



# SAFETY DATA SHEET (SDS)

according to Regulation (EC) No. 830/2015 amending 1907/2006

## Section 1: Identification of the substance/mixture and of the company/undertaking

<b>1.1</b>	<b>Product identifier:</b>	Antigen Coating Buffer, 5X
1.1a	Other means of identification:	.
1.1b	Alternative product name(s)/ synonyms:	Antigen Coating Buffer; 5X Antigen Coating Buffer; CB2
1.1c	Product number/Catalog #(s):	5136, 6247, 6248, 6249, 6250
1.1d	Internal identification:	Antigen Coating Buffer; 5X Antigen Coating Buffer; Ag Coating Buffer; CB2
<b>1.2</b>	<b>Relevant identified uses of the substance or mixture and uses advised against:</b>	For research use only. Not for use in diagnostic procedures.
1.2a	Brief description of what the substance or mixture is intended to do:	A buffered solution designed to maximize adsorption of antigens onto ELISA plates.
<b>1.3</b>	<b>Details of the supplier of the SDS:</b>	.
1.3a	Name:	ImmunoChemistry Technologies, LLC (ICT)
1.3b	Address:	9401 James Avenue South, Suite 155
1.3c	City, State, Zip, Country	Bloomington, MN 55431-2500 USA
1.3d	Phone number:	1-800-829-3194 and 952-888-8788
1.3e	Fax number:	952-888-8988
1.3f	Website:	www.immunochemistry.com
1.3g	Email:	help@immunochemistry.com
1.3h	Contact person at ICT:	Quality Documentation Department
<b>1.4</b>	<b>Emergency telephone number:</b>	ICT: 1-800-829-3194 (USA & Canada) or 952-888-8788 world wide; ICT hours are 9 am-5 pm central time USA, Monday through Friday (excluding holidays). Chemtrec 24-hour access within USA and Canada: 1-800-424-9300 or +1 703-527-3887. Collect calls accepted.


## Section 2: Hazards identification

<b>2.1</b>	<b>Classification of the substance or mixture:</b>	.
2.1a	Product is a:	Mixture.
2.1b	Classification according to (EC) No. 1272/2008 {CLP}:	Does not meet the criteria for classification.
2.1c	The most important adverse physiochemical, human health, and environmental effects:	Prolonged skin contact may cause redness and irritation. Refer to Sections 4, 9-12.
<b>2.2</b>	<b>Label elements:</b>	None.
2.2a	GHS label elements, including precautionary statements:	None.
2.2b	Contains:	Not applicable.
2.2c	Labeling in accordance with (EC) No. 1272/2008:	None.
2.2d	Hazard Pictograms (Hazard Symbols):	None.
2.2e	Signal word:	None.
2.2f	Hazard statements:	None.
2.2g	Precautionary statements:	None.
2.2h	Supplementary precaution statements:	None.
<b>2.3</b>	<b>Other hazards:</b>	No additional information available.
2.3a	Does the chemical meet the criteria for PBT or vPvB?	Not applicable.
2.3b	Other hazards which do not result in classification:	Contains $\leq 0.5\%$ Sodium Azide (CAS #26628-22-8; EC #247-852-1) which is below the threshold for hazard classification. Contains sodium chloride and phosphates which are below the threshold for hazard classification, but may cause redness and irritation after prolonged exposure.

## Section 3: Composition/information on ingredients

<b>3.1</b>	<b>Substance:</b>	Item is a mixture therefore Section 3.1 is not applicable; see Section 3.2.		
<b>3.2</b>	<b>Mixture:</b> The chemical identity and concentration or concentration ranges of all ingredients which are hazardous and are present above their cut-off levels:	Item is a mixture.		
	3.2a Chemical identity:	No ingredients identified for reporting in this section.		
	3.2b Common name, synonyms, etc.:	.		
	3.2c CAS number and other unique identifiers:	3.2d EC number:	3.2e % Concentration:	3.2f Classification according to (EC) No. 1272/2008 {CLP}:
	.	.	.	.

<b>Section 4: First aid measures</b>		
<b>4.1</b>	<b>Description of first aid measures:</b>	If concerned, get medical attention/advice and provide physician with SDS information. Wash contaminated clothing before re-use. Never give anything to an unconscious person.
4.1a	Inhalation:	Remove to fresh air and keep at rest in a comfortable position for breathing. If not breathing, give artificial respiration. Rinse nose and mouth with water. Get medical attention if any discomfort continues.
4.1b	Skin contact:	Wash skin thoroughly with soap and water for several minutes; continue to rinse for at least 15 minutes. Remove any contaminated clothing and shoes and wash thoroughly before reuse. Get medical attention if any discomfort continues.
4.1c	Eye contact:	Promptly wash eyes with plenty of water while lifting the eyelids. Make sure to remove any contact lenses from the eyes before rinsing. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.
4.1d	Ingestion:	NEVER MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK FLUIDS! Rinse mouth thoroughly. Do not induce vomiting without advice from poison control center or medical professional. Get medical attention if any discomfort continues.
<b>4.2</b>	<b>Most important symptoms and effects, both acute and delayed:</b>	Refer to Sections 2 and 11 for most important known symptoms and effects.
4.2a	Inhalation:	May cause coughing or mild irritation.
4.2b	Skin contact:	Prolonged skin contact may cause redness and mild irritation.
4.2c	Eye contact:	May cause temporary eye irritation.
4.2d	Ingestion:	May cause discomfort if swallowed.
<b>4.3</b>	<b>Indication of any immediate medical attention and special treatment needed:</b>	No specific first aid measures noted, but first aid may still be required in case of accidental exposure, inhalation, or ingestion of this product. If in doubt, get medical attention promptly!
4.3a	Notes to physician/first responder:	Treat symptomatically. Refer to Sections 5-8 for advice on personal protective equipment.
<b>Section 5: Firefighting measures</b>		
<b>5.1</b>	<b>Extinguishing media:</b>	This product is not flammable. Use fire-extinguishing media appropriate for the surrounding materials.
5.1a	Suitable extinguishing media:	Water spray, foam, dry powder, or carbon dioxide.
5.1b	Unsuitable extinguishing media:	None known.
<b>5.2</b>	<b>Special hazards arising from the substance or mixture:</b>	This product is not flammable. Product is not explosive. No dangerous reactions known under normal conditions of use.
5.2a	Hazardous combustion products:	None under normal conditions.
5.2b	Unusual fire & explosion hazards:	No unusual fire or explosion hazards noted.
5.2c	Protective measures in fire:	Use protective equipment appropriate for surrounding materials.
<b>5.3</b>	<b>Advice for firefighters:</b>	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
5.3a	Special firefighting procedures:	No specific firefighting procedure given.
5.3b	Special protective equipment and precautions for firefighters:	Wear full protective clothing, including self-contained breathing apparatus, if necessary. The product presents no special fire hazards in normal use. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
<b>Section 6: Accidental release measures</b>		
<b>6.1</b>	<b>Personal precautions, protective equipment, and emergency procedures:</b>	Use protective equipment appropriate for surrounding materials.
6.1a	General release measures:	No specific emergency measures are required other than good laboratory hygiene and safety practices for small spills. Wear suitable protective clothing, gloves and eye or face protection. Consult professional emergency personnel if concerned (see Section 8).
6.1b	Advice for non-emergency personnel; personal precautions, protective equipment and emergency procedures:	No specific emergency measures are required other than good laboratory hygiene and safety practices. Wear suitable protective clothing/gloves/eye/face protection to avoid contact with skin, eyes, and personal clothing; use an approved supplied-air respirator, in case of emergency (also refer to Section 8). Remove all sources of ignition. Ensure adequate ventilation and control dust/mist. Avoid breathing vapors, mist, or gas. Evacuate personnel to safe areas. Wear suitable protective clothing, gloves and eye or face protection to prevent any contamination. Consult professional emergency personnel if concerned.
6.1c	Advice for emergency responders; personal precautions, protective equipment and emergency procedures:	Wear suitable protective clothing, gloves and eye or face protection to avoid contact; use an approved supplied-air respirator, in case of emergency (also refer to Section 8).
<b>6.2</b>	<b>Environmental precautions:</b>	Do not allow to enter drains, sewers, or watercourses.

6.3	<b>Methods and materials for containment and clean up:</b>	Contain any spills with dikes or absorbent materials to prevent migration and entry into sewers or water sources. Place in a suitable container for disposal in accordance with local waste regulations (see Section 13). Wash spill area thoroughly with plenty of soap and water. Avoid contact with skin or inhalation of spillage, dust, or vapor.
6.4	<b>Reference to other sections:</b>	Refer to Sections 8 and 13 for additional information.
<b>Section 7: Handling and storage</b>		
7.1	<b>Precautions for safe handling:</b>	Do not handle until all safety precautions have been read and understood. Avoid creation of aerosol/mist/dust. Avoid inhalation of vapors/mist/dust. Prevent contact with skin and eyes. Use appropriate personal protection equipment (PPE). Thoroughly wash hands and contaminated areas with water and soap before leaving the work site. Keep away from sources of ignition.
7.1a	Prevent handling of incompatible substances or mixtures:	Avoid contact with strong acids and strong oxidizers.
7.1b	Advice on general occupational hygiene:	Do not eat, drink, or smoke in work areas. Wash hands after use. Remove contaminated clothing and protective equipment before entering eating areas. Good personal hygiene is necessary. Follow good laboratory hygiene and safety practices.
7.2	<b>Conditions for safe storage, including any incompatibilities:</b>	Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Avoid spills and release into the environment; keep away from watercourses.
7.3	<b>Specific end use(s):</b>	For research use only. Not for use in diagnostic procedures.
<b>Section 8: Exposure controls/personal protection</b>		
8.1	<b>Control parameters:</b>	.
8.1a	Occupational exposure limits, such as chemical identity, standard, TWA-8 hours (time weighted average), STEL-15 minutes (short term exposure limit), etc.: WEL = Workplace Exposure Limit. Sk = can be absorbed through skin.	The liquid mixture is not in respirable form. No data available.
8.1b	Appropriate engineering controls:	.
8.1c	Individual protection measures, such as personal protective equipment:	Wear gloves, protective goggles, and lab coat.
8.1d	Safety symbols:	
8.2	<b>Exposure controls:</b>	.
8.2a	Process conditions:	Provide eyewash station.
8.2b	Engineering controls:	Ensure that eyewash stations and safety showers are proximal to the workstation location.
8.2c	Ventilation controls:	Provide adequate ventilation.
8.2d	Reference to other sections:	Refer to Section 5 for additional information.
8.2e	Eye/face protection:	Wear approved chemical safety goggles where eye exposure is reasonably probable or face shield if risk of splashing.
8.2f	Skin protection:	Wear apron or protective clothing in case of contact.
8.2g	Hand protection:	Use suitable protective gloves if risk of skin contact.
8.2h	Respiratory equipment:	Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).
8.2i	Other protection:	Wear appropriate clothing to avoid skin contact.
8.2j	Hygiene measures:	DO NOT SMOKE IN WORK AREA! Wash at the end of each work shift and before eating, smoking, and using the toilet. Promptly remove any clothing that becomes contaminated. Use appropriate skin cream to prevent drying of skin. When using do not eat, drink, or smoke. Wash promptly with soap and water if skin becomes contaminated
8.2k	Thermal hazards:	None known under normal conditions of use.
8.2l	Environmental exposure controls:	Not determined.
<b>Section 9: Physical and chemical properties</b>		
9.1	<b>Information on basic physical and chemical properties:</b>	.

9.1a	Appearance (physical state, color, etc.):	Liquid; clear.
9.1b	Odor:	No characteristic odor.
9.1c	Odor threshold:	Not determined.
9.1d	pH:	7.8-8.2
9.1e	Melting point/freezing point (°C):	Not determined.
9.1f	Initial boiling point and boiling range:	<100°C @ 760 mm Hg.
9.1g	Flash point (°C):	Not applicable.
9.1h	Evaporation rate:	Not determined.
9.1i	Flammability (solid, gas):	Not applicable.
9.1j	Upper/lower flammability or explosive limits:	Not applicable.
9.1k	Vapor pressure:	Not determined.
9.1l	Vapor density (Air =1):	Not determined.
9.1m	Relative density:	Not determined.
9.1n	Solubility(ies):	Soluble in water.
9.1o	Partition coefficient (N-octanol/water):	Not determined.
9.1p	Auto-ignition temperature (°C):	Not determined.
9.1q	Decomposition temperature (°C):	Not determined.
9.1r	Viscosity:	Not determined.
9.1s	Explosive properties:	Not determined.
9.1t	Oxidizing properties:	Not determined.
<b>9.2</b>	<b>Other information:</b>	None.
9.2a	Other physical or chemical parameters:	None.

**Section 10: Stability and reactivity**

<b>10.1</b>	<b>Reactivity:</b>	No data available.
<b>10.2</b>	<b>Chemical stability:</b>	Stable under normal temperature conditions.
<b>10.3</b>	<b>Possibility of hazardous reactions:</b>	Hazardous polymerization: will not polymerize.
<b>10.4</b>	<b>Conditions to avoid:</b>	To avoid product degradation, avoid exposure to high temperatures or direct sunlight or light.
<b>10.5</b>	<b>Incompatible materials:</b>	Hydrocarbons – halogenated. Strong acids. Metals.
<b>10.6</b>	<b>Hazardous decomposition products:</b>	None under normal conditions.

**Section 11: Toxicological information**

<b>11.1</b>	<b>Information on toxicological effects:</b>	.
11.1a	Name:	No ingredients identified for reporting in this section.
11.1b	Acute toxicity:	Not determined.
11.1c	Skin corrosion/irritation:	Not determined.
11.1d	Serious eye damage/irritation:	Not determined.
11.1e	Respiratory or skin sensitization:	Not determined.
11.1f	Germ cell mutagenicity:	Not determined.
11.1g	Carcinogenicity:	Not determined.
11.1h	Reproductive toxicity:	Not determined.
11.1i	STOT-single exposure:	Not determined.
11.1j	STOT-repeated exposure:	Not determined.
11.1k	Aspiration hazard:	Not determined.
11.1l	Information on the likely routes of exposure (inhalation, ingestion, skin and eye contact):	May enter by skin and/or eye contact; inhalation of vapors/mist/dust.
11.1m	Ingestion:	May cause discomfort if swallowed.
11.1n	Inhalation:	In high concentrations, vapors may irritate throat and respiratory system and cause coughing.
11.1o	Skin contact:	Liquid may irritate skin.
11.1p	Eye contact:	Spray and vapor in the eyes may cause irritation and smarting.
11.1q	Symptoms related to the physical, chemical and toxicological characteristics:	No specific symptoms noted.
11.1r	Delayed and immediate effects as well as chronic effects from short and long term exposure:	Not determined.
11.1s	Numerical measures of toxicity (such as acute toxicity estimates):	Not determined.
11.1t	Interactive effects:	Not determined.
11.1u	Absence of specific data:	Not applicable.
11.1v	Mixtures:	Item is a mixture.
11.1w	Mixture vs. substance information:	See Section 3 for any substances in the mixture.
11.1x	Classification by National Toxicity Program (NTP):	Not classified.
11.1y	Classification by International Agency for Research on Cancer (IARC):	Not classified.
11.1z	Classification by OSHA 13:	Not classified.
11.1ab	Other information:	None.

**Section 12: Ecological information**

<b>12.1</b>	<b>Toxicity:</b>	.
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12.1a	Name:	No ingredients identified for reporting in this section..
12.1b	Ecotoxicity (aquatic and terrestrial, where available):	There are no data on ecotoxicity of this product.
12.2	<b>Persistence and degradability:</b>	There are no data on the degradability of this product.
12.3	<b>Bioaccumulative potential:</b>	No data available on bioaccumulation.
12.4	<b>Mobility in soil:</b>	Mobility in soil is unknown (the product is soluble in water).
12.5	<b>Results of PBT and vPvB assessment:</b>	Not determined.
12.6	<b>Other adverse effects:</b>	The product contains a substance which is harmful to aquatic organisms. However, at the concentrations present this product does not need to be classified as hazardous for the environment and the effects are not expected to be significant.
<b>Section 13: Disposal considerations</b>		
13.1	<b>Waste treatment methods:</b>	When handling waste, consideration should be made to the safety precautions applying to handling of the product.
13.1a	Description of waste residues and information on their safe handling and methods of disposal, including the disposal of any contaminated packaging:	Dispose of waste and residues in accordance with local authority requirements. For the safety of persons conducting disposal, recycling or reclamation activities, please refer to the information in Section 8 (exposure controls and personal protection) of the SDS.
<b>Section 14: Transport information</b>		
14.1	<b>UN number:</b>	Not applicable.
14.2	<b>UN proper shipping name:</b>	Not applicable.
14.3	<b>Transport hazard class(es):</b>	Not applicable.
14.4	<b>Packing group:</b>	Not applicable.
14.5	<b>Environmental hazards:</b>	.
14.5a	Is it environmentally dangerous according to UN Model Regulations (IMDG Code, ADR, RID, and ADN)?:	No.
14.5b	Is it a marine pollutant according to the IMDG code?:	No.
14.6	<b>Special precautions for user:</b>	None known.
14.7	<b>Transport in bulk according to Annex II of MARPOL and the IBC code:</b>	Not applicable.
14.7a	Other information:	The product is not considered a dangerous good for transport.
14.7b	Classification for other modes of transport:	Contact supplier.
<b>Section 15: Regulatory information</b>		
15.1	<b>Safety, health and environmental regulations/legislation specific for the substance or mixture:</b>	.
15.1a	Regional safety, health and environmental regulations specific for the product in question:	.
15.1b	USA SARA Components (such as 302/311/313):	Sodium azide (CAS # 26628-22-8) is listed under 302, 304, 313.
15.1c	USA Massachusetts Right to Know:	Sodium azide (CAS # 26628-22-8) is listed.
15.1d	USA Pennsylvania Right to Know:	Sodium azide (CAS # 26628-22-8) is listed.
15.1e	USA New Jersey Right to Know:	Sodium azide (CAS # 26628-22-8) is listed.
15.1f	USA California Prop. 65 Components:	Not listed.
15.1g	EU Regulation 1907/2006 (REACH):	.
15.1h	Annex XIV substances subject to authorization:	Not listed.
15.1i	Substances of very high concern:	Not listed.
15.1j	Approved code of practice:	Classification and labeling of substances and preparations dangerous for supply. Safety data sheets for substances and preparations.
15.1k	Guidance notes:	Workplace exposure limits EH40.
15.1l	EU legislation references:	(EC) No. 1272/2008 on the classification, labelling and packaging of substances and mixtures (CLP Regulation). EC 830/2015. Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments.
15.2	<b>Chemical safety assessment:</b>	Not required.
15.2a	Other regulatory information:	None.
<b>Section 16: Other information</b>		
16.1	<b>Other information:</b>	.
16.1a	Date of revision:	26-May-2017
16.1b	SDS number and revision:	F17-5136-2-D
16.1c	Supersedes SDS number and revision:	F17-5136-2-C

16.1d	Changes made to the previous version of the SDS:	Reviewed and updated document control numbers.
16.1e	Key/legend to abbreviations and acronyms used in the SDS:	<p>ACGIH American Conference of Governmental Industrial Hygienists.  ADN European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway.  ADR The European Agreement concerning the International Carriage of Dangerous Goods by Road.  ATE Acute Toxicity Estimate.  BCF Bio Concentration Factor.  CAS Chemical Abstracts Service.  CLP Classification, Labelling and Packaging.  CMR Carcinogen, Mutagen or Reproductive toxicant.  COD Chemical Oxygen Demand.  EC European Commission.  EC50 Half maximal effective concentration.  EH40 Resource containing the list of workplace exposure limits for use with the Control of Substances Hazardous to Health Regulations.  EINECS European Inventory of Existing Commercial chemical Substances.  ELINCS European List of Notified Chemical Substances.  EU European Union.  GHS Globally Harmonized System of Classification and Labelling of Chemicals.  H Statement GHS Hazard statement.  IATA International Air Transport Association.  IBC Intermediate Bulk Container.  IC50 Half maximal inhibitory concentration.  IMDG International Maritime Dangerous Goods.  LC50 Median lethal concentration.  LD50 Median lethal dose.  LogPow logarithm of the octanol/water partition coefficient.  MARPOL 73/78 International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978.  OEL Occupational Exposure Limit.  OSHA Occupational Safety and Health Administration (USA).  PBT Persistent, Bioaccumulative, and Toxic.  PEL Permissible Exposure Limit.  RID The Regulations concerning the International Carriage of Dangerous Goods by Rail.  SADT Self-Accelerating Decomposition Temperature.  SARA Superfund Amendments and Reauthorization Act.  SCBA Self-Contained Breathing Apparatus.  SDS Safety Data Sheet.  STOT Specific Target Organ Toxicity.  STOT-RE Specific Target Organ Toxicity - Repeated Exposure.  STOT-SE Specific Target Organ Toxicity - Single Exposure.  UN United Nations.  USA United States of America.  vPvB very Persistent very bioaccumulative.</p>
16.1f	Full text of hazard statements and/or precautionary statements not written out in full elsewhere:	All statements were written out in full.
<b>DISCLAIMER:</b>	<p><b>This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability, or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.</b></p>	
<p><b>END OF SDS</b></p>		



# SAFETY DATA SHEET (SDS)

according to Regulation (EC) No. 830/2015 amending 1907/2006

## Section 1: Identification of the substance/mixture and of the company/undertaking

<b>1.1</b>	<b>Product identifier:</b>	General Block
1.1a	Other means of identification:	.
1.1b	Alternative product name(s)/ synonyms:	General Block Buffer; General Blocking Buffer; General Low-Level Blocker; BB1
1.1c	Product number/Catalog #(s):	517, 632, 633, 640, 659
1.1d	Internal identification:	BB1
<b>1.2</b>	<b>Relevant identified uses of the substance or mixture and uses advised against:</b>	For research use only. Not for use in diagnostic procedures.
1.2a	Brief description of what the substance or mixture is intended to do:	A blocking buffer designed to reduce interference and nonspecific background signal in ELISAs.
<b>1.3</b>	<b>Details of the supplier of the SDS:</b>	.
1.3a	Name:	ImmunoChemistry Technologies, LLC (ICT)
1.3b	Address:	9401 James Avenue South, Suite 155
1.3c	City, State, Zip, Country	Bloomington, MN 55431-2500 USA
1.3d	Phone number:	1-800-829-3194 and 952-888-8788
1.3e	Fax number:	952-888-8988
1.3f	Website:	www.immunochemistry.com
1.3g	Email:	help@immunochemistry.com
1.3h	Contact person at ICT:	Quality Documentation Department
<b>1.4</b>	<b>Emergency telephone number:</b>	ICT: 1-800-829-3194 (USA & Canada) or 952-888-8788 world wide; ICT hours are 9 am-5 pm central time USA, Monday through Friday (excluding holidays). Chemtrec 24-hour access within USA and Canada: 1-800-424-9300 or +1 703-527-3887. Collect calls accepted.

## Section 2: Hazards identification


<b>2.1</b>	<b>Classification of the substance or mixture:</b>	.
2.1a	Product is a:	Mixture.
2.1b	Classification according to (EC) No. 1272/2008 {CLP}:	Does not meet the criteria for classification.
2.1c	The most important adverse physiochemical, human health, and environmental effects:	Prolonged skin contact may cause redness and irritation. Refer to Sections 4, 9-12.
<b>2.2</b>	<b>Label elements:</b>	None.
2.2a	GHS label elements, including precautionary statements:	None.
2.2b	Contains:	Not applicable.
2.2c	Labeling in accordance with (EC) No. 1272/2008:	None.
2.2d	Hazard Pictograms (Hazard Symbols):	None.
2.2e	Signal word:	None.
2.2f	Hazard statements:	None.
2.2g	Precautionary statements:	None.
2.2h	Supplementary precaution statements:	None.
<b>2.3</b>	<b>Other hazards:</b>	No additional information available.
2.3a	Does the chemical meet the criteria for PBT or vPvB?	Not applicable.
2.3b	Other hazards which do not result in classification:	Contains $\leq 0.1\%$ Sodium Azide (CAS #26628-22-8; EC #247-852-1) which is below the threshold for hazard classification. Contains sodium chloride and phosphates which are below the threshold for hazard classification, but may cause redness and irritation after prolonged exposure.

## Section 3: Composition/information on ingredients

<b>3.1</b>	<b>Substance:</b>	Item is a mixture therefore Section 3.1 is not applicable; see Section 3.2.		
<b>3.2</b>	<b>Mixture:</b> The chemical identity and concentration or concentration ranges of all ingredients which are hazardous and are present above their cut-off levels:	Item is a mixture.		
	3.2a Chemical identity:	Sucrose		
	3.2b Common name, synonyms, etc.:	Molecular formula of sucrose is $C_{12}H_{22}O_{11}$		
	3.2c CAS number and other unique identifiers:	3.2d EC number:	3.2e % Concentration:	3.2f Classification according to (EC) No. 1272/2008 {CLP}:
	57-50-1	200-334-9	1-10%	Not classified.

<b>Section 4: First aid measures</b>		
<b>4.1</b>	<b>Description of first aid measures:</b>	If concerned, get medical attention/advice and provide physician with SDS information. Wash contaminated clothing before re-use. Never give anything to an unconscious person.
4.1a	Inhalation:	Remove to fresh air and keep at rest in a comfortable position for breathing. If not breathing, give artificial respiration. Rinse nose and mouth with water. Get medical attention if any discomfort continues.
4.1b	Skin contact:	Wash skin thoroughly with soap and water for several minutes; continue to rinse for at least 15 minutes. Remove any contaminated clothing and shoes and wash thoroughly before reuse. Get medical attention if any discomfort continues.
4.1c	Eye contact:	Promptly wash eyes with plenty of water while lifting the eyelids. Make sure to remove any contact lenses from the eyes before rinsing. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.
4.1d	Ingestion:	NEVER MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK FLUIDS! Rinse mouth thoroughly. Do not induce vomiting without advice from poison control center or medical professional. Get medical attention if any discomfort continues.
<b>4.2</b>	<b>Most important symptoms and effects, both acute and delayed:</b>	Refer to Sections 2 and 11 for most important known symptoms and effects.
4.2a	Inhalation:	May cause coughing or mild irritation.
4.2b	Skin contact:	Prolonged skin contact may cause redness and mild irritation.
4.2c	Eye contact:	May cause temporary eye irritation.
4.2d	Ingestion:	May cause discomfort if swallowed.
<b>4.3</b>	<b>Indication of any immediate medical attention and special treatment needed:</b>	No specific first aid measures noted, but first aid may still be required in case of accidental exposure, inhalation, or ingestion of this product. If in doubt, get medical attention promptly!
4.3a	Notes to physician/first responder:	Treat symptomatically. Refer to Sections 5-8 for advice on personal protective equipment.
<b>Section 5: Firefighting measures</b>		
<b>5.1</b>	<b>Extinguishing media:</b>	This product is not flammable. Use fire-extinguishing media appropriate for the surrounding materials.
5.1a	Suitable extinguishing media:	Water spray, foam, dry powder, or carbon dioxide.
5.1b	Unsuitable extinguishing media:	None known.
<b>5.2</b>	<b>Special hazards arising from the substance or mixture:</b>	This product is not flammable. Product is not explosive. No dangerous reactions known under normal conditions of use.
5.2a	Hazardous combustion products:	None under normal conditions.
5.2b	Unusual fire & explosion hazards:	No unusual fire or explosion hazards noted.
5.2c	Protective measures in fire:	Use protective equipment appropriate for surrounding materials.
<b>5.3</b>	<b>Advice for firefighters:</b>	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
5.3a	Special firefighting procedures:	No specific firefighting procedure given.
5.3b	Special protective equipment and precautions for firefighters:	Wear full protective clothing, including self-contained breathing apparatus, if necessary. The product presents no special fire hazards in normal use. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
<b>Section 6: Accidental release measures</b>		
<b>6.1</b>	<b>Personal precautions, protective equipment, and emergency procedures:</b>	Use protective equipment appropriate for surrounding materials.
6.1a	General release measures:	No specific emergency measures are required other than good laboratory hygiene and safety practices for small spills. Wear suitable protective clothing, gloves and eye or face protection. Consult professional emergency personnel if concerned (see Section 8).
6.1b	Advice for non-emergency personnel; personal precautions, protective equipment and emergency procedures:	No specific emergency measures are required other than good laboratory hygiene and safety practices. Wear suitable protective clothing/gloves/eye/face protection to avoid contact with skin, eyes, and personal clothing; use an approved supplied-air respirator, in case of emergency (also refer to Section 8). Remove all sources of ignition. Ensure adequate ventilation and control dust/mist. Avoid breathing vapors, mist, or gas. Evacuate personnel to safe areas. Wear suitable protective clothing, gloves and eye or face protection to prevent any contamination. Consult professional emergency personnel if concerned.
6.1c	Advice for emergency responders; personal precautions, protective equipment and emergency procedures:	Wear suitable protective clothing, gloves and eye or face protection to avoid contact; use an approved supplied-air respirator, in case of emergency (also refer to Section 8).
<b>6.2</b>	<b>Environmental precautions:</b>	Do not allow to enter drains, sewers, or watercourses.



6.3	<b>Methods and materials for containment and clean up:</b>	Contain any spills with dikes or absorbent materials to prevent migration and entry into sewers or water sources. Place in a suitable container for disposal in accordance with local waste regulations (see Section 13). Wash spill area thoroughly with plenty of soap and water. Avoid contact with skin or inhalation of spillage, dust, or vapor.
6.4	<b>Reference to other sections:</b>	Refer to Sections 8 and 13 for additional information.
<b>Section 7: Handling and storage</b>		
7.1	<b>Precautions for safe handling:</b>	Do not handle until all safety precautions have been read and understood. Avoid creation of aerosol/mist/dust. Avoid inhalation of vapors/mist/dust. Prevent contact with skin and eyes. Use appropriate personal protection equipment (PPE). Thoroughly wash hands and contaminated areas with water and soap before leaving the work site. Keep away from sources of ignition.
7.1a	Prevent handling of incompatible substances or mixtures:	Avoid contact with strong acids and strong oxidizers.
7.1b	Advice on general occupational hygiene:	Do not eat, drink, or smoke in work areas. Wash hands after use. Remove contaminated clothing and protective equipment before entering eating areas. Good personal hygiene is necessary. Follow good laboratory hygiene and safety practices.
7.2	<b>Conditions for safe storage, including any incompatibilities:</b>	Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Avoid spills and release into the environment; keep away from watercourses.
7.3	<b>Specific end use(s):</b>	For research use only. Not for use in diagnostic procedures.
<b>Section 8: Exposure controls/personal protection</b>		
8.1	<b>Control parameters:</b>	.
8.1a	Occupational exposure limits, such as chemical identity, standard, TWA-8 hours (time weighted average), STEL-15 minutes (short term exposure limit), etc.: WEL = Workplace Exposure Limit. Sk = can be absorbed through skin.	The liquid mixture is not in respirable form. Contains Sucrose: ACGIH TLV (United States, 3/2015) TWA: 10 mg/m <sup>3</sup> - 8 hours EH40/2005 WELs (United Kingdom (UK), 12/2011) STEL: 20 mg/m <sup>3</sup> 15 minutes. TWA: 10 mg/m <sup>3</sup> 8 hours.
8.1b	Appropriate engineering controls:	.
8.1c	Individual protection measures, such as personal protective equipment:	Wear gloves, protective goggles, and lab coat.
8.1d	Safety symbols:	
8.2	<b>Exposure controls:</b>	.
8.2a	Process conditions:	Provide eyewash station.
8.2b	Engineering controls:	Ensure that eyewash stations and safety showers are proximal to the workstation location.
8.2c	Ventilation controls:	Provide adequate ventilation.
8.2d	Reference to other sections:	Refer to Section 5 for additional information.
8.2e	Eye/face protection:	Wear approved chemical safety goggles where eye exposure is reasonably probable or face shield if risk of splashing.
8.2f	Skin protection:	Wear apron or protective clothing in case of contact.
8.2g	Hand protection:	Use suitable protective gloves if risk of skin contact.
8.2h	Respiratory equipment:	Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).
8.2i	Other protection:	Wear appropriate clothing to avoid skin contact.
8.2j	Hygiene measures:	DO NOT SMOKE IN WORK AREA! Wash at the end of each work shift and before eating, smoking, and using the toilet. Promptly remove any clothing that becomes contaminated. Use appropriate skin cream to prevent drying of skin. When using do not eat, drink, or smoke. Wash promptly with soap and water if skin becomes contaminated
8.2k	Thermal hazards:	None known under normal conditions of use.
8.2l	Environmental exposure controls:	Not determined.
<b>Section 9: Physical and chemical properties</b>		

<b>9.1</b>	<b>Information on basic physical and chemical properties:</b>	.
9.1a	Appearance (physical state, color, etc.):	Liquid; clear.
9.1b	Odor:	No characteristic odor.
9.1c	Odor threshold:	Not determined.
9.1d	pH:	7.2-7.6
9.1e	Melting point/freezing point (°C):	Not determined.
9.1f	Initial boiling point and boiling range:	<100°C @ 760 mm Hg.
9.1g	Flash point (°C):	Not applicable.
9.1h	Evaporation rate:	Not determined.
9.1i	Flammability (solid, gas):	Not applicable.
9.1j	Upper/lower flammability or explosive limits:	Not applicable.
9.1k	Vapor pressure:	Not determined.
9.1l	Vapor density (Air =1):	Not determined.
9.1m	Relative density:	Not determined.
9.1n	Solubility(ies):	Soluble in water.
9.1o	Partition coefficient (N-octanol/water):	Not determined.
9.1p	Auto-ignition temperature (°C):	Not determined.
9.1q	Decomposition temperature (°C):	Not determined.
9.1r	Viscosity:	Not determined.
9.1s	Explosive properties:	Not determined.
9.1t	Oxidizing properties:	Not determined.
<b>9.2</b>	<b>Other information:</b>	None.
9.2a	Other physical or chemical parameters:	None.
<b>Section 10: Stability and reactivity</b>		
<b>10.1</b>	<b>Reactivity:</b>	No data available.
<b>10.2</b>	<b>Chemical stability:</b>	Stable under normal temperature conditions.
<b>10.3</b>	<b>Possibility of hazardous reactions:</b>	Hazardous polymerization: will not polymerize.
<b>10.4</b>	<b>Conditions to avoid:</b>	To avoid product degradation, avoid exposure to high temperatures or direct sunlight or light.
<b>10.5</b>	<b>Incompatible materials:</b>	Strong acids. Strong oxidizing substances.
<b>10.6</b>	<b>Hazardous decomposition products:</b>	None under normal conditions.
<b>Section 11: Toxicological information</b>		
<b>11.1</b>	<b>Information on toxicological effects:</b>	.
11.1a	Name:	Sucrose
11.1b	Acute toxicity:	Oral LD50 Rat 29,700 mg/kg
11.1c	Skin corrosion/irritation:	Not determined.
11.1d	Serious eye damage/irritation:	Not determined.
11.1e	Respiratory or skin sensitization:	Not determined.
11.1f	Germ cell mutagenicity:	Not determined.
11.1g	Carcinogenicity:	Not determined.
11.1h	Reproductive toxicity:	Not determined.
11.1i	STOT-single exposure:	Not determined.
11.1j	STOT-repeated exposure:	Not determined.
11.1k	Aspiration hazard:	Not determined.
11.1l	Information on the likely routes of exposure (inhalation, ingestion, skin and eye contact):	May enter by skin and/or eye contact; inhalation of vapors/mist/dust.
11.1m	Ingestion:	May cause discomfort if swallowed.
11.1n	Inhalation:	In high concentrations, vapors may irritate throat and respiratory system and cause coughing.
11.1o	Skin contact:	Liquid may irritate skin.
11.1p	Eye contact:	Spray and vapor in the eyes may cause irritation and smarting.
11.1q	Symptoms related to the physical, chemical and toxicological characteristics:	No specific symptoms noted.
11.1r	Delayed and immediate effects as well as chronic effects from short and long term exposure:	Not determined.
11.1s	Numerical measures of toxicity (such as acute toxicity estimates):	Not determined.
11.1t	Interactive effects:	Not determined.
11.1u	Absence of specific data:	Not applicable.
11.1v	Mixtures:	Item is a mixture.
11.1w	Mixture vs. substance information:	See Section 3 for any substances in the mixture.
11.1x	Classification by National Toxicity Program (NTP):	Not classified.
11.1y	Classification by International Agency for Research on Cancer (IARC):	Not classified.
11.1z	Classification by OSHA 13:	Not classified.
11.1ab	Other information:	None.

Section 12: Ecological information		
<b>12.1</b>	<b>Toxicity:</b>	.
12.1a	Name:	Sucrose.
12.1b	Ecotoxicity (aquatic and terrestrial, where available):	There are no data on ecotoxicity of this product.
<b>12.2</b>	<b>Persistence and degradability:</b>	There are no data on the degradability of this product.
<b>12.3</b>	<b>Bioaccumulative potential:</b>	No data available on bioaccumulation.
<b>12.4</b>	<b>Mobility in soil:</b>	Mobility in soil is unknown (the product is soluble in water).
<b>12.5</b>	<b>Results of PBT and vPvB assessment:</b>	Not determined.
<b>12.6</b>	<b>Other adverse effects:</b>	The product contains a substance which is harmful to aquatic organisms. However, at the concentrations present this product does not need to be classified as hazardous for the environment and the effects are not expected to be significant.
Section 13: Disposal considerations		
<b>13.1</b>	<b>Waste treatment methods:</b>	When handling waste, consideration should be made to the safety precautions applying to handling of the product.
13.1a	Description of waste residues and information on their safe handling and methods of disposal, including the disposal of any contaminated packaging:	Dispose of waste and residues in accordance with local authority requirements. For the safety of persons conducting disposal, recycling or reclamation activities, please refer to the information in Section 8 (exposure controls and personal protection) of the SDS.
Section 14: Transport information		
<b>14.1</b>	<b>UN number:</b>	Not applicable.
<b>14.2</b>	<b>UN proper shipping name:</b>	Not applicable.
<b>14.3</b>	<b>Transport hazard class(es):</b>	Not applicable.
<b>14.4</b>	<b>Packing group:</b>	Not applicable.
<b>14.5</b>	<b>Environmental hazards:</b>	.
14.5a	Is it environmentally dangerous according to UN Model Regulations (IMDG Code, ADR, RID, and ADN)?:	No.
14.5b	Is it a marine pollutant according to the IMDG code?:	No.
<b>14.6</b>	<b>Special precautions for user:</b>	None known.
<b>14.7</b>	<b>Transport in bulk according to Annex II of MARPOL and the IBC code:</b>	Not applicable.
14.7a	Other information:	The product is not considered a dangerous good for transport.
14.7b	Classification for other modes of transport:	Contact supplier.
Section 15: Regulatory information		
<b>15.1</b>	<b>Safety, health and environmental regulations/legislation specific for the substance or mixture:</b>	.
15.1a	Regional safety, health and environmental regulations specific for the product in question:	.
15.1b	USA SARA Components (such as 302/311/313):	Sodium azide (CAS # 26628-22-8) is listed under 302, 304, 313.
15.1c	USA Massachusetts Right to Know:	Sodium azide (CAS # 26628-22-8) is listed.
15.1d	USA Pennsylvania Right to Know:	Sodium azide (CAS # 26628-22-8) is listed.
15.1e	USA New Jersey Right to Know:	Sodium azide (CAS # 26628-22-8) is listed.
15.1f	USA California Prop. 65 Components:	Not listed.
15.1g	EU Regulation 1907/2006 (REACH):	.
15.1h	Annex XIV substances subject to authorization:	Not listed.
15.1i	Substances of very high concern:	Not listed.
15.1j	Approved code of practice:	Classification and labeling of substances and preparations dangerous for supply. Safety data sheets for substances and preparations.
15.1k	Guidance notes:	Workplace exposure limits EH40.
15.1l	EU legislation references:	(EC) No. 1272/2008 on the classification, labelling and packaging of substances and mixtures (CLP Regulation). EC 830/2015. Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments.
<b>15.2</b>	<b>Chemical safety assessment:</b>	Not required.
15.2a	Other regulatory information:	None.
Section 16: Other information		
<b>16.1</b>	<b>Other information:</b>	.

16.1a	Date of revision:	26-May-2017
16.1b	SDS number and revision:	F17-517-2-E
16.1c	Supersedes SDS number and revision:	F17-517-2-D
16.1d	Changes made to the previous version of the SDS:	Reviewed and updated document control numbers.
16.1e	Key/legend to abbreviations and acronyms used in the SDS:	<p>ACGIH American Conference of Governmental Industrial Hygienists.  ADN European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway.  ADR The European Agreement concerning the International Carriage of Dangerous Goods by Road.  ATE Acute Toxicity Estimate.  BCF Bio Concentration Factor.  CAS Chemical Abstracts Service.  CLP Classification, Labelling and Packaging.  CMR Carcinogen, Mutagen or Reproductive toxicant.  COD Chemical Oxygen Demand.  EC European Commission.  EC50 Half maximal effective concentration.  EH40 Resource containing the list of workplace exposure limits for use with the Control of Substances Hazardous to Health Regulations.  EINECS European Inventory of Existing Commercial chemical Substances.  ELINCS European List of Notified Chemical Substances.  EU European Union.  GHS Globally Harmonized System of Classification and Labelling of Chemicals.  H Statement GHS Hazard statement.  IATA International Air Transport Association.  IBC Intermediate Bulk Container.  IC50 Half maximal inhibitory concentration.  IMDG International Maritime Dangerous Goods.  LC50 Median lethal concentration.  LD50 Median lethal dose.  LogPow logarithm of the octanol/water partition coefficient.  MARPOL 73/78 International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978.  OEL Occupational Exposure Limit.  OSHA Occupational Safety and Health Administration (USA).  PBT Persistent, Bioaccumulative, and Toxic.  PEL Permissible Exposure Limit.  RID The Regulations concerning the International Carriage of Dangerous Goods by Rail.  SADT Self-Accelerating Decomposition Temperature.  SARA Superfund Amendments and Reauthorization Act.  SCBA Self-Contained Breathing Apparatus.  SDS Safety Data Sheet.  STOT Specific Target Organ Toxicity.  STOT-RE Specific Target Organ Toxicity - Repeated Exposure.  STOT-SE Specific Target Organ Toxicity - Single Exposure.  UN United Nations.  USA United States of America.  vPvB very Persistent very bioaccumulative.</p>
16.1f	Full text of hazard statements and/or precautionary statements not written out in full elsewhere:	All statements were written out in full.
<b>DISCLAIMER:</b>	<b>This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability, or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.</b>	
<b>END OF SDS</b>		



# SAFETY DATA SHEET (SDS)

according to Regulation (EC) No. 830/2015 amending 1907/2006

## Section 1: Identification of the substance/mixture and of the company/undertaking

<b>1.1</b>	<b>Product identifier:</b>	General Serum Diluent	
1.1a	Other means of identification:	.	
1.1b	Alternative product name(s)/ synonyms:	General Sample Diluent; SD1.	
1.1c	Product number/Catalog #(s):	526, 647, 648, 649, 675	
1.1d	Internal identification:	General Sample Diluent; SD1	
<b>1.2</b>	<b>Relevant identified uses of the substance or mixture and uses advised against:</b>	For research use only. Not for use in diagnostic procedures.	
1.2a	Brief description of what the substance or mixture is intended to do:	A buffered solution designed to dilute samples and reagents used in ELISAs.	
<b>1.3</b>	<b>Details of the supplier of the SDS:</b>	.	
1.3a	Name:	ImmunoChemistry Technologies, LLC (ICT)	
1.3b	Address:	9401 James Avenue South, Suite 155	
1.3c	City, State, Zip, Country	Bloomington, MN 55431-2500 USA	
1.3d	Phone number:	1-800-829-3194 and 952-888-8788	
1.3e	Fax number:	952-888-8988	
1.3f	Website:	www.immunochemistry.com	
1.3g	Email:	help@immunochemistry.com	
1.3h	Contact person at ICT:	Quality Documentation Department	
<b>1.4</b>	<b>Emergency telephone number:</b>	ICT: 1-800-829-3194 (USA & Canada) or 952-888-8788 world wide; ICT hours are 9 am-5 pm central time USA, Monday through Friday (excluding holidays). Chemtrec 24-hour access within USA and Canada: 1-800-424-9300 or +1 703-527-3887. Collect calls accepted.	


## Section 2: Hazards identification

<b>2.1</b>	<b>Classification of the substance or mixture:</b>	.	
2.1a	Product is a:	Mixture.	
2.1b	Classification according to (EC) No. 1272/2008 {CLP}:	Does not meet the criteria for classification.	
2.1c	The most important adverse physiochemical, human health, and environmental effects:	Prolonged skin contact may cause redness and irritation. Refer to Sections 4, 9-12.	
<b>2.2</b>	<b>Label elements:</b>	None.	
2.2a	GHS label elements, including precautionary statements:	None.	
2.2b	Contains:	Not applicable.	
2.2c	Labeling in accordance with (EC) No. 1272/2008:	None.	
2.2d	Hazard Pictograms (Hazard Symbols):	None.	
2.2e	Signal word:	None.	
2.2f	Hazard statements:	None.	
2.2g	Precautionary statements:	None.	
2.2h	Supplementary precaution statements:	None.	
<b>2.3</b>	<b>Other hazards:</b>	No additional information available.	
2.3a	Does the chemical meet the criteria for PBT or vPvB?	Not applicable.	
2.3b	Other hazards which do not result in classification:	Contains $\leq 0.1\%$ Sodium Azide (CAS #26628-22-8; EC #247-852-1) which is below the threshold for hazard classification. Contains sodium chloride and phosphates which are below the threshold for hazard classification, but may cause redness and irritation after prolonged exposure.	

## Section 3: Composition/information on ingredients

<b>3.1</b>	<b>Substance:</b>	Item is a mixture therefore Section 3.1 is not applicable; see Section 3.2.		
<b>3.2</b>	<b>Mixture:</b> The chemical identity and concentration or concentration ranges of all ingredients which are hazardous and are present above their cut-off levels:	Item is a mixture.		
	3.2a Chemical identity:	No ingredients identified for reporting in this section.		
	3.2b Common name, synonyms, etc.:	.		
	3.2c CAS number and other unique identifiers:	3.2d EC number:	3.2e % Concentration:	3.2f Classification according to (EC) No. 1272/2008 {CLP}:
	.	.	.	.

<b>Section 4: First aid measures</b>		
<b>4.1</b>	<b>Description of first aid measures:</b>	If concerned, get medical attention/advice and provide physician with SDS information. Wash contaminated clothing before re-use. Never give anything to an unconscious person.
4.1a	Inhalation:	Remove to fresh air and keep at rest in a comfortable position for breathing. If not breathing, give artificial respiration. Rinse nose and mouth with water. Get medical attention if any discomfort continues.
4.1b	Skin contact:	Wash skin thoroughly with soap and water for several minutes; continue to rinse for at least 15 minutes. Remove any contaminated clothing and shoes and wash thoroughly before reuse. Get medical attention if any discomfort continues.
4.1c	Eye contact:	Promptly wash eyes with plenty of water while lifting the eyelids. Make sure to remove any contact lenses from the eyes before rinsing. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.
4.1d	Ingestion:	NEVER MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK FLUIDS! Rinse mouth thoroughly. Do not induce vomiting without advice from poison control center or medical professional. Get medical attention if any discomfort continues.
<b>4.2</b>	<b>Most important symptoms and effects, both acute and delayed:</b>	Refer to Sections 2 and 11 for most important known symptoms and effects.
4.2a	Inhalation:	May cause coughing or mild irritation.
4.2b	Skin contact:	Prolonged skin contact may cause redness and mild irritation.
4.2c	Eye contact:	May cause temporary eye irritation.
4.2d	Ingestion:	May cause discomfort if swallowed.
<b>4.3</b>	<b>Indication of any immediate medical attention and special treatment needed:</b>	No specific first aid measures noted, but first aid may still be required in case of accidental exposure, inhalation, or ingestion of this product. If in doubt, get medical attention promptly!
4.3a	Notes to physician/first responder:	Treat symptomatically. Refer to Sections 5-8 for advice on personal protective equipment.
<b>Section 5: Firefighting measures</b>		
<b>5.1</b>	<b>Extinguishing media:</b>	This product is not flammable. Use fire-extinguishing media appropriate for the surrounding materials.
5.1a	Suitable extinguishing media:	Water spray, foam, dry powder, or carbon dioxide.
5.1b	Unsuitable extinguishing media:	None known.
<b>5.2</b>	<b>Special hazards arising from the substance or mixture:</b>	This product is not flammable. Product is not explosive. No dangerous reactions known under normal conditions of use.
5.2a	Hazardous combustion products:	None under normal conditions.
5.2b	Unusual fire & explosion hazards:	No unusual fire or explosion hazards noted.
5.2c	Protective measures in fire:	Use protective equipment appropriate for surrounding materials.
<b>5.3</b>	<b>Advice for firefighters:</b>	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
5.3a	Special firefighting procedures:	No specific firefighting procedure given.
5.3b	Special protective equipment and precautions for firefighters:	Wear full protective clothing, including self-contained breathing apparatus, if necessary. The product presents no special fire hazards in normal use. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
<b>Section 6: Accidental release measures</b>		
<b>6.1</b>	<b>Personal precautions, protective equipment, and emergency procedures:</b>	Use protective equipment appropriate for surrounding materials.
6.1a	General release measures:	No specific emergency measures are required other than good laboratory hygiene and safety practices for small spills. Wear suitable protective clothing, gloves and eye or face protection. Consult professional emergency personnel if concerned (see Section 8).
6.1b	Advice for non-emergency personnel; personal precautions, protective equipment and emergency procedures:	No specific emergency measures are required other than good laboratory hygiene and safety practices. Wear suitable protective clothing/gloves/eye/face protection to avoid contact with skin, eyes, and personal clothing; use an approved supplied-air respirator, in case of emergency (also refer to Section 8). Remove all sources of ignition. Ensure adequate ventilation and control dust/mist. Avoid breathing vapors, mist, or gas. Evacuate personnel to safe areas. Wear suitable protective clothing, gloves and eye or face protection to prevent any contamination. Consult professional emergency personnel if concerned.
6.1c	Advice for emergency responders; personal precautions, protective equipment and emergency procedures:	Wear suitable protective clothing, gloves and eye or face protection to avoid contact; use an approved supplied-air respirator, in case of emergency (also refer to Section 8).
<b>6.2</b>	<b>Environmental precautions:</b>	Do not allow to enter drains, sewers, or watercourses.

6.3	<b>Methods and materials for containment and clean up:</b>	Contain any spills with dikes or absorbent materials to prevent migration and entry into sewers or water sources. Place in a suitable container for disposal in accordance with local waste regulations (see Section 13). Wash spill area thoroughly with plenty of soap and water. Avoid contact with skin or inhalation of spillage, dust, or vapor.
6.4	<b>Reference to other sections:</b>	Refer to Sections 8 and 13 for additional information.
<b>Section 7: Handling and storage</b>		
7.1	<b>Precautions for safe handling:</b>	Do not handle until all safety precautions have been read and understood. Avoid creation of aerosol/mist/dust. Avoid inhalation of vapors/mist/dust. Prevent contact with skin and eyes. Use appropriate personal protection equipment (PPE). Thoroughly wash hands and contaminated areas with water and soap before leaving the work site. Keep away from sources of ignition.
7.1a	Prevent handling of incompatible substances or mixtures:	Avoid contact with strong acids and strong oxidizers.
7.1b	Advice on general occupational hygiene:	Do not eat, drink, or smoke in work areas. Wash hands after use. Remove contaminated clothing and protective equipment before entering eating areas. Good personal hygiene is necessary. Follow good laboratory hygiene and safety practices.
7.2	<b>Conditions for safe storage, including any incompatibilities:</b>	Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Avoid spills and release into the environment; keep away from watercourses.
7.3	<b>Specific end use(s):</b>	For research use only. Not for use in diagnostic procedures.
<b>Section 8: Exposure controls/personal protection</b>		
8.1	<b>Control parameters:</b>	.
8.1a	Occupational exposure limits, such as chemical identity, standard, TWA-8 hours (time weighted average), STEL-15 minutes (short term exposure limit), etc.: WEL = Workplace Exposure Limit. Sk = can be absorbed through skin.	The liquid mixture is not in respirable form. No data available.
8.1b	Appropriate engineering controls:	.
8.1c	Individual protection measures, such as personal protective equipment:	Wear gloves, protective goggles, and lab coat.
8.1d	Safety symbols:	
8.2	<b>Exposure controls:</b>	.
8.2a	Process conditions:	Provide eyewash station.
8.2b	Engineering controls:	Ensure that eyewash stations and safety showers are proximal to the workstation location.
8.2c	Ventilation controls:	Provide adequate ventilation.
8.2d	Reference to other sections:	Refer to Section 5 for additional information.
8.2e	Eye/face protection:	Wear approved chemical safety goggles where eye exposure is reasonably probable or face shield if risk of splashing.
8.2f	Skin protection:	Wear apron or protective clothing in case of contact.
8.2g	Hand protection:	Use suitable protective gloves if risk of skin contact.
8.2h	Respiratory equipment:	Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).
8.2i	Other protection:	Wear appropriate clothing to avoid skin contact.
8.2j	Hygiene measures:	DO NOT SMOKE IN WORK AREA! Wash at the end of each work shift and before eating, smoking, and using the toilet. Promptly remove any clothing that becomes contaminated. Use appropriate skin cream to prevent drying of skin. When using do not eat, drink, or smoke. Wash promptly with soap and water if skin becomes contaminated
8.2k	Thermal hazards:	None known under normal conditions of use.
8.2l	Environmental exposure controls:	Not determined.
<b>Section 9: Physical and chemical properties</b>		
9.1	<b>Information on basic physical and chemical properties:</b>	.

9.1a	Appearance (physical state, color, etc.):	Liquid; light (or pale) yellow.
9.1b	Odor:	Characteristic.
9.1c	Odor threshold:	Not determined.
9.1d	pH:	7.2-7.6
9.1e	Melting point/freezing point (°C):	Not determined.
9.1f	Initial boiling point and boiling range:	<100°C @ 760 mm Hg.
9.1g	Flash point (°C):	Not applicable.
9.1h	Evaporation rate:	Not determined.
9.1i	Flammability (solid, gas):	Not applicable.
9.1j	Upper/lower flammability or explosive limits:	Not applicable.
9.1k	Vapor pressure:	Not determined.
9.1l	Vapor density (Air =1):	Not determined.
9.1m	Relative density:	Not determined.
9.1n	Solubility(ies):	Soluble in water.
9.1o	Partition coefficient (N-octanol/water):	Not determined.
9.1p	Auto-ignition temperature (°C):	Not determined.
9.1q	Decomposition temperature (°C):	Not determined.
9.1r	Viscosity:	Not determined.
9.1s	Explosive properties:	Not determined.
9.1t	Oxidizing properties:	Not determined.
<b>9.2</b>	<b>Other information:</b>	None.
9.2a	Other physical or chemical parameters:	None.

**Section 10: Stability and reactivity**

<b>10.1</b>	<b>Reactivity:</b>	No data available.
<b>10.2</b>	<b>Chemical stability:</b>	Stable under normal temperature conditions.
<b>10.3</b>	<b>Possibility of hazardous reactions:</b>	Hazardous polymerization: will not polymerize.
<b>10.4</b>	<b>Conditions to avoid:</b>	To avoid product degradation, avoid exposure to high temperatures or direct sunlight or light.
<b>10.5</b>	<b>Incompatible materials:</b>	Hydrocarbons – halogenated. Strong acids. Metals.
<b>10.6</b>	<b>Hazardous decomposition products:</b>	None under normal conditions.

**Section 11: Toxicological information**

<b>11.1</b>	<b>Information on toxicological effects:</b>	.
11.1a	Name:	No ingredients identified for reporting in this section.
11.1b	Acute toxicity:	Not determined.
11.1c	Skin corrosion/irritation:	Not determined.
11.1d	Serious eye damage/irritation:	Not determined.
11.1e	Respiratory or skin sensitization:	Not determined.
11.1f	Germ cell mutagenicity:	Not determined.
11.1g	Carcinogenicity:	Not determined.
11.1h	Reproductive toxicity:	Not determined.
11.1i	STOT-single exposure:	Not determined.
11.1j	STOT-repeated exposure:	Not determined.
11.1k	Aspiration hazard:	Not determined.
11.1l	Information on the likely routes of exposure (inhalation, ingestion, skin and eye contact):	May enter by skin and/or eye contact; inhalation of vapors/mist/dust.
11.1m	Ingestion:	May cause discomfort if swallowed.
11.1n	Inhalation:	In high concentrations, vapors may irritate throat and respiratory system and cause coughing.
11.1o	Skin contact:	Liquid may irritate skin.
11.1p	Eye contact:	Spray and vapor in the eyes may cause irritation and smarting.
11.1q	Symptoms related to the physical, chemical and toxicological characteristics:	No specific symptoms noted.
11.1r	Delayed and immediate effects as well as chronic effects from short and long term exposure:	Not determined.
11.1s	Numerical measures of toxicity (such as acute toxicity estimates):	Not determined.
11.1t	Interactive effects:	Not determined.
11.1u	Absence of specific data:	Not applicable.
11.1v	Mixtures:	Item is a mixture.
11.1w	Mixture vs. substance information:	See Section 3 for any substances in the mixture.
11.1x	Classification by National Toxicity Program (NTP):	Not classified.
11.1y	Classification by International Agency for Research on Cancer (IARC):	Not classified.
11.1z	Classification by OSHA 13:	Not classified.
11.1ab	Other information:	None.

**Section 12: Ecological information**

<b>12.1</b>	<b>Toxicity:</b>	.
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12.1a	Name:	No ingredients identified for reporting in this section..
12.1b	Ecotoxicity (aquatic and terrestrial, where available):	There are no data on ecotoxicity of this product.
12.2	<b>Persistence and degradability:</b>	There are no data on the degradability of this product.
12.3	<b>Bioaccumulative potential:</b>	No data available on bioaccumulation.
12.4	<b>Mobility in soil:</b>	Mobility in soil is unknown (the product is soluble in water).
12.5	<b>Results of PBT and vPvB assessment:</b>	Not determined.
12.6	<b>Other adverse effects:</b>	The product contains a substance which is harmful to aquatic organisms. However, at the concentrations present this product does not need to be classified as hazardous for the environment and the effects are not expected to be significant.
<b>Section 13: Disposal considerations</b>		
13.1	<b>Waste treatment methods:</b>	When handling waste, consideration should be made to the safety precautions applying to handling of the product.
13.1a	Description of waste residues and information on their safe handling and methods of disposal, including the disposal of any contaminated packaging:	Dispose of waste and residues in accordance with local authority requirements. For the safety of persons conducting disposal, recycling or reclamation activities, please refer to the information in Section 8 (exposure controls and personal protection) of the SDS.
<b>Section 14: Transport information</b>		
14.1	<b>UN number:</b>	Not applicable.
14.2	<b>UN proper shipping name:</b>	Not applicable.
14.3	<b>Transport hazard class(es):</b>	Not applicable.
14.4	<b>Packing group:</b>	Not applicable.
14.5	<b>Environmental hazards:</b>	.
14.5a	Is it environmentally dangerous according to UN Model Regulations (IMDG Code, ADR, RID, and ADN)?:	No.
14.5b	Is it a marine pollutant according to the IMDG code?:	No.
14.6	<b>Special precautions for user:</b>	None known.
14.7	<b>Transport in bulk according to Annex II of MARPOL and the IBC code:</b>	Not applicable.
14.7a	Other information:	The product is not considered a dangerous good for transport.
14.7b	Classification for other modes of transport:	Contact supplier.
<b>Section 15: Regulatory information</b>		
15.1	<b>Safety, health and environmental regulations/legislation specific for the substance or mixture:</b>	.
15.1a	Regional safety, health and environmental regulations specific for the product in question:	.
15.1b	USA SARA Components (such as 302/311/313):	Sodium azide (CAS # 26628-22-8) is listed under 302, 304, 313.
15.1c	USA Massachusetts Right to Know:	Sodium azide (CAS # 26628-22-8) is listed.
15.1d	USA Pennsylvania Right to Know:	Sodium azide (CAS # 26628-22-8) is listed.
15.1e	USA New Jersey Right to Know:	Sodium azide (CAS # 26628-22-8) is listed.
15.1f	USA California Prop. 65 Components:	Not listed.
15.1g	EU Regulation 1907/2006 {REACH}:	.
15.1h	Annex XIV substances subject to authorization:	Not listed.
15.1i	Substances of very high concern:	Not listed.
15.1j	Approved code of practice:	Classification and labeling of substances and preparations dangerous for supply. Safety data sheets for substances and preparations.
15.1k	Guidance notes:	Workplace exposure limits EH40.
15.1l	EU legislation references:	(EC) No. 1272/2008 on the classification, labelling and packaging of substances and mixtures {CLP Regulation}. EC 830/2015. Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments.
15.2	<b>Chemical safety assessment:</b>	Not required.
15.2a	Other regulatory information:	None.
<b>Section 16: Other information</b>		
16.1	<b>Other information:</b>	.
16.1a	Date of revision:	26-May-2017
16.1b	SDS number and revision:	F17-526-2-D
16.1c	Supersedes SDS number and revision:	F17-526-2-C

16.1d	Changes made to the previous version of the SDS:	Reviewed and updated document control numbers.
16.1e	Key/legend to abbreviations and acronyms used in the SDS:	<p>ACGIH American Conference of Governmental Industrial Hygienists.  ADN European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway.  ADR The European Agreement concerning the International Carriage of Dangerous Goods by Road.  ATE Acute Toxicity Estimate.  BCF Bio Concentration Factor.  CAS Chemical Abstracts Service.  CLP Classification, Labelling and Packaging.  CMR Carcinogen, Mutagen or Reproductive toxicant.  COD Chemical Oxygen Demand.  EC European Commission.  EC50 Half maximal effective concentration.  EH40 Resource containing the list of workplace exposure limits for use with the Control of Substances Hazardous to Health Regulations.  EINECS European Inventory of Existing Commercial chemical Substances.  ELINCS European List of Notified Chemical Substances.  EU European Union.  GHS Globally Harmonized System of Classification and Labelling of Chemicals.  H Statement GHS Hazard statement.  IATA International Air Transport Association.  IBC Intermediate Bulk Container.  IC50 Half maximal inhibitory concentration.  IMDG International Maritime Dangerous Goods.  LC50 Median lethal concentration.  LD50 Median lethal dose.  LogPow logarithm of the octanol/water partition coefficient.  MARPOL 73/78 International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978.  OEL Occupational Exposure Limit.  OSHA Occupational Safety and Health Administration (USA).  PBT Persistent, Bioaccumulative, and Toxic.  PEL Permissible Exposure Limit.  RID The Regulations concerning the International Carriage of Dangerous Goods by Rail.  SADT Self-Accelerating Decomposition Temperature.  SARA Superfund Amendments and Reauthorization Act.  SCBA Self-Contained Breathing Apparatus.  SDS Safety Data Sheet.  STOT Specific Target Organ Toxicity.  STOT-RE Specific Target Organ Toxicity - Repeated Exposure.  STOT-SE Specific Target Organ Toxicity - Single Exposure.  UN United Nations.  USA United States of America.  vPvB very Persistent very bioaccumulative.</p>
16.1f	Full text of hazard statements and/or precautionary statements not written out in full elsewhere:	All statements were written out in full.
<b>DISCLAIMER:</b>		<b>This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability, or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.</b>
<b>END OF SDS</b>		




# SAFETY DATA SHEET (SDS)

according to Regulation (EC) No. 830/2015 amending 1907/2006

## Section 1: Identification of the substance/mixture and of the company/undertaking


1.1	Product identifier:	Antigen-Down HRP Conjugate Stabilizer, 5X
1.1a	Other means of identification:	.
1.1b	Alternative product name(s)/ synonyms:	Antigen-Down Conjugate Stabilizer; Antigen-Down Conjugate Diluent; Ag-Down Conjugate Stabilizer; CS2; CD2.
1.1c	Product number/Catalog #(s):	586, 6102, 6103, 6104, 6105, 6169
1.1d	Internal identification:	Antigen-Down Conjugate Stabilizer; Ag-Down Conjugate Stabilizer; CS2; CD2
1.2	Relevant identified uses of the substance or mixture and uses advised against:	Product intended for research use or for further manufacturing into <i>in vitro</i> diagnostics reagents only. Not intended for use in human or therapeutics purposes.
1.2a	Brief description of what the substance or mixture is intended to do:	A buffered solution designed to stabilize HRP conjugates, which are often used in ELISAs.
1.3	Details of the supplier of the SDS:	.
1.3a	Name:	ImmunoChemistry Technologies, LLC (ICT)
1.3b	Address:	9401 James Avenue South, Suite 155
1.3c	City, State, Zip, Country	Bloomington, MN 55431-2500 USA
1.3d	Phone number:	1-800-829-3194 and 952-888-8788
1.3e	Fax number:	952-888-8988
1.3f	Website:	www.immunochemistry.com
1.3g	Email:	help@immunochemistry.com
1.3h	Contact person at ICT:	Quality Documentation Department
1.4	Emergency telephone number:	ICT: 1-800-829-3194 (USA & Canada) or 952-888-8788 world wide; ICT hours are 9 am-5 pm central time USA, Monday through Friday (excluding holidays). Chemtrec 24-hour access within USA and Canada: 1-800-424-9300 or +1 703-527-3887. Collect calls accepted.

## Section 2: Hazards identification

2.1	Classification of the substance or mixture:	.
2.1a	Product is a:	Mixture.
2.1b	Classification according to (EC) No. 1272/2008 (CLP):	Skin Sens. 1, H317 May cause an allergic skin reaction. Aquatic Chronic 3, H412 Harmful to aquatic life with long lasting effects.
2.1c	The most important adverse physiochemical, human health, and environmental effects:	Refer to Sections 9-12.
2.2	Label elements:	.
2.2a	GHS label elements, including precautionary statements:	.
2.2b	Contains:	≤0.0425% of reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1).
2.2c	Labeling in accordance with (EC) No. 1272/2008:	.
2.2d	Hazard Pictograms (Hazard Symbols):	 GHS07 Exclamation.
2.2e	Signal word:	Warning.
2.2f	Hazard statements:	H317 May cause an allergic skin reaction. H412 Harmful to aquatic life with long lasting effects.
2.2g	Precautionary statements:	P261 Avoid breathing mist, vapors, or spray. P273 Avoid release to the environment. P280 Wear protective gloves, protective clothing, eye protection, and face protection. P302+P352 If on skin: Wash with plenty of soap and water. P333+P313 If skin irritation or rash occurs: Get medical attention. P501 Dispose of contents and container in accordance with all local, regional, national and international regulations.
2.2h	Supplementary precaution statements:	P272 Contaminated work clothing should not be allowed out of the workplace.

		P363 Wash contaminated clothing before reuse.		
<b>2.3</b>	<b>Other hazards:</b>	No additional information available.		
2.3a	Does the chemical meet the criteria for PBT or vPvB?	Not applicable.		
2.3b	Other hazards which do not result in classification:	None.		
<b>Section 3: Composition/information on ingredients</b>				
<b>3.1</b>	<b>Substance:</b>	Item is a mixture therefore Section 3.1 is not applicable; see Section 3.2.		
<b>3.2</b>	<b>Mixture:</b> The chemical identity and concentration or concentration ranges of all ingredients which are hazardous and are present above their cut-off levels:	Item is a mixture.		
	3.2a Chemical identity:	Reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1).		
	3.2b Common name, synonyms, etc.:	ProClin300 (ProClin® is a registered trademark of Dow Chemical Company)		
	<u>3.2c CAS number and other unique identifiers:</u>	<u>3.2d EC number:</u>	<u>3.2e % Concentration:</u>	<u>3.2f Classification according to (EC) No. 1272/2008 {CLP}:</u>
	CAS: 55965-84-9; Annex VI Index: 613-167-00-5	.	≤0.0425%	Acute Tox. 3, H301 Acute Tox. 2, H310 Acute Tox. 2, H330 Skin Corr. 1C, H314 Eye Dam. 1, H318 Skin Sens. 1A, H317 Aquatic Acute 1, H400 (M=100) Aquatic Chronic 1, H410 (M=100) EUH071
3.2u	Other information on the mixture:	None.		
<b>Section 4: First aid measures</b>				
<b>4.1</b>	<b>Description of first aid measures:</b>	If concerned, get medical attention and provide physician with SDS information. Wash contaminated clothing before reuse. Never give anything by mouth to an unconscious person.		
4.1a	Inhalation:	Remove to fresh air and keep at rest in a comfortable position for breathing. If not breathing, give artificial respiration. Rinse nose and mouth with water. Get medical attention if any discomfort continues.		
4.1b	Skin contact:	Wash skin thoroughly with soap and water for several minutes; continue to rinse for at least 15 minutes. Remove any contaminated clothing and shoes and wash thoroughly before reuse. Get medical attention if any discomfort continues.		
4.1c	Eye contact:	Promptly wash eyes with plenty of water while lifting the eyelids. Make sure to remove any contact lenses from the eyes before rinsing. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.		
4.1d	Ingestion:	NEVER MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK FLUIDS! Rinse mouth thoroughly. Do not induce vomiting without advice from poison control center or medical professional. Get medical attention if any discomfort continues.		
<b>4.2</b>	<b>Most important symptoms and effects, both acute and delayed:</b>	Refer to Sections 2 and 11 for most important known symptoms and effects.		
4.2a	Inhalation:	None known.		
4.2b	Skin contact:	Symptoms may include irritation or redness.		
4.2c	Eye contact:	None known.		
4.2d	Ingestion:	None known.		
<b>4.3</b>	<b>Indication of any immediate medical attention and special treatment needed:</b>	No additional information available.		
4.3a	Notes to physician/first responder:	Treat symptomatically. Refer to Sections 5-8 for advice on personal protective equipment.		
<b>Section 5: Firefighting measures</b>				
<b>5.1</b>	<b>Extinguishing media:</b>	This product is not flammable. Use fire-extinguishing media appropriate for the surrounding materials.		
5.1a	Suitable extinguishing media:	Water spray, foam, dry powder, or carbon dioxide.		
5.1b	Unsuitable extinguishing media:	None known.		
<b>5.2</b>	<b>Special hazards arising from the substance or mixture:</b>	This product is a liquid and is not flammable. Product is not explosive. No dangerous reactions known under normal conditions of use.		
5.2a	Hazardous combustion products:	In case of fire, toxic gases may be formed of carbon monoxide (CO), carbon dioxide (CO <sub>2</sub> ; COx), and nitrous gases (NOx). None under normal conditions.		
5.2b	Unusual fire & explosion hazards:	No unusual fire or explosion hazards noted.		
5.2c	Protective measures in fire:	Use protective equipment appropriate for surrounding materials.		

<b>5.3</b>	<b>Advice for firefighters:</b>	.
5.3a	Special firefighting procedures:	Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Do not dispose of fire-fighting water in the environment.
5.3b	Special protective equipment and precautions for firefighters:	Do not enter fire area without proper protective equipment, including respiratory protection. Wear self-contained breathing apparatus and protective suit (see Section 8).
<b>Section 6: Accidental release measures</b>		
<b>6.1</b>	<b>Personal precautions, protective equipment, and emergency procedures:</b>	Use protective equipment appropriate for surrounding materials.
6.1a	General release measures:	No specific emergency measures are required other than good laboratory hygiene and safety practices for small spills. Wear suitable protective clothing, gloves and eye or face protection. Consult professional emergency personnel if concerned (see Section 8).
6.1b	Advice for non-emergency personnel; personal precautions, protective equipment and emergency procedures:	No specific emergency measures are required other than good laboratory hygiene and safety practices. Wear suitable protective clothing, gloves, eye, and face protection to avoid contact with skin, eyes, and personal clothing; use an approved supplied-air respirator, in case of emergency (also refer to Section 8). Ensure adequate ventilation and control mist. Avoid breathing vapors, mist, or spray. Evacuate personnel to safe areas. Wear suitable protective clothing, gloves and eye or face protection to prevent any contamination. Consult professional emergency personnel if concerned.
6.1c	Advice for emergency responders; personal precautions, protective equipment and emergency procedures:	Wear suitable protective clothing, gloves and eye or face protection to avoid contact; use an approved supplied-air respirator, in case of emergency (also refer to Section 8).
<b>6.2</b>	<b>Environmental precautions:</b>	Do not allow to enter drains, sewers, or watercourses. May be harmful to the environment if large amounts are released.
<b>6.3</b>	<b>Methods and materials for containment and clean up:</b>	Contain any spills with dikes or absorbent materials to prevent migration and entry into sewers or water sources. Use a licensed waste disposal contractor for disposal (see Section 13). Wash spill area thoroughly with plenty of soap and water. Avoid contact with skin or inhalation of spillage or vapor.
<b>6.4</b>	<b>Reference to other sections:</b>	Refer to Sections 8 and 13 for additional information.
<b>Section 7: Handling and storage</b>		
<b>7.1</b>	<b>Precautions for safe handling:</b>	Do not handle until all safety precautions have been read and understood. Avoid creation of aerosols and mist. Avoid inhalation of vapors or mist. Prevent contact with skin and eyes. Use appropriate personal protection equipment (PPE). Thoroughly wash hands and contaminated areas with water and soap before leaving the work site. Persons with a history of skin sensitization problems should not be employed in any process in which this product is used.
7.1a	Prevent handling of incompatible substances or mixtures:	Avoid contact with strong acids and strong oxidizers.
7.1b	Advice on general occupational hygiene:	Do not eat, drink, or smoke in work areas. Wash hands after use. Remove contaminated clothing and protective equipment before entering eating areas. Good personal hygiene is necessary. Follow good laboratory hygiene and safety practices.
<b>7.2</b>	<b>Conditions for safe storage, including any incompatibilities:</b>	Refer to product label. Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Avoid spills and release into the environment; keep away from watercourses.
<b>7.3</b>	<b>Specific end use(s):</b>	Product intended for research use or for further manufacturing into <i>in vitro</i> diagnostics reagents only. Not intended for use in human or therapeutics purposes.
<b>Section 8: Exposure controls/personal protection</b>		
<b>8.1</b>	<b>Control parameters:</b>	.
8.1a	Occupational exposure limits, such as chemical identity, standard, TWA-8 hours (time weighted average), STEL-15 minutes (short term exposure limit), etc.: WEL = Workplace Exposure Limit. Sk = can be absorbed through skin.	Not applicable.
8.1b	Appropriate engineering controls:	.
8.1c	Individual protection measures, such as personal protective equipment:	Wear gloves, protective goggles, and lab coat.

8.1d	Safety symbols:	
<b>8.2</b>	<b>Exposure controls:</b>	.
8.2a	Process conditions:	Provide eyewash station.
8.2b	Engineering controls:	Ensure that eyewash stations and safety showers are proximal to the workstation location.
8.2c	Ventilation controls:	Provide adequate ventilation.
8.2d	Reference to other sections:	Refer to Section 5 for additional information.
8.2e	Eye/face protection:	Wear approved chemical safety goggles where eye exposure is reasonably probable or face shield if risk of splashing.
8.2f	Skin protection:	Wear apron or protective clothing in case of contact.
8.2g	Hand protection:	Use suitable protective gloves if risk of skin contact.
8.2h	Respiratory equipment:	Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).
8.2i	Other protection:	Wear appropriate clothing to avoid skin contact.
8.2j	Hygiene measures:	DO NOT SMOKE IN WORK AREA! Wash at the end of each work shift and before eating, smoking, and using the toilet. Promptly remove any clothing that becomes contaminated. Use appropriate skin cream to prevent drying of skin. When using do not eat, drink, or smoke. Wash promptly with soap and water if skin becomes contaminated.
8.2k	Thermal hazards:	None known under normal conditions of use.
8.2l	Environmental exposure controls:	Not determined.
<b>Section 9: Physical and chemical properties</b>		
<b>9.1</b>	<b>Information on basic physical and chemical properties:</b>	.
9.1a	Appearance (physical state, color, etc.):	Liquid; clear to light yellow.
9.1b	Odor:	No specific data.
9.1c	Odor threshold:	Not determined.
9.1d	pH:	7.2-7.6
9.1e	Melting point/freezing point (°C):	Not determined.
9.1f	Initial boiling point and boiling range:	<100°C @ 760 mm Hg.
9.1g	Flash point (°C):	Not determined.
9.1h	Evaporation rate:	Not determined.
9.1i	Flammability (solid, gas):	Not determined.
9.1j	Upper/lower flammability or explosive limits:	Not determined.
9.1k	Vapor pressure:	Not determined.
9.1l	Vapor density (Air =1):	Not determined.
9.1m	Relative density:	Not determined.
9.1n	Solubility(ies):	Soluble in water.
9.1o	Partition coefficient (N-octanol/water):	Not determined.
9.1p	Auto-ignition temperature (°C):	Not determined.
9.1q	Decomposition temperature (°C):	Not determined.
9.1r	Viscosity:	Not determined.
9.1s	Explosive properties:	Not determined.
9.1t	Oxidizing properties:	Not determined.
<b>9.2</b>	<b>Other information:</b>	None.
9.2a	Other physical or chemical parameters:	None.
<b>Section 10: Stability and reactivity</b>		
<b>10.1</b>	<b>Reactivity:</b>	No data available.
<b>10.2</b>	<b>Chemical stability:</b>	Stable under normal temperature conditions.
<b>10.3</b>	<b>Possibility of hazardous reactions:</b>	Hazardous polymerization: will not polymerize.
<b>10.4</b>	<b>Conditions to avoid:</b>	To avoid product degradation, avoid exposure to high temperatures or direct sunlight or light.
<b>10.5</b>	<b>Incompatible materials:</b>	Strong oxidizing substances. Strong reducing agents. Amines. Mercaptans (thiols).
<b>10.6</b>	<b>Hazardous decomposition products:</b>	None under normal conditions.
<b>Section 11: Toxicological information</b>		
<b>11.1</b>	<b>Information on toxicological effects:</b>	.

11.1a	Name:	Reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1).
11.1b	Acute toxicity:	Oral LD50 53 mg/kg rat. Dermal LD50: 2800 mg/kg rabbit.
11.1c	Skin corrosion/irritation:	Severe Irritant – Skin test, Human, 0.01 Percent exposure.
11.1d	Serious eye damage/irritation:	Not determined.
11.1e	Respiratory or skin sensitization:	Not determined.
11.1f	Germ cell mutagenicity:	Not determined.
11.1g	Carcinogenicity:	Not determined.
11.1h	Reproductive toxicity:	Not determined.
11.1i	STOT-single exposure:	Not determined.
11.1j	STOT-repeated exposure:	Not determined.
11.1k	Aspiration hazard:	Not determined.
11.1l	Information on the likely routes of exposure (inhalation, ingestion, skin and eye contact):	.
11.1m	Ingestion:	No known effects noted.
11.1n	Inhalation:	No known effects noted.
11.1o	Skin contact:	Prolonged skin contact may cause mild irritation and/or redness. May cause sensitization by skin contact. Risk of sensitization or allergic reactions among sensitive individuals.
11.1p	Eye contact:	No known effects noted.
11.1q	Symptoms related to the physical, chemical and toxicological characteristics:	May cause sensitization by skin contact.
11.1r	Delayed and immediate effects as well as chronic effects from short and long term exposure:	May elicit severe allergic response even at low concentrations for those individuals that have been sensitized due to subsequent exposure(s).
11.1s	Numerical measures of toxicity (such as acute toxicity estimates):	Not determined.
11.1t	Interactive effects:	Not determined.
11.1u	Absence of specific data:	Not applicable.
11.1v	Mixtures:	Item is a mixture.
11.1w	Mixture vs. substance information:	See Section 3 for any substances in the mixture.
11.1x	Classification by National Toxicity Program (NTP):	Not classified.
11.1y	Classification by International Agency for Research on Cancer (IARC):	Not classified.
11.1z	Classification by OSHA 13:	Not classified.
11.1ab	Other information:	None.

**Section 12: Ecological information**

<b>12.1</b>	<b>Toxicity:</b>	.
12.1a	Name:	Reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1).
12.1b	Ecotoxicity (aquatic and terrestrial, where available):	Harmful to aquatic life with long-lasting effects.
<b>12.2</b>	<b>Persistence and degradability:</b>	There are no data on the degradability of this product.
<b>12.3</b>	<b>Bioaccumulative potential:</b>	No data available on bioaccumulation.
<b>12.4</b>	<b>Mobility in soil:</b>	Mobility in soil is unknown (the product is soluble in water).
<b>12.5</b>	<b>Results of PBT and vPvB assessment:</b>	Not determined.
<b>12.6</b>	<b>Other adverse effects:</b>	None known.

**Section 13: Disposal considerations**

<b>13.1</b>	<b>Waste treatment methods:</b>	When handling waste, consideration should be made to the safety precautions applying to handling of the product.
13.1a	Description of waste residues and information on their safe handling and methods of disposal, including the disposal of any contaminated packaging:	Dispose of waste and residues in accordance with local authority requirements. For the safety of persons conducting disposal, recycling or reclamation activities, please refer to the information in Section 8 (exposure controls and personal protection) of the SDS. Consult a licensed waste contractor for disposal.

**Section 14: Transport information**

<b>14.1</b>	<b>UN number:</b>	Not applicable.
<b>14.2</b>	<b>UN proper shipping name:</b>	Not applicable.
<b>14.3</b>	<b>Transport hazard class(es):</b>	Not applicable.
<b>14.4</b>	<b>Packing group:</b>	Not applicable.
<b>14.5</b>	<b>Environmental hazards:</b>	.
14.5a	Is it environmentally dangerous according to UN Model Regulations (IMDG Code, ADR, RID, and ADN)?:	No.
14.5b	Is it a marine pollutant according to the IMDG code?:	No.
<b>14.6</b>	<b>Special precautions for user:</b>	None known.

14.7	Transport in bulk according to Annex II of MARPOL and the IBC code:	Not applicable.
14.7a	Other information:	The product is not considered a dangerous good for transport.
14.7b	Classification for other modes of transport:	Contact supplier.
<b>Section 15: Regulatory information</b>		
15.1	Safety, health and environmental regulations/legislation specific for the substance or mixture:	.
15.1a	Regional safety, health and environmental regulations specific for the product in question:	.
15.1b	USA SARA Components (such as 302/311/313):	Not listed.
15.1c	USA Massachusetts Right to Know:	Not listed.
15.1d	USA Pennsylvania Right to Know:	Not listed.
15.1e	USA New Jersey Right to Know:	Not listed.
15.1f	USA California Prop. 65 Components:	Not listed.
15.1g	EU Regulation 1907/2006 (REACH):	Not listed.
15.1h	Annex XIV substances subject to authorization:	Not listed.
15.1i	Substances of very high concern:	Not listed.
15.1j	Approved code of practice:	Classification and labeling of substances and preparations dangerous for supply. Safety data sheets for substances and preparations.
15.1k	Guidance notes:	Workplace exposure limits EH40.
15.1l	EU legislation references:	(EC) No. 1272/2008 on the classification, labelling and packaging of substances and mixtures (CLP Regulation). EC 830/2015. Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments.
15.2	Chemical safety assessment:	Not required.
15.2a	Other regulatory information:	SDS complies with Health Canada WHMIS 2015 requirements.
<b>Section 16: Other information</b>		
16.1	Other information:	.
16.1a	Date of revision:	03/03/2020
16.1b	SDS number and revision:	F17-586-2 Version D
16.1c	Supersedes SDS number and revision:	F17-586-2 Version C
16.1d	Changes made to the previous version of the SDS:	Reviewed and updated information related to ProClin 300; updated for Health Canada; updated document control numbers.
16.1e	Key/legend to abbreviations and acronyms used in the SDS:	ACGIH American Conference of Governmental Industrial Hygienists. ADN European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway. ADR The European Agreement concerning the International Carriage of Dangerous Goods by Road. ATE Acute Toxicity Estimate. BCF Bio Concentration Factor. CAS Chemical Abstracts Service. CLP Classification, Labelling and Packaging. CMR Carcinogen, Mutagen or Reproductive toxicant. COD Chemical Oxygen Demand. EC European Commission. EC50 Half maximal effective concentration. EH40 Resource containing the list of workplace exposure limits for use with the Control of Substances Hazardous to Health Regulations. EINECS European Inventory of Existing Commercial chemical Substances. ELINCS European List of Notified Chemical Substances. EU European Union. GHS Globally Harmonized System of Classification and Labelling of Chemicals. H Statement GHS Hazard statement. IATA International Air Transport Association. IBC Intermediate Bulk Container. IC50 Half maximal inhibitory concentration. IMDG International Maritime Dangerous Goods. LC50 Median lethal concentration. LD50 Median lethal dose. LogPow logarithm of the octanol/water partition coefficient.



		<p>MARPOL 73/78 International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978.                  OEL Occupational Exposure Limit.                  OSHA Occupational Safety and Health Administration (USA).                  PBT Persistent, Bioaccumulative, and Toxic.                  PEL Permissible Exposure Limit.                  RID The Regulations concerning the International Carriage of Dangerous Goods by Rail.                  SADT Self-Accelerating Decomposition Temperature.                  SARA Superfund Amendments and Reauthorization Act.                  SCBA Self-Contained Breathing Apparatus.                  SDS Safety Data Sheet.                  STOT Specific Target Organ Toxicity.                  STOT-RE Specific Target Organ Toxicity - Repeated Exposure.                  STOT-SE Specific Target Organ Toxicity - Single Exposure.                  UN United Nations.                  USA United States of America.                  vPvB very Persistent very bioaccumulative.                  WHMIS Workplace Hazardous Materials Information System.</p>
16.1f	Full text of hazard statements and precautionary statements not written out in full elsewhere:	All statements are written out in full.
<b>DISCLAIMER:</b>	<p><b>This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability, or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.</b></p>	

**END OF SDS**




# SAFETY DATA SHEET (SDS)

according to Regulation (EC) No. 830/2015 amending 1907/2006

## Section 1: Identification of the substance/mixture and of the company/undertaking


1.1	<b>Product identifier:</b>	ELISA Wash Buffer, 10X
1.1a	Other means of identification:	.
1.1b	Alternative product name(s)/ synonyms:	10X WB1; WB1; WB; EWB; ELISA Wash Buffer.
1.1c	Product number/Catalog #(s):	527, 650, 651, 652, 676
1.1d	Internal identification:	ELISA Wash Buffer; WB1
1.2	<b>Relevant identified uses of the substance or mixture and uses advised against:</b>	Product intended for research use or for further manufacturing into <i>in vitro</i> diagnostics reagents only. Not intended for use in human or therapeutics purposes.
1.2a	Brief description of what the substance or mixture is intended to do:	A buffered solution designed to remove unbound components from ELISA plates.
1.3	<b>Details of the supplier of the SDS:</b>	.
1.3a	Name:	ImmunoChemistry Technologies, LLC (ICT)
1.3b	Address:	9401 James Avenue South, Suite 155
1.3c	City, State, Zip, Country	Bloomington, MN 55431-2500 USA
1.3d	Phone number:	1-800-829-3194 and 952-888-8788
1.3e	Fax number:	952-888-8988
1.3f	Website:	www.immunochemistry.com
1.3g	Email:	help@immunochemistry.com
1.3h	Contact person at ICT:	Quality Documentation Department
1.4	<b>Emergency telephone number:</b>	ICT: 1-800-829-3194 (USA & Canada) or 952-888-8788 world wide; ICT hours are 9 am-5 pm central time USA, Monday through Friday (excluding holidays). Chemtrec 24-hour access within USA and Canada: 1-800-424-9300 or +1 703-527-3887. Collect calls accepted.

## Section 2: Hazards identification

2.1	<b>Classification of the substance or mixture:</b>	.
2.1a	Product is a:	Mixture.
2.1b	Classification according to (EC) No. 1272/2008 {CLP}:	Skin Sens. 1, H317 May cause an allergic skin reaction.
2.1c	The most important adverse physiochemical, human health, and environmental effects:	Refer to Sections 9-12.
2.2	<b>Label elements:</b>	.
2.2a	GHS label elements, including precautionary statements:	.
2.2b	Contains:	≤ 1% 2-Chloroacetamide
2.2c	Labeling in accordance with (EC) No. 1272/2008:	.
2.2d	Hazard Pictograms (Hazard Symbols):	 GHS07 Exclamation mark.
2.2e	Signal word:	Warning.
2.2f	Hazard statements:	H317 May cause an allergic skin reaction.
2.2g	Precautionary statements:	P261 Avoid breathing mist, vapors, or spray. P280 Wear protective gloves, protective clothing, eye protection, and face protection. P302+P352 If on skin: Wash with plenty of water and soap. P333+P313 If skin irritation or rash occurs: Get medical attention.
2.2h	Supplementary precaution statements:	P272 Contaminated work clothing should not be allowed out of the workplace. P363 Wash contaminated clothing before reuse. P405 Store locked up. P501 Dispose of contents/container in accordance with local regulations.
2.3	<b>Other hazards:</b>	No additional information available.
2.3a	Does the chemical meet the criteria for PBT or vPvB?	Not applicable.
2.3b	Other hazards which do not result in classification:	None.

## Section 3: Composition/information on ingredients

3.1	<b>Substance:</b>	Item is a mixture therefore Section 3.1 is not applicable; see Section 3.2.		
3.2	<b>Mixture:</b> The chemical identity and concentration or concentration ranges of all ingredients which are hazardous and are present above their cut-off levels:	Item is a mixture.		
	3.2a Chemical identity:	2-Chloroacetamide		
	3.2b Common name, synonyms, etc.:	2-Chloroacetamide; C <sub>2</sub> H <sub>4</sub> ClNO;		
	3.2c CAS number and other unique identifiers:	3.2d EC number:	3.2e % Concentration:	3.2f Classification according to (EC) No. 1272/2008 (CLP):
	79-07-2	201-174-2	≤ 1%	Acute Tox. 3, H301 Toxic if swallowed. Skin Sens. 1, H317 May cause an allergic skin reaction. Repr. 2, H361 (fertility) Suspected of damaging fertility or the unborn child.
3.2u	Other information on the mixture:	None.		
<b>Section 4: First aid measures</b>				
4.1	<b>Description of first aid measures:</b>	If concerned, get medical attention and provide physician with SDS information. Wash contaminated clothing before reuse. Never give anything by mouth to an unconscious person.		
4.1a	Inhalation:	Remove to fresh air and keep at rest in a comfortable position for breathing. If not breathing, give artificial respiration. Rinse nose and mouth with water. Get medical attention if any discomfort continues.		
4.1b	Skin contact:	Wash skin thoroughly with soap and water for several minutes; continue to rinse for at least 15 minutes. Remove any contaminated clothing and shoes and wash thoroughly before reuse. Get medical attention if any discomfort continues.		
4.1c	Eye contact:	Promptly wash eyes with plenty of water while lifting the eyelids. Make sure to remove any contact lenses from the eyes before rinsing. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.		
4.1d	Ingestion:	NEVER MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK FLUIDS! Rinse mouth thoroughly. Do not induce vomiting without advice from poison control center or medical professional. Get medical attention if any discomfort continues.		
4.2	<b>Most important symptoms and effects, both acute and delayed:</b>	.		
4.2a	Inhalation:	None known.		
4.2b	Skin contact:	Symptoms may include irritation or redness.		
4.2c	Eye contact:	None known.		
4.2d	Ingestion:	None known.		
4.3	<b>Indication of any immediate medical attention and special treatment needed:</b>	No additional information available.		
4.3a	Notes to physician/first responder:	Treat symptomatically. Refer to Sections 5-8 for advice on personal protective equipment.		
<b>Section 5: Firefighting measures</b>				
5.1	<b>Extinguishing media:</b>	This product is not flammable. Use fire-extinguishing media appropriate for the surrounding materials.		
5.1a	Suitable extinguishing media:	Water spray, foam, dry powder, or carbon dioxide.		
5.1b	Unsuitable extinguishing media:	None known.		
5.2	<b>Special hazards arising from the substance or mixture:</b>	This product is not flammable. Product is not explosive. No dangerous reactions known under normal conditions of use.		
5.2a	Hazardous combustion products:	In case of fire, toxic gases may be formed of carbon monoxide (CO), carbon dioxide (CO <sub>2</sub> ; COx), and nitrous gases (NOx). None under normal conditions		
5.2b	Unusual fire & explosion hazards:	No unusual fire or explosion hazards noted.		
5.2c	Protective measures in fire:	Use protective equipment appropriate for surrounding materials.		
5.3	<b>Advice for firefighters:</b>	.		
5.3a	Special firefighting procedures:	Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Do not dispose of fire-fighting water in the environment.		
5.3b	Special protective equipment and precautions for firefighters:	Do not enter fire area without proper protective equipment, including respiratory protection. Wear self-contained breathing apparatus and protective suit (see Section 8).		
<b>Section 6: Accidental release measures</b>				
6.1	<b>Personal precautions, protective equipment, and emergency procedures:</b>	Use protective equipment appropriate for surrounding materials.		

6.1a	General release measures:	No specific emergency measures are required other than good laboratory hygiene and safety practices for small spills. Wear suitable protective clothing, gloves and eye or face protection. Consult professional emergency personnel if concerned (see Section 8).
6.1b	Advice for non-emergency personnel; personal precautions, protective equipment and emergency procedures:	No specific emergency measures are required other than good laboratory hygiene and safety practices. Wear suitable protective clothing, gloves, eye, and face protection to avoid contact with skin, eyes, and personal clothing; use an approved supplied-air respirator, in case of emergency (also refer to Section 8). Ensure adequate ventilation and control mist. Avoid breathing vapors, mist, or spray. Evacuate personnel to safe areas. Wear suitable protective clothing, gloves and eye or face protection to prevent any contamination. Consult professional emergency personnel if concerned.
6.1c	Advice for emergency responders; personal precautions, protective equipment and emergency procedures:	Wear suitable protective clothing, gloves and eye or face protection to avoid contact; use an approved supplied-air respirator, in case of emergency (also refer to Section 8).
<b>6.2</b>	<b>Environmental precautions:</b>	Do not allow to enter drains, sewers, or watercourses.
<b>6.3</b>	<b>Methods and materials for containment and clean up:</b>	Contain any spills with dikes or absorbent materials to prevent migration and entry into sewers or water sources. Use a licensed waste disposal contractor for disposal (see Section 13). Wash spill area thoroughly with plenty of soap and water. Avoid contact with skin or inhalation of spillage or vapor.
<b>6.4</b>	<b>Reference to other sections:</b>	Refer to Sections 8 and 13 for additional information.
<b>Section 7: Handling and storage</b>		
<b>7.1</b>	<b>Precautions for safe handling:</b>	Do not handle until all safety precautions have been read and understood. Avoid creation of aerosols or mist. Avoid inhalation of vapors or mist. Prevent contact with skin and eyes. Use appropriate personal protection equipment (PPE). Thoroughly wash hands and contaminated areas with water and soap before leaving the work site. Persons with a history of skin sensitization problems should not be employed in any process in which this product is used.
7.1a	Prevent handling of incompatible substances or mixtures:	Avoid contact with strong acids and strong oxidizers.
7.1b	Advice on general occupational hygiene:	Do not eat, drink, or smoke in work areas. Wash hands after use. Remove contaminated clothing and protective equipment before entering eating areas. Good personal hygiene is necessary. Follow good laboratory hygiene and safety practices.
<b>7.2</b>	<b>Conditions for safe storage, including any incompatibilities:</b>	Refer to product label. Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Avoid spills and release into the environment; keep away from watercourses.
<b>7.3</b>	<b>Specific end use(s):</b>	Product intended for research use or for further manufacturing into <i>in vitro</i> diagnostics reagents only. Not intended for use in human or therapeutics purposes.
<b>Section 8: Exposure controls/personal protection</b>		
<b>8.1</b>	<b>Control parameters:</b>	.
8.1a	Occupational exposure limits, such as chemical identity, standard, TWA-8 hours (time weighted average), STEL-15 minutes (short term exposure limit), etc.: WEL = Workplace Exposure Limit. Sk = can be absorbed through skin.	2-Chloroacetemide, no known exposure limits.
8.1b	Appropriate engineering controls:	.
8.1c	Individual protection measures, such as personal protective equipment:	Wear gloves, protective goggles, and lab coat.
8.1d	Safety symbols:	
<b>8.2</b>	<b>Exposure controls:</b>	.
8.2a	Process conditions:	Provide eyewash station.
8.2b	Engineering controls:	Ensure that eyewash stations and safety showers are proximal to the workstation location.
8.2c	Ventilation controls:	Provide adequate ventilation.
8.2d	Reference to other sections:	Refer to Section 5 for additional information.
8.2e	Eye/face protection:	Wear approved chemical safety goggles where eye exposure is reasonably probable or face shield if risk of splashing.
8.2f	Skin protection:	Wear apron or protective clothing in case of contact.

8.2g	Hand protection:	Use suitable protective gloves if risk of skin contact.
8.2h	Respiratory equipment:	Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).
8.2i	Other protection:	Wear appropriate clothing to avoid skin contact.
8.2j	Hygiene measures:	DO NOT SMOKE IN WORK AREA! Wash at the end of each work shift and before eating, smoking, and using the toilet. Promptly remove any clothing that becomes contaminated. Use appropriate skin cream to prevent drying of skin. When using do not eat, drink, or smoke. Wash promptly with soap and water if skin becomes contaminated
8.2k	Thermal hazards:	None known under normal conditions of use.
8.2l	Environmental exposure controls:	Not determined.

**Section 9: Physical and chemical properties**

<b>9.1</b>	<b>Information on basic physical and chemical properties:</b>	.
9.1a	Appearance (physical state, color, etc.):	Liquid; colorless.
9.1b	Odor:	No specific data.
9.1c	Odor threshold:	Not determined.
9.1d	pH:	6.8-7.0
9.1e	Melting point/freezing point (°C):	Not determined.
9.1f	Initial boiling point and boiling range:	<100°C @ 760 mm Hg.
9.1g	Flash point (°C):	Not determined.
9.1h	Evaporation rate:	Not determined.
9.1i	Flammability (solid, gas):	Not determined.
9.1j	Upper/lower flammability or explosive limits:	Not determined.
9.1k	Vapor pressure:	Not determined.
9.1l	Vapor density (Air =1):	Not determined.
9.1m	Relative density:	Not determined.
9.1n	Solubility(ies):	Soluble in water.
9.1o	Partition coefficient (N-octanol/water):	Not determined.
9.1p	Auto-ignition temperature (°C):	Not determined.
9.1q	Decomposition temperature (°C):	Not determined.
9.1r	Viscosity:	Not determined.
9.1s	Explosive properties:	Not determined.
9.1t	Oxidizing properties:	Not determined.
<b>9.2</b>	<b>Other information:</b>	None.
9.2a	Other physical or chemical parameters:	None.

**Section 10: Stability and reactivity**

<b>10.1</b>	<b>Reactivity:</b>	No data available.
<b>10.2</b>	<b>Chemical stability:</b>	Stable under normal temperature conditions.
<b>10.3</b>	<b>Possibility of hazardous reactions:</b>	Hazardous polymerization: will not polymerize.
<b>10.4</b>	<b>Conditions to avoid:</b>	To avoid product degradation, avoid exposure to high temperatures or direct sunlight or light.
<b>10.5</b>	<b>Incompatible materials:</b>	Strong oxidizing substances. Strong reducing agents. Strong acids.
<b>10.6</b>	<b>Hazardous decomposition products:</b>	None under normal conditions.

**Section 11: Toxicological information**

<b>11.1</b>	<b>Information on toxicological effects:</b>	.
11.1a	Name:	2-Chloroacetamide
11.1b	Acute toxicity:	LD50 Oral Rat 138 mg/kg
11.1c	Skin corrosion/irritation:	Not known.
11.1d	Serious eye damage/irritation:	Not known.
11.1e	Respiratory or skin sensitization:	Not determined.
11.1f	Germ cell mutagenicity:	Not determined.
11.1g	Carcinogenicity:	Not determined.
11.1h	Reproductive toxicity:	Not determined.
11.1i	STOT-single exposure:	Not determined.
11.1j	STOT-repeated exposure:	Not determined.
11.1k	Aspiration hazard:	Not determined.
11.1l	Information on the likely routes of exposure (inhalation, ingestion, skin and eye contact):	.
11.1m	Ingestion:	No known effects noted.
11.1n	Inhalation:	No known effects noted.

11.1o	Skin contact:	Prolonged skin contact may cause mild irritation and/or redness. May cause sensitization by skin contact. Risk of sensitization or allergic reactions among sensitive individuals.
11.1p	Eye contact:	No known effects noted.
11.1q	Symptoms related to the physical, chemical and toxicological characteristics:	Symptoms may include irritation or redness.
11.1r	Delayed and immediate effects as well as chronic effects from short and long term exposure:	May elicit severe allergic response even at low concentrations for those individuals that have been sensitized due to subsequent exposure(s).
11.1s	Numerical measures of toxicity (such as acute toxicity estimates):	Not determined.
11.1t	Interactive effects:	Not determined.
11.1u	Absence of specific data:	Not applicable.
11.1v	Mixtures:	Item is a mixture.
11.1w	Mixture vs. substance information:	See Section 3 for any substances in the mixture.
11.1x	Classification by National Toxicity Program (NTP):	Not classified.
11.1y	Classification by International Agency for Research on Cancer (IARC):	Not classified.
11.1z	Classification by OSHA 13:	Not classified.
11.1ab	Other information:	None.
<b>Section 12: Ecological information</b>		
<b>12.1</b>	<b>Toxicity:</b>	.
12.1a	Name:	2-Chloroacetamide
12.1b	Ecotoxicity (aquatic and terrestrial, where available):	2-Chloroacetamide: LC 50, 96 hrs, fish mg/l: Carassius auratus (goldfish) – 19.8 mg/l; EC 50, 48 hrs, Daphnia, mg/l: Daphnia magna (water flea) – 14.0 mg/l
<b>12.2</b>	<b>Persistence and degradability:</b>	There are no data on the degradability of this product.
<b>12.3</b>	<b>Bioaccumulative potential:</b>	No data available on bioaccumulation.
<b>12.4</b>	<b>Mobility in soil:</b>	Mobility in soil is unknown (the product is soluble in water).
<b>12.5</b>	<b>Results of PBT and vPvB assessment:</b>	Not determined.
<b>12.6</b>	<b>Other adverse effects:</b>	None known.
<b>Section 13: Disposal considerations</b>		
<b>13.1</b>	<b>Waste treatment methods:</b>	When handling waste, consideration should be made to the safety precautions applying to handling of the product.
13.1a	Description of waste residues and information on their safe handling and methods of disposal, including the disposal of any contaminated packaging:	Dispose of waste and residues in accordance with local authority requirements. For the safety of persons conducting disposal, recycling or reclamation activities, please refer to the information in Section 8 (exposure controls and personal protection) of the SDS. Consult a licensed waste contractor for disposal.
<b>Section 14: Transport information</b>		
<b>14.1</b>	<b>UN number:</b>	Not applicable.
<b>14.2</b>	<b>UN proper shipping name:</b>	Not applicable.
<b>14.3</b>	<b>Transport hazard class(es):</b>	Not applicable.
<b>14.4</b>	<b>Packing group:</b>	Not applicable.
<b>14.5</b>	<b>Environmental hazards:</b>	.
14.5a	Is it environmentally dangerous according to UN Model Regulations (IMDG Code, ADR, RID, and ADN)?:	No.
14.5b	Is it a marine pollutant according to the IMDG code?:	No.
<b>14.6</b>	<b>Special precautions for user:</b>	None known.
<b>14.7</b>	<b>Transport in bulk according to Annex II of MARPOL and the IBC code:</b>	Not applicable.
14.7a	Other information:	The product is not considered a dangerous good for transport.
14.7b	Classification for other modes of transport:	Contact supplier.
<b>Section 15: Regulatory information</b>		
<b>15.1</b>	<b>Safety, health and environmental regulations/legislation specific for the substance or mixture:</b>	.
15.1a	Regional safety, health and environmental regulations specific for the product in question:	.
15.1b	USA SARA Components (such as 302/311/313):	Not listed.
15.1c	USA Massachusetts Right to Know:	Not listed.
15.1d	USA Pennsylvania Right to Know:	Not listed.
15.1e	USA New Jersey Right to Know:	Not listed.
15.1f	USA California Prop. 65 Components:	Not listed.
15.1g	EU Regulation 1907/2006 {REACH}:	Not listed.

15.1h	Annex XIV substances subject to authorization:	Not listed.
15.1i	Substances of very high concern:	Not listed.
15.1j	Approved code of practice:	Classification and labeling of substances and preparations dangerous for supply. Safety data sheets for substances and preparations.
15.1k	Guidance notes:	Workplace exposure limits EH40.
15.1l	EU legislation references:	(EC) No. 1272/2008 on the classification, labelling and packaging of substances and mixtures (CLP Regulation). EC 830/2015. Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments.
<b>15.2</b>	<b>Chemical safety assessment:</b>	Not required.
15.2a	Other regulatory information:	SDS complies with Health Canada WHMIS 2015 requirements.
<b>Section 16: Other information</b>		
<b>16.1</b>	<b>Other information:</b>	.
16.1a	Date of revision:	03/04/2020
16.1b	SDS number and revision:	F17-527-2 Version E
16.1c	Supersedes SDS number and revision:	F17-527-2 Version D
16.1d	Changes made to the previous version of the SDS:	Reviewed and updated hazard information; updated product use statement; updated for Health Canada; updated document control numbers.
16.1e	Key/legend to abbreviations and acronyms used in the SDS:	ACGIH American Conference of Governmental Industrial Hygienists. ADN European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway. ADR The European Agreement concerning the International Carriage of Dangerous Goods by Road. ATE Acute Toxicity Estimate. BCF Bio Concentration Factor. CAS Chemical Abstracts Service. CLP Classification, Labelling and Packaging. CMR Carcinogen, Mutagen or Reproductive toxicant. COD Chemical Oxygen Demand. EC European Commission. EC50 Half maximal effective concentration. EH40 Resource containing the list of workplace exposure limits for use with the Control of Substances Hazardous to Health Regulations. EINECS European Inventory of Existing Commercial chemical Substances. ELINCS European List of Notified Chemical Substances. EU European Union. GHS Globally Harmonized System of Classification and Labelling of Chemicals. H Statement GHS Hazard statement. IATA International Air Transport Association. IBC Intermediate Bulk Container. IC50 Half maximal inhibitory concentration. IMDG International Maritime Dangerous Goods. LC50 Median lethal concentration. LD50 Median lethal dose. LogPow logarithm of the octanol/water partition coefficient. MARPOL 73/78 International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. OEL Occupational Exposure Limit. OSHA Occupational Safety and Health Administration (USA). PBT Persistent, Bioaccumulative, and Toxic. PEL Permissible Exposure Limit. RID The Regulations concerning the International Carriage of Dangerous Goods by Rail. SADT Self-Accelerating Decomposition Temperature. SARA Superfund Amendments and Reauthorization Act. SCBA Self-Contained Breathing Apparatus. SDS Safety Data Sheet. STOT Specific Target Organ Toxicity. STOT-RE Specific Target Organ Toxicity - Repeated Exposure. STOT-SE Specific Target Organ Toxicity - Single Exposure. UN United Nations.

		USA United States of America. vPvB very Persistent very bioaccumulative. WHMIS Workplace Hazardous Materials Information System.
16.1f	Full text of hazard statements and precautionary statements not written out in full elsewhere:	All statements are written out in full.
<b>DISCLAIMER:</b>	<b>This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability, or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.</b>	
<b>END OF SDS</b>		





# SAFETY DATA SHEET (SDS)

according to Regulation (EC) No. 830/2015 amending 1907/2006

## Section 1: Identification of the substance/mixture and of the company/undertaking

<b>1.1</b>	<b>Product identifier:</b>	TMB 1-Component HRP Microwell Substrate
1.1a	Other means of identification:	.
1.1b	Alternative product name(s)/ synonyms:	SUBT, SUB1
1.1c	Product number/Catalog #(s):	3325, 6276, 6331, 6337
1.1d	Internal identification:	SUBT, SUB1
<b>1.2</b>	<b>Relevant identified uses of the substance or mixture and uses advised against:</b>	For research use only. Not for use in diagnostic procedures.
1.2a	Brief description of what the substance or mixture is intended to do:	For laboratory use.
<b>1.3</b>	<b>Details of the supplier of the SDS:</b>	.
1.3a	Name:	ImmunoChemistry Technologies, LLC (ICT)
1.3b	Address:	9401 James Avenue South, Suite 155
1.3c	City, State, Zip, Country	Bloomington, MN 55431-2500 USA
1.3d	Phone number:	1-800-829-3194 and 952-888-8788
1.3e	Fax number:	952-888-8988
1.3f	Website:	www.immunochemistry.com
1.3g	Email:	help@immunochemistry.com
1.3h	Contact person at ICT:	Quality Documentation Department
<b>1.4</b>	<b>Emergency telephone number:</b>	ICT: 1-800-829-3194 (USA & Canada) or 952-888-8788 world wide; ICT hours are 9 am-5 pm central time USA, Monday through Friday (excluding holidays). Chemtrec 24-hour access within USA and Canada: 1-800-424-9300 or +1 703-527-3887. Collect calls accepted.

## Section 2: Hazards identification

<b>2.1</b>	<b>Classification of the substance or mixture:</b>	.
2.1a	Product is a:	Mixture.
2.1b	Classification according to (EC) No. 1272/2008 {CLP}:	Not classified.
2.1c	The most important adverse physiochemical, human health, and environmental effects:	Refer to Sections 9-12.
<b>2.2</b>	<b>Label elements:</b>	.
2.2a	GHS label elements, including precautionary statements:	.
2.2b	Contains:	.
2.2c	Labeling in accordance with (EC) No. 1272/2008:	.
2.2d	Hazard Pictograms (Hazard Symbols):	None.
2.2e	Signal word:	None.
2.2f	Hazard statements:	None.
2.2g	Precautionary statements:	None.
2.2h	Supplementary precaution statements:	None.
<b>2.3</b>	<b>Other hazards:</b>	No additional information available.
2.3a	Does the chemical meet the criteria for PBT or vPvB?	Not applicable.
2.3b	Other hazards which do not result in classification:	No additional information available.


## Section 3: Composition/information on ingredients

<b>3.1</b>	<b>Substance:</b>	Item is a mixture therefore Section 3.1 is not applicable; see Section 3.2.
<b>3.2</b>	<b>Mixture:</b> The chemical identity and concentration or concentration ranges of all ingredients which are hazardous and are present above their cut-off levels:	Item is a mixture. Contains no hazardous ingredients at levels requiring disclosure by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

## Section 4: First aid measures

<b>4.1</b>	<b>Description of first aid measures:</b>	If exposed or concerned, get medical attention/advice. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before reuse. Never give anything by mouth to an unconscious person.
4.1a	Inhalation:	Remove to fresh air and keep at rest in a comfortable position for breathing.
4.1b	Skin contact:	Remove affected clothing and wash all exposed skin with water for at least 15 minutes.

4.1c	Eye contact:	Immediately flush with plenty of water for at least 15 minutes. Remove contact lenses if present and easy to do so. Continue rinsing.
4.1d	Ingestion:	Rinse mouth thoroughly. Do not induce vomiting without advice from poison control center or medical professional. Get medical attention if you feel unwell.
<b>4.2</b>	<b>Most important symptoms and effects, both acute and delayed:</b>	Not expected to present a significant hazard under anticipated conditions of normal use.
4.2a	Inhalation:	May cause respiratory irritation.
4.2b	Skin contact:	May cause skin irritation.
4.2c	Eye contact:	May cause slight temporary irritation.
4.2d	Ingestion:	May cause gastrointestinal irritation.
<b>4.3</b>	<b>Indication of any immediate medical attention and special treatment needed:</b>	No additional information available.
4.3a	Notes to physician/first responder:	Treat symptomatically.
<b>Section 5: Firefighting measures</b>		
<b>5.1</b>	<b>Extinguishing media:</b>	Use fire-extinguishing media appropriate for surrounding materials.
5.1a	Suitable extinguishing media:	Foam. Carbon dioxide. Dry powder. Water spray. Sand.
5.1b	Unsuitable extinguishing media:	None known.
<b>5.2</b>	<b>Special hazards arising from the substance or mixture:</b>	This product is not flammable. Product is not explosive. No dangerous reactions known under normal conditions of use.
5.2a	Hazardous combustion products:	Toxic gases and vapors may be released if involved in a fire.
5.2b	Unusual fire & explosion hazards:	No unusual fire or explosion hazards noted.
5.2c	Protective measures in fire:	Do not enter fire area without proper protective equipment, including respiratory protection. Wear self-contained breathing apparatus and protective suit (see Section 8).
<b>5.3</b>	<b>Advice for firefighters:</b>	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
5.3a	Special firefighting procedures:	Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Do not dispose of fire-fighting water in the environment.
5.3b	Special protective equipment and precautions for firefighters:	Do not enter fire area without proper protective equipment, including respiratory protection. Wear self-contained breathing apparatus and protective suit (see Section 8).
<b>Section 6: Accidental release measures</b>		
<b>6.1</b>	<b>Personal precautions, protective equipment, and emergency procedures:</b>	.
6.1a	General release measures:	Evacuate area. Ventilate area. Keep upwind. Spill should be handled by trained clean-up crews properly equipped with respiratory equipment and full chemical protective gear (see Section 8).
6.1b	Advice for non-emergency personnel; personal precautions, protective equipment and emergency procedures:	Wear protective equipment as described in Section 8. Evacuate unnecessary personnel.
6.1c	Advice for emergency responders; personal precautions, protective equipment and emergency procedures:	Wear suitable protective clothing, gloves and eye or face protection. Approved supplied-air respirator, in case of emergency.
<b>6.2</b>	<b>Environmental precautions:</b>	Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment.
<b>6.3</b>	<b>Methods and materials for containment and clean up:</b>	Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Place in a suitable container for disposal in accordance with the waste regulations (see Section 13). Wash spill area thoroughly with plenty of soap and water.
<b>6.4</b>	<b>Reference to other sections:</b>	Refer to Sections 8 and 13 for additional information.
<b>Section 7: Handling and storage</b>		
<b>7.1</b>	<b>Precautions for safe handling:</b>	Do not handle until all safety precautions have been read and understood. Use appropriate personal protection equipment (PPE). Keep away from sources of ignition.
7.1a	Prevent handling of incompatible substances or mixtures:	Not known.
7.1b	Advice on general occupational hygiene:	No smoking. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.
<b>7.2</b>	<b>Conditions for safe storage, including any incompatibilities:</b>	Keep the container tightly closed. Store in a dry, cool and well-ventilated place. Store away from light. Avoid elevated temperatures. Storage temperature: 2-8°C.
<b>7.3</b>	<b>Specific end use(s):</b>	For research use only. Not for use in diagnostic procedures.
<b>Section 8: Exposure controls/personal protection</b>		
<b>8.1</b>	<b>Control parameters:</b>	.

8.1a	Occupational exposure limits, such as chemical identity, standard, TWA-8 hours (time weighted average), STEL-15 minutes (short term exposure limit), etc.: WEL = Workplace Exposure Limit. Sk = can be absorbed through skin.	No data available.
8.1b	Appropriate engineering controls:	Ensure adequate ventilation, especially in confined areas.
8.1c	Individual protection measures, such as personal protective equipment:	Wear gloves. Wear protective goggles. Wear labcoat with full coverage clothing.
8.1d	Safety symbols:	
<b>8.2</b>	<b>Exposure controls:</b>	.
8.2a	Process conditions:	Provide eyewash station.
8.2b	Engineering controls:	Local exhaust ventilation is recommended for providing adequate ventilation. Ensure that eyewash stations and safety showers are proximal to the workstation location.
8.2c	Ventilation controls:	Provide adequate ventilation.
8.2d	Reference to other sections:	Refer to Section 5 for additional information.
8.2e	Eye/face protection:	Chemical goggles or safety glasses.
8.2f	Skin protection:	Wear suitable protective clothing. Wear long sleeves.
8.2g	Hand protection:	Use gloves chemically resistant to this material when prolonged or repeated contact could occur. Gloves should be classified under Standard EN 374 or ASTM F1296. Suggested glove materials are: Neoprene, Nitrile/butadiene rubber, Polyethylene, Ethyl vinyl alcohol laminate, PVC or vinyl.
8.2h	Respiratory equipment:	Where excessive vapor, mist, or dust may result, use NIOSH approved respiratory protection equipment.
8.2i	Other protection:	Wear appropriate clothing to prevent any possibility of skin contact.
8.2j	Hygiene measures:	DO NOT SMOKE IN WORK AREA! Wash at the end of each work shift and before eating, smoking, and using the toilet. Promptly remove any clothing that becomes contaminated. Use appropriate skin cream to prevent drying of skin. When using do not eat, drink, or smoke. Wash promptly with soap and water if skin becomes contaminated.
8.2k	Thermal hazards:	None known.
8.2l	Environmental exposure controls:	Not determined.

**Section 9: Physical and chemical properties**

<b>9.1</b>	<b>Information on basic physical and chemical properties:</b>	.
9.1a	Appearance (physical state, color, etc.):	Colorless to pale yellow liquid.
9.1b	Odor:	No specific data.
9.1c	Odor threshold:	No data available.
9.1d	pH:	3.35-3.75
9.1e	Melting point/freezing point (°C):	No data available.
9.1f	Initial boiling point and boiling range:	No data available.
9.1g	Flash point (°C):	No data available.
9.1h	Evaporation rate:	No data available.
9.1i	Flammability (solid, gas):	Not flammable.
9.1j	Upper/lower flammability or explosive limits:	Product is not explosive.
9.1k	Vapor pressure:	No data available.
9.1l	Vapor density (Air =1):	No data available.
9.1m	Relative density:	1.01 (H <sub>2</sub> O = 1.0)
9.1n	Solubility(ies):	Water: 100%
9.1o	Partition coefficient (N-octanol/water):	No data available.
9.1p	Auto-ignition temperature (°C):	No data available.
9.1q	Decomposition temperature (°C):	No data available.
9.1r	Viscosity:	No data available.
9.1s	Explosive properties:	Not explosive.
9.1t	Oxidizing properties:	Not an oxidizer
<b>9.2</b>	<b>Other information:</b>	No additional information available.
9.2a	Other physical or chemical parameters:	No additional information available.

**Section 10: Stability and reactivity**

<b>10.1</b>	<b>Reactivity:</b>	No dangerous reactions known under normal conditions of use.
<b>10.2</b>	<b>Chemical stability:</b>	Stable under recommended handling and storage conditions (see Section 7).
<b>10.3</b>	<b>Possibility of hazardous reactions:</b>	None known.
<b>10.4</b>	<b>Conditions to avoid:</b>	Light. Elevated temperatures. Moisture.

<b>10.5</b>	<b>Incompatible materials:</b>	Strong oxidizing agents. Metals.
<b>10.6</b>	<b>Hazardous decomposition products:</b>	Thermal decomposition generates : Carbon oxides (CO, CO <sub>2</sub> ). Nitrogen oxides.
<b>Section 11: Toxicological information</b>		
<b>11.1</b>	<b>Information on toxicological effects:</b>	.
11.1a	Name:	TMB 1-Component HRP Microwell Substrate
11.1b	Acute toxicity:	Not classified.
11.1c	Skin corrosion/irritation:	Not classified. pH: 3.35-3.75
11.1d	Serious eye damage/irritation:	Not classified. pH: 3.35-3.75
11.1e	Respiratory or skin sensitization:	Not classified.
11.1f	Germ cell mutagenicity:	Not classified.
11.1g	Carcinogenicity:	Not classified.
11.1h	Reproductive toxicity:	Not classified.
11.1i	STOT-single exposure:	Not classified.
11.1j	STOT-repeated exposure:	Not classified.
11.1k	Aspiration hazard:	Not classified.
11.1l	Information on the likely routes of exposure (inhalation, ingestion, skin and eye contact):	.
11.1m	Ingestion:	May cause gastrointestinal irritation.
11.1n	Inhalation:	May cause respiratory irritation.
11.1o	Skin contact:	May cause skin irritation.
11.1p	Eye contact:	May cause slight temporary irritation.
11.1q	Symptoms related to the physical, chemical and toxicological characteristics:	No specific symptoms noted.
11.1r	Delayed and immediate effects as well as chronic effects from short and long term exposure:	Not determined.
11.1s	Numerical measures of toxicity (such as acute toxicity estimates):	Not determined.
11.1t	Interactive effects:	Not determined.
11.1u	Absence of specific data:	Not applicable.
11.1v	Mixtures:	See Section 3 for any substances in the mixture
11.1w	Mixture vs. substance information:	See Section 3 for any substances in the mixture
11.1x	Classification by National Toxicity Program (NTP):	Not classified.
11.1y	Classification by International Agency for Research on Cancer (IARC):	Not classified.
11.1z	Classification by OSHA 13:	Not classified.
11.1ab	Other information:	None.
<b>Section 12: Ecological information</b>		
<b>12.1</b>	<b>Toxicity:</b>	.
12.1a	Name:	TMB 1-Component HRP Microwell Substrate.
12.1b	Ecotoxicity (aquatic and terrestrial, where available):	No information available.
<b>12.2</b>	<b>Persistence and degradability:</b>	No information available.
<b>12.3</b>	<b>Bioaccumulative potential:</b>	No information available.
<b>12.4</b>	<b>Mobility in soil:</b>	No information available.
<b>12.5</b>	<b>Results of PBT and vPvB assessment:</b>	No information available.
<b>12.6</b>	<b>Other adverse effects:</b>	No data available.
<b>Section 13: Disposal considerations</b>		
<b>13.1</b>	<b>Waste treatment methods:</b>	When handling waste, consideration should be made to the safety precautions applying to handling of the product.
13.1a	Description of waste residues and information on their safe handling and methods of disposal, including the disposal of any contaminated packaging:	Obtain the consent of pollution control authorities before discharging to wastewater treatment plants. Observe all federal, state and local laws when considering most appropriate disposal method. Contact a licensed professional waste disposal service to dispose of this material. Dispose in a safe manner in accordance with local/national regulations. Do not allow the product to be released into the environment.
<b>Section 14: Transport information</b>		
<b>14.1</b>	<b>UN number:</b>	Not applicable.
<b>14.2</b>	<b>UN proper shipping name:</b>	Not applicable.
<b>14.3</b>	<b>Transport hazard class(es):</b>	Not hazardous for transport in accordance with DOT.
<b>14.4</b>	<b>Packing group:</b>	Not applicable.
<b>14.5</b>	<b>Environmental hazards:</b>	.
14.5a	Is it environmentally dangerous according to UN Model Regulations (IMDG Code, ADR, RID, and ADN)?:	No.

14.5b	Is it a marine pollutant according to the IMDG code?:	No.
<b>14.6</b>	<b>Special precautions for user:</b>	None.
<b>14.7</b>	<b>Transport in bulk according to Annex II of MARPOL and the IBC code:</b>	Not applicable.
14.7a	Other information:	None.
14.7b	Classification for other modes of transport:	Not classified.
<b>Section 15: Regulatory information</b>		
<b>15.1</b>	<b>Safety, health and environmental regulations/legislation specific for the substance or mixture:</b>	.
15.1a	Regional safety, health and environmental regulations specific for the product in question:	All chemical substances in this product are listed in the EPA (Environmental Protection Agency) TSCA (Toxic Substances Control Act) Inventory. All the constituents of this preparation are registered in the EINECS inventory or in the ELINCS list. Canada: No additional information available.
15.1b	USA SARA Components (such as 302/311/313):	This product is not listed in the SARA (Superfund Amendments and Reauthorization Act).
15.1c	USA Massachusetts Right to Know:	No components are subject to the Massachusetts Right to Know Act.
15.1d	USA Pennsylvania Right to Know:	No components are subject to the USA Pennsylvania Right to Know list.
15.1e	USA New Jersey Right to Know:	No components are subject to the USA New Jersey Right to Know list.
15.1f	USA California Prop. 65 Components:	This product does not contain any substances known to the state of California to cause cancer and/or reproductive harm.
15.1g	EU Regulation 1907/2006 (REACH):	The product nor any components are identified.
15.1h	Annex XIV substances subject to authorization:	The product nor any components are identified.
15.1i	Substances of very high concern:	The product nor any components are identified.
15.1j	Approved code of practice:	Classification and labeling of substances and preparations dangerous for supply. Safety data sheets for substances and preparations.
15.1k	Guidance notes:	Workplace exposure limits EH40.
15.1l	EU legislation references:	(EC) No. 1272/2008 on the classification, labelling and packaging of substances and mixtures (CLP Regulation). EC 453/2010. Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments.
<b>15.2</b>	<b>Chemical safety assessment:</b>	Not required.
15.2a	Other regulatory information:	None.
<b>Section 16: Other information</b>		
<b>16.1</b>	<b>Other information:</b>	.
16.1a	Date of revision:	02/11/19
16.1b	SDS number and revision:	F17-3325-2-D
16.1c	Supersedes SDS number and revision:	F17-3325-2-C
16.1d	Changes made to the previous version of the SDS:	Reviewed and updated document control numbers.
16.1e	Key/legend to abbreviations and acronyms used in the SDS:	ADN European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway. ADR The European Agreement concerning the International Carriage of Dangerous Goods by Road. CAS Chemical Abstracts Service. CLP Classification, Labelling and Packaging. EC European Commission. EC50 Half maximal effective concentration. EH40 Resource containing the list of workplace exposure limits for use with the Control of Substances Hazardous to Health Regulations. EINECS European Inventory of Existing Commercial chemical Substances. ELINCS European List of Notified Chemical Substances. EPA Environmental Protection Agency. EU European Union. GHS Globally Harmonized System of Classification and Labelling of Chemicals. H Statement GHS Hazard statement. IATA International Air Transport Association. IBC Intermediate Bulk Container. IC50 Half maximal inhibitory concentration.

		<p>IMDG International Maritime Dangerous Goods.                  LC50 Median lethal concentration.                  LD50 Median lethal dose.                  LogPow logarithm of the octanol/water partition coefficient.                  MARPOL 73/78 International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978.                  OEL Occupational Exposure Limit.                  OSHA Occupational Safety and Health Administration (USA).                  PBT Persistent, Bioaccumulative, and Toxic.                  RID The Regulations concerning the International Carriage of Dangerous Goods by Rail.                  SARA Superfund Amendments and Reauthorization Act.                  SCBA Self-Contained Breathing Apparatus.                  SDS Safety Data Sheet.                  STOT Specific Target Organ Toxicity.                  STOT-RE Specific Target Organ Toxicity - Repeated Exposure.                  STOT-SE Specific Target Organ Toxicity - Single Exposure.                  TSCA Toxic Substances Control Act.                  UN United Nations.                  USA United States of America.                  vPvB very Persistent very Bioaccumulative.</p>
16.1f	Full text of hazard statements and/or precautionary statements not written out in full elsewhere:	All statements were written out in full.
<b>DISCLAIMER:</b>	<p><b>This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability, or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.</b></p>	
<p><b>END OF SDS</b></p>		





# SAFETY DATA SHEET (SDS)

according to Regulation (EC) No. 830/2015 amending 1907/2006

## Section 1: Identification of the substance/mixture and of the company/undertaking

<b>1.1</b>	<b>Product identifier:</b>	Stop Solution for TMB Substrates
1.1a	Other means of identification:	.
1.1b	Alternative product name(s)/ synonyms:	STOPT; STOP1
1.1c	Product number/Catalog #(s):	3331, 6282, 6343
1.1d	Internal identification:	STOPT; STOP1
<b>1.2</b>	<b>Relevant identified uses of the substance or mixture and uses advised against:</b>	For research use only. Not for use in diagnostic procedures. For use by trained laboratory professionals.
1.2a	Brief description of what the substance or mixture is intended to do:	For laboratory use.
<b>1.3</b>	<b>Details of the supplier of the SDS:</b>	.
1.3a	Name:	ImmunoChemistry Technologies, LLC (ICT)
1.3b	Address:	9401 James Avenue South, Suite 155
1.3c	City, State, Zip, Country	Bloomington, MN 55431-2500 USA
1.3d	Phone number:	1-800-829-3194 and 952-888-8788
1.3e	Fax number:	952-888-8988
1.3f	Website:	www.immunochemistry.com
1.3g	Email:	help@immunochemistry.com
1.3h	Contact person at ICT:	Quality Documentation Department
<b>1.4</b>	<b>Emergency telephone number:</b>	ICT: 1-800-829-3194 (USA & Canada) or 952-888-8788 world wide; ICT hours are 9 am-5 pm central time USA, Monday through Friday (excluding holidays). Chemtrec 24-hour access within USA and Canada: 1-800-424-9300 or +1 703-527-3887. Collect calls accepted.

## Section 2: Hazards identification

<b>2.1</b>	<b>Classification of the substance or mixture:</b>	.
2.1a	Product is a:	Mixture.
2.1b	Classification according to (EC) No. 1272/2008 {CLP}:	Skin corrosive 1; H314 Causes severe skin burns and eye damage. Skin sensitizer 1; H317 May cause an allergic skin reaction.
2.1c	The most important adverse physiochemical, human health, and environmental effects:	Causes severe skin burns and eye damage. Refer to Sections 9-12.
<b>2.2</b>	<b>Label elements:</b>	.
2.2a	GHS label elements, including precautionary statements:	.
2.2b	Contains:	Maleic acid at 3-7%.
2.2c	Labeling in accordance with (EC) No. 1272/2008:	.
2.2d	Hazard Pictograms (Hazard Symbols):	  <p>GHS05 Corrosion.      GHS07 Exclamation mark.</p>
2.2e	Signal word:	Danger.
2.2f	Hazard statements:	H314 Causes severe skin burns and eye damage. H317 May cause an allergic skin reaction.
2.2g	Precautionary statements:	<p>P260 Do not breathe mist or spray.  P264 Wash skin thoroughly after handling.  P272 Contaminated work clothing must not be allowed out of the workplace.  P280 Wear protective gloves. Wear protective clothing. Wear eye or face protection.  P301+P330+P331 IF SWALLOWED: rinse mouth. DO NOT induce vomiting.  P302+P352 IF ON SKIN: wash with plenty of water.  P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.  P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  P310 Immediately call poison center.</p>

		P321 Specific treatment (see Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work on this label). P333+P313 If skin irritation or rash occurs: Get medical attention. P362+P364 Take off contaminated clothing and wash it before reuse. P363 Wash contaminated clothing before reuse. P405 Store locked up. P501 Dispose of container to licensed waste handling facility.
2.2h	Supplementary precaution statements:	None.
<b>2.3</b>	<b>Other hazards:</b>	No additional information available.
2.3a	Does the chemical meet the criteria for PBT or vPvB?	Not applicable.
2.3b	Other hazards which do not result in classification:	No additional information available.

**Section 3: Composition/information on ingredients**

<b>3.1</b>	<b>Substance:</b>	Item is a mixture therefore Section 3.1 is not applicable; see Section 3.2.	
<b>3.2</b>	<b>Mixture:</b> The chemical identity and concentration or concentration ranges of all ingredients which are hazardous and are present above their cut-off levels:	Item is a mixture.	
	3.2a Chemical identity:	Maleic acid.	
	3.2b Common name, synonyms, etc.:	C <sub>4</sub> H <sub>4</sub> O <sub>4</sub>	
	<u>3.2c CAS number and other unique identifiers:</u>	<u>3.2d EC number:</u>	<u>3.2e % Concentration:</u>
	CAS: 110-16-7 Index: 607-095-00-3	203-742-5	3-7%
			<u>3.2f Classification according to (EC) No. 1272/2008 {CLP}:</u> Acute Tox. 4 H302 Harmful if swallowed. Skin Corr. 1 H314 Causes severe burns and eye damage. Skin Irrit. 2 H315 Causes skin irritation. Eye Irrit. 2 H319 Causes serious eye damage. Skin Sens. 1 H317 May cause an allergic skin reaction. STOT SE 3 H335 May cause respiratory irritation.

**Section 4: First aid measures**

<b>4.1</b>	<b>Description of first aid measures:</b>	.
4.1a	Inhalation:	Remove to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if breathing is affected. If breathing is difficult, supply oxygen.
4.1b	Skin contact:	Remove affected clothing and wash all exposed skin with water for at least 15 minutes. Get medical attention immediately.
4.1c	Eye contact:	Immediately flush with plenty of water for at least 15 minutes. Remove contact lenses if present and easy to do so. Get medical attention immediately. Continue rinsing.
4.1d	Ingestion:	Rinse mouth thoroughly. Never give anything by mouth to an unconscious person. Do not induce vomiting without advice from poison control center or medical professional. Get medical attention immediately.
<b>4.2</b>	<b>Most important symptoms and effects, both acute and delayed:</b>	.
4.2a	Inhalation:	May cause respiratory irritation.
4.2b	Skin contact:	Harmful in contact with skin. May cause an allergic skin reaction. May cause skin sensitization.
4.2c	Eye contact:	Causes serious eye damage.
4.2d	Ingestion:	May cause a light irritation of the linings of the mouth, throat, and gastrointestinal tract.
<b>4.3</b>	<b>Indication of any immediate medical attention and special treatment needed:</b>	No additional information available.
4.3a	Notes to physician/first responder:	Treat symptomatically.

**Section 5: Firefighting measures**

<b>5.1</b>	<b>Extinguishing media:</b>	.
5.1a	Suitable extinguishing media:	Use fire-extinguishing media appropriate for surrounding materials. Foam. Carbon dioxide. Dry powder. Water spray. Sand.
5.1b	Unsuitable extinguishing media:	None known.
<b>5.2</b>	<b>Special hazards arising from the substance or mixture:</b>	This product is not flammable. Product is not explosive. No dangerous reactions known under normal conditions of use.
5.2a	Hazardous combustion products:	Toxic gases and vapors may be released if involved in a fire.
5.2b	Unusual fire & explosion hazards:	No unusual fire or explosion hazards noted.
5.2c	Protective measures in fire:	Do not enter fire area without proper protective equipment, including respiratory protection. Wear self-contained breathing apparatus and protective suit (Section 8).



<b>5.3</b>	<b>Advice for firefighters:</b>	.
5.3a	Special firefighting procedures:	Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Do not dispose of fire-fighting water in the environment.
5.3b	Special protective equipment and precautions for firefighters:	Do not enter fire area without proper protective equipment, including respiratory protection. Wear self-contained breathing apparatus and protective suit (see Section 8).
<b>Section 6: Accidental release measures</b>		
<b>6.1</b>	<b>Personal precautions, protective equipment, and emergency procedures:</b>	.
6.1a	General release measures:	Evacuate area. Ventilate area. Keep upwind. Spill should be handled by trained clean-up crews properly equipped with respiratory equipment and full chemical protective gear (see Section 8).
6.1b	Advice for non-emergency personnel; personal precautions, protective equipment and emergency procedures:	Wear protective equipment as described in Section 8. Evacuate unnecessary personnel.
6.1c	Advice for emergency responders; personal precautions, protective equipment and emergency procedures:	Wear suitable protective clothing, gloves and eye or face protection. Approved supplied-air respirator, in case of emergency.
<b>6.2</b>	<b>Environmental precautions:</b>	Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment.
<b>6.3</b>	<b>Methods and materials for containment and clean up:</b>	Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Sweep or shovel spills into appropriate container for disposal. This material and its container must be disposed of in a safe way, and as per local legislation (see Section 13).
<b>6.4</b>	<b>Reference to other sections:</b>	Refer to Sections 8 and 13 for additional information.
<b>Section 7: Handling and storage</b>		
<b>7.1</b>	<b>Precautions for safe handling:</b>	.
7.1a	Prevent handling of incompatible substances or mixtures:	Not known.
7.1b	Advice on general occupational hygiene:	Do not eat, drink, or smoke in work areas. Wash hands after use. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Remove contaminated clothing and protective equipment before entering eating areas. Good personal hygiene is necessary. Follow good laboratory hygiene and safety practices.
<b>7.2</b>	<b>Conditions for safe storage, including any incompatibilities:</b>	Keep the container tightly closed. Store in a dry, cool and well-ventilated place. Avoid elevated temperatures. Store at room temperature (25°C); refrigerated temperatures will not harm the reagent.
<b>7.3</b>	<b>Specific end use(s):</b>	For research use only. Not for use in diagnostic procedures.
<b>Section 8: Exposure controls/personal protection</b>		
<b>8.1</b>	<b>Control parameters:</b>	.
8.1a	Occupational exposure limits, such as chemical identity, standard, TWA-8 hours (time weighted average), STEL-15 minutes (short term exposure limit), etc.: WEL = Workplace Exposure Limit. Sk = can be absorbed through skin.	No data available.
8.1b	Appropriate engineering controls:	Ensure adequate ventilation, especially in confined areas.
8.1c	Individual protection measures, such as personal protective equipment:	Wear gloves. Wear labcoat with full coverage clothing. Wear chemical goggles and face shield in combination.
8.1d	Safety symbols:	
<b>8.2</b>	<b>Exposure controls:</b>	.
8.2a	Process conditions:	Provide eyewash station.
8.2b	Engineering controls:	Local exhaust ventilation is recommended for providing adequate ventilation. Ensure that eyewash stations and safety showers are proximal to the workstation location.
8.2c	Ventilation controls:	Ensure adequate ventilation, especially in confined areas.
8.2d	Reference to other sections:	Refer to Section 5 for additional information.

8.2e	Eye/face protection:	Eye protection, including both chemical splash goggles and face shield, must be worn when possibility exists for eye contact due to spraying liquid or airborne particles.
8.2f	Skin protection:	Lab coat. Wear suitable protective clothing. Wear long sleeves.
8.2g	Hand protection:	Use gloves chemically resistant to this material when prolonged or repeated contact could occur. Gloves should be classified under Standard EN 374 or ASTM F1296. Suggested glove materials are: Neoprene, Nitrile/butadiene rubber, Polyethylene, Ethyl vinyl alcohol laminate, PVC or vinyl
8.2h	Respiratory equipment:	Where excessive vapor, mist, or dust may result, use NIOSH approved respiratory protection equipment.
8.2i	Other protection:	Wear appropriate clothing to prevent any possibility of skin contact.
8.2j	Hygiene measures:	DO NOT SMOKE IN WORK AREA! Wash at the end of each work shift and before eating, smoking and using the toilet. Promptly remove any clothing that becomes contaminated. Use appropriate skin cream to prevent drying of skin. When using do not eat, drink or smoke. Wash promptly with soap and water if skin becomes contaminated.
8.2k	Thermal hazards:	None known.
8.2l	Environmental exposure controls:	Not determined.

**Section 9: Physical and chemical properties**

<b>9.1</b>	<b>Information on basic physical and chemical properties:</b>	.
9.1a	Appearance (physical state, color, etc.):	Clear, colorless liquid
9.1b	Odor:	No specific data.
9.1c	Odor threshold:	No data available.
9.1d	pH:	≤ 2
9.1e	Melting point/freezing point (°C):	No data available.
9.1f	Initial boiling point and boiling range:	No data available.
9.1g	Flash point (°C):	No data available.
9.1h	Evaporation rate:	No data available.
9.1i	Flammability (solid, gas):	Not flammable.
9.1j	Upper/lower flammability or explosive limits:	Product is not explosive.
9.1k	Vapor pressure:	No data available.
9.1l	Vapor density (Air =1):	No data available.
9.1m	Relative density:	No data available.
9.1n	Solubility(ies):	Water: 100%
9.1o	Partition coefficient (N-octanol/water):	No data available.
9.1p	Auto-ignition temperature (°C):	No data available.
9.1q	Decomposition temperature (°C):	No data available.
9.1r	Viscosity:	No data available.
9.1s	Explosive properties:	Not explosive.
9.1t	Oxidizing properties:	Not an oxidizer.
<b>9.2</b>	<b>Other information:</b>	No additional information available.
9.2a	Other physical or chemical parameters:	No additional information available.

**Section 10: Stability and reactivity**

<b>10.1</b>	<b>Reactivity:</b>	No dangerous reactions known under normal conditions of use.
<b>10.2</b>	<b>Chemical stability:</b>	Stable under recommended handling and storage conditions (see Section 7).
<b>10.3</b>	<b>Possibility of hazardous reactions:</b>	None known.
<b>10.4</b>	<b>Conditions to avoid:</b>	Elevated temperatures.
<b>10.5</b>	<b>Incompatible materials:</b>	Strong oxidizing agents. Reducing agents. Strong acids. Strong bases.
<b>10.6</b>	<b>Hazardous decomposition products:</b>	Thermal decomposition generates : Carbon oxides (CO, CO <sub>2</sub> ).

**Section 11: Toxicological information**

<b>11.1</b>	<b>Information on toxicological effects:</b>	.
11.1a	Name:	Stop Solution for TMB Substrates
11.1b	Acute toxicity:	Not classified. Maleic acid (110-16-7): LD50 oral rat: 708 mg/kg (Source IUCLID). LD50 dermal rabbit: 1560 mg/kg (Source NLM_CIP). LC50 inhalation rat (mg/l): >720 mg/m <sup>3</sup> 1 h (source NLM_CIP).
11.1c	Skin corrosion/irritation:	Causes severe skin burns and eye damage. Not classified. pH: ≤ 2 Maleic acid (110-16-7): Eyes – Severe Irritant Species: Rabbit Exposure: 2 minutes at 1 Percent (Source Ophthalmic Pub. Co., 435 N. Michigan Ave., Suite 1415, Chicago, IL 60611) Series 3: V.1- 1918- 33,387,1950
11.1d	Serious eye damage/irritation:	Causes severe skin burns and eye damage. pH: ≤ 2

11.1e	Respiratory or skin sensitization:	May cause an allergic skin reaction. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
11.1f	Germ cell mutagenicity:	Not classified.
11.1g	Carcinogenicity:	Not classified.
11.1h	Reproductive toxicity:	Not classified.
11.1i	STOT-single exposure:	Not classified.
11.1j	STOT-repeated exposure:	Not classified.
11.1k	Aspiration hazard:	Not classified.
11.1l	Information on the likely routes of exposure (inhalation, ingestion, skin and eye contact):	.
11.1m	Ingestion:	Not classified.
11.1n	Inhalation:	Not classified..
11.1o	Skin contact:	Causes severe burns. May cause an allergic skin reaction.
11.1p	Eye contact:	Causes serious eye damage.
11.1q	Symptoms related to the physical, chemical and toxicological characteristics:	Skin sensitization.
11.1r	Delayed and immediate effects as well as chronic effects from short and long term exposure:	Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
11.1s	Numerical measures of toxicity (such as acute toxicity estimates):	Oral 7215.01 mg/kg
11.1t	Interactive effects:	Not determined.
11.1u	Absence of specific data:	Not applicable.
11.1v	Mixtures:	Item is a mixture.
11.1w	Mixture vs. substance information:	See Section 3 for any substances in the mixture.
11.1x	Classification by National Toxicity Program (NTP):	Not classified.
11.1y	Classification by International Agency for Research on Cancer (IARC):	Not classified.
11.1z	Classification by OSHA 13:	Not classified.
11.1ab	Other information:	None.

**Section 12: Ecological information**

<b>12.1</b>	<b>Toxicity:</b>	.
12.1a	Name:	Stop Solution for TMB Substrates
12.1b	Ecotoxicity (aquatic and terrestrial, where available):	Maleic acid (110-16-7): Value: Acute EC50 316200 µg/l Fresh water Species: Daphnia magna – Larvae Exposure: 48 hours  Acute EC50 316200 µg/l Fresh water Species: Pimephales promelas (Fathead Minnow) Exposure: 96 hours
<b>12.2</b>	<b>Persistence and degradability:</b>	No information available.
<b>12.3</b>	<b>Bioaccumulative potential:</b>	No information available.
<b>12.4</b>	<b>Mobility in soil:</b>	No information available.
<b>12.5</b>	<b>Results of PBT and vPvB assessment:</b>	No information available.
<b>12.6</b>	<b>Other adverse effects:</b>	No data available.

**Section 13: Disposal considerations**

<b>13.1</b>	<b>Waste treatment methods:</b>	When handling waste, consideration should be made to the safety precautions applying to handling of the product.
13.1a	Description of waste residues and information on their safe handling and methods of disposal, including the disposal of any contaminated packaging:	Obtain the consent of pollution control authorities before discharging to wastewater treatment plants. Observe all federal, state and local laws when considering most appropriate disposal method. Contact a licensed professional waste disposal service to dispose of this material. Dispose in a safe manner in accordance with local/national regulations. Do not allow the product to be released into the environment.

**Section 14: Transport information**

<b>14.1</b>	<b>UN number:</b>	3265
<b>14.2</b>	<b>UN proper shipping name:</b>	Corrosive liquid, acidic, organic, n.o.s. (Maleic Acid).
<b>14.3</b>	<b>Transport hazard class(es):</b>	Class 8 - Corrosive material (49 CFR 173.136).
<b>14.4</b>	<b>Packing group:</b>	III (DOT).
<b>14.5</b>	<b>Environmental hazards:</b>	.
14.5a	Is it environmentally dangerous according to UN Model Regulations (IMDG Code, ADR, RID, and ADN)?:	Information not available.
14.5b	Is it a marine pollutant according to the IMDG code?:	No.
<b>14.6</b>	<b>Special precautions for user:</b>	None known.

14.7	Transport in bulk according to Annex II of MARPOL and the IBC code:	Not applicable.
14.7a	Other information:	Transport document description: UN3265, Corrosive liquid, acidic, organic, n.o.s. (Maleic Acid), 8, III. DOT quantity limitations for passenger aircraft/rail (49 CFR 173.27) : 5 L. DOT quantity limitations for cargo aircraft only (49 CFR 175.75) : 60 L. DOT vessel stowage location: A - the material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel. DOT vessel stowage other: 40 - stow "clear of living quarters".
14.7b	Classification for other modes of transport:	Contact supplier.
<b>Section 15: Regulatory information</b>		
15.1	<b>Safety, health and environmental regulations/legislation specific for the substance or mixture:</b>	.
15.1a	Regional safety, health and environmental regulations specific for the product in question:	All chemical substances in this product are listed in the EPA (Environment Protection Agency) TSCA (Toxic Substances Control Act) Inventory. All the constituents of this preparation are registered in the EINECS inventory or in the ELINCS list. The component Maleic acid (110-16-7) is listed on the United States TSCA (Toxic Substances Control Act) inventory. The Reportable Quantity (RQ), section 302 and/or 304 of the EPA List of Lists is 5000 lb final. Canada: No additional information available.
15.1b	USA SARA Components (such as 302/311/313):	SARA Section 311/312 Hazard Class is a delayed (chronic) health hazard. The component Maleic acid (110-16-7) is listed in SARA Section 313.
15.1c	USA Massachusetts Right to Know:	The component Maleic acid (110-16-7) is listed on the USA Massachusetts Right to Know list.
15.1d	USA Pennsylvania Right to Know:	The component Maleic acid (110-16-7) is listed on the USA Pennsylvania Right to Know Environmental Hazard list.
15.1e	USA New Jersey Right to Know:	The component Maleic acid (110-16-7) is listed on the USA New Jersey Right to Know Hazardous Substance list.
15.1f	USA California Prop. 65 Components:	This product does not contain any substances known to the state of California to cause cancer and/or reproductive harm.
15.1g	EU Regulation 1907/2006 (REACH):	The product nor any components are identified.
15.1h	Annex XIV substances subject to authorization:	The product nor any components are identified.
15.1i	Substances of very high concern:	The product nor any components are identified.
15.1j	Approved code of practice:	Classification and labeling of substances and preparations dangerous for supply. Safety data sheets for substances and preparations.
15.1k	Guidance notes:	Workplace exposure limits EH40.
15.1l	EU legislation references:	(EC) No. 1272/2008 on the classification, labelling and packaging of substances and mixtures (CLP Regulation). EC 830/2015. Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments.
15.2	<b>Chemical safety assessment:</b>	Not required.
15.2a	Other regulatory information:	None.
<b>Section 16: Other information</b>		
16.1	<b>Other information:</b>	.
16.1a	Date of revision:	03/28/2019
16.1b	SDS number and revision:	F17-3331-2-C
16.1c	Supersedes SDS number and revision:	F17-3331-2-B
16.1d	Changes made to the previous version of the SDS:	Reviewed and updated document control numbers.
16.1e	Key/legend to abbreviations and acronyms used in the SDS:	ACGIH American Conference of Governmental Industrial Hygienists. ADN European Provisions concerning the International Carriage of Dangerous Goods by Inland Waterway. ADR The European Agreement concerning the International Carriage of Dangerous Goods by Road. ATE Acute Toxicity Estimate. BCF Bio Concentration Factor. CAS Chemical Abstracts Service. CLP Classification, Labelling and Packaging. CMR Carcinogen, Mutagen or Reproductive toxicant.

		<p>COD Chemical Oxygen Demand.                  EC European Commission.                  EC50 Half maximal effective concentration.                  EH40 Resource containing the list of workplace exposure limits for use with the Control of Substances Hazardous to Health Regulations.                  EINECS European Inventory of Existing Commercial chemical Substances.                  ELINCS European List of Notified Chemical Substances.                  EPA Environmental Protection Agency.                  EU European Union.                  GHS Globally Harmonized System of Classification and Labelling of Chemicals.                  H Statement GHS Hazard statement.                  IATA International Air Transport Association.                  IBC Intermediate Bulk Container.                  IC50 Half maximal inhibitory concentration.                  IMDG International Maritime Dangerous Goods.                  LC50 Median lethal concentration.                  LD50 Median lethal dose.                  LogPow logarithm of the octanol/water partition coefficient.                  MARPOL 73/78 International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978.                  NOS Not otherwise specified.                  OEL Occupational Exposure Limit.                  OSHA Occupational Safety and Health Administration (USA).                  PBT Persistent, Bioaccumulative, and Toxic.                  PEL Permissible Exposure Limit.                  RID The Regulations concerning the International Carriage of Dangerous Goods by Rail.                  SADT Self-Accelerating Decomposition Temperature.                  SARA Superfund Amendments and Reauthorization Act.                  SCBA Self-Contained Breathing Apparatus.                  SDS Safety Data Sheet.                  STOT Specific Target Organ Toxicity.                  STOT-RE Specific Target Organ Toxicity - Repeated Exposure.                  STOT-SE Specific Target Organ Toxicity - Single Exposure.                  TSCA Toxic Substances Control Act.                  UN United Nations.                  USA United States of America.                  vPvB very Persistent very bioaccumulative.</p>
16.1f	Full text of hazard statements and/or precautionary statements not written out in full elsewhere:	All statements were written out in full.
<b>DISCLAIMER:</b>	<p><b>This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability, or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.</b></p>	
<p><b>END OF SDS</b></p>		