Marpol and the IBC Code
Not applicable	
SECTION 15: Regulatory information	
15.1. Safety, health and environmental regul	ations/legislation specific for the substance or mixture

15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions Contains no substance on the REACH candidate list

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Contains no REACH Annex XIV substances

Contains no substance subject to REGULATION (EU) No 649/2012 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 4 July 2012 concerning the export and import of hazardous chemicals.

Substance(s) are not subject to Regulation (EC) No 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC.

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Safety Data Sheet applicable for regions

: GB - United Kingdom

SDS EU (REACH Annex II)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

.1. Product identifier Product form		any/undertaki	
	: Mixture		
Product name	: Annexin V-PS Binding Buffer [10X]		
Product code	: 231A		
roduct group	: Blend		
.2. Relevant identified uses of the subst	ance or mixture and uses advised	against	
.2.1. Relevant identified uses			
lo additional information available			
.2.2. Uses advised against			
lo additional information available			
.3. Details of the supplier of the safety d lo additional information available	lata sheet		
.4. Emergency telephone number			
lo additional information available			
ECTION 2: Hazards identification			
2.1. Classification of the substance or mi			
Classification according to Regulation (EC) Not lot classified	0. 12/2/2008 [CLP]		
abelling according to Regulation (EC) No. 12 To labelling applicable 2.3. Other hazards To additional information available	272/2008 [CLP]		
No labelling applicable 2.3. Other hazards No additional information available			
lo labelling applicable .3. Other hazards lo additional information available SECTION 3: Composition/information .1. Substances			
lo labelling applicable .3. Other hazards lo additional information available SECTION 3: Composition/information .1. Substances lot applicable			
lo labelling applicable 2.3. Other hazards			
lo labelling applicable .3. Other hazards lo additional information available SECTION 3: Composition/information .1. Substances lot applicable .2. Mixtures		%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
lo labelling applicable .3. Other hazards lo additional information available ECTION 3: Composition/information .1. Substances lot applicable .2. Mixtures Name	n on ingredients	<mark>%</mark> >= 80	Regulation (EC) No.
o labelling applicable .3. Other hazards o additional information available ECTION 3: Composition/information .1. Substances ot applicable .2. Mixtures Name Deionized water	n on ingredients Product identifier		Regulation (EC) No. 1272/2008 [CLP]
to labelling applicable .3. Other hazards to additional information available EECTION 3: Composition/information .1. Substances tot applicable .2. Mixtures Name Deionized water sodium chloride	n on ingredients Product identifier (CAS-No.) 7732-18-5 (CAS-No.) 7647-14-5	>= 80	Regulation (EC) No. 1272/2008 [CLP] Not classified
to labelling applicable 2.3. Other hazards Io additional information available SECTION 3: Composition/information 3.1. Substances Iot applicable	Product identifier (CAS-No.) 7732-18-5 (CAS-No.) 7647-14-5 (EC-No.) 231-598-3 (CAS-No.) 7365-45-9	>= 80 5 - 10	Regulation (EC) No. 1272/2008 [CLP] Not classified Not classified

SECTION 4: First aid measures	
4.1. Description of first aid measures	
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: Wash skin with plenty of water.
First-aid measures after eye contact	: Rinse eyes with water as a precaution.
First-aid measures after ingestion	: Call a poison center or a doctor if you feel unwell.
4.2. Most important symptoms and effects	, both acute and delayed
No additional information available	
4.3. Indication of any immediate medical a	ttention and special treatment needed
Treat symptomatically.	

Annexin V-PS Binding Buffer [10X] Safety Data Sheet

ulation (EU) 2015/830

according to Regulation (EC) No. 1907/2006 (REACH) with it	ts amendment Regulation (EU) 2015/830
SECTION 5: Firefighting measures	
5.1. Extinguishing media	
Suitable extinguishing media	: Water spray. Dry powder. Foam. Carbon dioxide.
5.2. Special hazards arising from the substa Hazardous decomposition products in case of fire	: Toxic fumes may be released.
	. Toxic fumes may be released.
5.3. Advice for firefighters Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained
5 5 5	breathing apparatus. Complete protective clothing.
SECTION 6: Accidental release measure	es
6.1. Personal precautions, protective equipment	nent and emergency procedures
6.1.1. For non-emergency personnel	
Emergency procedures	: Ventilate spillage area.
612 Ear amarganov reanandara	
6.1.2. For emergency responders Protective equipment	: Do not attempt to take action without suitable protective equipment. For further information
	refer to section 8: "Exposure controls/personal protection".
6.2. Environmental precautions	
Avoid release to the environment.	
6.3. Methods and material for containment a	
Methods for cleaning up	: Take up liquid spill into absorbent material.
Other information	: Dispose of materials or solid residues at an authorized site.
6.4. Reference to other sections For further information refer to section 13.	
SECTION 7: Handling and storage	
7.1. Precautions for safe handling	
Precautions for safe handling	: Ensure good ventilation of the work station. Wear personal protective equipment.
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, including a	
Storage conditions	: Store in a well-ventilated place. Keep cool.
7.3. Specific end use(s)	
No additional information available	
SECTION 8: Exposure controls/persona	Invotection
8.1. Control parameters	
No additional information available	
8.2. Exposure controls	
Appropriate engineering controls:	
Ensure good ventilation of the work station.	
Hand protection:	
Protective gloves	
Eye protection:	
Safety glasses	
Skin and body protection:	
Wear suitable protective clothing	
Respiratory protection:	
In case of insufficient ventilation, wear suitable respi	ratory equipment
Environmental exposure controls:	
Avoid release to the environment.	

SECTION 9: Physical and chemical properties		
9.1. Information on basic physical and chemical properties		
Physical state	: Liquid	
Colour	: No data available	
Odour	: No data available	
Odour threshold	: No data available	

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Not applicable
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Solubility	: No data available
Log Pow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available
9.2. Other information	

9.2. Other information No additional information available

SECTION 10: Stability and reactivity
10.1. Reactivity
The product is non-reactive under normal conditions of use, storage and transport.
10.2. Chemical stability
Stable under normal conditions.
10.3. Possibility of hazardous reactions
No dangerous reactions known under normal conditions of use.
10.4. Conditions to avoid
None under recommended storage and handling conditions (see section 7).
10.5. Incompatible materials
No additional information available
10.6. Hazardous decomposition products
Hazardous decomposition products.

SECTION 11: Toxicological information	
11.1. Information on toxicological effects	
Acute toxicity (oral) :	Not classified
Acute toxicity (dermal) :	Not classified
Acute toxicity (inhalation) :	Not classified
HEPES (7365-45-9)	
LD50 oral rat	> 2000 mg/kg bodyweight (OECD 423: Acute Oral Toxicity – Acute Toxic Class Method, Rat, Male / female, Experimental value, Oral, 14 day(s))
LD50 dermal rat	> 2000 mg/kg bodyweight (OECD 402: Acute Dermal Toxicity, 24 h, Rat, Male / female, Experimental value, Dermal, 14 day(s))

sodium chloride (7647-14-5)	
LD50 oral rat	> 3980 mg/kg bodyweight (Rat, Experimental value, 20% aqueous solution, Oral)
LD50 dermal rabbit	> 10000 mg/kg (Rabbit, Experimental value, Dermal)
LC50 inhalation rat (mg/l)	> 42 mg/l air (1 h, Rat, Male, Experimental value, 20% aqueous solution, Inhalation (aerosol))

calcium chloride, dihydrate (10035-04-8)	
LD50 oral rat	2301 mg/kg bodyweight (OECD 401: Acute Oral Toxicity, Rat, Male / female, Experimental value, Oral)
LD50 dermal rabbit	> 5000 mg/kg bodyweight (Other, 24 h, Rabbit, Male / female, Experimental value, Dermal)

Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified

SECTION 12: Ecological information	
12.1. Toxicity	
Ecology - general :	The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.
Acute aquatic toxicity :	Not classified
Chronic aquatic toxicity :	Not classified
HEPES (7365-45-9)	
LC50 fish 1	> 100 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Danio rerio, Static system, Fresh water, Experimental value, Nominal concentration)
EC50 Daphnia 1	> 100 g/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Locomotor effect)
EC50 72h algae (1)	> 100 mg/l (OECD 201: Alga, Growth Inhibition Test, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, Growth rate)

sodium chloride (7647-14-5)	
LC50 fish 1	5840 mg/l (ASTM, 96 h, Lepomis macrochirus, Flow-through system, Fresh water, Experimental value)

calcium chloride, dihydrate (10035-04-8)		
LC50 fish 1	10650 mg/l (96 h, Lepomis macrochirus, Literature study, Anhydrous form)	
EC50 Daphnia 1	144 mg/l (48 h, Daphnia magna, Literature study, Anhydrous form)	
12.2. Persistence and degradability		
HEPES (7365-45-9)		
Persistence and degradability	Not readily biodegradable in water.	

sodium chloride (7647-14-5)	
Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable

calcium chloride, dihydrate (10035-04-8)	
Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable (inorganic)
ThOD	Not applicable (inorganic)

Bovine Serum Albumin (9048-46-8)		
Persistence and degradability Readily biodegradable in water.		
12.3. Bioaccumulative potential		
HEPES (7365-45-9)		
Log Pow <a> < -3.85 (Experimental value, OECD 107: Partition Coefficient (n-octanol/water): Shak Flask Method, 20 °C)		

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Bioaccumulative potential	Not bioaccumulative.	
sodium chloride (7647-14-5)		
Log Pow	-3 (Calculated)	
Bioaccumulative potential	Not bioaccumulative.	

calcium chloride, dihydrate (10035-04-8)		
Bioaccumulative potential	cumulative potential Not bioaccumulative.	
2.4. Mobility in soil		
HEPES (7365-45-9)		
Surface tension	63.98 mN/m (20 °C, 1.082 g/l, OECD 115: Surface Tension of Aqueous Solutions)	
Log Koc	< 1.32 (log Koc, OECD 121: Estimation of the Adsorption Coefficient (Koc) on Soil and or Sewage Sludge using High Performance Liquid Chromatography (HPLC), Experimental value, GLP)	
Cology - soil Highly mobile in soil.		

sodium chloride (7647-14-5)	
Surface tension	73.03 mN/m (23 °C, 14.5 g/l)
Ecology - soil	No (test)data on mobility of the substance available.

calcium chloride, dihydrate (10035-04-8)		
Ecology - soil	soil No (test)data on mobility of the substance available.	
12.5. Results of PBT and vPvB assessment		
Component		
HEPES (7365-45-9)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII	
sodium chloride (7647-14-5)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII	
calcium chloride, dihydrate (10035-04-8)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII	
12.6. Other adverse effects		

No additional information available

SECTION 13: Disposal considerations	
13.1. Waste treatment methods	
Waste treatment methods	: Waste treatment methods.

SECTION 14: Transport information	
In accordance with ADR / RID / IMDG / IATA / ADN	
14.1. UN number	
UN-No. (ADR)	: Not applicable
UN-No. (IMDG)	: Not applicable
UN-No. (IATA)	: Not applicable
UN-No. (ADN)	: Not applicable
UN-No. (RID)	: Not applicable
14.2. UN proper shipping name	
Proper Shipping Name (ADR)	: Not applicable
Proper Shipping Name (IMDG)	: Not applicable
Proper Shipping Name (IATA)	: Not applicable
Proper Shipping Name (ADN)	: Not applicable
Proper Shipping Name (RID)	: Not applicable
14.3. Transport hazard class(es)	
ADR	
Transport hazard class(es) (ADR)	: Not applicable

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

IMDG	
Transport hazard class(es) (IMDG)	: Not applicable
ΙΑΤΑ	
Transport hazard class(es) (IATA)	: Not applicable
ADN	
Transport hazard class(es) (ADN)	: Not applicable
RID	
Transport hazard class(es) (RID)	: Not applicable
14.4. Packing group	
Packing group (ADR)	: Not applicable
Packing group (IMDG)	: Not applicable
Packing group (IATA)	: Not applicable
Packing group (ADN)	: Not applicable
Packing group (RID)	: Not applicable
14.5. Environmental hazards	
Dangerous for the environment	: No
Marine pollutant	: No
Other information	: No supplementary information available
14.6. Special precautions for user	
Overland transport	
Not applicable	
Transport by sea	
Not applicable	
Air transport	
Not applicable	
Inland waterway transport	
Not applicable	
Rail transport	
Not applicable	
14.7. Transport in bulk according to Annex	I of Marpol and the IBC Code
Not applicable	•

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Contains no substance subject to REGULATION (EU) No 649/2012 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 4 July 2012 concerning the export and import of hazardous chemicals.

Substance(s) are not subject to Regulation (EC) No 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC.

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information	
tements:	
Serious eye damage/eye irritation, Category 2	
H319 Causes serious eye irritation.	

Safety Data Sheet applicable for regions

: GB - United Kingdom

SDS EU (REACH Annex II)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.



Propidium Iodide Solution Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Product form Substance name Product code Product group 1.2. Relevant identified uses of the substance 1.2.1. Relevant identified uses	: Substance : Propidium lodide Solution : 400P : Trade product		
Product code Product group I.2. Relevant identified uses of the substance I.2.1. Relevant identified uses	400P		
Product group .2. Relevant identified uses of the substance .2.1. Relevant identified uses			
.2. Relevant identified uses of the substance			
.2.1. Relevant identified uses	•		
	e or mixture and uses advised	d against	
lo additional information available			
.2.2. Uses advised against lo additional information available			
I.3. Details of the supplier of the safety data	sheet		
Seno Technology, Inc./ G-Biosciences 1800 Page Avenue 13132-1429 Saint Louis - United States ⁻ 800-628-7730 - F 314-991-1504 <u>echnical@GBiosciences.com</u> - <u>www.GBiosciences.com</u>	<u>)m</u>		
.4. Emergency telephone number			
mergency number : Cl	hemtrec 1-800-424-9300 (USA/Car	ada), +1-703-527-38	87 (Intl)
ECTION 2: Hazards identification			
.1. Classification of the substance or mixtur	·e		
lassification according to Regulation (EC) No. 12	72/2008 [CLP]		
lot classified			
	ronmental effects		
ractice.	ronmental effects particular risk, provided it is handled	in accordance with g	ood occupational hygiene and sa
o our knowledge, this product does not present any practice. 2.2. Label elements abelling according to Regulation (EC) No. 1272/20 Io labelling applicable	particular risk, provided it is handled	in accordance with g	ood occupational hygiene and sat
ractice. .2. Label elements abelling according to Regulation (EC) No. 1272/20 Io labelling applicable	particular risk, provided it is handled	in accordance with g	ood occupational hygiene and sat
ractice. .2. Label elements	particular risk, provided it is handled	in accordance with g	ood occupational hygiene and sa
ractice. .2. Label elements abelling according to Regulation (EC) No. 1272/20 to labelling applicable .3. Other hazards to additional information available	oarticular risk, provided it is handled	in accordance with g	ood occupational hygiene and sa
ractice. .2. Label elements abelling according to Regulation (EC) No. 1272/20 Io labelling applicable .3. Other hazards Io additional information available SECTION 3: Composition/information on	oarticular risk, provided it is handled	in accordance with g	jood occupational hygiene and sa
ractice. .2. Label elements abelling according to Regulation (EC) No. 1272/20 Io labelling applicable .3. Other hazards Io additional information available SECTION 3: Composition/information on .1. Substances	oarticular risk, provided it is handled 008 [CLP] 1 ingredients	in accordance with g	jood occupational hygiene and sat
ractice. .2. Label elements abelling according to Regulation (EC) No. 1272/20 Io labelling applicable .3. Other hazards Io additional information available	oarticular risk, provided it is handled	in accordance with g	jood occupational hygiene and sa
ractice. .2. Label elements abelling according to Regulation (EC) No. 1272/20 Io labelling applicable .3. Other hazards Io additional information available SECTION 3: Composition/information on .1. Substances	oarticular risk, provided it is handled 008 [CLP] 1 ingredients	in accordance with g	classification according t Regulation (EC) No. 1272/2008 [CLP]
ractice. .2. Label elements abelling according to Regulation (EC) No. 1272/20 o labelling applicable .3. Other hazards to additional information available ECTION 3: Composition/information on .1. Substances ame	Dearticular risk, provided it is handled 008 [CLP] Ingredients : Propidium lodide Solution		Classification according t Regulation (EC) No.
ractice. 2. Label elements abelling according to Regulation (EC) No. 1272/20 o labelling applicable 3. Other hazards o additional information available ECTION 3: Composition/information on 1. Substances ame Name	Doarticular risk, provided it is handled DO8 [CLP] ingredients : Propidium lodide Solution Product identifier	%	Classification according t Regulation (EC) No. 1272/2008 [CLP]
actice. 2. Label elements abelling according to Regulation (EC) No. 1272/20 o labelling applicable 3. Other hazards o additional information available ECTION 3: Composition/information on 1. Substances ame Name Deionized water	Dearticular risk, provided it is handled D08 [CLP] Ingredients Propidium lodide Solution Product identifier (CAS-No.) 7732-18-5 (CAS-No.) 25535-16-4	<mark>%</mark> ≥= 80	Classification according t Regulation (EC) No. 1272/2008 [CLP] Not classified Skin Irrit. 2, H315 Eye Irrit. 2, H319 Muta. 2, H341

4.1. Description of first aid measures	
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: Wash skin with plenty of water.
First-aid measures after eye contact	: Rinse eyes with water as a precaution.
First-aid measures after ingestion	: Call a poison center or a doctor if you feel unwell.
4.2. Most important symptoms and effects, No additional information available	both acute and delayed

Propidium Iodide Solution

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

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. Foam. Carbon dioxide.
5.2. Special hazards arising from the substance or mixture	
Hazardous decomposition products in case of fire	: Toxic fumes may be released.
5.3. Advice for firefighters	
Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measu	res
6.1. Personal precautions, protective equip	
6.1.1. For non-emergency personnel	
Emergency procedures	: Ventilate spillage area.
6.1.2. For emergency responders	
Protective equipment	: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
6.2. Environmental precautions	
Avoid release to the environment.	
6.3. Methods and material for containment Methods for cleaning up	: Take up liquid spill into absorbent material.
Other information	: Dispose of materials or solid residues at an authorized site.
6.4. Reference to other sections	
For further information refer to section 13.	
SECTION 7: Handling and storage	
7.1. Precautions for safe handling	
Precautions for safe handling	: Ensure good ventilation of the work station. Wear personal protective equipment.
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, including	
Storage conditions	: Store in a well-ventilated place. Keep cool.
7.3. Specific end use(s)	
No additional information available	
SECTION 8: Exposure controls/person	al protection
8.1. Control parameters	
No additional information available	
8.2. Exposure controls	
Appropriate engineering controls:	
Ensure good ventilation of the work station.	
Hand protection:	
Protective gloves	
Eye protection:	
Safety glasses	
Skin and body protection:	
Wear suitable protective clothing	
Respiratory protection:	
In case of insufficient ventilation, wear suitable res	piratory equipment
Environmental exposure controls:	
Avoid release to the environment.	

SECTION 9: Physical and chemical properties 9.1. Information on basic physical and chemical properties Physical state : Liquid

Propidium Iodide Solution Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Colour	: No data available
Odour	: No data available
Odour threshold	: No data available
рН	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Not applicable
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Solubility	: No data available
Log Pow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available
9.2. Other information	

No additional information available

SECTION 10: Stability and reactivity
10.1. Reactivity
The product is non-reactive under normal conditions of use, storage and transport.
10.2. Chemical stability
Stable under normal conditions.
10.3. Possibility of hazardous reactions
No dangerous reactions known under normal conditions of use.
10.4. Conditions to avoid
None under recommended storage and handling conditions (see section 7).
10.5. Incompatible materials
No additional information available
10.6. Hazardous decomposition products
Hazardous decomposition products.

: Not classified
: Not classified

SECTION 12: Ecological information	
12.1. Toxicity	
Ecology - general	: The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.
Acute aquatic toxicity	: Not classified
Chronic aquatic toxicity	: Not classified

Propidium Iodide Solution Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

12.2. Persistence and degradability	
Propidium lodide (25535-16-4)	
Persistence and degradability	Biodegradability in water: no data available.
12.3. Bioaccumulative potential	
Propidium lodide (25535-16-4)	
Bioaccumulative potential	No bioaccumulation data available.
12.4. Mobility in soil	
No additional information available	
12.5. Results of PBT and vPvB assessment	
No additional information available	
12.6. Other adverse effects	
No additional information available	

SECTION 13: Disposal considerations 13.1. Waste treatment methods	
Waste treatment methods	: Waste treatment methods.

SECTION 14: Transport information	
SECTION 14: Transport information In accordance with ADR / RID / IMDG / IATA / ADN	
14.1. UN number	
UN-No. (ADR)	: Not applicable
UN-No. (IMDG)	: Not applicable
UN-No. (IATA)	: Not applicable
UN-No. (ADN)	: Not applicable
UN-No. (RID)	: Not applicable
14.2. UN proper shipping name	
Proper Shipping Name (ADR)	: Not applicable
Proper Shipping Name (IMDG)	: Not applicable
Proper Shipping Name (IATA)	: Not applicable
Proper Shipping Name (ADN)	: Not applicable
Proper Shipping Name (RID)	: Not applicable
14.3. Transport hazard class(es)	
ADR	
Transport hazard class(es) (ADR)	: Not applicable
IMDG	
Transport hazard class(es) (IMDG)	: Not applicable
ΙΑΤΑ	
Transport hazard class(es) (IATA)	: Not applicable
ADN	
Transport hazard class(es) (ADN)	: Not applicable
RID	
Transport hazard class(es) (RID)	: Not applicable
14.4. Packing group	
Packing group (ADR)	: Not applicable
Packing group (IMDG)	: Not applicable
Packing group (IATA)	: Not applicable
Packing group (ADN)	: Not applicable
Packing group (RID)	: Not applicable
14.5. Environmental hazards	
Dangerous for the environment	: No
Marine pollutant	: No
Other information	: No supplementary information available
14.6. Special precautions for user	
Overland transport	
Not applicable	
Transport by sea	
Not applicable	

Propidium Iodide Solution

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Air transport

Not applicable

Inland waterway transport

Not applicable

Rail transport

Not applicable

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

No REACH Annex XVII restrictions

Propidium Iodide Solution is not on the REACH Candidate List

Propidium Iodide Solution is not on the REACH Annex XIV List

Propidium lodide Solution is not subject to REGULATION (EU) No 649/2012 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 4 July 2012 concerning the export and import of hazardous chemicals.

Propidium lodide Solution is not subject to Regulation (EC) No 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Full text of H- and EUH-statements:	
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Muta. 2	Germ cell mutagenicity, Category 2
Skin Irrit. 2	Skin corrosion/irritation, Category 2
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H341	Suspected of causing genetic defects.

Safety Data Sheet applicable for regions

: GB - United Kingdom

SDS EU (REACH Annex II)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.