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Trading nam	e:		PERIO	DIC ACID, 1 %	SOLUTION		
Product code	e: PK1	-OT-X**	Date of o	compilation:	03 July 2019	Versior	n: 3

SECTI	ON 1 IDENTIFICATION (OF THE SUI	BSTANCE/MI	XTURE AND OF THE COMPANY/UNDERTAKING		
1.1.	Product identifier					
	Trading name:	PERIODIC	ACID, 1 % SC	DLUTION		
	Chemical name:	-				
	Catalogue number:	PK1-OT-X	(**			
1.2.	Relevant identified use	s of the sul	ostance or mix	xture and uses advised against		
	Uses: For use with special staining kits.					
	Uses advised against:		Only the id	dentified uses are advised.		
	Reason why uses advis	sed against:	The product is intended for use only as an <i>in vitro</i> diagnostic medical device, registered at the Agency for Medicinal Production Medical Devices and there is no reason to use it for other pure			
1.3.	Details of the supplier	of the safet	y data sheet			
	Supplier:		BioGnost Ltd.			
	Address:		Medjugorska	59, Zagreb		
	Telephone number:		+385 1 2409997			
	Fax no.:		+385 1 2404039			
	e-mail of competent p	erson:	msds@biogn	<u>ost.hr</u>		
	National contact:		-			
1.4.	Emergency telephone	number				
	National Protection an	d Rescue D	irectorate:	112		
	Medical information:			+385 1 2348 342		
	Other information:			-		

SECTIO	ECTION 2 HAZARDS INFORMATION					
2.1.	Classification of the substance or mixture					
2.1.1.	Classification (REGULATION (EC) No. 1272/2008 (CLP)					
	Hazard class and category	code:	Hazard statements*:			
	Not identified as hazardous substance					
2.1.2.	Additional information					
	-					
*For ful	ll text of Hazard- and EU Hazard-sta	ntements: see S	ection 16			
2.2.	Classification according to EC Dire	ective Nr. 1272	(2008 CLP)			
	Product identification:	PERIODIC AC	ID, 1 % SOLUTION			
	Identification number:	-				
	Authorization no.: -					
	Hazard pictograms:	-				
	Signal word:	-				



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	-	
2.3.	Other hazards	
	Further information:	-
	Precautionary statements:	-
	Hazard statements:	-

SECTION 3 CC	SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS									
CAS/ EC/ Index no.	REACH Registration No	Weight % content (or range)	Identification name	Classification according to Regulation (EC) No 1272/2008 (CLP)						
-	-	-	-	-						

SECTIO	ON 4 FIRST AID MEASURES		
4.1.	Description of first aid measu	ıres	
	General notes:		-
	Following inhalation:		Carry the afflicted person out of the contaminated area into a well-ventilated area or out for fresh air. If breathing becomes erratic or it stops, immediately apply artificial respiration (other than mouth-to-mouth) and contact a physician.
	Following skin contact: Following eye contact:		Remove contaminated clothing. Immediately wash with plenty of water and soap. Seek medical assistance if the symptoms of irritation remain.
			Rinse out with plenty of water with the eyelid held wide open using clean fingers. If the symptoms remain, immediately call a physician.
	Following ingestion:		Do not induce vomiting. Make the afflicted person drink a glass of water. If spontaneous vomiting occurs, wash the mouth with water, then make the person drink 100-200 ml of water and seek medical attention.
	Self-protection of the first aid	der:	Treat symptomatically.
4.2.	Most important symptoms a	nd effe	ects, both acute and delayed
	Following inhalation:		ation of large amounts of vapors in inadequately ventilated perimeter cause coughing, sneezing, headache and nausea.
	Following skin contact:	_	t irritation. After short exposure, resorption effects are not likely. Long- exposure may cause drying, cracking and tingling sensation of skin.
	Following eye contact:		ct eye contact may cause slight to moderate irritation, lacrimation and ing sensation.



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	Following ingestion:	Swallowing may cause irritation of mucosa, tingling sensation in the mouth, burning sensation; higher levels of concentration may cause nausea, abdominal pain and vomiting. In case of vomiting, aspiration causes coughing, difficult breathing. Higher levels of concentration may cause suffocation.
4.3.	Indication of any immediate	e medical attention and special treatment needed
	-	

SECTIO	SECTION 5 FIREFIGHTING MEASURES				
5.1.	Extinguishing media				
	Suitable extinguishing media: Small fire - water spray, dry powder, CO ₂ Large fire - water spray or alcohol-resistant foam				
	Unsuitable extinguishing media: water jet				
5.2.	Special hazards arising from the substance or mixture				
	Hazardous combustion products: No information available				
5.3.	Advice for firefighters				
	Use a self-contained open-circuit compressed air breathing apparatus and fireproof clothing. Cool closed containers exposed to fire with water spray or vapor.				
5.4.	Additional information				
	Remove sources of heat and ignition.				
	Do not contaminate the environment with extinguishing media.				

SECTIO	SECTION 6 ACCIDENTAL RELEASE MEASURES				
6.1.	Personal precautions, protect	Personal precautions, protective equipment and emergency procedures			
6.1.1.	For non-emergency personne	el			
	Protective equipment:	Use personal protective equipment (see Section 8).			
	Accident prevention methods	Evacuate members of all non-essential personnel and those members without protective equipment. Remove all sources of sparks and ignition. Do not smoke.			
	Emergency procedures:	Mark the area using proper signs.			
6.1.2.	For emergency responders:				
	Wear protective equipment (see Section 8).				
6.2.	Environmental precautions:				
	Do not dispose of in sewage, drainage system and waterways. In case of large spillage contact National Protection and Rescue Directorate (NPRD) on 112.				
6.3.	Methods and material for containment and cleaning up				
6.3.1.	Bunding, covering of drains; capping procedures:	Sand or clay barriers.			



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6.3.2.	Cleaning up:	Where possible, the substance can be absorbed by using inflammable material (sand, diatomaceous earth, vermiculite). Place the waste material in tightly closed impermeable containers. Store the substance in well ventilated storage rooms until disposal. Submit for disposal to the legal persons authorized by the Ministry of Environmental and Nature Protection. After disposal of the products, wash the area and and involved materials with water.
6.3.3.	Other information:	-
6.4.	Reference to other sections	
	-	

SECTIO	ON 7 HANDLING AN STORAGE				
7.1.	Precautions for safe handling				
7.1.1.	Protection measures				
	Measures to prevent fire:		Keep away from sources of heat and ignition. Do not smoke.		
	Measures to prevent aerosol and dust generati	on:	Secure proper ventilation.		
	Measures to protect the environment:		Prevent spilling into the sewage system and waterways.		
	Other measures:		-		
7.1.2.	Advice on general occupational hygiene:				
	Do not eat, drink or smoke in the workspace. Thoroughly wash hands after work and before eating.				
7.2.	Conditions for safe storage, including any income	cluding any incompatibilities			
	Technical measures and storage conditions:	ven	ep in tightly closed and upright set containers in a well itilated storage rooms, and away from sources of heat, light, and other incompatible substances.		
	Packaging materials:	Ma	Manufacturer's original packaging.		
	Requirements for storage rooms and vessels:	Keep away from food and drink. Keep the containers tightly closed.			
	Advices for storage equipment: be dir		The storage must be made of hard material; floors must be resistant to chemicals. There must be no drain that directly leads into sewage system. Secure proper ventilation.		
	Further information on storage conditions:	and che	not place the unused material in the storage room do not use empty containers for storing other micals. Do not store with incompatible materials (see tion 9).		
7.3.	Specific end use(s)				
	Recommendations:	_			
	Industrial sector specific solutions:	-			



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SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION								
8.1. Control parameters								
Substance		CAS No		Occupational values/short	exposure limit term values	Biological limit values		
				ppm	mg/m ³			
-	-		-	-	No information available			

Substance - name:								
EC No: -		CAS No:	-					
DNEL								
				Industrial				
Route of exposure:AcuteAcuteChronicChroniceffect localeffect systemiceffect localeffect systemic								
Oral					-	-		
Inhalation -			-		-	-		
Dermal	-		-	-				
Critical physical paran	neters: s	olubility, fla	mmabilit	y, corrosivity:	-			
				Consumer	_			
Route of	A	Acute		Acute	Chron	nic Chronic		
exposure:	effe	ect local	effe	ct systemic	effect lo	ocal effect systemic		
Oral	-		-		-	-		
Inhalation	-		-		-	-		
Dermal	-		-		-	-		
PNEC								
Environmental protec	tion tar	get		PNEC				
Fresh water					No information available			
Freshwater sediments	5				No information available			
Marine water					No information available			
Marine sediments					No information available			
Food chain					No information available			
Microorganisms in sewage treatment					No information available			
Soil (agricultural)					No information available			
Air				No infor	mation availabl	le		
8.2. Exposure	contro	ls						



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8.2.1.	Engineering measures				
	Substance/mixture related measures to prevent exponduring identified uses:		Use the product in well ventilated rooms. Use personal protective equipment. Do not eat, drink or smoke in the workspace.		
	exposure: Organisational measures to		No information available		
			Organization of work in order to reduce other worker's influence during work process.		
	Technical measures to pre exposure:	event	Secure proper workspace ventilation in order to keep concentration levels in air below permitted levels.		
8.2.2.	Personal protection equip	oment			
8.2.2.1.	Eye and face protection:		Safety glasses that stick to face (preventing splashing) (EN 166) or visor.		
8.2.2.2.	Skin protection				
			otective gloves must be according to the EU Directive 2016/425/EEC and andard EN 374. Glove material: nitrile rubber Glove thickness: ≥0.50 mm Break through time: >480 min		
	Other skin protection:		antistatic clothing made of natural fibers (such as cotton) with long s (EN 13034), and shoes that cover the entire foot (EN 10335).		
8.2.2.3.	Respiratory protection:	filter fo	tive full face mask (EN 136) or half mask (EN 140) equipped with a or organic vapors, type "A" (boiling point >65°C) acording to EN) used when concentration levels exceed GVI.		
8.2.2.4.	Thermal hazards:	No inf	ormation available		
8.2.3.	Environmental exposure	controls			
	Substance/mixture related measures to prevent exposure:		See Section 6		
	Structural measures to prevent exposure:		Use modern equipment.		
	Organisational measures to prevent exposure:		Adapt the work process to the required working conditions of the workplace.		
	Technical measures to pre exposure:	event	See Section 6		

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES							
9.1.	Information on basic physical and chemical properties						
		Value	Method				
	Physical state:	liquid	No information available				
	Color:	colourless	No information available				



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Odor:	no odor	No information available
Odor threshold:	No information available	No information available
рН:	No information available	No information available
Melting point / freezing point;	No information available	No information available
Initial boiling point and boiling range:	No information available	No information available
Flash point:	No information available	No information available
Evaporation rate:	No information available	No information available
Flammability (solid, gas):	No information available	No information available
Upper/lower flammability or explosive limits:	No information available	No information available
Vapor pressure:	No information available	No information available
Vapor density:	No information available	No information available
Relative density:	No information available	No information available
Bulk density:	No information available	No information available
Solubility(ies):	Soluble in water (20 °C)	No information available
Partition coefficient: n-octanol/water (log Kow):	No information available	No information available
Auto-ignition temperature:	No information available	No information available
Decomposition temperature:	No information available	No information available
Viscosity:	No information available	No information available
Explosive properties:	No information available	No information available
Oxidising properties:	No information available	No information available
Other information		

SECTIO	SECTION 10 STABILITY AND REACTIVITY				
10.1.	Reactivity:	See subsections 10.3 through 10.5.			
10.2.	Chemical stability:	The product is chemically stable under standard ambient conditions of storing and using.			
10.3.	Possibility of hazardous reactions:	With strong oxidants, sodium-hydroxide, sulfuric acid, aluminum.			
10.4.	Conditions to avoid:	Sources of heat, sparks, and ignition.			
10.5.	Incompatible materials:	Aluminum.			
10.6.	Hazardous decomposition products:	No information available.			

SECTIO	SECTION 11 TOXICOLOGICAL INFORMATION			
11.1.	Information on toxicological effects			
	Acute toxicity:			



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Route of exposure:	Method	Species	Effective dose LD ₅₀ /LC ₅₀ or ATE _{mixture}	Exposure	time	Results	
Oral exposure:	No information available	_	LD ₅₀	-		_	
Dermal exposure:	No information available	-	LD ₅₀	-		-	
Inhalation exposure:	No information available	-	LC ₅₀	-		-	
Specific tar	get organ toxicity – si	ngle exposure (STOT SE):				
	Specifi	c effects	Target	organ		Note	
Oral exposure:	No information a	available	No information	on available	-		
Dermal exposure:	No information a	available	No information	on available	-		
Inhalation exposure	: No information a	available	No information	on available	-		
Respiratory	/ irritation:	No info	rmation available				
:							
Irritation a	nd corrosion						
	Exposure time	Species	Evaluation	Method		Note	
Skin irritation:	-	rabbit	-				
Eye irritation:	-	rabbit	-				
Sensitization		- - -					
Dermal exposure:	No information avail	abie					
Inhalation exposure:	No information avail	able					
Symptoms	related to the physica	I, chemical and	toxicological chara	ıcteristics			
Oral exposure:	Symptoms related to the physical, chemical and toxicological characteristics Swallowing may cause irritation of mucosa, tingling sensation in the mouth, burning sensation; higher levels of concentration may cause nausea, abdominal pain and vomiting. In case of vomiting, aspiration causes coughing, difficult breathing. Higher levels of concentration may cause suffocation.						
Dermal exposure:		Slight irritation. After short exposure, resorption effects are not likely. Long-term exposure may cause drying, cracking and tingling sensation of skin.					
Inhalation exposure		Inhalation of large amounts of vapors in inadequately ventilated perimeter may cause coughing, sneezing, headache and nausea.					
Eye exposure:	Direct eye contact may cause slight to moderate irritation, lacrimation and burning sensation.						



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!		acute, subchro	· ·				
	Dose	Exposure time	Species		Method	Evaluation	n Note
Subacute oral	No information available	No information available	No informati available		No information available	No information available	on -
Subacute dermal	No information available	No information available	No informati available		No information available	No information available	on -
Subacute inhalation	No information available	No information available	No informati available	ion	No information available	No information available	on -
Subchronic oral	No information available	No information available	No informati available		No information available	No information available	on -
Subchronic dermal	No information available	No information available	No informati available	ion	No information available	No information available	on -
Subchronic inhalation	No information available	No information available	No informati available	ion	No information available	No information available	on -
Chronic oral	No information available	No information available	No informati available		No information available	No information available	on -
Chronic dermal	No information available	No information available	No informati available		No information available	No information available	on -
Chronic inhalation	No information available	No information available	No informati available		No information available	No informatio available	on -
Specific	target organ toxici	•	xposure (S	IOT F			NI.
Subacute oral		Specific effects No information available			Target organ No information available		Note
		ation available			nformation avai		_
		ation available			nformation avai		_
		ation available			nformation avai		-
Subchronic derm	ation available			nformation avai		-	
Subchronic inhal	ation No informa	ation available		No i	nformation avai	lable	-
Chronic oral	No informa				nformation avai	lable	_



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				. a.g. = 0 0 . = 0
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Chronic dermal No informat		tion available		No information available	-			
Chronic inhalation No informat			tion available	tion available No information available		-		
	CMR effects	(carcinogenicity	, mutagenicit	ty, reproc	ductive toxicity)			
	Carcinogenic	city:	Current :	studies o	n test animals did not indicate ca	arcinogenic effects.		
	Mutagenicity	ı in-vitro:	Current	Current in vitro tests did not indicate mutagenic effects.				
	Genotoxicity	•	No infor	mation a	vailable			
	Mutagenicity in-vivo:		Current	Current in vivo tests did not indicate mutagenic effects.				
	Germ cell mu	No infor	No information available No toxicity on reproductive organs was determined in reproductive organs.					
	Reproductive							
	Summary of	evaluation of th	ne CMR prope	erties:	-			
11.2.	Practical exp	eriences:						
	Remarks rele	vant for classifi	cation:	No info	rmation available			
	Other remarks:			No information available				
11.3.	General note	es:						
	-							

SECTION	12 ECOLO	GICAL IN	IFORMATION:
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12.1. Toxicity

12.1. Toxicity						
Acute toxicity	Dose	Exposure time	Species	Method	Evaluation	Note
Fish	LC ₅₀	96 hours	No information available	No information available	-	-
Crustacea:	EC ₅₀	48 hours	No information available	No information available	-	-
Algae/aquatic plants	IC ₅₀	8 days	No information available	No information available	-	-
Microorganisms	LC ₅₀	72 hours	-	-	_	-
Chronic toxicity	Dose	Exposure time	Species	Method	Evaluation	Note



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Fish	LC ₅₀	96 hours	No information available	No information available	No information available	-
Crustacea:	EC ₅₀	48 hours	No information available	No information available	No information available	-
Algae/aquatic plants	IC ₅₀	72 hours	No information available	No information available	No information available	-
Other organisms	-	-	-	-	-	-

Persistence and degradability 12.2.

Abiotic degradation

	Degradation half-lives	Method	Evaluation	Note
Marine water	No information available	No information available	No information available	-
Fresh water	No information available	No information available	No information available	-
Air	No information available	No information available	No information available	-
Soil	No information available	No information available	No information available	-

D: 1		
RIAN	arran	lation
DIOUG	guac	iauon

% Degradation	Time (days)	Method	Evaluation	Note
No information available				

12.3. Bioaccumulative potential

Partition coefficient: n-octanol/water (log Kow):

Value	Concentration	рН	°C	Method	Evaluation	Note
-	No information available	-	-	No information available	No information available	-

Bioconcentration factor (BCF)

Value	Species	Species Method		Note
No information available	No inform available	No information available	No information available	No information available



Tradin						DER	IOD	IC ACID	1 0/ 6/			rag	JE 12	2 01 10
Tradin			DV1 /	OT V++				IC ACID					······································	
Produ	ct coc	ae:	PK1-0	OT-X**		Date	OT C	ompilati	on: 0	3 July 2	2019	ve	rsior	n: 3
		i												
	Chr	onic ec	otoxici	ty										
	Va	lue		Dose		Exposure time	Sį	pecies	Meth	nod	E	valuation		Note
Chroni	c toxic	city on	fish	LC ₅₀	iı	No nformation available		rmation lable	No inform availab		No information available		1	-
Chroni		•		EC ₅₀	iı	No nformation available		rmation lable	No inform availab	1	No i avail	nformatio able	1	_
				:		- :			i					
12.4.	Mol	bility in	soil											
	Known or predicted distribution in environmental compartments:													
	No	informa	ation av	vailable										
	Surf	face ter	nsion:					.						
	,	Value		°C		Concentrat	tion		Metho	od		Note		e
		rmatio ilable		o formation ailable		No information No information available			n		-			
	Λdc	orption	. / desc	protion										
Transp		A,	/D coef			log Kow		Evaporati	on rate	N	/lethc	od		Note
Soil-wa	ater	No availa		nformation		lo informatio vailable		lo inform vailable	nation	No inf availa	-	ation -		
Water-	-air No information No information available No information available available		-	ation -										
Soil-air No informa		nformation		lo informatio vailable		No inform vailable	nation	No inf availal		ation -				
12.5.				d vPvB asses	ssn	nent								
	No	informa	ation av	vailable										
12.6.		er adve												
	No	informa	ation av	vailable										



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SECTION	N 13 DISPOSAL CONSIDER	ATIONS		
13.1.	Waste treatment method	s		
13.1.1.	Product/Packaging dispo	sal:		
	Submit for disposal to the legal person authorized by the Ministry of Environmental and Nature Protection.			
13.1.2.	Waste codes/waste designations according to Law:			
	No information available			
13.1.3.	Waste treatment – releva	nt information:		
	No information available			
13.1.4.	Sewage disposal – releva	nt information:		
	Waste must not be disposed of into the sewage system.			
13.1.5.	Other disposal recomme	ndations:		
	authorized by the ministr	oduct's remains into the sewage system. Submit the remains to the collectors y in charge. Do not dispose of the packaging into the sewage system. Submit ectors authorized by the ministry in charge. Do not dispose of in places where		
13.1.6.	Relevant Community pro	visions:		
	-			
SECTION	N 14 TRANSPORT INFORM	MATION		
	Transporting/shipment by	road (ADR)		
UN num	ber:	Not subject to transport regulations.		
UN prop	er shipping name:	-		
Transport hazard class(es):		-		
Packing group:		-		
Environmentally hazardous:		-		
Special p	precautions for user:	-		
	Transporting/shipment by	rail (RID)		
UN num	ber:	Not subject to transport regulations.		
UN prop	er shipping name:	-		
Transpoi	rt hazard class(es):	-		



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Packing	ງ group:	-
Environ	mentally hazardous:	-
Special	precautions for user:	-
	Inland waterway transport (Al	DN)
UN nun	nber:	Not subject to transport regulations.
UN pro	per shipping name:	-
Transpo	ort hazard class(es):	-
Packing	ງ group:	-
Environ	mentally hazardous:	-
Special	precautions for user:	-
	Transporting/shipment by sea	a (IMDG)
UN nun	nber:	Not subject to transport regulations.
UN pro	per shipping name:	-
Transpo	ort hazard class(es):	-
Packing	յ group։	-
Environ	mentally hazardous:	-
Special	precautions for user:	-
	Transporting/shipment by air	(ICAO-TI/IATA-DGR)
UN nun	nber:	Not subject to transport regulations.
UN pro	per shipping name:	-
Transpo	ort hazard class(es):	-
Packing	ງ group:	-
Environ	mentally hazardous:	-
Special	precautions for user:	-
Further	information: -	

SECTION	CTION 15 REGULATORY INFORMATION				
15.1.	Safety, health and env	Safety, health and environmental regulations/legislation specific for the substance or mixture			
	EU regulations				
	Authorization and/or restrictions of use				
	Authorizations:	-			
	Restrictions:				



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	Other EU regulations:	EC Regulation No. 1906/2007 and EC Regulation No. 1272/2008 of the European Parliament and the European Council; The European Commission Regulation No. 453/2006 of 2010 on changes and amendments to the Regulation (EC) No. 1907/2006 of the European Parliament and Council on registration, evaluation, authorization and restriction of chemical substances (REACH); EC Regulation No. 2037/200 of the European Parliament and Council from 29 June 2000 on substances that damage the ozone layer; EC Regulation No. 689/2008 of the European Parliament and Council from 17 June 2008 concerning the export and import of dangerous chemicals; EC Regulation No. 850/2004 of the European Parliament and Council from 29 April 2004 about persistent organic pollutants; Directive 2008/98/EC of the European Parliament and Council of 19 November 2008 on waste and repealing certain Directives
	Information according 1999 guideline)	9/13/EC about limitation of emissions of volatile organic compounds (VOC-
	National legislation:	Chemicals Act, Regulation on classification, packaging and labeling of dangerous substances, Ordinance on occupational exposure limit values and on biological limit values, Regulation on categories, types and classification of waste with a waste catalog and list of hazardous waste, Ordinance on writing Material safety data sheet, Transport of Hazardous Substances Act
15.2.	Chemical safety assessmen	t
	None	

SECTIO	ON 16 Other information			
16.1.	Indication of changes:	-		
		PBT	Stable, bioaccumulative and toxic	
		vPvB	Strongly stable and strongly bioaccumulative.	
16.2.	Abbreviations and acronyms:	LD ₅₀	Lethal dose, 50%	
		LC ₅₀	Lethal concentration, 50%	
		STOT-SE	Specific target organ toxicity - single exposure	
16.3.	Key literature references and source of data:	-		
16.4.	Classification and procedure u 1272/2008 (CLP)	sed to derive the	e classification for mixture according to Regulation (EC)	
Classifi	cation	Classification procedure		
_	-	-		
16.5.	Relevant H statements (number and full text)			
	H: -	•		
16.6.	Training advice:			



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Trading name:	PERIODIC ACID, 1 % SOLUTION			
Product code:	PK1-OT-X**	Date of compilation:	03 July 2019	Version: 3

		** "X" in the product code marks different volumes (different packagings of the product)
16.7.	Further information:	We are not responsible for consequences in case of failure to comply with
		instructions for use or improper use of the product described in this
		material safety data sheet.

ANNEX:	Α	N	N	E	X	
--------	---	---	---	---	---	--

Exposure scenario resulting to Chemical safety assessment



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Trading name:		HCL REAGENT	, A.T.		
Product code:	HCLAT-OT-X**	Date of compilation:	11 July 2019	Version:	2

SECTION	ON 1: Identification of t	the substance	e/mixture	and of the company/undertaking		
1.1	Product identifier					
	Trading name:	HCL REAGE	NT, A.T.			
	Chemical name:	-				
	Catalogue number:	HCAT-OT-X	(**			
1.2	Relevant identified use	es of the subs	tance or m	nixture and uses advised against		
	Uses:		For use	with special staining kits in histopathology.		
	Uses advised against:		Only the	e identified uses are advised.		
	Reason why uses advis	sed against:	medical	duct is intended for use only as an <i>in vitro</i> diagnostic device, registered at the Agency for Medicinal Products and Devices and there is no reason to use it for other purposes.		
1.3	Details of the supplier	of the safety	data shee	t		
	Supplier:		BioGnos	BioGnost Ltd.		
	Address:		Medjugorska 59, Zagreb			
	Telephone number:		+385 1 2409997			
	Telefax.:		+385 1 2404039			
	e-mail of competent p	erson:	msds@biognost.hr			
	National contact:		-			
1.4	Emergency telephone	number				
	National Protection an	nd Rescue Dire	ectorate:	112		
	Medical information:			+385 1 2348 342		
	Other information:					

SECTIO	SECTION 2. Hazards identification					
2.1	Classification of the substan	Classification of the substance or mixture				
2.1.1	Classification according to F	Regulation (EC) No 12	72/2008 (CLP)			
	Hazard class and ca	tegory code:	Hazard statements*:			
	Not identified as hazardous	substance.	-			
2.1.2.	Additional information					
	-	-				
*For fu	ıll text of Hazard- and EU Haza	ard-statements: see SE	ECTION 16			
2.2	Label elements					
	Product identification:	HCL REAGENT, A	ιT.			
	Identification number:	-				
	Authorization number:	-				
	Hazard pictograms:	-				



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Trading name:		HCL REAGENT	, A.T.		
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	Signal word:	-
	Hazard statements:	-
	Precautionary statements:	-
	Supplemetal hazard information (EU):	-
2.3	Other hazards	
	-	

SECTION 3. Co	SECTION 3. Composition/information on ingredients				
CAS/ EC/ Index number	REACH Registration No	Weight % content (or range)	Identification name	Classification according to Regulation (EC) No 1272/2008 (CLP)	
7647-01-0/ 231-595-7/ 017-002-00-2	-	< 5 %	hydrochloric acid	Skin Corr. 1A; H314 Acute Tox. 3; H331	

SECTI	ION 4. First aid measures	
4.1	Description of first aid measures	
	General notes:	If the suggested first aid measures do not prove sufficient, seek medical attention.
	Following inhalation:	Carry the afflicted person out of the contaminated area into a well-ventilated area or out for fresh air. In case of difficult breathing, provide the afflicted person with oxygen.
	Following skin contact:	Remove contaminated clothing. Immediately wash with plenty of water for at least 20 minutes. Seek medical assistance if the symptoms of irritation remain.
	Following eye contact:	Rinse out with plenty of water with the eyelid held wide open for at least 20 minutes. If the symptoms remain, immediately call in ophthalmologist.
	Following ingestion:	Rinse the mouth thoroughly with 1-2 glasses of water. Immediately consult a physician and show the container or label. In case of swallowing large quantities, transport the afflicted person to the hospital.
	Self-protection of the first aider:	-
4.2	Most important symptoms and ef	fects, both acute and delayed
	Following inhalation:	According to our findings, chemical, physical and toxicological properties of the substance have not been entirely tested.
	Following skin contact:	According to our findings, chemical, physical and toxicological properties of the substance have not been entirely tested.



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Trading name:	HCL REAGENT, A.T.				
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	Following eye contact:	According to our findings, chemical, physical and toxicological properties of the substance have not been entirely tested.	
	Following ingestion:	According to our findings, chemical, physical and toxicological properties of the substance have not been entirely tested.	
4.3	Indication of any immediate medical attention and special treatment needed		
	-		

SECTI	SECTION 5. Firefighting measures			
5.1	Extinguishing media			
	Suitable extinguishing media: water spray, dry powder, CO ₂ or alcohol resistant foam			
	Unsuitable extinguishing media: Water with full jet			
5.2	Special hazards arising from the substance or mixture			
	Hazardous combustion products: no information available			
5.3	Advice for firefighters			
	Use a self-contained open-circuit compressed air breathing apparatus and fireproof clothing.			
5.4	Additional information			
	Cool endangered receptacles with water spray. Collect contaminated fire fighting water separately. Do not contaminate the environment with extinguishing media.			

SECTIO	ON 6. Accidental release measu	ıres	
6.1	Personal precautions, protective equipment and emergency procedures		
6.1.1.	For non-emergency personnel		
	Protective equipment:	Use personal protective equipment (see Section 8).	
	Accident prevention methods:	Evacuate members of all non-essential personnel and those members without protective equipment. Avoid breathing vapors and avoid contact with skin and eyes. Do not smoke. Keep away from ignition sources.	
Emergency procedures: Mark the area using proper signs.		Mark the area using proper signs.	
6.1.2.	For emergency responders:		
	Use protective equipment; in c (see Section 8).	ase of inadequate ventilation use adequate airways protective equipment	
6.2	Environmental precautions:		
	Do not dispose of in sewage, or Protection and Rescue Director	rainage system and waterways. In case of large spillage contact National rate (NPRD) on 112.	
6.3	Methods and material for cont	ainment and cleaning up	
6.3.1.	Bunding, covering of drains; capping procedures:	Sand protective barrier or barriers made of similar materials.	



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6.3.2.	Cleaning up:	Where possible, the substance can be absorbed by using absorbing material. Place the waste material in tightly closed impermeable containers. Store the substance in well ventilated storage rooms until disposal. Submit for disposal to the legal persons authorized by the Ministry of Environmental and Nature Protection. After disposal of the products, wash the area and and involved materials with water.
6.3.3.	Other information:	Secure proper ventilation. Do not use incompatible materials (see Section 10).
6.4	Reference to other sections	
	See Section 7 for information See Section 8 for information See Section 13 for disposal in	on personal protection equipment.

SECTIO	ON 7. Handling and storage		
7.1	Precautions for safe handling		
7.1.1.	Protection measures		
	Measures to prevent fire:		Use in well ventilated storage rooms. Keep away from sources of ignition and heat. Do not use tools that cause sparks. Do not smoke.
	Measures to prevent aerosol and dust generation	on:	Secure proper ventilation.
	Measures to protect the environment:		Prevent spilling into the sewage system and waterways.
	Other measures:		Protect against electrostatic charges.
7.1.2.	Advice on general occupational hygiene:		
	Do not eat, drink or smoke in the workspace. Thoroughly wash hands after work and before eating.		sh hands after work and before eating.
7.2 Conditions for safe storage, including any incompatibilities			
	Technical measures and storage conditions:	well ventila	phtly closed and upright set containers in a ated storage rooms at temperatures ranging 25 °C. Protect from heat and direct sunlight.
	Packaging materials:	Manufactu	ırer's original packaging.
	Requirements for storage rooms and vessels:	Keep away tightly clos	r from food and drink. Keep the containers sed.
	Advices for storage equipment:	must be re	e must be made of hard material; floors esistant to chemicals. There must be no drain ly leads into sewage system. Secure proper i.
	Further information on storage conditions:	and do no	ice the unused material in the storage room t use empty containers for storing other Do not store with incompatible materials on 10).



Soil (agricultural)

Air

SAFETY DATA SHEET BIOGNOST® According to Regulation (EC) No. 1907/2006

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7.3	Specific end use(s)	
	Recommendations:	-
	Industrial sector specific solutions:	-

Industrial sector specific solutions:					-		
SECTION 8. Expos	ure contr	ols/perso	nal protec	tion			
8.1 Control p	arameters						
Substance					Occupational exposure limit values/short term values		Biological limit values
					ppm	mg/m³	
Hydrogen chloride		764 ⁻	7-01-0		5/10	8/15	-
Substance name:	-						
EC No: -		CAS No	-				
DNEL							
				Inc	dustrial		
Route of Ac		ıte	Acut	te		Chronic	Chronic
exposure:	effect	local	local effect systemi		С	effect local	effect systemic
Oral	-		-				-
Inhalation	-		-		-		-
Dermal	-		-	-		:	-
Critical physical pa	rameters: s	solubility,	flammabilit	ty, cor	rosivity:	-	
			_	Со	nsumer		
Route of	A	cute	Acute			Chronic	Chronic
exposure:	effe	t local	effect sy	stemi	С	effect local	effect systemic
Oral	-		-		-		-
Inhalation	-		-		-		-
Dermal			-				-
PNEC							
Environmental protection target			PNEC				
Fresh water				no information available			
Freshwater sediments				no information available			
Marine water			no information available				
Marine sediments					no information available		
Food chain					no inform	nation available	
Microorganisms in	sewage tr	eatment			no information available		

no information available

no information available



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8.2	Exposure controls			
8.2.1.	Appropriate engineering controls			
	Substance/mixture related measurevent exposure during identifie		Use the product in well ventilated rooms. Use personal protective equipment. Do not eat, drink or smoke in the workspace.	
	Structural measures to prevent exposure:		In accordance with Section 7.	
	Organisational measures to preve exposure:	ent	Organization of work in order to reduce other worker's influence during work process.	
	Technical measures to prevent ex	cposure:	Secure proper workspace ventilation in order to keep concentration levels in air below permitted levels. Secure stations for rinsing eyes and showering.	
8.2.2.	Personal protection equipment	nt		
8.2.2.1.	Eye and face protection:	Safety glasses that stick to face (EN 166) or visor in case of lower levels of concentration in air; protective gas mask that covers the entire face in case of higher levels of concentration in air.		
8.2.2.2.	Skin protection			
	Hand protection:		otective gloves have to satisfy the specification of tion (EU) 2016/425 and the related standard EN 374. Glove material: nitrile rubber Glove thickness: 0.40 mm Time until perforation: > 480 min	
	Other skin protection:	footwe entire imperr	everyday work use cotton clothing (EN 340) and suitable ear, such as rubber boots (EN 20345) or shoes that cover the foot. In case of spilling hazard, use clothing made of neable material suitable for protection from liquid chemicals PVC, himex) and footwear made from the same material.	
8.2.2.3.	Respiratory protection:	with a	tive full face mask (EN 136) or half mask (EN 140) equipped filter for organic vapors, type "A" (boiling point >65°C) ng to EN 14387) used when concentration levels exceed GVI.	
8.2.2.4.	Thermal hazards:	No info	ormation available	
8.2.3.	Environmental exposure controls			
	Substance/mixture related measures to prevent exposure:	See Se	ction 6	
	Structural measures to prevent exposure:	Use mo	odern equipment.	
	Organisational measures to prevent exposure:	Adapt the work process to the required working conditions of the workplace.		



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Technical measures to prevent	See Section 6
exposure:	See Section 6

Information on basic physical and	chemical properties	
	Value	Method
Physical state:	liquid	No information available
Colour:	colourless	No information available
Odour:	No information available	No information available
Odor threshold:	No information available	No information available
pH:	No information available	No information available
Melting point / freezing point;	No information available	No information available
Initial boiling point and boiling range:	No information available	No information available
Flash point:	No information available	No information available
Evaporation rate:	No information available	No information available
Flammability (solid, gas):	No information available	No information available
Upper/lower flammability or explosive limits:	No information available	No information available
Vapour pressure:	No information available	No information available
Vapour density:	No information available	No information available
Relative density:	No information available	No information available
Bulk density:	No information available	No information available
Solubility(ies):	No information available	No information available
Partition coefficient: n-octanol/water (log Kow):	No information available	No information available
Auto-ignition temperature:	No information available	No information available
Decomposition temperature:	No information available	No information available
Viscosity:	No information available	No information available
Explosive properties:	No information available	No information available
Oxidising properties:	No information available	No information available

SECTION 10. Stability and reactivity	
10.1 Reactivity:	See subsections 10.3 through 10.5.



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10.2	Chemical stability:	The product is chemically stable under standard ambient conditions of storing and using (room temperature).
10.3	Possibility of hazardous reactions:	No information available
10.4	Conditions to avoid:	No information available
10.5	Incompatible materials:	No information available
10.6	Hazardous decomposition products:	No information available

	exicological informati etion on toxicological e						
Acute to							
Route of exposure:	Method	Species	Do	se LD ₅₀ /LC ₅₀ or ATE _{mix}	Exposure t	ime	Results
Oral:	No information available	-		nformation lable	_		_
Dermal:	No information available	_		nformation lable	_		_
Inhalation:	No information available	-		nformation lable	_		_
:							
Specific	target organ toxicity -	- single exp	osure (S	TOT SE):		i	
	Specific	effects		Target o	rgan	gan Note	
Oral:	No information a	vailable		No information available		-	
Dermal:	No information a	vailable	No information available		-		
Inhalation:	No information a	vailable	No information available			-	
Aspirati	on hazard:		No inforn	nation available.			
Irritatio	n and corrosion						
	Exposure t	ime	Speci	es Evaluatio	on Method		Note
Skin corrosion/irritati	on:	-	-	-	-	-	
Serious eye damage/irritatio	n -	-	-	-	-	-	
Sensitiz	ation						
Skin sensitization	n: No infor	mation ava	ilable.				
Respiratory sensitization: No information as			ilable.				



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Sympto	ms rela	ated to the ph	nysical, chemic	al and toxicolog	gical characterist	ics	
Oral exposure:		Harmful if sw	vallowed.				
			sorbed throug	jh skin. May caι	use skin irritation	•	
Inhalation exposure: Harmful if inhaled. May cause respiratory tract irritation.							
Eye exposure:		May cause ey	ye irritation.				
Repeate	ed dose	e toxicity (sub	acute, subchro	onic, chronic)			
		Dose	Exposure time	Species	Method	Evaluation	Note
Subacute oral	No availa	information able	No information available	No information available	No information available	No information available	-
Subacute dermal	No availa	information able	No information available	No information available	No information available	No information available	-
Subacute inhalation	No availa	information able	No information available	No information available	No information available	No information available	-
Subchronic oral	No availa	information able	No information available	No information available	No information available	No information available	-
Subchronic dermal	No availa	information able	No information available	No information available	No information available	No information available	-
Subchronic inhalation	No availa	information able	No information available	No information available	No information available	No information available	-
Chronic oral	No availa	information able	No information available	No information available	No information available	No information available	-
Chronic dermal	No availa	information able	No information available	No information available	No information available	No information available	-
Chronic inhalation	No availa	information able	No information available	No information available	No information available	No information available	-
1							
Specific	target	organ toxicit	y – repeated e	xposure (STOT	RE):		
			Specific effec	its	Target o		Note
Subacute oral			tion available		No information		_
Subacute dermal	<u> </u>	No informa	tion available		No information	n available -	_



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Trading name:		<u> </u>			
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11.3	General notes:						
	Other observa	tions:	No information available				
	Classification of		No information available				
11.2	Practical exper						
	Summary of evaluation of the properties:		Based on available data, the classification criteria are no met.				
	Reproductive	.oxicity.	based on available data, the classification effects are not met.				
	Reproductive t		Based on available data, the classification criteria are not met. Based on available data, the classification criteria are not met. Based on available data, the classification criteria are not met. Based on available data, the classification criteria are not met. Based on available data, the classification criteria are not met.				
	Germ cell muta						
	Genotoxicity: Mutagenicity i						
	Mutagenicity i						
	Carcinogenicity:		Based on available data, the classification criteria are not met.				
		arcinogenicity; mutagenicity,					
CHIOTH	Cimilalation	NO IIIOITTIAUOTT available	TWO IIIIOIIIIation available				
	c inhalation	No information available	No information available -				
Chroni	c dermal	No information available No information available	No information available - No information available -				
	onic inhalation	No information available	No information available -				
	onic dermal	No information available	No information available -				
		No information available	No information available -				
		No information available	No information available -				

SECTION 12. Ecological information								
12.1 Toxicity								
Acute (short-term) toxicity	Dose	Exposure time	Species	Method	Evaluation	Note		
Fish	LC ₅₀	96 hours	No information available	No information available	No information available	-		
Crustacea:	EC ₅₀	48 hours	No information available	No information available	No information available	-		



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Algae/aquatic plants	IC ₅₀	4 days	No information available	No information available	No information available	-
Other organisms	-	-	-	-	-	-
Chronic (long-term) toxicity	Dose	Exposure time	Species	Method	Evaluation	Note
Fish	LC ₅₀	96 hours	No information available	No information available	No information available	-
Crustacea:	EC ₅₀	48 hours	No information available	No information available	No information available	-
Algae/aquatic plants	IC ₅₀	72 hours	No information available	No information available	No information available	-
Other organisms	-	-	-	-	-	-

12.2 Persistence and degradability

Abiotic degradation

	Degradation half-lives	Method	Evaluation	Note
Marine water	No information available	No information available	No information available	-
Fresh water	No information available	No information available	No information available	-
Air	No information available	No information available	No information available	-
Soil	No information available	No information available	No information available	-

Biodegradation

% Degradation	Time (days)	Method	Evaluation	Note
No information available				

12.3 Bioaccumulative potential

Octanol-water partition coefficient (log Kow)

OCI	anoi-water partition	coemcien	t (log Ko	vv)		
Value	Concentration	рН	°C	Method	Evaluation	Note
-	-	-	-	_	-	-



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											70	ige 12 01 10	
Trading n	iame:					НС	L REAC	GENT, A	\.T.				
Product c	ode:	HCLA ⁻	T-OT-X**		Date	of co	mpilati	on:	11 July	2019	,	Version:	2
В	ioconcent	ration 1	factor (BCF)										
Valu			Species		M	lethoc	<u> </u>	E۱	/aluatior	n		Note	
No informavailable		No availab	inform	ation	No info		n	No info	ormation le	1	-		
С	hronic eco	otoxicit	у										
,	Value		Dose		osure me	Spe	ecies	Meth	nod	Evalua	tion	Note	:
Chronic to	xicity on f	ish	LC ₅₀	No inforr availa	mation able	No inforr availa	mation able	No inform availab	ation	No informa [:] available		-	
Chronic to crustacea (-		EC ₅₀	No infori availa	mation able	No inforr availa	mation able	No inform availab	ation	No informa available		-	
12.4 N	obility in	soil											
			ed distributi	on in e	environme	ental c	ompart	ments:					
	lo informa												
Sı	urface ten	sion:											
	Value		°C	Co	oncentrat	ion		Metho	od			Note	
	lo nformatior vailable		ormation ailable		informat ilable	ion	No inf availal	ormation ole	n	-			
		<u> </u>					<u> </u>						
Α	dsorption	/ deso	rption										
Transport	Α/	D coef		lo	g Kow	Εν	/aporati	on rate	M	lethod		Note	
Soil-water	No	in	formation	No ir	nformatio able		o inform ailable	nation	No inf	ormatio ole	n	-	
Water-air	No availal	in	formation		nformatio	n No	o inform	nation	No inf	ormatio ole	n	_	



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Trading	g name:			HCL REAGENT,	A.T.		
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Soil-air	No availa	information able	No information available	No information available	No information available	-	
12.5	Results of	PBT and vPvB asse	ssment				
	Not applic	cable.					
40.6		<i>"</i>					
12.6		erse effects r relevant informati	on available				
	NO luitilei	relevant informati	on available.				
SECTIO	N 13. Disp	osal consideration	S				
13.1	Waste tr	reatment methods					
13.1.1.		/Packaging disposa					
	Submit i	•	egal person autho	rized by the Minis	try of Environmental	and Nature	
13.1.2.	Waste c	odes/waste designa	ations according to	Law:			
	15 01 10 substan	5 5	ontains residual h	azardous substanc	es or is contaminate	d with hazardo	ous
4242	,						
13.1.3.		reatment – relevant rmation available	information:				
	INO IIIIOI	mation available					
13.1.4.	Sewage	disposal – relevant	information:				
	Waste m	nust not be dispose	d of into the sewa	ge system.			
13.1.5.		isposal recommend					
	authoriz		n charge. Do not	dispose of the pac	n. Submit the remair kaging into the sewa arge.		
13.1.6.	Relevan	t Community provis	sions:				
	Disposa	I must be made acc	ording to official r	egulations.			
SECTIO	Ν 14 ΤΡΔΝ	ISPORT INFORMA	TION				
JETIO		ing/shipment by ro					
UN num	•	J. ₁		o transport regula	tions		
UN prop	per shippin	g name:					



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Transport hazard class(es):	-
Packing group:	-
Environmentally hazardous:	-
Special precautions for user:	-
Transporting/shipment by rail (R	ID)
UN number:	Not subject to transport regulations
UN proper shipping name:	-
Transport hazard class(es):	-
Packing group:	-
Environmentally hazardous:	-
Special precautions for user:	-
Inland waterway transport (ADN)	
UN number:	Not subject to transport regulations
UN proper shipping name:	-
Transport hazard class(es):	-
Packing group:	-
Environmentally hazardous:	-
Special precautions for user:	-
Special precautions for user.	
Transporting/shipment by sea (IN	
Transporting/shipment by sea (IN	MDG)
Transporting/shipment by sea (IN UN number:	MDG) Not subject to transport regulations
Transporting/shipment by sea (IN UN number: UN proper shipping name:	MDG) Not subject to transport regulations -
Transporting/shipment by sea (IN UN number: UN proper shipping name: Transport hazard class(es):	MDG) Not subject to transport regulations -
Transporting/shipment by sea (IN UN number: UN proper shipping name: Transport hazard class(es): Packing group:	MDG) Not subject to transport regulations
Transporting/shipment by sea (IN UN number: UN proper shipping name: Transport hazard class(es): Packing group: Environmentally hazardous:	MDG) Not subject to transport regulations
Transporting/shipment by sea (IN UN number: UN proper shipping name: Transport hazard class(es): Packing group: Environmentally hazardous: Special precautions for user: Transport in bulk according to Annex II	MDG) Not subject to transport regulations
Transporting/shipment by sea (IN UN number: UN proper shipping name: Transport hazard class(es): Packing group: Environmentally hazardous: Special precautions for user: Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code:	MDG) Not subject to transport regulations
Transporting/shipment by sea (IN UN number: UN proper shipping name: Transport hazard class(es): Packing group: Environmentally hazardous: Special precautions for user: Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code: Transporting/shipment by air (IC.)	MDG) Not subject to transport regulations AO-TI/IATA-DGR)
Transporting/shipment by sea (IN UN number: UN proper shipping name: Transport hazard class(es): Packing group: Environmentally hazardous: Special precautions for user: Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code: Transporting/shipment by air (IC. UN number:	MDG) Not subject to transport regulations Not Subject to transport regulations
Transporting/shipment by sea (IN UN number: UN proper shipping name: Transport hazard class(es): Packing group: Environmentally hazardous: Special precautions for user: Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code: Transporting/shipment by air (ICC UN number: UN proper shipping name:	MDG) Not subject to transport regulations Not subject to transport regulations Not subject to transport regulations -
Transporting/shipment by sea (IN UN number: UN proper shipping name: Transport hazard class(es): Packing group: Environmentally hazardous: Special precautions for user: Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code: Transporting/shipment by air (IC. UN number: UN proper shipping name: Transport hazard class(es):	MDG) Not subject to transport regulations Not subject to transport regulations Not subject to transport regulations
Transporting/shipment by sea (IN UN number: UN proper shipping name: Transport hazard class(es): Packing group: Environmentally hazardous: Special precautions for user: Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code: Transporting/shipment by air (IC. UN number: UN proper shipping name: Transport hazard class(es): Packing group:	MDG) Not subject to transport regulations Not subject to transport regulations
Transporting/shipment by sea (IN UN number: UN proper shipping name: Transport hazard class(es): Packing group: Environmentally hazardous: Special precautions for user: Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code: Transporting/shipment by air (IC. UN number: UN proper shipping name: Transport hazard class(es): Packing group: Environmentally hazardous:	MDG) Not subject to transport regulations Not Subject to transport regulations



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Trading name:		HCL REAGENT	, A.T.		
Product code:	HCLAT-OT-X**	Date of compilation:	11 July 2019	Version:	2

SECTI	ON 15. Regulatory informa	ation
15.1	Safety, health and enviror	nmental regulations/legislation specific for the substance or mixture
	EU regulations	
	Authorization and/or rest	crictions of use
	Authorizations:	-
	Restrictions:	-
	Other EU regulations:	EC Regulation No. 1906/2007 and EC Regulation No. 1272/2008 of the European Parliament and the European Council; Regulation (EC) No. 1907/2006 of the European Parliament and Council on registration, evaluation, authorization and restriction of chemical substances (REACH); EC Regulation No. 2037/200 of the European Parliament and Council from 29 June 2000 on substances that damage the ozone layer; EC Regulation No. 689/2008 of the European Parliament and Council from 17 June 2008 concerning the export and import of dangerous chemicals; EC Regulation No. 850/2004 of the European Parliament and Council from 29 April 2004 about persistent organic pollutants; Directive 2008/98/EC of the European Parliament and Council of 19 November 2008 on waste and repealing certain Directives
	Information according 19 guideline)	99/13/EC about limitation of emissions of volatile organic compounds (VOC-
	National legislation:	Chemicals Act, Regulation on classification, packaging and labeling of dangerous substances, Ordinance on occupational exposure limit values and on biological limit values, Regulation on categories, types and classification of waste with a waste catalog and list of hazardous waste, Ordinance on writing Material safety data sheet, Transport of Hazardous Substances Act
15.2	Chemical safety assessme	ent
	None	

SECTIO	SECTION 16. Other information				
16.1	Indication of changes:	-			
		PBT	Stable, bioaccumulative and toxic		
		vPvB	Strongly stable and strongly bioaccumulative.		
16.2	Abbreviations and acronyms:	LD ₅₀	Lethal dose, 50%		
		LC ₅₀	Lethal concentration, 50%		
		TCOJ	Specific target organ toxicity - single exposure		
16.3.	Key literature references and source of data:	-			



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Trading name:		HCL REAGENT	, A.T.		
Product code:	HCLAT-OT-X**	Date of compilation:	11 July 2019	Version:	2

16.4.	Classification and procedure used to derive the classification for mixture according to Regulation (EC) 1272/2008 (CLP)		
Classific	cation	Classification procedure	
_		-	
16.5.	Relevant H statements (num	ber and full text)	
	H: H314	Causes severe skin burns and eye damage.	
	H331	Toxic if inhaled.	
16.6.	Training advice:	-	
		** "X" in the product code marks different volumes (different packagings of the product)	
16.7.	Further information:	We are not responsible for consequences in case of failure to comply with instructions for use or improper use of the product described in this material safety data sheet.	

ANNEX: Exposure scenario resulting to chemical safety assessment
-



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Trading name:		SODIUM METABISULFI	TE, SOLUTION	<u> </u>	
Product code:	NM-OT-X**	Date of compilation:	05 July 2019	Version:	3

SECTION	ON 1: Identification of	the substance	e/mixture	and of the company/undertaking	
1.1	Product identifier				
	Trading name:	SODIUM M	ETABISUL	FITE, SOLUTION	
	Chemical name:	-			
	Catalogue number:	NM-OT-X**	•		
1.2	Relevant identified us	es of the subs	tance or m	nixture and uses advised against	
	Uses:		For use	with special staining kits.	
	Uses advised against:			identified uses are advised.	
	Reason why uses advised against:		The product is intended for use only as an <i>in vitro</i> diagnostic medical device, registered at the Agency for Medicinal Products and Medical Devices and there is no reason to use it for other purposes.		
1.3	Details of the supplier of the safety data sheet				
	Supplier:		BioGnost Ltd.		
	Address:		Medjugorska 59, Zagreb		
	Telephone number:		+385 1 2409997		
	Telefax.:		+385 1 2404039		
	e-mail of competent person:		msds@biognost.hr		
	National contact:		-		
1.4	Emergency telephone number				
	National Protection and Rescue Dire		ectorate:	112	
	Medical information:			+385 1 2348 342	
	Medical information:			+385 1 2348 342	

SECTION 2. Hazards identification				
2.1	Classification of the substanc	Classification of the substance or mixture		
2.1.1	Classification according to Re	gulation (EC) No 1	272/2008 (CLP)	
	Hazard class and cate	gory code:	Hazard statements*:	
	Eye Irr. 2		H319	
2.1.2.	Additional information			
	-			
*For fu	ıll text of Hazard- and EU Hazar	d-statements: see S	ECTION 16	
2.2	Label elements			
	Product identification:	SODIUM META	BISULFITE, SOLUTION	
	Identification number:	-		
	Authorization number:	-		



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Trading name:		SODIUM METABISULFI	TE, SOLUTION	<u> </u>	
Product code:	NM-OT-X**	Date of compilation:	05 July 2019	Version:	3

	Hazard pictograms:	GHS07
	Signal word:	Warning
	Hazard statements:	H319 Causes serious eye irritation.
	Precautionary statements:	P280 Wear protective gloves/protective clothing/eye protection/face protection. P305+P351+P338 IF IN EYES Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P308+P313 IF exposed or concerned: Immediately call a POISON CENTER or physician.
	Supplemetal hazard information (EU):	-
2.3	Other hazards	
	-	

SECTION 3. Co.	SECTION 3. Composition/information on ingredients				
CAS/ EC/ Index number	REACH Registration No	Weight % content (or range)	Identification name	Classification according to Regulation (EC) No 1272/2008 (CLP)	
7681-57-4/ 231-673-0/ 016-063-00-2	-	< 10 %	sodium metabisulfite	Acute Tox. 4, H302 Eye Dam. 1; H318 EUH031	

SECTI	SECTION 4. First aid measures				
4.1	Description of first aid measures				
	General notes:	If the suggested first aid measures do not prove sufficient, seek medical attention.			
	Following inhalation:	Carry the afflicted person out of the contaminated area into a well-ventilated area or out for fresh air. In case of difficult breathing, provide the afflicted person with oxygen.			
	Following skin contact:	Remove contaminated clothing. Immediately wash with plenty of water for at least 20 minutes. Seek medical assistance if the symptoms of irritation remain.			
	Following eye contact:	Rinse out with plenty of water with the eyelid held wide open for at least 20 minutes. If the symptoms remain, immediately call in ophthalmologist.			



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Trading name:		SODIUM METABISULFIT	ΓΕ, SOLUTION	<u> </u>	
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	Following ingestion:	Rinse the mouth thoroughly with 1-2 glasses of water. Immediately consult a physician and show the container or label. In case of swallowing large quantities, transport the afflicted person to the hospital.
	Self-protection of the first aider:	-
4.2	Most important symptoms and eff	ects, both acute and delayed
	Following inhalation:	According to our findings, chemical, physical and toxicological properties of the substance have not been entirely tested.
	Following skin contact:	According to our findings, chemical, physical and toxicological properties of the substance have not been entirely tested.
	Following eye contact:	According to our findings, chemical, physical and toxicological properties of the substance have not been entirely tested.
	Following ingestion:	According to our findings, chemical, physical and toxicological properties of the substance have not been entirely tested.
4.3	Indication of any immediate media	cal attention and special treatment needed

SECTIO	SECTION 5. Firefighting measures				
5.1	Extinguishing media				
	Suitable extinguishing media: water spray, dry powder, CO ₂ or alcohol resistant foam				
	Unsuitable extinguishing media: Water with full jet				
5.2	Special hazards arising from the substance or mixture				
	Hazardous combustion products: no information available				
5.3	Advice for firefighters				
	Use a self-contained open-circuit compressed air breathing apparatus and fireproof clothing.				
5.4	Additional information				
	Cool endangered receptacles with water spray. Collect contaminated fire fighting water separately. Do not contaminate the environment with extinguishing media.				

SECTIO	SECTION 6. Accidental release measures				
6.1					
6.1.1.					
	Protective equipment:	Use personal protective equipment (see Section 8).			
	Accident prevention methods:	Evacuate members of all non-essential personnel and those members without protective equipment. Avoid breathing vapors and avoid contact with skin and eyes. Do not smoke. Keep away from ignition sources.			
	Emergency procedures:	Mark the area using proper signs.			
6.1.2.	For emergency responders:				



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	Use protective equipment; in case of inadequate ventilation use adequate airways protective equipment (see Section 8).		
6.2	Environmental precautions:		
	Do not dispose of in sewage, Protection and Rescue Direct	drainage system and waterways. In case of large spillage contact National orate (NPRD) on 112.	
6.3	Methods and material for cor	ntainment and cleaning up	
6.3.1.	Bunding, covering of drains; capping procedures:	Sand protective barrier or barriers made of similar materials.	
6.3.2.	Cleaning up:	Where possible, the substance can be absorbed by using absorbing material. Place the waste material in tightly closed impermeable containers. Store the substance in well ventilated storage rooms until disposal. Submit for disposal to the legal persons authorized by the Ministry of Environmental and Nature Protection. After disposal of the products, wash the area and and involved materials with water.	
6.3.3.	Other information:	Secure proper ventilation. Do not use incompatible materials (see Section 10).	
6.4	Reference to other sections		
	See Section 7 for information on safe handling.		
	See Section 8 for information	on personal protection equipment.	
	See Section 13 for disposal in	formation.	

SECTIO	ON 7. Handling and storage				
7.1	Precautions for safe handling				
7.1.1.	Protection measures				
	Measures to prevent fire:		Use in well ventilated storage rooms. Keep away from sources of ignition and heat. Do not use tools that cause sparks. Do not smoke.		
	Measures to prevent aerosol and dust generation	Secure proper ventilation.			
	Measures to protect the environment:		Prevent spilling into the sewage system and waterways.		
	Other measures:		Protect against electrostatic charges.		
7.1.2.	Advice on general occupational hygiene:				
	Do not eat, drink or smoke in the workspace. Th	noroughly was	h hands after work and before eating.		
7.2	Conditions for safe storage, including any incon	npatibilities			
	Technical measures and storage conditions:	well ventila	htly closed and upright set containers in a ated storage rooms at temperatures ranging 25 °C. Protect from heat and direct sunlight.		
	Packaging materials:	Manufactu	rer's original packaging.		



Environmental protection target

Requirements for storage rooms and vessels:

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tightly closed.

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Keep away from food and drink. Keep the containers

The storage must be made of hard material; floors

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	Advices for storage equipment:					lirectly leads int		. There must be no drain system. Secure proper	
	Further information on storage conditions:				ns:	Do not place the unused material in the storage room and do not use empty containers for storing other chemicals. Do not store with incompatible materials (see Section 10).			
7.3	Specific er	nd use(s)							
	Recomme	ndations:				-			
	Industrial	sector spe	cific solu	tions:		_			
SECTIO	ON 8. Expos	ure contr	ols/perso	onal protec	tion				
8.1	Control pa	arameters							
	Substance	!	CA	AS No			exposure limit term values	Bio	ological limit values
					pp	ppm mg/m³			
-				-	-		-	-	
Substa	ance name:	-							
EC No:	:	-	CAS No):					
DNEL									
					Indu	strial			
Route	of	Acı	ıte	Acut	te		Chronic		Chronic
expos	ure:	effect	local	effect sys	stemic		effect local		effect systemic
Oral		-		-		-		-	
Inhalat	tion	-		-		-		-	
Derma	al	-		-		-	1	-	
Critica	l physical par	rameters: s	olubility,	flammabilit	ty, corro	sivity:	-		
				,	Cons	umer			
Route expos			cute ct local	Acur effect sys			Chronic effect local		Chronic effect systemic
Oral		-		-		-		-	
Inhalat	tion	-		-		-		-	
Derma	al	-		-		-		-	
PNEC									

PNEC



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Fresh water	no information available
Freshwater sediments	no information available
Marine water	no information available
Marine sediments	no information available
Food chain	no information available
Microorganisms in sewage treatment	no information available
Soil (agricultural)	no information available
Air	no information available

8.2	Exposure controls				
8.2.1.	Appropriate engineering contro	ols			
	Substance/mixture related mean prevent exposure during identife		Use the product in well ventilated rooms. Use personal protective equipment. Do not eat, drink or smoke in the workspace.		
	Structural measures to prevent exposure:		In accordance with Section 7.		
	Organisational measures to pre exposure:	vent	Organization of work in order to reduce other worker's influence during work process.		
	Technical measures to prevent exposure:		Secure proper workspace ventilation in order to keep concentration levels in air below permitted levels. Secure stations for rinsing eyes and showering.		
8.2.2.	Personal protection equipment				
8.2.2.1.	Eye and face protection:	levels	Safety glasses that stick to face (EN 166) or visor in case of lower levels of concentration in air; protective gas mask that covers the entire face in case of higher levels of concentration in air.		
8.2.2.2.	Skin protection	i			
	Hand protection:	•	otective gloves have to satisfy the specification of ation (EU) 2016/425 and the related standard EN 374. Glove material: nitrile rubber Glove thickness: 0.40 mm Time until perforation: > 480 min		
	Other skin protection:	During everyday work use cotton clothing (EN 340) and suit footwear, such as rubber boots (EN 20345) or shoes that co entire foot. In case of spilling hazard, use clothing made of impermeable material suitable for protection from liquid ch (Viton, PVC, himex) and footwear made from the same material suitable for protection from the same material suitable for protection from the same material suitable for protection from the same material suitable from the same material suit			
8.2.2.3.	Respiratory protection:	with a	tive full face mask (EN 136) or half mask (EN 140) equipped filter for organic vapors, type "A" (boiling point >65°C) ng to EN 14387) used when concentration levels exceed GVI.		



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8.2.2.4.	Thermal hazards:	No information available
8.2.3.	Environmental exposure controls	
	Substance/mixture related measures to prevent exposure:	See Section 6
	Structural measures to prevent exposure:	Use modern equipment.
	Organisational measures to prevent exposure:	Adapt the work process to the required working conditions of the workplace.
	Technical measures to prevent exposure:	See Section 6

Information on basic physical and	chemical properties	
	Value	Method
Physical state:	liquid	No information available
Colour:	colourless	No information available
Odour:	No information available	No information available
Odor threshold:	No information available	No information available
pH:	No information available	No information available
Melting point / freezing point;	No information available	No information available
Initial boiling point and boiling range:	No information available	No information available
Flash point:	No information available	No information available
Evaporation rate:	No information available	No information available
Flammability (solid, gas):	No information available	No information available
Upper/lower flammability or explosive limits:	No information available	No information available
Vapour pressure:	No information available	No information available
Vapour density:	No information available	No information available
Relative density:	No information available	No information available
Bulk density:	No information available	No information available
Solubility(ies):	No information available	No information available
Partition coefficient: n-octanol/water (log Kow):	No information available	No information available
Auto-ignition temperature:	No information available	No information available
Decomposition temperature:	No information available	No information available
Viscosity:	No information available	No information available
Explosive properties:	No information available	No information available



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	Oxidising properties:	No information available	No information available
9.2	Other information		
	-		

SECTIO	SECTION 10. Stability and reactivity						
10.1	Reactivity:	See subsections 10.3 through 10.5.					
10.2	Chemical stability:	The product is chemically stable under standard ambient conditions of storing and using (room temperature).					
10.3	Possibility of hazardous reactions:	No information available					
10.4	Conditions to avoid:	No information available					
10.5	Incompatible materials:	No information available					
10.6	Hazardous decomposition products:	No information available					

SECTIO	N 11. Toxicol	ogical informati	on				
11.1	Information of	on toxicological e	ffects				
	Acute toxicity	<i>'</i> :					
Route of exposure:		Method	Species		D ₅₀ /LC ₅₀ or TE _{mix}	Exposure time	e Results
Oral:		lo information vailable	_	No infor available		_	-
Dermal	•	lo information vailable	_	No infor available		_	-
Inhalation:		lo information vailable	_	No information available		-	_
	Specific targe	et organ toxicity -	- single expo	osure (STOT	SE): Target orga	20	Note
0							Note
Oral:		lo information av		No information av			
Dermal		lo information av		No information ava			
Inhalati	on: N	lo information av	vailable	No	information avai	lable -	
	Aspiration ha	zard:	N	lo informatio			
	Irritation and	corrosion					
	intation and	Exposure t	ima	Chasias	Evaluation	Method	Note
		exposure t	ime	Species	Evaluation	Method	note
Skin		•					



available

available

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Trading name:					
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				ite or compile		.9 2020	* 0.5.01
Serious eye damage/irritatio	n -		-		-		
Sensitiz	ation						
Skin sensitizatior	n:	No inf	ormation avail	able.			
Respiratory sens	itization:	No inf	ormation avail	able.			
Sympto	ms related	to the pl	nysical, chemic	al and toxicolog	gical characteris	tics	
Oral exposure:	Haı	rmful if sv	vallowed.				
Dermal exposure	e: Hai	rmful if ab	sorbed throug	ηh skin. May caι	use skin irritatio	n.	
Inhalation expos	ure: Haı	rmful if in	haled. May cau	ıse respiratory t	ract irritation.		
Eye exposure:	Ма	y cause e	ye irritation.				
:							
Repeate	ed dose to	xicity (sub	acute, subchro	onic, chronic)	2		2
	Do	se	Exposure time	Species	Method	Evaluation	Note
Subacute oral	No info	ormation	No information available	No information available	No information available	No information available	n –
Subacute dermal	No info		No information available	No information available	No information available	No information available	n –
Subacute inhalation	No info	ormation	No information available	No information available	No information available	No information available	ı -
Subchronic oral	No info		No information available	No information available	No information available	No information available	1 -
Subchronic dermal	No info		No information available	No information available	No information available	No information available	n –
Subchronic inhalation	No info		No information available	No information available	No information available	No information available	n –
Chronic oral	No info		No information available	No information available	No information available	No information available	1 -
Chronic dermal	No info		No information	No information	No information	No information	1 –



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Chronic inhalat		No ir availab	nformation ble	No information available	No information available	No information available	No information available	on	-
	Specific t	target o	organ toxicit	y – repeated e	xposure (STOT	RE):			
	•			Specific effec	-	Target o	rgan		Note
Subacu	ite oral		No informa	tion available		No information	n available	_	
Subacu	ıte dermal		No informa	tion available		No information	n available	-	
Subacu	bacute inhalation No information available				No information	n available	-		
Subchr	ubchronic oral No information available			tion available		No information	n available	-	
Subchr	Ibchronic oral Ibchronic dermal Ibchronic inhalation Ibchronic inhalation Inronic oral Ibchronic oral Inronic oral Inronic dermal Inronic inhalation Inronic inhalati			tion available		No information	n available	-	
Subchr	onic inhala	ition	No informa	tion available		No information	n available	-	
Chronic	c oral		No informa	tion available		No information	n available	-	
Chronic	c dermal		No informa	tion available		No information	n available	-	
Chronic	c inhalatior	า	No informa	tion available		No information	n available	-	
	Carcinog Mutager Genotox Mutager	nicity <i>in</i>	vitro:		Based on avail	able data, the cla able data, the cla able data, the cla able data, the cla	ssification c	riteri riteri	a are not met. a are not met.
	Germ cel	ll mutag	genicity:		Based on avail	able data, the cla	ssification c	riteri	a are not met.
	Reprodu	ctive to	xicity:		Based on avail	able data, the cla	ssification c	riteri	a are not met.
	Summary	,	evaluation	of the CN	MR Based on met.	available data, t	he classifica	ation	criteria are not
11.2	Practical	experie	ences:						
	Classifica	ation ob	servations:		No inform	nation available			
	Other ob	servatio	ons:		No inform	nation available			
11.3	General i	notes:							
	_								

Toxicity 12.1



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Acute (short-te toxicity	rm)	Dose	Exposure time	e Species	Method	Evaluation	Note	
Fish		LC ₅₀	96 hours	No information available	No information available	No information available	-	
Crustacea: EC ₅₀		48 hours	No information available	No information available	No information available	-		
Algae/aquatic μ	olants	IC ₅₀	4 days	No information available	No information available	No information available	-	
Other organism	าร	-	_	-	-	-	-	
Chronic (long-t toxicity	erm)	Dose	Exposure time	e Species	Method	Evaluation	Note	
Fish		LC ₅₀	96 hours	No information available	No information available	No information available	-	
Crustacea:		EC ₅₀	48 hours	No information available	No information available	No information available	-	
Algae/aquatic plants IC ₅₀		IC ₅₀	72 hours	No information available	No information available	No information available	-	
Other organism	าร	-	-	-	-	-	-	
12.2 Persist	ence a	nd degradab	ility					
		idation	iiity					
7101011		gradation ha	lf-lives	Method	Evaluatio	n	Note	
Marine water		nformation av		No information available	No information		-	
Fresh water	No ir	nformation av	/ailable	No information available	No information available	n _	-	
Air	No ir	nformation av	/ailable	No information available	No information available	n -		
Soil No information available		/ailable	No information available	No information available	n -	-		
Riodeo	gradatio	on.						
% Degradation		Time (d	avs)	Method	Evaluatio	n	Note	
No information available			ormation	No information available	No information No information available available		rmation	



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					!			1	-			
12.3	Bioaccum	ulative	potential									
	Octanol-v	vater pa	artition coe	ficient	(log Kow))						
Valu	e Co	ncentra	ntion	рН	°C	Me	thod	Eval	uation		Note	
-	-		-		-	-		-		-		
	Bioconce	ntration	factor (BCI	=)								
٧	Value Species			N	Method		Evalua	tion		Note		
	lo information No information			mation		ormatio	n	No informa	tion	_		
availab	le	availa	ble		availab	le		available				
	Chronic e	cotoxici	ity	_								
	Value		Dose		osure ime	Spe	cies	Method	Evalu	ation	Note	
				No		No		No	No			
Chronic	toxicity or	fish	LC ₅₀	infor avail	mation	inform availal		information available	inform availab		-	
				No	abie	No	bie	No	No	ile		
	toxicity or		EC ₅₀	1	mation	inform	nation	information	inform	ation	-	
crustac	ea (<i>Daphni</i> o	7)	30	avail	able	availal	ble	available	availab	le		
12.4	Mobility i	n soil										
	Known or	predict	ted distribu	tion in e	environm	nental co	ompart	ments:				
	No inforn	nation a	vailable									
	Surface to	ension:										
	Value		°C	C	oncentra	ition		Method			Note	
	No information available		o formation vailable		informa ailable	tion	No infavailab	ormation ble	-			



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Trading name:		SODIUM METABISULFITE, SOLUTION							
Product code:	NM-OT-X**	Date of compilation:	05 July 2019	Version:	3				

	Adsorption / desorption					
Transpo	rt A/D coefficient Henry's constant	log Kow	Evaporation rate	Method	Note	
Soil-wat	ner No information available	n No information available	No information available	No information available	-	
Water-a	ir No informatio	n No information available	No information available	No information available	-	
Soil-air	No informatio available	n No information available	No information available	No information available	-	
12.5	Results of PBT and vPvB as	sessment				
	Not applicable.					
12.6	Other adverse effects					
12.0	No further relevant informa	ution available				
	140 further relevant informs	ition available.				
SECTIO	N 13. Disposal consideration	ons				
13.1	Waste treatment method					
	-					
13.1.1.	Product/Packaging dispo	sal:				
	Submit for disposal to th Protection.	e legal person autho	rized by the Ministr	y of Environmental a	and Nature	
13.1.2.	Waste codes/waste design	nations according to	o Law:			
	15 01 10*: Packaging tha substances	contains residual h	azardous substance	s or is contaminated	with hazardous	
13.1.3.	Waste treatment – releva	nt information:				
	No information available					
13.1.4.	Sewage disposal – releva	nt information:				
	Waste must not be disposed of into the sewage system.					
13.1.5.	Other disposal recomme	ndations:				
	Do not dispose of the product's remains into the sewage system. Submit the remains to the collectors authorized by the ministry in charge. Do not dispose of the packaging into the sewage system. Submit the packaging to the collectors authorized by the ministry in charge.					
	-	•			,,	



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Trading name:	SODIUM METABISULFITE, SOLUTION				
Product code:	NM-OT-X**	Date of compilation:	05 July 2019	Version:	3

Disposal must be made accord	ling to official regulations.				
SECTION 14 TRANSPORT INFORMATION	DN				
Transporting/shipment by road (ADR)					
UN number:	Not subject to transport regulations				
UN proper shipping name:	-				
Transport hazard class(es):	-				
Packing group:	-				
Environmentally hazardous:	-				
Special precautions for user:	-				
Transporting/shipment by rail (R	ID)				
UN number:	Not subject to transport regulations				
UN proper shipping name:	-				
Transport hazard class(es):	-				
Packing group:	-				
Environmentally hazardous:	-				
Special precautions for user:	-				
Inland waterway transport (ADN					
UN number:	Not subject to transport regulations				
UN proper shipping name:	-				
Transport hazard class(es):	-				
Packing group:	-				
Environmentally hazardous:	-				
Special precautions for user:	-				
Transporting/shipment by sea (I	MDG)				
UN number:	Not subject to transport regulations				
UN proper shipping name:	-				
Transport hazard class(es):	-				
Packing group:	-				
Environmentally hazardous:	-				
Special precautions for user:	-				
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code:	-				
Transporting/shipment by air (IC	CAO-TI/IATA-DGR)				
UN number:	Not subject to transport regulations				
UN proper shipping name:	-				



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Trading name:	SODIUM METABISULFITE, SOLUTION						
Product code:	NM-OT-X**	Date of compilation:	05 July 2019	Version:	3		

Transport hazard class(es):	-
Packing group:	-
Environmentally hazardous:	-
Special precautions for user:	-
Further information: -	

SECTIO	ON 15. Regulatory information			
15.1	Safety, health and environ	nmental regulations/legislation specific for the substance or mixture		
	EU regulations			
	Authorization and/or rest	rictions of use		
	Authorizations:	-		
	Restrictions:	-		
	Other EU regulations:	EC Regulation No. 1906/2007 and EC Regulation No. 1272/2008 of the European Parliament and the European Council; Regulation (EC) No. 1907/2006 of the European Parliament and Council on registration, evaluation, authorization and restriction of chemical substances (REACH); EC Regulation No. 2037/200 of the European Parliament and Council from 29 June 2000 on substances that damage the ozone layer; EC Regulation No. 689/2008 of the European Parliament and Council from 17 June 2008 concerning the export and import of dangerous chemicals; EC Regulation No. 850/2004 of the European Parliament and Council from 29 April 2004 about persistent organic pollutants; Directive 2008/98/EC of the European Parliament and Council of 19 November 2008 on waste and repealing certain Directives		
	Information according 199 guideline)	99/13/EC about limitation of emissions of volatile organic compounds (VOC-		
	National legislation:	Chemicals Act, Regulation on classification, packaging and labeling of dangerous substances, Ordinance on occupational exposure limit values and on biological limit values, Regulation on categories, types and classification of waste with a waste catalog and list of hazardous waste, Ordinance on writing Material safety data sheet, Transport of Hazardous Substances Act		
15.2	Chemical safety assessme	nt		
	None			

SECTI	ION 16. Other information	
16.1	Indication of changes:	-



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				9	
Trading name:	SODIUM METABISULFIT		TITE, SOLUTION		
Product code:	NM-OT-X**	Date of compilation:	05 July 2019	Version:	3

16.2	Abk	previations and acronyms	PBT Stable, bioaccumulative and toxic vPvB Strongly stable and strongly bioaccumulative. LD ₅₀ Lethal dose, 50% LC ₅₀ Lethal concentration, 50% TCOJ Specific target organ toxicity - single exposure		
16.3.		literature references and rce of data:	-		
16.4.	Classification and procedure us 1272/2008 (CLP)		used to derive the classification for mixture according to Regulation (EC)		
Classification		1	Classification procedure		
-			-		
16.5.	Rele	evant H statements (num	per and full text)		
		H302	Harmful if swallowed.		
	H:	H318	Causes serious eye damage.		
		H319	Causes serious eye irritation.		
		EUH031	Contact with acids liberates toxic gas.		
16.6.	Trai	ining advice:	-		
16.7.	6.7. Further information:		** "X" in the product code marks different volumes (different packagings of the product) We are not responsible for consequences in case of failure to comply with instructions for use or improper use of the product described in this material safety data sheet.		

ANNEX: Exposure scenario resulting to chemical safety assessment
-



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Trading name:		ALCIAN YELLO	LOW, SOLUTION		
Product code:	AY-OT-X**	Revision date:	27 August 2019	Version:	3

SECTI	ON 1: Identification of t	the substance	e/mixture	and of the company/undertaking		
1.1	Product identifier					
	Trading name:	ALCIAN YEI	LLOW, SOI	LUTION		
	Chemical name:	-				
	Catalogue number:	AY-OT-X**				
1.2	Relevant identified use	es of the subs	tance or n	nixture and uses advised against		
	Uses:		For use	with Alcian Yellow Toluidine Blue kit.		
	Uses advised against:		Only the	e identified uses are advised.		
	Reason why uses advis	dvised against: med		The product is intended for use only as an <i>in vitro</i> diagnostic medical device, registered at the Agency for Medicinal Products and Medical Devices and there is no reason to use it for other purposes.		
1.3	Details of the supplier of the safety data sheet					
	Supplier:		BioGnost Ltd.			
	Address:		Medjugorska 59, Zagreb			
	Telephone number:		+385 1 2409997			
	Telefax.:		+385 1 2404039			
	e-mail of competent p	erson:	msds@biognost.hr			
	National contact:		-			
1.4	Emergency telephone	number				
	National Protection ar	nd Rescue Dire	ectorate:	112		
	Medical information:			+385 1 2348 342		
	Other information:			-		

SECTIO	CTION 2. Hazards identification				
2.1	Classification of the substance or mixture				
2.1.1	Classification according to Regu	ulation (EC) No 12	272/2008 (CLP)		
	Hazard class and catego	ory code:		Hazard statements*:	
	Flam. Liq. 2 H225				
2.1.2.	Additional information				
	-				
*For ful	I text of Hazard- and EU Hazard-	statements: see S	ECTION 16		
2.2	Label elements				
	Product identification: ALCIAN YELLOW, SOLUTION				
	Identification number: -				
	Authorization number: -				



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Т	rading name:	g name: ALCIAN YELLOW			<u> </u>	
Р	Product code:	AY-OT-X**	Revision date:	27 August 2019	Version:	3

	Hazard pictograms:	GHS02
	Signal word:	Danger
	Hazard statements:	H225 Highly flammable liquid and vapor.
	Precautionary statements:	 P210 Keep away from heat/sparks/open flames/hot surfaces Do not smoke. P233 Keep container tightly closed. P280 Wear protective gloves/protective clothing/eye/protection/face protection.
	Supplemetal hazard information (EU):	-
2.3	Other hazards	
	-	

SECTION 3. Composition/information on ingredients						
CAS/ EC/ Index number	REACH Registration No	Weight % content (or range)	Identification name	Classification according to Regulation (EC) No 1272/2008 (CLP)		
64-17-5/ 200-578-6/ 603-002-00-5	01-2119457610-43- xxxx	≤ 50 %	ethanol	Flam. Liq. 2; H225		

SECTION 4. First aid measures				
4.1	Description of first aid measu	ires		
	General notes:	If the suggested first aid measures do not prove sufficient, seek medical attention.		
	Following inhalation:	Carry the afflicted person out of the contaminated area into a well-ventilated area or out for fresh air. In case of difficult breathing, provide the afflicted person with oxygen.		
	Following skin contact:	Remove contaminated clothing. Immediately wash with plenty of water for at least 20 minutes. Seek medical assistance if the symptoms of irritation remain.		
	Following eye contact:	Rinse out with plenty of water with the eyelid held wide open for at least 20 minutes. If the symptoms remain, immediately call in ophthalmologist.		



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Trading name:	ALCIAN YELLOW, SOLUTION				
Product code:	AY-OT-X**	Revision date:	27 August 2019	Version:	3

	Following ingestion:	Rinse the mouth thoroughly with 1-2 glasses of water. Immediately consult a physician and show the container or label. In case of swallowing large quantities, transport the afflicted person to the hospital.	
	Self-protection of the first aider:	-	
4.2	Most important symptoms and ef	fects, both acute and delayed	
	Following inhalation:	Depending on concentration and exposure time, it may lead to mucosa irritation, cough, and dyspnea.	
	Following skin contact:	Depending on concentration and exposure time, it may lead to irritation, rash, skin drying and skin cracking.	
	Following eye contact: Depending on concentration and exposure time, it may lead to irritation, tearing, redness and pain.		
	Following ingestion:	Depending on concentration and exposure time, it may lead to stinging and digestive mucus damage, abdominal pain, nausea, vomiting.	
4.3	Indication of any immediate medical attention and special treatment needed		
	-		

SECTIO	SECTION 5. Firefighting measures				
5.1	Extinguishing media	Extinguishing media			
	Suitable extinguishing media:	Small fire - water spray, dry powder, CO ₂ Large fire - water spray or alcohol resistant foam			
		Water with full jet			
5.2	Special hazards arising from the substance or mixture				
	Hazardous combustion products:	Formation of toxic gases is possible during heating or in case of fire.			
5.3	Advice for firefighters	Advice for firefighters			
	Use a self-contained open-circuit co	ompressed air breathing apparatus and fireproof clothing.			
5.4	Additional information				
		Cool endangered receptacles with water spray. Collect contaminated fire fighting water separately. Do not contaminate the environment with extinguishing media.			

SECTIO	SECTION 6. Accidental release measures				
6.1	Personal precautions, protective	equipment and emergency procedures			
6.1.1.	For non-emergency personnel				
	Protective equipment: Use personal protective equipment (see Section 8).				
	Accident prevention methods:	Evacuate members of all non-essential personnel and those members without protective equipment. Avoid breathing vapors and avoid contact with skin and eyes. Do not smoke. Keep away from ignition sources.			



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Trading name:	ALCIAN YELLOW, SOLUTION			<u> </u>	
Product code:	AY-OT-X**	Revision date:	27 August 2019	Version:	3

	Emergency procedures:	Mark the area using proper signs.	
6.1.2.	For emergency responders:		
	Use protective equipment; in (see Section 8).	case of inadequate ventilation use adequate airways protective equipment	
6.2	Environmental precautions:		
	Do not dispose of in sewage, Protection and Rescue Directo	drainage system and waterways. In case of large spillage contact National orate (NPRD) on 112.	
6.3	Methods and material for cor	ntainment and cleaning up	
6.3.1.	Bunding, covering of drains; capping procedures:	Sand protective barrier or barriers made of similar materials.	
6.3.2.	Cleaning up:	Where possible, the substance can be absorbed by using absorbing material. Place the waste material in tightly closed impermeable containers. Store the substance in well ventilated storage rooms until disposal. Submit for disposal to the legal persons authorized by the Ministry of Environmental and Nature Protection. After disposal of the products, wash the area and and involved materials with water.	
6.3.3.	Other information:	Secure proper ventilation. Do not use incompatible materials (see Section 10).	
6.4	Reference to other sections		
	See Section 7 for information on safe handling. See Section 8 for information on personal protection equipment.		
	See Section 13 for disposal information.		

SECTIO	SECTION 7. Handling and storage					
7.1	Precautions for safe handling					
7.1.1.	Protection measures					
	Measures to prevent fire:		Use in well ventilated storage rooms. Keep away from sources of ignition and heat. Do not use tools that cause sparks. Do not smoke.			
	Measures to prevent aerosol and dust generation:		Secure proper ventilation.			
	Measures to protect the environment:		Prevent spilling into the sewage system and waterways.			
	Other measures:		Protect against electrostatic charges.			
7.1.2.	Advice on general occupational hygiene:					
	Do not eat, drink or smoke in the workspace. The	oroughly was	sh hands after work and before eating.			
7.2	Conditions for safe storage, including any incompatibilities					
	Technical measures and storage conditions:	well ventila	htly closed and upright set containers in a ated storage rooms at temperatures ranging 25 °C. Protect from heat and direct sunlight.			



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Trading name:		ALCIAN YELLO	W, SOLUTION		
Product code:	AY-OT-X**	Revision date:	27 August 2019	Version:	3

	Packaging materials:	Manufacturer's original packaging.
	Requirements for storage rooms and vessels:	Keep away from food and drink. Keep the containers tightly closed.
	Advices for storage equipment:	The storage must be made of hard material; floors must be resistant to chemicals. There must be no drain that directly leads into sewage system. Secure proper ventilation.
	Further information on storage conditions:	Do not place the unused material in the storage room and do not use empty containers for storing other chemicals. Do not store with incompatible materials (see Section 10).
7.3	Specific end use(s)	
	Recommendations:	-
	Industrial sector specific solutions:	-

Indus	trial se	ctor spe	cific solut	ions:		-				
SECTION 8. Ex	kposur	re contr	ols/perso	nal pı	rotectio	n				
8.1 Contr	ol para	ameters								
Subst	ance		CA	S No		•	•	osure limit m values		Biological limit values
						ppm		mg/m³		_
Ethanol			64-	17-5		1000/	-	1900/-		-
					<u>, </u>		"		1.	
Substance nan	ne:	_								
EC No:		-	CAS No	:	_					
DNEL	:		1							
						Industr	ial			
Route of		Acı	ute		Acute		(Chronic		Chronic
exposure:		effect	local	effe	ct syste	mic	ef	fect local		effect systemic
Oral	-	-		-		-				-
Inhalation		-		-		-	-			950 mg/m³ (ethanol)
Dermal	-	-		-		-	•			343 mg/kg (ethanol)
Critical physica	al paraı	meters: s	solubility,	flamm	nability, o	corrosiv	ity:	-		
					(Consun	ner			
Route of		A	cute		Acute		(Chronic		Chronic
exposure:		effec	t local	effe	ect syste	mic	ef	fect local		effect systemic
Oral		-		-		-				-
Inhalation		-		-			-			114 mg/m³ (ethanol)
Dermal		_		_		-				206 mg/kg (ethanol)



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Trading name:		ALCIAN YELLO	W, SOLUTION		
Product code:	AY-OT-X**	Revision date:	27 August 2019	Version:	3

Product	code:	AY-UI-X**	revision date:	27 August 2019	version.	3			
		<u> </u>	·						
Environmental protection target			PNEC	PNEC					
Fresh wa	iter		0.96 mg/l (ethanol)					
Freshwat	ter sedime	ents	3.6 mg/kg	(ethanol)					
Marine w	vater		0.79 mg/l (ethanol)					
Marine s	ediments		no informa	tion available					
Food cha	ain		no informa	no information available					
Microorganisms in sewage treatment			no informa	no information available					
Soil (agri	icultural)		0.63 mg/kg	0.63 mg/kg (ethanol)					
Air			no informa	no information available					
			<u>.</u>						
8.2	Exposure controls								
8.2.1.	Appropriate engineering controls								
	Subst	ance/mixture related measures	Use the pro	oduct in well ventilated ro	oms. Use persona	al			

8.2	Exposure controls			
8.2.1.	Appropriate engineering controls			
	Substance/mixture related measu prevent exposure during identifie		Use the product in well ventilated rooms. Use personal protective equipment. Do not eat, drink or smoke in the workspace.	
	Structural measures to prevent exposure:		In accordance with Section 7.	
	Organisational measures to preve exposure:	ent	Organization of work in order to reduce other worker's influence during work process.	
	Technical measures to prevent ex	posure:	Secure proper workspace ventilation in order to keep concentration levels in air below permitted levels. Secure stations for rinsing eyes and showering.	
8.2.2.	Personal protection equipment			
8.2.2.1.	Eye and face protection:	Safety glasses that stick to face (EN 166) or visor in case of lower levels of concentration in air; protective gas mask that covers the entire face in case of higher levels of concentration in air.		
8.2.2.2.	Skin protection			
	Hand protection:		otective gloves have to satisfy the specification of ation (EU) 2016/425 and the related standard EN 374. Glove material: nitrile rubber Glove thickness: 0.40 mm Time until perforation: > 480 min	
	Other skin protection:	footwe entire imperr	everyday work use cotton clothing (EN 340) and suitable ear, such as rubber boots (EN 20345) or shoes that cover the foot. In case of spilling hazard, use clothing made of meable material suitable for protection from liquid chemicals PVC, himex) and footwear made from the same material.	



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Trading name:		ALCIAN YELLO	W, SOLUTION		
Product code:	AY-OT-X**	Revision date:	27 August 2019	Version:	3

8.2.2.3.	Respiratory protection:	Protective full face mask (EN 136) or half mask (EN 140) equipped with a filter for organic vapors, type "A" (boiling point >65°C) according to EN 14387) used when concentration levels exceed GVI.			
8.2.2.4.	Thermal hazards:	No information available			
8.2.3.	Environmental exposure controls				
	Substance/mixture related measures to prevent exposure:	See Section 6			
	Structural measures to prevent exposure:	Use modern equipment.			
	Organisational measures to prevent exposure:	Adapt the work process to the required working conditions of the workplace.			
	Technical measures to prevent exposure:	See Section 6			

9.1	Information on basic physical and chemical properties						
		Value	Method				
	Physical state:	liquid	No information available				
	Colour:	dark amber	No information available				
	Odour:	alchohol like	No information available				
	Odor threshold:	No information available	No information available				
	pH:	No information available	No information available				
	Melting point / freezing point;	No information available	No information available				
	Initial boiling point and boiling range:	No information available	No information available				
	Flash point:	23 °C	No information available				
	Evaporation rate:	No information available	No information available				
	Flammability (solid, gas):	No information available	No information available				
	Upper/lower flammability or explosive limits:	No information available	No information available				
	Vapour pressure:	No information available	No information available				
	Vapour density:	No information available	No information available				
	Relative density:	No information available	No information available				
	Bulk density:	No information available	No information available				
	Solubility(ies):	1 g/l (20°C)	No information available				
	Partition coefficient: n-octanol/water (log Kow):	No information available	No information available				
	Auto-ignition temperature:	No information available	No information available				



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Trading name:	ALCIAN YELLOW, SOLUTION				
Product code:	AY-OT-X**	Revision date:	27 August 2019	Version:	3

	Decomposition temperature:	No information available	No information available
	Viscosity:	No information available	No information available
	Explosive properties:	No information available	No information available
	Oxidising properties:	No information available	No information available
9.2	Other information		
	-		

SECTIO	SECTION 10. Stability and reactivity				
10.1	Reactivity:	See subsections 10.3 through 10.5.			
10.2	Chemical stability:	The product is chemically stable under standard ambient conditions of storing and using (room temperature).			
10.3	Possibility of hazardous reactions:	No dangerous reactions known.			
10.4	Conditions to avoid:	Avoid heat, sparks, open flames and other ignition sources.			
10.5	Incompatible materials:	No further relevant information available.			
10.6	Hazardous decomposition products:	No dangerous decompostion products known.			

SECTION 11. Toxico	logical infor	mation						
11.1 Information	on toxicolog	ical effects						
Acute toxicit	y:							
Route of exposure:	Method Specie		Dose LD_{50}/LC_{50} or ATE_{mix}			Exposure time		Results
Oral:	-	rat (ethanc	ol)	LD ₅	0	-		7.060 mg/kg
Dermal:	_	-		_		_		-
Inhalation:	-	rat (ethanc	ol)	LC ₅	0	4 h		20.000 mg/l
Specific targ	et organ toxi	city – single e	xposure (S	STOT SE):			
Specific effects			Target organ			n		Note
Oral:	No informati	No information available			-			
Dermal:	No informati	on available	No information available			-		
Inhalation:	No informati	on available	No information available -				-	
Aspiration ha	azard:		No infor	mation a	available.			
Irritation and	l corrosion							
	Expos	sure time	Spec	cies	Evaluation	Method		Note
Skin corrosion/irritation:	-		-		-	-	-	



Serious eye

Inhalation exposure:

Eye exposure:

SAFETY DATA SHEET BIOGNOST® According to Regulation (EC) No. 1907/2006

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	ALCIAN YELLO	OW, SOLUTION		
Y-OT-X**	Revision date:	27 August 2019	Version:	3
`	/-OT-X**		ALCIAN YELLOW, SOLUTION 7-OT-X** Revision date: 27 August 2019	•

damage/irritation	-		- -	-	
Sensitization	1				
Skin sensitization:	No in	formation available.			
Respiratory sensitizat	ion: No in	formation available.			
Symptoms r	elated to the p	hysical, chemical and tox	kicological cha	racteristics	
Oral exposure:	No informat	ion available.			
Dermal exposure:	No informat	ion available.			

Repeated dose toxicity (subacute, subchronic, chronic)

No information available.

No information available.

	Dose	Exposure time	Species	Method	Evaluation	Note
Subacute oral	No information available	No information available	No information available	No information available	No information available	-
Subacute dermal	No information available	No information available	No information available	No information available	No information available	-
Subacute inhalation	No information available	No information available	No information available	No information available	No information available	_
Subchronic oral	No information available	No information available	No information available	No information available	No information available	-
Subchronic dermal	No information available	No information available	No information available	No information available	No information available	-
Subchronic inhalation	No information available	No information available	No information available	No information available	No information available	-
Chronic oral	No information available	No information available	No information available	No information available	No information available	-
Chronic dermal	No information available	No information available	No information available	No information available	No information available	-



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Trading name:				ALCIAN YELI	OW, SOLUTIO	N		
Product code:	AY	′-OT-X**	Re	evision date:	27 August	Version:	3	
Chronic No informinhalation available		information able	No information available	No information available	No information available	No information	on -	
Specific	target	organ toxicit	y – repeated e	exposure (STOT	RE):			
			Specific effec	cts	Target o	organ	Note	
Subacute oral		No informa	ation available		No informatio	n available	-	
Subacute derma	l	No information available			No informatio	-		
Subacute inhalat	No informa	No information available			n available	-		
Subchronic oral No information ava		ation available		No informatio	n available	-		
Subchronic derm	Subchronic dermal No information		tion available		No informatio	n available	-	
Subchronic inhal	ation	No informa	ation available	on available		n available	-	
Chronic oral		No informa	tion available		No information available		-	
Chronic dermal		No informa	ation available		No information available		-	
Chronic inhalation	n	No informa	ation available		No information available		-	
CMR ef	fects (c	arcinogenicit	y; mutagenicit	y; reproductive	toxicity)			
Carcinogenicity:				Based on available data, the classification criteria are not met.				
Mutagenicity in vitro:				Based on available data, the classification criteria are not met.				
Genotoxicity:				Based on available data, the classification criteria are not met.				
Mutage	nicity i	n vivo:		Based on avail	able data, the cla	assification c	riteria are not i	met.
Germ ce	ell mut	agenicity:		Based on avail	able data, the cla	assification c	riteria are not i	met.
Reprod	uctive 1	toxicity:		Based on avail	able data, the cla	assification c	riteria are not i	met.

	properties.	met.
11.2	Practical experiences:	
	Classification observations:	No information available
	Other observations:	No information available
11.3	General notes:	
	-	

Based on available data, the classification criteria are not

Summary of evaluation of the CMR

SECTION 12. Ecological information
12.1 Toxicity



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Trading name:		ALCIAN YELLO	OW, SOLUTION		
Product code:	AY-OT-X**	Revision date:	27 August 2019	Version:	3

Acute (short-te toxicity	rm)	Dose	Exposur time	e Species	Method	Evaluation	Note	
Fish		LC ₅₀	96 hours	No information available	No information available	No information available	-	
Crustacea:		EC ₅₀	48 hours	No information available	No information available	No information available	-	
Algae/aquatic p	olants	IC ₅₀	4 days	No information available	No information available	No information available	-	
Other organism	าร	-	-	-	-	-	-	
Chronic (long-t toxicity	erm)	Dose	Exposur time	e Species	Method	Evaluation	Note	
Fish		LC ₅₀	96 hours	No information available	No information available	No information available	-	
Crustacea:		EC ₅₀	48 hours	No information available	No information available	No information available	-	
Algae/aquatic p	olants	IC ₅₀	72 hours	No information available	No information available	No information available	-	
Other organism	าร	-	-	-	-	-	-	
12.2 Persist	tence a	nd degradab	ilitv					
	c degra		-)					
		gradation ha	If-lives	Method	Evaluatio	n	Note	
Marine water	arine water No information available		/ailable	No information available	No informatio available	n -	-	
Fresh water No informatio		nformation av	/ailable	No information available	No informatio available	n -	-	
Air	No information available No information available No information available		n -	-				
Soil	No information available		/ailable	No information available	No informatio available	n -	-	
Biode	gradatio	on						
% Degradati	_	Time (d	ays)	Method	Evaluatio	n	Note	
No information available	1		ormation	No information available	No informatio available		ormation	



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Trading	g name:				A	LCIAN	I YELLO	W, SOLUTIO	N			
Produc	t code:	AY-O	T-X**		Revis	sion d	ate:	27 August	2019	١	/ersion:	3
	:											
12.3	Bioaccum	ulative p	otential									
	Octanol-w	ater pai	rtition coeff	cient (log Kow)		1		-		
Valu	e Co	ncentrat	tion p	Н	°C	M	ethod	Evalua	ation		Note	
-	-		-			-		-		-		
	T											
	Bioconcen	tration	factor (BCF)						ī			
V	'alue		Species		١	Method	t t	Evaluation	on		Note	
No info availabl	rmation	No availak	inform	ation	No info		on	No information	on	-		
avallabl	е	avallat	one		avallab	ie		avaliable				
	Chronic ed	otoxicit	·V									
	1	.010/11010		Exp	osure							
	Value		Dose		ime	Spe	ecies	Method	Evalua	ation	Note	
				No		No		No	No			
Chronic	toxicity on	fish	LC ₅₀	infor availa	mation	infori availa	mation	information available	informa availabl		-	
				No	anie	No	anie	No	No	ie		
	toxicity on	`	EC ₅₀		mation		mation	information	informa	ation	_	
crustace	ea (<i>Daphnia</i>)		availa	able	availa	able	available	availabl	le		
12.4	Mobility in	n soil										
	Known or	predicte	ed distributi	on in e	environm	ental o	compart	ments:				
	No inform	ation av	vailable									
	Surface te	nsion:										
	Value		°C	C	oncentra	ition		Method			Note	
	No	No.		No	informa	tion	No inf	ormation				
	information available		ormation ailable	ava	ilable		availab	ole	-			
	I	<u>i</u>					.i		ii			



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Trading name:		ALCIAN YELLOV	V, SOLUTION		
Product code:	AY-OT-X**	Revision date:	27 August 2019	Version:	3

	Adsorption / desorption				
Transpo	rt A/D coefficient Henry's constant	log Kow	Evaporation rate	Method	Note
Soil-wat	er No information available	No information available	No information available	No information available	-
Water-a	ir No information available	No information available	No information available	No information available	-
Soil-air	No information available	No information available	No information available	-	
12.5	Results of PBT and vPvB asse	ssment			
	Not applicable.				
10.6	Oth #				
12.6	Other adverse effects No further relevant informati	on available			
	NO further relevant informati	on available.			
SECTION	N 13. Disposal consideration	nc			
13.1	Waste treatment methods	15			
13.1	waste treatment methods				
13.1.1.	Product/Packaging disposa	ıl:			
	Submit for disposal to the I		rized by the Ministr	y of Environmental	and Nature
	Protection.				
13.1.2.	Waste codes/waste designate	ations according to	Law:		
	Packaging that contains res	sidual hazardous si	ubstances or is cont	aminated with haza	ardous substances
13.1.3.	Waste treatment – relevant	information:			
	No information available				
13.1.4.	Sewage disposal – relevant	information:			
	Waste must not be dispose	d of into the sewa	ge system.		
	Other disposal recommend	ations:			
13.1.5.		uct's romains into	the sewage system.	Submit the remain	is to the collectors
13.1.5.	Do not dispose of the prod authorized by the ministry the packaging to the collect	in charge. Do not o	dispose of the pack		ge system. Submit
13.1.5. 13.1.6.	authorized by the ministry	in charge. Do not o tors authorized by	dispose of the pack		ge system. Submit



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Trading name:	ALCIAN YELLOW, SOLUTION				
Product code:	AY-OT-X**	Revision date:	27 August 2019	Version:	3

SECTION 14 TRANSPORT INFORMATIO	N		
Transporting/shipment by road (ADR)		
UN number:	1170		
UN proper shipping name:	Ethanol solution		
Transport hazard class(es):	3		
Packing group:	ш		
Environmentally hazardous:	-		
Special precautions for user:	-		
Transporting/shipment by rail (R	ID)		
UN number:	1170		
UN proper shipping name:	Ethanol solution		
Transport hazard class(es):	3		
Packing group:	ш		
Environmentally hazardous:	-		
Special precautions for user:	-		
Inland waterway transport (ADN)			
UN number:	1170		
UN proper shipping name:	Ethanol solution		
Transport hazard class(es):	3		
Packing group:	ш		
Environmentally hazardous:	-		
Special precautions for user:	-		
Transporting/shipment by sea (IN	MDG)		
UN number:	1170		
UN proper shipping name:	Ethanol solution		
Transport hazard class(es):	3		
Packing group:	ш		
Environmentally hazardous:	-		
Special precautions for user:	-		
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code:	-		
Transporting/shipment by air (ICAO-TI/IATA-DGR)			
UN number:	1170		
UN proper shipping name:	Ethanol solution		
Transport hazard class(es):	3		



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Packing group:	III	
Environmentally hazardous:		
Special precautions for user:		
Further information: -		

SECTIO	SECTION 15. Regulatory information				
15.1	Safety, health and environm	ental regulations/legislation specific for the substance or mixture			
	EU regulations				
	Authorization and/or restric	tions of use			
	Authorizations: - Restrictions: -				
	Other EU regulations:	EC Regulation No. 1906/2007 and EC Regulation No. 1272/2008 of the European Parliament and the European Council; Regulation (EC) No. 1907/2006 of the European Parliament and Council on registration, evaluation, authorization and restriction of chemical substances (REACH); EC Regulation No. 2037/200 of the European Parliament and Council from 29 June 2000 on substances that damage the ozone layer; EC Regulation No. 689/2008 of the European Parliament and Council from 17 June 2008 concerning the export and import of dangerous chemicals; EC Regulation No. 850/2004 of the European Parliament and Council from 29 April 2004 about persistent organic pollutants; Directive 2008/98/EC of the European Parliament and Council of 19 November 2008 on waste and repealing certain Directives			
	Information according 1999 guideline)	/13/EC about limitation of emissions of volatile organic compounds (VOC-			
	Chemicals Act, Regulation on classification, packaging and labeling dangerous substances, Ordinance on occupational exposure limit values, Regulation on categories, types and classification of waste with a waste catalog and list of hazardous wordinance on writing Material safety data sheet, Transport of Hazardous Act				
15.2	Chemical safety assessment				
	None				

SECTION 16. Other information		
16.1	Indication of changes:	-



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Trading name:		ALCIAN YELLOV	W, SOLUTION		
	AY-OT-X**	Revision date:	27 August 2019	Version:	3

		PBT	Stable, bioaccumulative and toxic	
		vPvB	Strongly stable and strongly bioaccumulative.	
16.2	Abbreviations and acronyms:	LD ₅₀	Lethal dose, 50%	
		LC ₅₀	Lethal concentration, 50%	
		TCOJ	Specific target organ toxicity - single exposure	
16.3.	Key literature references and source of data:	-		
16.4. Classification and procedure u 1272/2008 (CLP)		used to derive tl	ne classification for mixture according to Regulation (EC)	
Classific	cation	Classification procedure		
_		-		
16.5.	Relevant H statements (numb	er and full text)		
	H: H225	Highly flammable liquid and vapor.		
16.6.	Training advice:	-		
		** "X" in the product code marks different volumes (different packagings the product)		
16.7.	Further information:		oonsible for consequences in case of failure to comply with use or improper use of the product described in this data sheet.	

ANNEX: Exposure scenario	resulting to chemica	l safety assessment
---------------------------------	----------------------	---------------------



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7	Trading name:	BUFFER SOLUTION, A.T.			<u> </u>	
F	Product code:	PO-OT-X**	Date of compilation:	12 July 2019	Version:	2

SECTI	ON 1: Identification of	the substance	e/mixture	and of the company/undertaking		
1.1	Product identifier					
	Trading name:	BUFFER SO	LUTION, A	JTION, A.T.		
	Chemical name:	-				
	Catalogue number:	PO-OT-X**				
1.2	Relevant identified use	es of the subs	tance or n	nixture and uses advised against		
	Uses:		For use	with Alcian Yellow Toluidine Blue kit.		
	Uses advised against:		Only the	e identified uses are advised.		
	Reason why uses advi	sed against:	medical	duct is intended for use only as an <i>in vitro</i> diagnostic device, registered at the Agency for Medicinal Products and Devices and there is no reason to use it for other purposes.		
1.3	Details of the supplier	Details of the supplier of the safety data sheet				
	Supplier:		BioGnos	BioGnost Ltd.		
	Address:		Medjugo	ledjugorska 59, Zagreb 385 1 2409997		
	Telephone number:		+385 1 2			
	Telefax.:		+385 1 2	2404039		
	e-mail of competent p	person:	msds@b	oiognost.hr		
	National contact:		-			
1.4	Emergency telephone	Emergency telephone number				
	National Protection ar	nd Rescue Dire	ectorate:	112		
	Medical information:			+385 1 2348 342		
	Other information:			-		

SECTIO	SECTION 2. Hazards identification				
2.1	Classification of the substance	or mixture			
2.1.1	Classification according to Regu	ulation (EC) No 12	272/2008 (CLP)		
	Hazard class and catego	ory code:		Hazard statements*:	
	Repr. 1B		H36FD		
2.1.2.	Additional information				
	-				
*For ful	I text of Hazard- and EU Hazard-	statements: see S	ECTION 16		
2.2	Label elements				
	Product identification: BUFFER SOLUTION, A.T.				
	Identification number: -				
	Authorization number:	-			



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Trading name:	BUFFER SOLUTION, A.T.				
Product code:	PO-OT-X**	Date of compilation:	12 July 2019	Version:	2

	Hazard pictograms:	GHS08
	Signal word:	Danger
	Hazard statements:	H360FD May damage fertiliy. May damage the unborn child.
	Precautionary statements:	P201 Obtain special instructions before use. P308+P313 IF exposed or concerned: Get medical advice/attention.
	Supplemetal hazard information (EU):	-
2.3	Other hazards	
	-	

SECTION 3. Co.	SECTION 3. Composition/information on ingredients						
CAS/ EC/ Index number	REACH Registration No	Weight % content (or range)	Identification name	Classification according to Regulation (EC) No 1272/2008 (CLP)			
1330-43-4/ 215-540-4/ 005-011-00-4	-	< 2%	sodium tetraborate	Repr. 1B; H360 FD			

SECTI	SECTION 4. First aid measures				
4.1	Description of first aid measures				
	General notes:	If the suggested first aid measures do not prove sufficient, seek medical attention.			
	Following inhalation:	Carry the afflicted person out of the contaminated area into a well-ventilated area or out for fresh air. In case of difficult breathing, provide the afflicted person with oxygen.			
	Following skin contact:	Remove contaminated clothing. Immediately wash with plenty of water for at least 20 minutes. Seek medical assistance if the symptoms of irritation remain.			
	Following eye contact:	Rinse out with plenty of water with the eyelid held wide open for at least 20 minutes. If the symptoms remain, immediately call in ophthalmologist.			
	Following ingestion:	DO NOT induce vomiting. Rinse the oral cavity, drink 1-2 glasses of water. Immediately consult a physician and show the container or label.			
	Self-protection of the first aider:	-			
4.2	Most important symptoms and ef	fects, both acute and delayed			



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Trading name:	BUFFER SOLUTION, A.T.				
Product code:	PO-OT-X**	Date of compilation:	12 July 2019	Version:	2

	Following inhalation:	May cause eye irritation and upper respiratory system (stinging sensation, irritation). Bronchoconstriction is possible. Possible symptoms include CNS symptoms such as headache, vertigo, intoxication and loss of consciousness after exposure to higher levels of concentration.		
	Following skin contact:	Defatting, dry skin.		
	Following eye contact:	Splatter may cause discomfort, stinging sensation, conjunctival redness, corneal surface lesions.		
	Following ingestion:	It may lead to occurrence of strong sensation of stinging, headache, vertigo, intoxication and loss of consciousness after exposure to higher levels of concentration. If denaturants are present, dyspepsia may occur (such as vomiting).		
4.3	Indication of any immediate medical attention and special treatment needed			
	-			

SECTIO	SECTION 5. Firefighting measures				
5.1	Extinguishing media				
	Suitable extinguishing media:	Small fire - water spray, dry powder, CO ₂ Large fire - water spray or alcohol-resistant foam			
	Unsuitable extinguishing media:	No information available			
5.2	Special hazards arising from the substance or mixture				
	Hazardous combustion products:	No information available.			
5.3	Advice for firefighters				
	Use a self-contained open-circuit compressed air breathing apparatus and fireproof clothing.				
5.4	Additional information				
	Do not contaminate the environme	ent with extinguishing media.			

SECTIO	SECTION 6. Accidental release measures				
6.1	Personal precautions, protective	e equipment and emergency procedures			
6.1.1.	For non-emergency personnel				
	Protective equipment: Use personal protective equipment (see Section 8).				
	Accident prevention methods:	Evacuate members of all non-essential personnel and those members without protective equipment. Avoid breathing vapors and avoid contact with skin and eyes. Do not smoke.			
	Emergency procedures:	Mark the area using proper signs.			
6.1.2.	For emergency responders:				
	Use protective equipment; in case of inadequate ventilation use adequate airways protective equipment (see Section 8).				
6.2	Environmental precautions:				



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Product code:	PO-OT-X**	Date of compilation:	12 July 2019	Version:	2

	Do not dispose of in sewage, drainage system and waterways. In case of large spillage contact National Protection and Rescue Directorate (NPRD) on 112.		
6.3	Methods and material for containment and cleaning up		
6.3.1.	Bunding, covering of drains; capping procedures:	Sand or clay barriers.	
6.3.2.	Cleaning up:	Sawdust, sand, mineral adsorbents.	
6.3.3.	Other information:	Do not use incompatible materials (see Section 10).	
6.4	Reference to other sections		
	-		

SECTIO	ON 7. Handling and storage			
7.1	Precautions for safe handling			
7.1.1.	Protection measures			
	Measures to prevent fire:		Use in well ventilated storage rooms.	
	Measures to prevent aerosol and dust generation	n:	Secure proper ventilation.	
	Measures to protect the environment:		Prevent spilling into the sewage system and waterways.	
	Other measures:		-	
7.1.2.	Advice on general occupational hygiene:			
	Do not eat, drink or smoke in the workspace. Thoroughly wash hands after work and before eating.			
7.2	Conditions for safe storage, including any incompatibilities			
	Technical measures and storage conditions:		htly closed and upright set containers in a ated storage roomsat temperatures ranging 25 °C.	
	Packaging materials:	Manufacturer's original packaging. Keep away from food and drink. Keep the contain tightly closed. The storage must be made of hard material; floor must be resistant to chemicals. There must be not that directly leads into sewage system. Secure proventilation.		
	Requirements for storage rooms and vessels:			
	Advices for storage equipment:			
	Further information on storage conditions:	and do no	to the unused material in the storage room to use empty containers for storing other. Do not store with incompatible materials on 10).	
7.3	Specific end use(s)			
	Recommendations:	-		
	Industrial sector specific solutions:	_		



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Trading name:	BUFFER SOLUTION, A.T.				
Product code:	PO-OT-X**	Date of compilation:	12 July 2019	Version:	2

SECTION 8. Exposure controls/personal protection								
8.1 Control parameters								
Substance		CAS No			Occupational exposure limit values/short term values		Biological limit values	
				F	ppm mg/m ³			
Disodium tetrabora anhydrous; Boric ad		1330-43-4			-	5	-	
Substance name:	-							
EC No:	-	CAS No	: -					
DNEL								
				Ind	lustrial			
Route of	Acu	ite	Acut	te		Chronic	Chronic	
exposure:	effect	local	effect sys	stemic		effect local	effect systemic	
Oral	-		-		-		-	
Inhalation	-		-		-		-	
Dermal	-		-		-		-	
Critical physical par	rameters: s	solubility,	flammabilit	ty, cor	rosivity:	-		
	1		1	Cor	nsumer			
Route of		cute			Chronic		Chronic	
exposure:		t local	effect system			effect local	effect systemic	
Oral	-		-		-		-	
Inhalation Dermal	-		-		-		-	
PNEC	-		-		-		-	
Environmental prot	tection tar	net			PNEC			
Fresh water	teetion tary	901			No information available			
Freshwater sedime	nts				No information available			
Marine water					No information available			
Marine sediments					No information available			
Food chain					No information available			
Microorganisms in sewage treatment				No information available				
Soil (agricultural)					No information available			
Air					No information available			
8.2 Exposi	ure contro	ls						



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Product code:	PO-OT-X**	Date of compilation:	12 July 2019	Version:	2

8.2.1.	Appropriate engineering control	S			
	Substance/mixture related measurevent exposure during identified		Use the product in well ventilated rooms. Use personal protective equipment. Do not eat, drink or smoke in the workspace.		
	Structural measures to prevent exposure:		In accordance with Section 7.		
	Organisational measures to preve exposure:	ent	Organization of work in order to reduce other worker's influence during work process.		
	Technical measures to prevent ex	rposure:	Secure proper workspace ventilation in order to keep concentration levels in air below permitted levels. Secure stations for rinsing eyes and showering.		
8.2.2.	Personal protection equipment				
8.2.2.1.	Eye and face protection:	Safety glasses that stick to face (EN 166) or visor in case of low levels of concentration in air; protective gas mask that covers the entire face in case of higher levels of concentration in air.			
8.2.2.2.	Skin protection				
	Hand protection: Protect		tive nitrile gloves, 0.11 mm thick (EN 374).		
	Other skin protection:		nntistatic clothing made of natural fibers (such as cotton) ng sleeves (EN 340) and shoes that cover the entire foot.		
8.2.2.3.	Respiratory protection:		adequate ventilation to the premises where the product is and/or handled.		
8.2.2.4.	Thermal hazards:	No info	ormation available		
8.2.3.	Environmental exposure controls				
	Substance/mixture related measures to prevent exposure:		e Section 6		
	Structural measures to prevent exposure:		modern equipment.		
	Organisational measures to Adapt prevent exposure: workpl		ot the work process to the required working conditions of the place.		
	Technical measures to prevent exposure:		ection 6		

SECTI	SECTION 9. Physical and chemical properties					
9.1	Information on basic physical and chemical properties					
	Value Method					
	Physical state:	No information available				
	Colour: colourless Odour: No information available		No information available			
			No information available			
	Odor threshold:	No information available	No information available			
	pH: 8.2 - 8.6 No information available					



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Trading name:	BUFFER SOLUTION, A.T.				
Product code:	PO-OT-X**	Date of compilation:	12 July 2019	Version:	2

	Melting point / freezing point;	No information available	No information available
	Initial boiling point and boiling range:	No information available	No information available
	Flash point:	No information available	No information available
	Evaporation rate:	No information available	No information available
	Flammability (solid, gas):	No information available	No information available
	Upper/lower flammability or explosive limits:	No information available	No information available
	Vapour pressure:	No information available	No information available
	Vapour density:	No information available	No information available
	Relative density:	No information available	No information available
	Bulk density:	No information available	No information available
	Solubility(ies):	No information available	No information available
	Partition coefficient: n-octanol/water (log Kow):	No information available	No information available
	Auto-ignition temperature:	No information available	No information available
	Decomposition temperature:	No information available	No information available
	Viscosity:	No information available	No information available
	Explosive properties:	No information available	No information available
	Oxidising properties:	No information available	No information available
9.2	Other information		

SECTIO	SECTION 10. Stability and reactivity			
10.1	Reactivity:	No information available		
10.2	Chemical stability:	No information available		
10.3	Possibility of hazardous reactions:	No information available		
10.4	Conditions to avoid:	No information available		
10.5	Incompatible materials:	Strong oxidizing agents, strong reducing agents		
10.6	Hazardous decomposition products:	No information available		

SECTIO	SECTION 11. Toxicological information							
11.1	11.1 Information on toxicological effects							
	Acute toxicity:							
Route of exposure:		Method	Species	Dose LD ₅₀ /LC ₅₀ or ATE _{mix}	Exposure time	Results		



							F	Page 8 of 1	5
Trading name:			BUFF	ER SC	DLUTION,	A.T.			
Product code:	PO-OT-X**	D	ate of co	mpila	tion: 1	2 July 2019	١	Version:	2
Oral:		at (sodium etraborate)	LD		LD ₅₀	No inform	nation	4.500 – mg/k	
Dermal:		No information available		No information available		No inform available	No information available		
Inhalation:		at (sodium etraborate)			LC ₅₀	4h		>2.04 r	ng/l
Specific	target organ toxici	ty – single exp	osure (ST	OT SE)	:				
<u> </u>		cific effects			Target or	gan		Note	
Oral:	No information	n available		No info	ormation av		-		
Dermal:	No information	n available		No inf	ormation av	/ailable	-		
Inhalation:	No information	n available			ormation av		-		
	:		i				i		
Aspirat	ion hazard:	١	No inform	ation a	available.				
: · · · · · · · · · · · · · · · · · · ·		;							
Irritatio	n and corrosion								
	Exposu	re time	Specie	!S	Evaluatio	n Method	d	Note	
Skin corrosion/irritati	on:	r	abbit		-	–	no	skin irritatio	on
Serious eye damage/irritatio	- n	r	abbit		-	–	no	skin irritatio	on
Sensitiz	ration								
Skin sensitizatio	n: -								
Respiratory sens	sitization: -								
	i .								
Sympto	oms related to the p	hysical, chemic	cal and to	xicolo	gical charac	teristics			
Oral exposure:		tion available							
Dermal exposure	e: No informat	tion available							
Inhalation expos		tion available							
Eye exposure:	No informat	tion available							
Repeat	ed dose toxicity (sul	bacute, subchr	onic, chro	nic)					
·	Dose	Exposure time	Species	5	Method	Evalu	ation	Note	
Subacute oral	No information available	No information available	No informa availab		No informat available		mation able	-	



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Trading name:		BUFFER SOLUTION	ON, A.T.	<u> </u>	
Product code:	PO-OT-X**	Date of compilation:	12 July 2019	Version:	2

Subacute dermal	No information available	No information available	No information available	No information available	No information available	-
Subacute inhalation	No information available	No information available	No information available	No information available	No information available	-
Subchronic oral	No information available	No information available	No information available	No information available	No information available	-
Subchronic dermal	No information available	No information available	No information available	No information available	No information available	-
Subchronic inhalation	No information available	No information available	No information available	No information available	No information available	-
Chronic oral	No information available	No information available	No information available	No information available	No information available	-
Chronic dermal	No information available	No information available	No information available	No information available	No information available	-
Chronic inhalation	No information available	No information available	No information available	No information available	No information available	-

Specific target organ toxicity – repeated exposure (STOT RE):

	Specific effects	Target organ	Note
Subacute oral	No information available	No information available	-
Subacute dermal	No information available	No information available	-
Subacute inhalation	No information available	No information available	-
Subchronic oral	No information available	No information available	-
Subchronic dermal	No information available	No information available	-
Subchronic inhalation	No information available	No information available	-
Chronic oral	No information available	No information available	-
Chronic dermal	No information available	No information available	-
Chronic inhalation	No information available	No information available	-

CMR effects (carcinogenicity; mutagenicity; reproductive toxicity)					
Carcinogenicity:	No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.				



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Trading name:		BUFFER SOLUTION	ON, A.T.	<u> </u>	
Product code:	PO-OT-X**	Date of compilation:	12 July 2019	Version:	2

	Mutagenicity in vitro:	No information available
	Genotoxicity:	No information available
	Mutagenicity in vivo:	No information available
	Germ cell mutagenicity:	No information available
	Reproductive toxicity:	Presumed human reproductive toxicant
	Summary of evaluation of the CMR properties:	No information available
11.2	Practical experiences:	
	Classification observations:	No information available
	Other observations:	No information available
11.3	General notes:	

SECTION 12. Ecologic	cal informat	ion				
12.1 Toxicity						
Acute (short-term) toxicity	Dose	Exposure time	Species	Method	Evaluation	Note
Fish	LC ₅₀	96 hours	No information available	No information available	No information available	-
Crustacea:	EC ₅₀	48 hours	Daphnia magna (Water flea)	No information available	No information available	1.085-1.402 mg/l (sodium tetraborate)
Algae/aquatic plants	IC ₅₀	4 days	Desmodesmus subspicatus (green algae)	No information available	No information available	158 mg/l (sodium tetraborate)
Other organisms	-	-	-	-	-	-
Chronic (long-term) toxicity	Dose	Exposure time	Species	Method	Evaluation	Note
Fish	LC ₅₀	96 hours	No information available	No information available	No information available	-
Crustacea:	EC ₅₀	48 hours	No information available	No information available	No information available	-



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Trading name:		BUFFER SOLUTION, A.T.									
Product code:	P	O-OT-X**		Da	ite of compilat	tion:	12 July	/ 2019	Ve	rsion:	2
	I			i							
Algae/aquatic p	lants	IC ₅₀	72 hours		lo information vailable	No inforr availa	nation ble	No information available	on	-	
Other organism	S	-	-	-		-		-		-	
12.2 Persiste	ence a	nd degradab	oility								
Abiotic	degra	dation									
	De	gradation ha	alf-lives		Method		Evaluation	า		Note	
Marine water	No ir	nformation a	vailable	No ii avail	nformation able	No in availa	formatior ble) -			
Fresh water	No ir	nformation a	vailable	No ii avail	nformation able	No in availa	formatior ble	1 –			
Air	No information available		No ii avail	nformation able	No in availa	formatior ble	1 –				
Soil	No information available		No information available		No information available) -				
Biodeg	radatio	on									
% Degradation	n	Time (c	lays)		Method		Evaluatior	า		Note	
No information available		No int available	formation	No i avail	nformation able	No in availa	formatior ble		o infori ailable	mation	
12.2 Biograph		:									
		tive potential		log Vo	nu)						
Octano	l-wate	er partition co	pefficient (Evalue	ntion		Note	
Octano	l-wate	•		log Ko	Method		Evalua	ation		Note	
Octano	l-wate	er partition co	pefficient (ation	_	Note	
Octano	l-wate	er partition co	pefficient (Method	-		ation	-	Note	
Value -	l-wate Conce	er partition co	pH .		Method	-		ation	-	Note	
Value	l-wate Conce	er partition co entration	pH		Method -	-	-		-		
Value Biocon Value No information	Conce	er partition contration tion factor (E Specie	pH	°C -	Method Method Method	Noi	Evaluation	on	-	Note Note	
Value Biocon Value	Conce	er partition co entration tion factor (E	pH	°C -	Method Method Method	Noi	Evaluatio	on	-		
Value Biocon Value No information	Conce	er partition contration tion factor (E Specie	pH	°C -	Method Method Method	Noi	Evaluation	on	-		
Value Biocon Value No information	Conce	er partition contration tion factor (E Specie	pH	°C -	Method Method Method	Noi	Evaluation	on	-		



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Trading name:	BUFFER SOLUTION, A.T.						
Product code:	PO-OT-X**	Date of compilation:	12 July 2019	Version:	2		

	Value	Dose	Exposure time	Species	Meth	nod	Evaluation	Note
Chroni	c toxicity on fish	1 LC ₅₀	information i	No nformation available	No informa availab	ation i	No nformation available	-
	c toxicity on cea (<i>Daphnia</i>)	EC ₅₀	information i	No nformation available	No informa availab	ation i	No nformation available	-
12.4	Mobility in so	il						
	Known or pre	dicted distribut	ion in environmer	ntal compart	ments:			
	No information	on available						
	Surface tension	on:						
	Value	°C	Concentration	on	Metho	od		Note
	No information available	No information available	No information	on No inf availal	ormation ole	1	-	
Transp	ort	desorption coefficient y's constant	log Kow	Evaporati	on rate	Me	ethod	Note
Soil-wa	nter No available	information	No information available	No inform available	nation	No info	ormation le	-
Water-	air No available	information	No information available	No inform available	nation	No info	ormation le	-
Soil-air	. No available	information	No information available	No inform available	nation	No info	ormation le	-
	Results of PB	T and vPvB asse	ssment					
12.5								
12.5	No information	on available						
	No information							
12.5		e effects						
12.6	Other adverse	e effects	ıs					



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Trading name:		BUFFER SOLUTION, A.T.						
Product code:	PO-OT-X**	Date of compilation:	12 July 2019	Version:	2			

13.1.1.	Product/Packaging disposal:				
		gal person authorized by the Ministry of Environmental and Nature			
	Protection.	gai person dathonized by the ministry of Environmental and Nature			
13.1.2.	3.1.2. Waste codes/waste designations according to Law:				
Packaging that contains residual hazardous substances or is contaminated with hazardous substan					
13.1.3.	Waste treatment – relevant i	nformation:			
	No information available				
13.1.4.	Sewage disposal – relevant ir	nformation:			
	Waste must not be disposed	of into the sewage system.			
13.1.5.	Other disposal recommenda				
		ct's remains into the sewage system. Submit the remains to the collectors			
	-	charge. Do not dispose of the packaging into the sewage system. Submit ors authorized by the ministry in charge.			
13.1.6.	Relevant Community provision				
	-				
	<u> </u>				
SECTION	N 14 TRANSPORT INFORMAT	ION			
SECTIOI	N 14 TRANSPORT INFORMAT				
SECTION UN num	Transporting/shipment by road				
UN num	Transporting/shipment by road	d (ADR)			
UN num	Transporting/shipment by road	d (ADR)			
UN num	Transporting/shipment by road ober: oer shipping name: rt hazard class(es):	d (ADR) Not subject to transport regulations -			
UN num UN prop Transpor	Transporting/shipment by road ober: oer shipping name: rt hazard class(es):	d (ADR) Not subject to transport regulations -			
UN num UN prop Transpor Packing Environn	Transporting/shipment by road aber: per shipping name: rt hazard class(es): group:	Not subject to transport regulations			
UN num UN prop Transpor Packing Environn	Transporting/shipment by road ber: per shipping name: rt hazard class(es): group: mentally hazardous:	Not subject to transport regulations			
UN num UN prop Transpor Packing Environn	Transporting/shipment by road ober: per shipping name: rt hazard class(es): group: mentally hazardous: precautions for user: Transporting/shipment by rail	Not subject to transport regulations			
UN num UN prop Transpor Packing Environr Special p	Transporting/shipment by road ober: per shipping name: rt hazard class(es): group: mentally hazardous: precautions for user: Transporting/shipment by rail	Not subject to transport regulations (RID)			
UN num UN prop Transpor Packing Environr Special p UN num UN prop	Transporting/shipment by road liber: Der shipping name: In thazard class(es): In group: In mentally hazardous: In precautions for user: In the shipment by rail of the shipment by rail of the shipment.	Not subject to transport regulations (RID) Not subject to transport regulations			
UN num UN prop Transpor Packing Environr Special p UN num UN prop	Transporting/shipment by road aber: Der shipping name: In thazard class(es): In group: In mentally hazardous: In precautions for user: In transporting/shipment by rail of the shipping name: In thazard class(es): In thazard class(es):	Not subject to transport regulations (RID) Not subject to transport regulations -			
UN num UN prop Transpor Packing Environr Special p UN num UN prop Transpor	Transporting/shipment by road aber: Der shipping name: In thazard class(es): In group: In mentally hazardous: In precautions for user: In transporting/shipment by rail of the shipping name: In thazard class(es): In thazard class(es):	Not subject to transport regulations (RID) Not subject to transport regulations			
UN num UN prop Transpor Packing Environr Special p UN num UN prop Transpor Packing Environr	Transporting/shipment by road aber: per shipping name: rt hazard class(es): group: mentally hazardous: precautions for user: Transporting/shipment by rail of the shipping name: rt hazard class(es): group:	Not subject to transport regulations (RID) Not subject to transport regulations			
UN num UN prop Transpor Packing Environr Special p UN num UN prop Transpor Packing Environr	Transporting/shipment by road aber: per shipping name: rt hazard class(es): group: mentally hazardous: precautions for user: Transporting/shipment by rail of the shipping name: per shipping name: rt hazard class(es): group: mentally hazardous:	Not subject to transport regulations (RID) Not subject to transport regulations			



Further information:

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Trading name:		BUFFER SOLUTION, A.T.					
Product code:	PO-OT-X**		Date of compilation:	12 July 2019	Version:	2	
UN proper shippi	ng name:	_					
Transport hazard	class(es):	-					
Packing group:		-					
Environmentally h	nazardous:	-					
Special precaution	ns for user:	-					
Transpor	ting/shipment by sea (II	MDG)					
UN number:		Not	subject to transport regu	lations			
UN proper shippi	ng name:	-					
Transport hazard	class(es):	-					
Packing group:		-					
Environmentally h	nazardous:	-					
Special precaution	ns for user:	-					
	according to Annex II and the IBC code:	_					
Transpor	ting/shipment by air (IC	AO-T	I/IATA-DGR)				
UN number:		Not	subject to transport regu	lations			
UN proper shippi	ng name:	-					
Transport hazard class(es):		-					
Packing group:		-					
Environmentally h	nazardous:	-					
Special precaution	ns for user:	-					

SECTIO	SECTION 15. Regulatory information				
15.1	Safety, health and environmental regulations/legislation specific for the substance or mixture				
	EU regulations				
	Authorization and/or restrictions of use				
	Authorizations:	-			
	Restrictions:	-			



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		EC Regulation No. 1906/2007 and EC Regulation No. 1272/2008 of the European Parliament and the European Council;
		The European Commission Regulation No. 453/2006 of 2010 on changes and amendments to the Regulation (EC) No. 1907/2006 of the European Parliament and Council on registration, evaluation, authorization and restriction of chemical substances (REACH);
	Other EU regulations:	EC Regulation No. 2037/200 of the European Parliament and Council from 29 June 2000 on substances that damage the ozone layer;
		EC Regulation No. 689/2008 of the European Parliament and Council from 17 June 2008 concerning the export and import of dangerous chemicals;
		EC Regulation No. 850/2004 of the European Parliament and Council from 29 April 2004 about persistent organic pollutants;
		Directive 2008/98/EC of the European Parliament and Council of 19 November 2008 on waste and repealing certain Directives
	Information according 1999 guideline)	/13/EC about limitation of emissions of volatile organic compounds (VOC-
National legislation:		Chemicals Act, Regulation on classification, packaging and labeling of dangerous substances, Ordinance on occupational exposure limit values and on biological limit values, Regulation on categories, types and classification of waste with a waste catalog and list of hazardous waste, Ordinance on writing Material safety data sheet, Transport of Hazardous Substances Act
15.2	Chemical safety assessment	
	None	

SECTIO	ON 16. Other information			
16.1	Indication of changes:	-		
		PBT	Stable, bioaccumulative and toxic	
		vPvB	Strongly stable and strongly bioaccumulative.	
16.2	Abbreviations and acronyms:	LD ₅₀	Lethal dose, 50%	
		LC ₅₀	Lethal concentration, 50%	
		TCOJ	Specific target organ toxicity - single exposure	
16.3.	Key literature references and source of data:	-		
16.4. Classification and procedure L		ised to derive	the classification for mixture according to Regulation (EC)	
Classifi	cation	Classification procedure		
-		_		
16.5.	L6.5. Relevant H statements (number		rt)	
	H: H360FD	May damage	fertiliy. May damage the unborn child.	
16.6.	Training advice:	-		



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		** "X" in the product code marks different volumes (different packagings of the product)
16.7.	Further information:	We are not responsible for consequences in case of failure to comply with
		instructions for use or improper use of the product described in this
		material safety data sheet.

ANNEX: Exposure scenario resulting to chemical safety assessment
-



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Trading name:		TOLUIDINE BLUE R	EAGENT		
Product code:	TBR-OT-X**	Date of compilation:	12 July 2019	Version:	2

SECTI	ION 1: Identification of t	the substance	e/mixture	e and of the company/undertaking	
1.1	Product identifier				
	Trading name:	TOLUIDINE	BLUE REA	GENT	
	Chemical name:	-			
	Catalogue number:	TBR-OT-X**	•		
1.2	Relevant identified use	es of the subst	tance or n	nixture and uses advised against	
	Uses:		For use	with special staining kits.	
	Uses advised against:		Only the	e identified uses are advised.	
	Reason why uses advis	sed against:	medical	he product is intended for use only as an <i>in vitro</i> diagnostic nedical device, registered at the Agency for Medicinal Products and Medical Devices and there is no reason to use it for other purposes.	
1.3	Details of the supplier	of the safety	data shee	t	
	Supplier:		BioGnost Ltd.		
	Address:		Medjugorska 59, Zagreb		
	Telephone number:		+385 1 2409997		
	Telefax.:		+385 1 2404039		
	e-mail of competent p	erson:	msds@biognost.hr		
	National contact:		-		
1.4	Emergency telephone	number			
	National Protection ar	nd Rescue Dire	ectorate: 112		
	Medical information:			+385 1 2348 342	
	Other information:			-	

SECTIO	SECTION 2. Hazards identification				
2.1	Classification of the substance	or mixture			
2.1.1	Classification according to Reg	ulation (EC) No 1	.272/2008 (CLP)		
	Hazard class and catego	ory code:	Hazard statements*:		
	Not identified as hazardous sub	ostance.	-		
2.1.2.	Additional information				
	-				
*For fu	ll text of Hazard- and EU Hazard-	statements: see S	SECTION 16		
2.2	Label elements				
	Product identification:	TOLUIDINE BLU	JE REAGENT		
	Identification number:	-			
	Authorization number:	-			
	Hazard pictograms:	_			



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Trading name:		TOLUIDINE BLUE REAGENT					
Product code:	TBR-OT-X**	Date of compilation:	12 July 2019	Version:	2		

	Signal word:	-
	Hazard statements:	-
	Precautionary statements:	-
	Supplemetal hazard information (EU):	-
2.3	Other hazards	
	-	

SECTION 3. Con	SECTION 3. Composition/information on ingredients							
CAS/ EC/ Index number	REACH Registration No	Weight % content (or range)	Identification name	Classification according to Regulation (EC) No 1272/2008 (CLP)				
92-31-9/ 202-146-2/ -	-	< 0.1 %	Toluidine Blue O	Not classified				

SECTI	ION 4. First aid measures					
4.1	Description of first aid measures					
	General notes:	If the suggested first aid measures do not prove sufficient, seek medical attention.				
	Following inhalation:	Carry the afflicted person out of the contaminated area into a well-ventilated area or out for fresh air. In case of difficult breathing, provide the afflicted person with oxygen.				
	Following skin contact:	Remove contaminated clothing. Immediately wash with plenty of water for at least 20 minutes. Seek medical assistance if the symptoms of irritation remain.				
	Following eye contact:	Rinse out with plenty of water with the eyelid held wide open for at least 20 minutes. If the symptoms remain, immediately call in ophthalmologist.				
	Following ingestion:	Rinse the mouth thoroughly with 1-2 glasses of water. Immediately consult a physician and show the container or label. In case of swallowing large quantities, transport the afflicted person to the hospital.				
	Self-protection of the first aider:	-				
4.2	Most important symptoms and ef	fects, both acute and delayed				
	Following inhalation:	According to our findings, chemical, physical and toxicological properties of the substance have not been entirely tested.				
	Following skin contact:	According to our findings, chemical, physical and toxicological properties of the substance have not been entirely tested.				
	Following eye contact:	According to our findings, chemical, physical and toxicological properties of the substance have not been entirely tested.				



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Trading name:		TOLUIDINE BLUE REAGENT					
Product code:	TBR-OT-X**	Date of compilation:	12 July 2019	Version:	2		

		Following ingestion:	According to our findings, chemical, physical and toxicological properties of the substance have not been entirely tested.			
	4.3	Indication of any immediate medical attention and special treatment needed				
ĺ		-				

SECTI	SECTION 5. Firefighting measures					
5.1	Extinguishing media					
	Suitable extinguishing media:	water spray, dry powder, CO ₂ or alcohol resistant foam				
	Unsuitable extinguishing media:	Water with full jet				
5.2	Special hazards arising from the substance or mixture					
	Hazardous combustion products:	no information available				
5.3	Advice for firefighters					
	Use a self-contained open-circuit c	compressed air breathing apparatus and fireproof clothing.				
5.4	Additional information					
	Cool endangered receptacles with contaminate the environment with	water spray. Collect contaminated fire fighting water separately. Do not extinguishing media.				

SECTIO	SECTION 6. Accidental release measures					
6.1	Personal precautions, protective	ve equipment and emergency procedures				
6.1.1.	For non-emergency personnel					
	Protective equipment:	Use personal protective equipment (see Section 8).				
	Accident prevention methods: Evacuate members of all non-essential personnel and those memb without protective equipment. Avoid breathing vapors and avocontact with skin and eyes. Do not smoke. Keep away from ignit sources.					
	Emergency procedures: Mark the area using proper signs.					
6.1.2.	For emergency responders:					
	Use protective equipment; in c (see Section 8).	ase of inadequate ventilation use adequate airways protective equipment				
6.2	Environmental precautions:					
	Do not dispose of in sewage, drainage system and waterways. In case of large spillage contact National Protection and Rescue Directorate (NPRD) on 112.					
6.3	Methods and material for containment and cleaning up					
6.3.1.	Bunding, covering of drains; capping procedures:	Sand protective barrier or barriers made of similar materials.				



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Trading name	•	TOLUIDINE BLUE REAGENT						
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6.3.2.	Cleaning up:	Where possible, the substance can be absorbed by using absorbing material. Place the waste material in tightly closed impermeable containers. Store the substance in well ventilated storage rooms until disposal. Submit for disposal to the legal persons authorized by the Ministry of Environmental and Nature Protection. After disposal of the products, wash the area and and involved materials with water.				
6.3.3.	Other information:	Secure proper ventilation. Do not use incompatible materials (see Section 10).				
6.4	Reference to other sections					
	See Section 7 for information on safe handling.					
	See Section 8 for information on personal protection equipment.					
	See Section 13 for disposal in	formation.				

SECTIO	ON 7. Handling and storage				
7.1	Precautions for safe handling				
7.1.1.	Protection measures				
	Measures to prevent fire:		Use in well ventilated storage rooms. Keep away from sources of ignition and heat. Do not use tools that cause sparks. Do not smoke.		
	Measures to prevent aerosol and dust generation	on:	Secure proper ventilation.		
	Measures to protect the environment:	sures to protect the environment:			
	Other measures:		Protect against electrostatic charges.		
7.1.2.	Advice on general occupational hygiene:	general occupational hygiene:			
	Do not eat, drink or smoke in the workspace. Thoroughly wash hands after work and before eating.				
7.2	Conditions for safe storage, including any incon	mpatibilities			
	Technical measures and storage conditions:	well ventil	ated storage rooms at temperatures ranging		
	Packaging materials:	space. Thoroughly wash hands after work and before eating in the space. Thoroughly wash hands after work and before eating in the space. Keep in tightly closed and upright set contained well ventilated storage rooms at temperatures from 15 to 25 °C. Protect from heat and direct Manufacturer's original packaging. Keep away from food and drink. Keep the contained was from food and drink.	ırer's original packaging.		
	Requirements for storage rooms and vessels:		•		
	Advices for storage equipment:	must be re	esistant to chemicals. There must be no drain ly leads into sewage system. Secure proper		
	Further information on storage conditions:	and do no	ace the unused material in the storage room t use empty containers for storing other Do not store with incompatible materials on 10).		



Inhalation Dermal **PNEC**

Fresh water

Marine water Marine sediments

Food chain

Air

Soil (agricultural)

Freshwater sediments

Environmental protection target

Microorganisms in sewage treatment

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Tradir	ng name:				TC	LUIDINE	BLUE	REAGE	NT	-	
Produ	ıct code:	TBR-OT	-X**		Date o	of compil	ation:	12 Ju	ıly 2019	Version:	2
		•			·			·			·
7.3	Specific e	nd use(s)									
	Recomme	ndations:				-					
	Industrial	sector spe	cific solut	ions:		-					
SECTI	ON 8. Expos	ure contr	ols/perso	nal pro	otection						
8.1	Control pa										
						cupational					
	Substance	?	CAS No		Vá	values/short term va			Biological limit value		
						ppm	mg	/m³			
-	-		-					-	-		
		·									
Substa	ance name:	-									
EC No	:	-	CAS No	CAS No: -							
DNEL											
					In	dustrial					
Route	of	Acı	ute		Acute	e Chronic		Chronic			
expos	ure:	effect	local	effec	t systemi	c	effect local			effect systemic	
Oral		-		-		-			-		
Inhala		-		-		-			-		
Dermal -			-		-			-			
Critica	l physical pa	rameters: s	solubility,	flamma		-					
				1		nsumer					
Route			cute		Acute		Chro			Chronic	
expos	sure:	effe	ct local	effec	t system	ic	effect	effect local		effect systemic	
Oral		-		-		-			-		

PNEC

no information available

no information available no information available

no information available

no information available

no information available

no information available

no information available



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Trading name:	TOLUIDINE BLUE REAGENT						
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8.2	Exposure controls					
8.2.1.	Appropriate engineering controls					
	Substance/mixture related measure prevent exposure during identified		nrotective equipment 1)o not est drink or smoke in the			
	Structural measures to prevent exposure:		In accordance with Section 7.			
	Organisational measures to prevee exposure:	ent	Organization of work in order to reduce other worker's influence during work process.			
	Technical measures to prevent ex	(posure:	Secure proper workspace ventilation in order to keep concentration levels in air below permitted levels. Secure stations for rinsing eyes and showering.			
8.2.2.	Personal protection equipment					
8.2.2.1.	Eye and face protection:	Safety glasses that stick to face (EN 166) or visor in case of levels of concentration in air; protective gas mask that cover entire face in case of higher levels of concentration in air.				
8.2.2.2.	Skin protection					
8.2.2.2.	Hand protection:		otective gloves have to satisfy the specification of ation (EU) 2016/425 and the related standard EN 374. Glove material: nitrile rubber Glove thickness: 0.40 mm Time until perforation: > 480 min			
	Other skin protection:	footwe entire impern	everyday work use cotton clothing (EN 340) and suitable ear, such as rubber boots (EN 20345) or shoes that cover the foot. In case of spilling hazard, use clothing made of meable material suitable for protection from liquid chemicals PVC, himex) and footwear made from the same material.			
8.2.2.3.	Respiratory protection:	with a	tive full face mask (EN 136) or half mask (EN 140) equipped filter for organic vapors, type "A" (boiling point >65°C) ng to EN 14387) used when concentration levels exceed GVI			
8.2.2.4.	Thermal hazards:	No info	ormation available			
8.2.3.	Environmental exposure controls					
	Substance/mixture related measures to prevent exposure:	See Se	ction 6			
	Structural measures to prevent exposure:	Use mo	odern equipment.			
	Organisational measures to prevent exposure:	Adapt workpl	the work process to the required working conditions of the lace.			



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Product code:	TBR-OT-X**	Date of compilation:	12 July 2019	Version:	2	

Technical measures to prevent	San Saction 6
exposure:	See Section 6

1	Information on basic physical and	chemical properties	
		Value	Method
	Physical state:	liquid	No information available
	Colour:	dark blue	No information available
	Odour:	No information available	No information available
	Odor threshold:	No information available	No information available
	pH:	No information available	No information available
	Melting point / freezing point;	No information available	No information available
	Initial boiling point and boiling range:	No information available	No information available
	Flash point:	No information available	No information available
	Evaporation rate:	No information available	No information available
	Flammability (solid, gas):	No information available	No information available
	Upper/lower flammability or explosive limits:	No information available	No information available
	Vapour pressure:	No information available	No information available
	Vapour density:	No information available	No information available
	Relative density:	No information available	No information available
	Bulk density:	No information available	No information available
	Solubility(ies):	No information available	No information available
	Partition coefficient: n-octanol/water (log Kow):	No information available	No information available
	Auto-ignition temperature:	No information available	No information available
	Decomposition temperature:	No information available	No information available
	Viscosity:	No information available	No information available
	Explosive properties:	No information available	No information available
	Oxidising properties:	No information available	No information available

SECTI	ON 10. Stability and reactivity	
10.1	Reactivity:	See subsections 10.3 through 10.5.



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Trading name	•	TOLUIDINE BLUE REAGENT						
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10.2	Chemical stability:	The product is chemically stable under standard ambient conditions of storing and using (room temperature).
10.3	Possibility of hazardous reactions:	No dangerous reactions known.
10.4	Conditions to avoid:	Avoid heat, sparks, open flames and other ignition sources.
10.5	Incompatible materials:	No further relevant information available.
10.6	Hazardous decomposition products:	No dangerous decompostion products known.

11.1 Inforn	nation on to	xicologi	cal effects						
	toxicity:								
Route of exposure:	Met	hod	Species	Do	ose LD ₅₀ /LC ₅₀ or ATE _{mix}	Ex	posure ti	me	Results
Oral:	-	-	-		information ilable		-		-
Dermal:	-	-	_		information ilable		_		-
Inhalation:	-	-	_		information ilable		_		-
÷									
Specif	ic target org	jan toxio	city – single ex	xposure (S	TOT SE):				
		Spe	ecific effects		Target	organ			Note
Oral:	No in	No information available			No information available		-		
Dermal:	No in	formatic	n available		No information available		-		
Inhalation:	No in	formatio	mation available		No information available -		-		
Aspira	ntion hazard:			No infor	mation available.				
Irritati	on and corr	osion							
	*	Exposi	ure time	Spec	ies Evaluat	ion	Method		Note
Skin corrosion/irrita	tion:			-	-	-	•	-	
Serious eye damage/irritat	ion -			-	-	-		-	
Sensit	ization								
Skin sensitizati	on:	No ii	nformation av	ailable.					
Respiratory sensitization: No information av			nformation av	/ailahle					



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Sympto	ms rela	ated to the ph	ysical, chemic	al and toxicolog	gical characterist	ics	
Oral exposure:		Harmful if sw	allowed.				
Dermal exposure	: :	Harmful if ab	sorbed throug	ıh skin. May cau	ıse skin irritation		
Inhalation expos	ure:	Harmful if inl	naled. May cau	ıse respiratory t	ract irritation.		
Eye exposure:		May cause ey	e irritation.				
Repeate	ed dose	e toxicity (sub	acute, subchro	onic, chronic)			
		Dose	Exposure time	Species	Method	Evaluation	Note
Subacute oral	No availa	information able	No information available	No information available	No information available	No information available	-
Subacute dermal	No availa	information able	No information available	No information available	No information available	No information available	-
Subacute inhalation	No availa	information able	No information available	No information available	No information available	No information available	-
Subchronic oral	No availa	information able	No information available	No information available	No information available	No information available	-
Subchronic dermal	No availa	information able	No information available	No information available	No information available	No information available	-
Subchronic inhalation	No availa	information able	No information available	No information available	No information available	No information available	-
Chronic oral	No availa	information able	No information available	No information available	No information available	No information available	-
Chronic dermal	No availa	information able	No information available	No information available	No information available	No information available	-
Chronic inhalation	No availa	information able	No information available	No information available	No information available	No information available	-
Specific	target	organ toxicit	y – repeated e	xposure (STOT	RE):		
			Specific effec	ts	Target o	rgan	Note
Subacute oral		No informa	tion available		No information	n available -	
Subacute dermal		No informa	tion available		No information	n available -	



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11.3	General notes:						
	Other observa	tions:	No information available				
	Classification o		No information available				
11.2	Practical exper						
	Summary of properties:	evaluation of the CM	CMR Based on available data, the classification criteria are no met.				
	Reproductive t	oxicity:	Based on available data, the classification criteria are not met. Based on available data, the classification criteria are not met. Based on available data, the classification criteria are not met.				
	Germ cell muta						
	Mutagenicity i						
	Genotoxicity:		Based on available data, the classification				
	Mutagenicity i	n vitro:	Based on available data, the classification	r criteria are not met.			
	Carcinogenicit	y:	Based on available data, the classification criteria are not met.				
	CMR effects (c	arcinogenicity; mutagenicity;	reproductive toxicity)				
Chroni	c inhalation	No information available	No information available	-			
Chronic dermal No information available Chronic inhalation No information available			No information available				
Chroni		No information available	No information available				
Subchr	onic inhalation	No information available	No information available	-			
Subchr	onic dermal	No information available	No information available	-			
Subchr	onic oral	No information available	No information available	· -			
Subacı	ıte inhalation	No information available	No information available) -			

SECTION 12. Ecological information									
12.1 Toxicity									
Acute (short-term) toxicity	Dose	Exposure time	Species	Method	Evaluation	Note			
Fish	LC ₅₀	96 hours	No information available	No information available	No information available	-			
Crustacea:	EC ₅₀	48 hours	No information available	No information available	No information available	-			



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Product code.	IDK-UI-A		Date of Compila	tion. 12	July 2019	version.
					·····	
Algae/aquatic plant	s IC ₅₀	4 days	No information available	No information available	No information available	-
Other organisms	-	-	-	-	-	-
Chronic (long-term) toxicity) Dose	Exposure time	Species	Method	Evaluatio	n Note
Fish	LC ₅₀	96 hours	No information available	No information available	No information available	-
Crustacea:	EC ₅₀	48 hours	No information available	No information available	No information available	-
Algae/aquatic plant	s IC ₅₀	72 hours	No information available	No information available	No information available	-
Other organisms	-	-	-	-	-	-
12.2 Persistence	e and degradal	oility				
Abiotic de	gradation					
	Degradation h	alf-lives	Method	Evalua	ation	Note
			No information	No informa	ntion	

	Degradation half-lives	Method	Evaluation	Note
Marine water	No information available	No information available	No information available	-
Fresh water	No information available	No information available	No information available	-
Air	No information available	No information available	No information available	-
Soil	No information available	No information available	No information available	-

			ion

% Degradation	Time (days)	Method	Evaluation	Note	
No information available			No information available	No information available	

12.3 Bioaccumulative potential

Octanol-water	partition	coefficient	(log	Kow)	١
---------------	-----------	-------------	------	------	---

Oct	Octanor-water partition coefficient (log Now)									
Value	Concentration	рН	°C	Method	Evaluation	Note				
-	-	-	-	-	-	-				



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											age 12 of 16	
Trading na	ame:				T	OLUII	DINE B	LUE RE	AGENT			
Product co	ode:	TBR-C)T-X**		Date	of co	mpilatio	on:	12 July 2	019	Version:	2
Rid	oconcenti	ration f	actor (BCF)									
Value		Tation i	Species		N	lethoc	<u> </u>	E۱	/aluation		Note	
No informa		No	inform	ation	No info				ormation			
available		availab	le		availabl	е		availab	le	-		
			-									
Cr	ronic ecc	toxicity	/	Evn	osure							
V	/alue		Dose		me	Spe	ecies	Meth	nod	Evaluation	Note	
						No		No N		О		
Chronic toxicity on fish		ish	LC ₅₀	inforr availa	mation	inforr availa	mation	inform availab	1	formation vailable	-	
			No	able .	No	ibie	No	N				
Chronic tox crustacea (-		EC ₅₀	_	mation		mation	inform		formation		
Crustacea (I	эартта)			availa	able	availa	ble	availab	le a	vailable		
12.4	- I- 1114: . 1	11										
	obility in		ندر حانسد الم									
	own or p		d distributi	on in e	environme	entai c	.ompart	ments:				
	rface ten		aliable									
30	Value	31011.	°C	C	oncentrat	ion		Metho	nd		Note	
No		No									11010	
	formation		ormation		informat ilable	ion	No int	ormatio ole	า	-		
av	ailable	ava	ilable									
Δα	dsorption	/ deso	rption									
<u>i</u>	-	D coef	<u> </u>			0 0 0 0 0 0 0 0 0						
Transport			nstant	lo	g Kow	E۱	/aporati	on rate	Me	thod	Note	
Soil-water	No		formation		nformatio		o inform	ation	No info		_	
Jon Water	availak			availa			ailable		availabl			
Water-air	No availab		formation	No ir availa	nformatio Ible		o inform ailable	ation	No info		-	



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Trading	g name:		TOI	TOLUIDINE BLUE REAGENT					
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Soil-air	No availa	information able	No information available	No information available	No information available	-			
12.5	Results of	PBT and vPvB asses	ssment						
	Not applic	able.							
12.6	Othorody	erse effects							
12.0		relevant information	on available						
	NO TUTTICE	Televant informati	on available.						
SECTIO	N 13. Disp	osal consideration	S						
13.1	Waste tr	eatment methods							
13.1.1.		Product/Packaging disposal: Submit for disposal to the legal person authorized by the Ministry of Environmental and Nature							
	Submit i Protection	•	egal person autho	orized by the Minis	try of Environmental	l and Nature			
	į								
13.1.2.	Waste co	odes/waste designa	ations according to	o Law:					
	15 01 10 substance	5 5	ontains residual h	azardous substanc	es or is contaminate	ed with hazardo	ous		
4242			• • •						
13.1.3.		eatment – relevant mation available	information:						
	NO IIIIOI	Thation available							
13.1.4.	Sewage	disposal – relevant	information:						
	Waste m	nust not be dispose	d of into the sewa	ge system.					
13.1.5.		sposal recommend							
	authoriz		n charge. Do not	dispose of the pac	n. Submit the remair kaging into the sewa arge.				
13.1.6.	Relevant	Community provis	sions:						
	Disposa	must be made acc	ording to official r	regulations.					
SECTIO	NI 14 TDAN	ISPORT INFORMA	TION						
310110		ng/shipment by ro							
UN num		J,	······	o transport regula	tions				
UN prop	per shipping	g name:							



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Trading name:	TOLUIDINE BLUE REAGENT											
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Transport hazard class(es):	-
Packing group:	-
Environmentally hazardous:	-
Special precautions for user:	-
Transporting/shipment by rail (R	ID)
UN number:	Not subject to transport regulations
UN proper shipping name:	-
Transport hazard class(es):	-
Packing group:	-
Environmentally hazardous:	-
Special precautions for user:	-
Inland waterway transport (ADN)	
UN number:	Not subject to transport regulations
UN proper shipping name:	-
Transport hazard class(es):	-
Packing group:	-
Environmentally hazardous:	-
Special precautions for user:	-
openial procedurers for about	
Transporting/shipment by sea (IN	MDG)
	MDG) Not subject to transport regulations
Transporting/shipment by sea (IN	
Transporting/shipment by sea (IN UN number:	Not subject to transport regulations
Transporting/shipment by sea (IN UN number: UN proper shipping name:	Not subject to transport regulations -
Transporting/shipment by sea (IN UN number: UN proper shipping name: Transport hazard class(es):	Not subject to transport regulations
Transporting/shipment by sea (IN UN number: UN proper shipping name: Transport hazard class(es): Packing group:	Not subject to transport regulations
Transporting/shipment by sea (IN UN number: UN proper shipping name: Transport hazard class(es): Packing group: Environmentally hazardous:	Not subject to transport regulations
Transporting/shipment by sea (IN UN number: UN proper shipping name: Transport hazard class(es): Packing group: Environmentally hazardous: Special precautions for user: Transport in bulk according to Annex II	Not subject to transport regulations - - - - - - -
Transporting/shipment by sea (IN UN number: UN proper shipping name: Transport hazard class(es): Packing group: Environmentally hazardous: Special precautions for user: Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code:	Not subject to transport regulations - - - - - - -
Transporting/shipment by sea (IN UN number: UN proper shipping name: Transport hazard class(es): Packing group: Environmentally hazardous: Special precautions for user: Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code: Transporting/shipment by air (IC	Not subject to transport regulations AO-TI/IATA-DGR)
Transporting/shipment by sea (IN UN number: UN proper shipping name: Transport hazard class(es): Packing group: Environmentally hazardous: Special precautions for user: Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code: Transporting/shipment by air (IC UN number:	Not subject to transport regulations Not Subject to transport regulations
Transporting/shipment by sea (IN UN number: UN proper shipping name: Transport hazard class(es): Packing group: Environmentally hazardous: Special precautions for user: Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code: Transporting/shipment by air (IC UN number: UN proper shipping name:	Not subject to transport regulations Not Subject to transport regulations - Not subject to transport regulations -
Transporting/shipment by sea (IN UN number: UN proper shipping name: Transport hazard class(es): Packing group: Environmentally hazardous: Special precautions for user: Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code: Transporting/shipment by air (IC UN number: UN proper shipping name: Transport hazard class(es):	Not subject to transport regulations Not subject to transport regulations Not subject to transport regulations
Transporting/shipment by sea (IN UN number: UN proper shipping name: Transport hazard class(es): Packing group: Environmentally hazardous: Special precautions for user: Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code: Transporting/shipment by air (IC UN number: UN proper shipping name: Transport hazard class(es): Packing group:	Not subject to transport regulations Not Subject to transport regulations
Transporting/shipment by sea (IN UN number: UN proper shipping name: Transport hazard class(es): Packing group: Environmentally hazardous: Special precautions for user: Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code: Transporting/shipment by air (IC UN number: UN proper shipping name: Transport hazard class(es): Packing group: Environmentally hazardous:	Not subject to transport regulations Not subject to transport regulations



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15.1	Safety, health and environmental regulations/legislation specific for the substance or mixture			
	EU regulations			
	Authorization and/or rest	trictions of use		
	Authorizations:	-		
	Restrictions:	-		
	Other EU regulations:	EC Regulation No. 1906/2007 and EC Regulation No. 1272/2008 of the European Parliament and the European Council; Regulation (EC) No. 1907/2006 of the European Parliament and Council on registration, evaluation, authorization and restriction of chemical substances (REACH); EC Regulation No. 2037/200 of the European Parliament and Council from 29 June 2000 on substances that damage the ozone layer; EC Regulation No. 689/2008 of the European Parliament and Council from 17 June 2008 concerning the export and import of dangerous chemicals; EC Regulation No. 850/2004 of the European Parliament and Council from 29 April 2004 about persistent organic pollutants; Directive 2008/98/EC of the European Parliament and Council of 19 November 2008 on waste and repealing certain Directives		
	Information according 1999/13/EC about limitation of emissions of volatile organic compounds (VC guideline)			
	National legislation:	Chemicals Act, Regulation on classification, packaging and labeling of dangerous substances, Ordinance on occupational exposure limit values and on biological limit values, Regulation on categories, types and classification of waste with a waste catalog and list of hazardous waste, Ordinance on writing Material safety data sheet, Transport of Hazardous Substances Act		
15.2	Chemical safety assessme	ent		
	None			

SECTIO	ION 16. Other information		
16.1	Indication of changes:	-	
		PBT	Stable, bioaccumulative and toxic
		vPvB	Strongly stable and strongly bioaccumulative.
16.2	Abbreviations and acronyms:	LD ₅₀	Lethal dose, 50%
		LC ₅₀	Lethal concentration, 50%
		TCOJ	Specific target organ toxicity - single exposure
16.3.	Key literature references and source of data:	-	



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16.4.	Classification and procedure used to derive the classification for mixture according to Regulation (EC) 1272/2008 (CLP)		
Classifi	ication	Classification procedure	
_		-	
16.5.	16.5. Relevant H statements (number and full text)		
	H: -	-	
16.6.	Training advice:	-	
		** "X" in the product code marks different volumes (different packagings of the product)	
16.7.	Further information:	We are not responsible for consequences in case of failure to comply with instructions for use or improper use of the product described in this material safety data sheet.	

ANNEX: Exposure scenario resulting to chemical safety assessment
-