

ALCIAN BLUE pH 2.5 KIT

The kit contains:

Alcian Blue solution pH 2.5 Nuclear Fast Red (Kernechtrot) reagent Sodium tetraborate, solution



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Trading name:	ALCIAN BLUE SOLUTION pH 2.5					
Product code:	AB10-OT-X**	Date of compilation:	21 Dec 2022	Version:	6	

SECTI	ON 1: Identification of	the subst	ance/mixture a	nd of the company/undertaking	
1.1.	Product identifier				
	Trading name:	ALCIAN	N BLUE SOLUTIO	N pH 2.5	
	Chemical name:	<u>-</u>			
	Catalogue number:	AB2-O	T-X**		
1.2.	Relevant identified us	es of the :	substance or mix	ture and uses advised against	
	Uses:		For staining aci	d mucopolysaccharides of intestinal goblet cells.	
	Uses advised against:		Only the identi	fied uses are advised.	
	Reason why uses advi	sed	device, register	intended for use only as an <i>in vitro</i> diagnostic medical ed at the Agency for Medicinal Products and Medical ere 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:		BioGnost Ltd.		
	Supplier.		BioGnost Lta.		
	Address:		Medjugorska	59, Zagreb	
	Address:		Medjugorska	97	
	Address: Telephone number:	person:	Medjugorska +385 1 24099	97 39	
	Address: Telephone number: Fax no.:	person:	Medjugorska +385 1 24099 +385 1 24040	97 39	
1.4.	Address: Telephone number: Fax no.: e-mail of competent p		Medjugorska +385 1 24099 +385 1 24040 msds@biogno	97 39	
1.4.	Address: Telephone number: Fax no.: e-mail of competent p National contact:	number	Medjugorska +385 1 24099 +385 1 24040 msds@biogno	97 39	
1.4.	Address: Telephone number: Fax no.: e-mail of competent p National contact: Emergency telephone	number	Medjugorska +385 1 24099 +385 1 24040 msds@biogno	97 39 ost.hr	

SECTIO	CTION 2. Hazards identification						
2.1.	Classification of the substance or mixture						
2.1.1.	Classification according to Regula	tion (EC) No 12	272/2008 (CLP)				
	Hazard class and category	code:	Hazard statements*:				
	Not identified as hazardous subst	ance.	-				
2.1.2.	Additional information						
	-						
*For fu	ll text of Hazard- and EU Hazard-sta	tements: see S	ection 16				
2.2.	Label elements						
	Product identification:	ALCIAN BLUE	SOLUTION pH 2.5				
	Identification number:	Identification number: -					
	Authorization no.:	Authorization no.: -					
	Hazard pictograms:	-					



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	Signal word:	-			
	Hazard statements:	-			
	Precautionary statements:	-			
	Further information:	-			
2.3.	Other hazards				
	Endocrine Disrupting Properties: No known endocrine disrupting properties				
	Results of PBT and vPvB assessment : According to the results of its assessment, this substance is not a PBT or a vPvB.				

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)			
64-19-7/ 200-580-7/ 607-002-00-6	-	≤ 3%	Acetic acid, 99.5%	Flam. Liq. 3; H226 Skin Corr. 1 A; H314			

SECTIO	CTION 4. First aid measures					
4.1.	Description of first aid mea					
	General notes:		-			
	Following inhalation:		No information available			
	Following skin contact:		No information available			
	Following eye contact:		No information available			
	Following ingestion:		No information available			
	Self-protection of the first a	ider:	Treat symptomatically.			
4.2.	Most important symptoms	and eff	fects, both acute and delayed			
	Following inhalation:	No i	information available			
	Following skin contact:	No i	information available			
	Following eye contact:	No i	information available			
	Following ingestion:	No i	No information available			
4.3.	Indication of any immediate medical attention and special treatment needed					
	-					

SECTIO	ON 5 Firefighting measures
5.1.	Extinguishing media



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	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 s	ubstance or mixture		
	Hazardous combustion products:	No information available		
5.3.	Advice for firefighters			
	Use a self-contained open-circuit Cool closed containers exposed to	compressed air breathing apparatus and fireproof clothing. o fire with water spray or vapor.		
5.4.	Additional information			
	Remove sources of heat and ignit Do not contaminate the environm			

SECTIO	ON 6. Accidental release meas	ures			
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. 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.			
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				



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See Section 7 for information about secure handling.

See Section 8 for information about personal protective equipment.

See Section 13 for information about containment.

SECTIO	ON 7. Handling and 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 generation:	Secure proper ventilation.				
	Measures to protect the environment: Other measures:	Prevent spilling into the sewage system and waterways.				
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:	Keep in tightly closed and upright set containers in a well ventilated storage rooms, and away from sources of heat, sunlight, and other incompatible substances.				
	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 9).				
7.3.	Specific end use(s)					
	Recommendations:	-				
	Industrial sector specific solutions:	-				

SECTIO	SECTION 8. Exposure controls/personal protection						
8.1.	Control parameters						
	Substance	CAS No	Occupational exposure limit values/short term values		Biological limit values		
			ppm	mg/m³	_		



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Product co	de:	AB10-C)T-X**		Date o	f compila	tion:	21 De	c 2022	Version: 6
	•		1	·	ı				1	
-			-			-		-	No infor	mation available
Substance name:	-									
EC No:	_		CAS No:	-						
DNEL										
					Inc	lustrial				
Route of		A	Acute		Acut	e		Chro	nic	Chronic
exposure:		effe	ect local	e	ffect sys	temic		effect l	ocal	effect systemic
Oral		-		-			-			-
Inhalation		-		-			-			-
Dermal		-		-			-			-
Critical phys	ical par	ameters: s	solubility, fla	ammab	ility, cor	rosivity:		-		
		_		T	Co	nsumer				
Route of			Acute	Acute		Chronic			Chronic	
exposure:		effe	ect local	e	ffect sys	temic	effect local		ocal	effect systemic
Oral		-		-			-			-
Inhalation		-		-			-			-
Dermal				-			-			-
PNEC										
Environmen	tal prote	ection tar	get			PNEC				
Fresh water		_				No infor				
Freshwater s		its				No infor				
Marine wate						No information available				
Marine sedir	ments					No information available				
Food chain	icme in	50W2@2 ±=	oatmost			No information available				
Microorgani Soil (agricult		sewage tr	eaunent			No information available No information available				
Air	turai)					No information available No information available				
All						INO IIIIOII	Пацоп	avaliab		
8.2.	Exposu	sure controls								
8.2.1.	•			ntrols						
	Substance/mixture related measures to prevent exposure Use the product									
				•	product in well ventilated rooms. Use personal protective ent. Do not eat, drink or smoke in the workspace.					
	Structu		ures to preve	ent	No info	rmation av	/ailable	9		



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	Organisational measures prevent exposure:	to	Organization of work in order to reduce other worker's influence during work process.				
	Technical measures to prexposure:	event	Secure proper workspace ventilation in order to keep concentration levels in air below permitted levels.				
8.2.2.	Personal protection equi	pment					
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						
			ctive gloves must be according to the EU Directive 2016/425/EEC and ard EN 374.				
	Hand protection:		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 prevent exposure:	to	Adapt the work process to the required working conditions of the workplace.				
	Technical measures to prevent exposure:		See Section 6				

SECTI	SECTION 9. Physical and chemical properties						
9.1.	Information on basic physical and chemical properties						
		Value	Method				
	Physical state:	liquid	No information available				
	Colour:	blue	No information available				
	Odour/odour threshold:	acetic acid like/no information available	No information available				
	Melting point / freezing point:	No information available	No information available				
	Boiling point or initial boiling point and boiling range:	No information available	No information available				



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	Flammability:	No information available	No information available
	Lover and upper explosion limit:	No information available	No information available
	Flash point:	No information available	No information available
	Auto-ignition temperature:	No information available	No information available
	Decomposition temperature:	No information available	No information available
	рН:	2.45 -2.55	No information available
	Kinematic viscosity:	No information available	No information available
	Solubility:	No information available	No information available
	Partition coefficient n-octanol/water (log value):	No information available	No information available
	Vapour pressure:	No information available	No information available
	Density and/or relative density:	No information available	No information available
	Relative vapour density:	No information available	No information available
	Particle characteristics:	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.			
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.			

SECTION 11. Toxicological information							
11.1. Informati	Information on toxicological effects						
Acute to	Acute toxicity:						
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	-	_		



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Inhalation exposure:	No informatio available	on -		LC ₅₀	-	_	
ехрозите.	avanasie						
Specific	c target organ toxicit	:y – single expo	osure (STOT SE)	:			
; •		ecific effects		Target orga	n	Note	
Oral exposure:	No informa	ation available	No infor	mation availa	ble -		
Dermal exposur	e: No informa	ation available	No infor	mation availa	ble -		
Inhalation expos	sure: No informa	ation available	No infor	mation availa	ble -		
	1		:		:		
Respira	tory irritation:	N	o information a	available			
Irritatio	n and corrosion						
	Exposure time	e Specie	es Ev	aluation	Method	Note	
Skin irritation:	-	-	-				
Eye irritation:	-	-	-				
Sensitiz	zation						
Dermal exposur	e: No information	available					
Inhalation	No information	availabla					
exposure:	NO IIIIOIIIIatioii	avaliable					
	oms related to the pl	-	al and toxicolog	gical characte	ristics		
Oral exposure:	No information	available					
Dermal exposur	e: No information	available					
Inhalation exposure:	No information	available					
Eye exposure:	No information	available					
Repeat	ed dose toxicity (sub	acute, subchro	onic, chronic)				
	Dose	Exposure time	Species	Method	Evaluation	Note	
Subacute oral	No information available	No information available	No information available	No informatio n available	No informat	ion -	
Subacute dermal	No information available	No information available	No information available	No informatio n available	No informat	ion ₋	



Chronic inhalation

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Subacute inhalation	No i availa	nformation ble	No information available	No information available		No informatio n available	No infor		_
Subchronic oral	No i availa	nformation ble	No information available	No info	rmation lable	No informatio n available	No infor		-
Subchronic dermal	No i availa	nformation ble	No information available		rmation lable	No informatio n available	No infor		-
Subchronic inhalation	No i availa	nformation ble	No information available	No information		No informatio n available	No infor		-
Chronic oral	No information available		No information available	No information available		No informatio n available	No infor		-
Chronic dermal	No i availa	nformation ble	No information available		rmation lable	No informatio n available	No infor		-
Chronic inhalation	No i availa	nformation ble	No information available		rmation lable	No informatio n available	No infor		-
Specific	target		y – repeated e	xposu	ire (STOT I				
		•	cific effects			Target organ			Note
Subacute oral			tion available		No information available			-	
Subacute dermal		<u> </u>	ition available		:	mation availab		-	
Subacute inhalati	ion	No informa	tion available			mation availab		-	
Subchronic oral No informa		ition available			mation availab		-		
Subchronic dermal No informa		tion available			mation availab		-		
Subchronic inhal	ation	No informa	ition available		No infor	mation availab	le	-	
Chronic oral		No informa	tion available		No infor	mation availab	le	-	
Chronic dermal		No informa	ition available		No infor	mation availab	le	-	

CMR effects (carcinogenicity, mutagenicity, reproductive toxicity)					
 Carcinogenicity:	No information available				
 Mutagenicity in-vitro:	No information available				
Genotoxicity:	No information available				
Mutagenicity in-vivo:	No information available				

No information available

No information available



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	Germ cell mutagenicity: No in	ormation available
	Reproductive toxicity: No in	ormation available
	Summary of evaluation of the CMR pro	pperties: -
11.2	Information on other hazards:	
11.2.1.	Endocrine disrupting properties:	
	The substance/mixture does no contain components considered to have endocrine disrupting properties according to REACH Article 57(f) of Commission Delegated regulation (EU 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% of higher.	o s or - d)
11.2.2.	Other informations:	
	-	

SECTION 12. Ecological information

12.1. Toxicity

Acute toxicity	Dose	Exposure time	Species	Method	Evaluation	Note
Fish	LC ₅₀	96 hours	No information available	No information available	-	1
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
Fish	LC ₅₀	96 hours	No information available	No information available	-	1
Crustacea:	EC ₅₀	48 hours	No information available	No information available	-	-



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Product code:		AB10-OT-X**			Date of compila	ition:	21 Dec	2022	Version	6	
Algae/aquatic plants		IC ₅₀	72 hours		availahla		rmation lable	-	-		
Other organis	sms	-	-		-	-		-	-		
		e and degradal	oility								
Abio		gradation									
	D	egradation ha	f-lives		Method			Evaluation	า	Note	
Marine water	No	information av	nformation available No		No information available		No information avail		ilable	_	
Fresh water	No	information av	ailable	No	o information avail	able	No inform	ation ava	ilable	-	
Air	No	information av	ailable	No	o information avail	able	No inform	ation ava	ilable	-	
Soil	No	information av	ailable	No	o information avail	able	No inform	ation ava	ilable	-	
:											
Biod	egrad	ation									
% Degradation	on	Time (day	s)		Method		Evaluation		Note		
No information available									No informati available	o information vailable	
		ulative potentia									
		oefficient: n-oc									
Value		ncentration	рН		C Method		Evalua		N	ote	
-	No availa	information able	-	-	No informati available	on	No inform available	ation	-		
Bioco	oncen	tration factor (BCF)								
Value		Species			Method		Evaluati	on	N	ote	
No information available							No information available		No information available		
CI											
Chro	nic ec	otoxicity									



Endocrine disrupting properties

12.6.

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	Vā	alue	Dose	Exposure time	Specie	s Method	l Evalua	ation	Note
Chronic toxicity on fish LC ₅₀		LC ₅₀	information	No informat available	1	nn i	No information available		
		city on aphnia)	EC ₅₀	information	No informat available	1	No informavailable		–
12.4.	Мо	bility in soi	I						
	Knc	own or pred	dicted distribut	ion in environme	ntal com	partments:			
	No	informatio	n available						
	Sur	face tensio	n:		T				
		Value	°C	Concentrati	on	n Method		Note	
	information in		No information available	No informati available	on _N	No information available		-	
Transp	i	-	desorption coefficient 's constant	log Kow	Eva	aporation rate	Method		Note
Soil-w	ater	No available	information	No information available	n No in availa	formation ble	No informatio available	n -	
Water-	-air	No available			n No information available		No informatio available	n -	
Soil-air		No available	information	No information available	n No in availa	formation ble	No informatio available	n -	
12.5.		ulte of DRT	and vPvB asses	ccment					



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	according		t contain components considered to have endocrine disrupting properties) or Commission Delegated regulation (EU) 2017/2100 or Commission els of 0.1% or higher.
12.7.	Other ad	verse effects	
	No inforr	mation available	
SECTION	ON 13. Dis _l	posal considerations	
13.1.	Waste	treatment methods	
13.1.1.		t/Packaging disposal:	
	Submit Protect		al person authorized by the Ministry of Environmental and Nature
13.1.2.		codes/waste designation	ons according to Law:
	No info	ormation available	
13.1.3.		treatment – relevant in	formation:
	No info	ormation available	
13.1.4.	C	a diamanah malamanah ind	farmantiana.
15.1.4.		e disposal – relevant inf	of into the sewage system.
	vvaste	must not be disposed t	of into the sewage system.
13.1.5.	Other o	disposal recommendati	ons:
	Do not authori the pac	dispose of the productized by the ministry in a	c's remains into the sewage system. Submit the remains to the collectors charge. Do not dispose of the packaging into the sewage system. Submit is authorized by the ministry in charge. Do not dispose of in places where
13.1.6.	. Relevar	nt Community provision	ns:
	-		
SECTION	ON 14. Tra	nsport information	
	•	ting/shipment by road	
UN nu			Not subject to transport regulations.
	oper shippii 		-
	ort hazard	class(es):	-
Packin	ig group:		



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Environmentally hazardous:	-
Special precautions for user:	-
Transporting/shipment by rail (R	
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:	-
C	-
Special precautions for user:	
Transporting/shipment by sea (II	
Transporting/shipment by sea (II	MDG)
Transporting/shipment by sea (III 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 (III 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:	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: 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: 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: Transporting/shipment by air (IC 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: 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: Transporting/shipment by air (IC UN number: UN proper shipping name: Transport hazard class(es): Packing group:	MDG) Not subject to transport regulations. MO-TI/IATA-DGR) 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: 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. AO-TI/IATA-DGR) Not subject to transport regulations

SECTION 15. Regulatory information

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



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Trading name:	ALCIAN BLUE SOLUTION pH 2.5						
Product code:	AB10-OT-X**	Date of compilation:	21 Dec 2022	Version:	6		

	EU regulations					
	Authorization and/or restrictions of use					
	Authorizations:	-				
	Restrictions:	-				
	Other EU regulations:	Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC; Directive 2004/42/CE of the European Parliament and of the Council of 21 April 2004 on the limitation of emissions of volatile organic compounds due to the use of organic solvents in certain paints and varnishes and vehicle refinishing products and amending Directive 1999/13/EC; Council Directive 98/24/EC of 7 April 1998 on the protection of the health and safety of workers from the risks related to chemical agents at work; Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006; REACH Restrictions on the manufacturing, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII);				
		i - C				
	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					

SECTION 16. Other information			
16.1. Indication of changes:	-		



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Trading name:	ALCIAN BLUE SOLUTION pH 2.5				
Product code:	AB10-OT-X**	Date of compilation:	21 Dec 2022	Version:	6

16.2.	Abbreviations and acronyms:	ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road) IMDG: International Maritime Code for Dangerous Goods IATA: International Air Transport Association GHS: Globally Harmonised System of Classification and Labelling of Chemicals EINECS: European Inventory of Existing Commercial Chemical Substances CAS: Chemical Abstracts Service (division of the American Chemical Society) DNEL: Derived No-Effect Level (UK REACH) LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative			
16.3.	Key literature references and source of data:	-			
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.	Relevant H statements (numb	per and full text)			
	H: 226	Flamamble liquid and vapour.			
	314	Causes severe skin burns and eye damage.			
16.6.	Training advice:	-			
16.7.	Further information:	** "X" in the product code marks different volumes (different packagings the product) We are not responsible for consequences in case of failure to comply wit 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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Trade name:		ī		
Product code:	KR-OT-X**	Date of compilation:	14 November 2022	Version: 4

1.1.	Product identifier				
	Trade name:	NUCLEAR FAS	T RED (K	ERNECHTROT) REAGENT	
	Chemical name:	_			
	Catalogue number:	KR-OT-X**			
1.2.	Relevant identified uses	of the substan	ce or mi	xture and uses advised against	
	Uses:		Counte	erstain in many special staining kits.	
	Uses advised against:			ne 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 and there is no reason to use it for other purposes.		
1.3.	Details of the supplier of the safety data sheet				
	Supplier: BioG		inost Ltd.		
	Address: Med		jugorska	59, Zagreb	
	Telephone number: +385		5 1 2409997		
	Telefax: +385		5 1 2404039		
	e-mail of competent person: msds		s@biognost.hr		
	National contact:	ational contact: -			
1.4.	Emergency telephone n	umber			
1.4.	National Protection and Rescue Directora		orate:	112	
1.4.	National Protection and	Rescue Directi		<u> </u>	
1.4.	National Protection and Medical information:	Rescue Directi		+385 1 2348 342	

SECTIO	SECTION 2. Hazards identification					
2.1.	Classification of the substance or mixture					
2.1.1.	Classification according to Regula	tion (EC) No 127	2/2008 (CLP)			
	Hazard class and category	y code:	Hazard statement*:			
	Not identified as hazardous substance					
2.1.2.	Additional information					
	-					
* For fu	ll text of Hazard- and EU Hazard-sta	atements: see SE	CTION 16			
2.2.	Label elements					
	Product identification:	NUCLEAR FAST	RED (KERNECHTROT) REAGENT			
	Identification number:	-				
	Authorisation number:	-				
	Hazard pictograms:	-				



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Trade name:		<u></u> г		
Product code:	KR-OT-X**	Date of compilation:	14 November 2022	Version: 4

	Signal word:	-		
	Hazard statement:	-		
	Precautionary statements:	-		
	Supplemetal hazard information (EU)	-		
2.3.	Other hazards			
	Endocrine Disrupting Properties:			
	No known endocrine disrupting properties.			

SECTION 3. Com	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)				
6409-77-4/ 229-088-0/ -	-	≤ 1%	Disodium 1-amino-2,4-dihydroxy-9,10-dihydro-9,10-dioxoanthracene-3-sulphonate	Skin Irr. 2; H315 Eye Irr. 2; H319 STOT SE; H335				

SECTI	SECTION 4. First aid measures				
4.1.	Description of first aid meas	ures			
	General notes:	-			
	Following inhalation:	Remove person to fresh air. If breathing stops, immediately apply artificial respiration. If breathing difficulties occur, use emergency breathing apparatus. If the symptoms persist, immediately consult a physician.			
	Following skin contact:	Remove all contaminated clothes using sterile gauze. 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 minutes. If the symptoms remain, immediately call in ophthalmologist.			
	Following ingestion:	Rinse the oral cavity, drink 1-2 glasses of water. Do not induce vomiting. 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 a	and effects, both acute and delayed			
	Following inhalation:	No information available			
	Following skin contact:	No information available			
	Following eye contact:	No information available			
	Following ingestion:	No information available			



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Trade name:		-		
Product code:	KR-OT-X**	Date of compilation:	14 November 2022	Version: 4

4.3.	Indication of any immediate medical attention and special treatment needed
	No information available

SECTIO	SECTION 5. Firefighting measures						
5.1.	Extinguishing media						
	Suitable extinguishing media:		Water, CO ₂ , foam, dry powder				
	Unsuitable extinguishing medi	a:	No information available				
5.2.	Special hazards arising from th	ne substa	ance or mixture				
	Hazardous combustion products:	No information available.					
5.3.	Advice for firefighters						
	Firefighters must always use fireproof suit and self-sustaining breathing apparatus with open circle that contains pressurized air in case of fire in closed space.						
5.4.	Additional information						
	Prevent spills and water used for putting out fire from contaminating waterways by enclosing and covering drains.						

SECTIO	ON 6. Accidental release measures					
6.1.	Personal precautions, protective ec	quipment and emergency procedures				
6.1.1.	For non-emergency personnel					
	Protective equipment:	Use protective equipment in accordance with Section 8. Do not get in eyes or on skin. Do not inhale vapor/aerosols. Remove the persons not directly involved in rescuing procedure from the scene of event.				
	Accident prevention methods:	Keep away from heat, flames and sparks. Secure proper ventilation. Prevent electrostatic charge buildup. Use only grounded devices and equipment. Do not release in drains - explosion hazard.				
	Emergency procedures:	In case of accident secure the location and evacuate the personnel not involved in recovery.				
6.1.2.	For emergency responders:					
	Use protective equipment; in case of inadequate ventilation use adequate airways protective equipmen (see Section 8).					
6.2.	Environmental precautions:					
Do not dispose of in sewage, drainage system and waterways. In case of large spillage co Protection and Rescue Directorate (NPRD) on 112.						
6.3.	Methods and material for containn	nent and cleaning up				



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Trade name:		NUCLEAR FAST RED (KERNECHTROT) REAGENT							
Product code:	KR-OT-X**	Date of compilation:	14 November 2022	Version: 4					

6.3.1.	Bunding, covering of drains; capping procedures:	Sand bags.			
6.3.2.	Cleaning up:	Where possible, soak up the product using inert matter, such as sand, silica gel, saw dust). 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:	Recovery of contaminated area should only be conducted by qualified person that uses stipulated protective equipment. Prevent the waste water from entering waterways.			
6.4.	Reference to other sections				
	See Section 7 for information about secure handling.				
	See Section 8 for information about personal protective equipment.				
	See Section 13 for info	rmation about containment.			

SECTIO	SECTION 7. Handling and storage								
7.1.	Precautions for safe handling								
7.1.1.	Protective measures								
	Measures to prevent fire:	Keep away from heat, flames and sparks. Secure proper ventilation.							
	Measures to prevent aerosol and dust generation	Adequate ventilation of the rooms where the product is kept and handled. Containers must be firmly closed.							
	Measures to protect the environment:	Keep the containers firmly closed in vertical position when the product is not used. Prevent the product from entering waterways, sewerage and drainage systems by using barrage and semi-barrage made of sand, as well as covering the drainage by using plastic foil.							
	Other measures:	-							
7.1.2.	Advice on general occupational hygiene:								
	Do not eat, drink or smoke in the workspace. The	oroughly wash hands after work and before eating.							
7.2.	Conditions for safe storage, including any incor	patibilities							
	Technical measures and storage conditions:	In dry, cold and well-ventilated space. Containers must be firmly closed. Maintain adequate ventilation of the rooms where the product is kept and handled.							
	Packaging materials:	Manufacturer's original packaging.							



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Trade name:		-		
Product code:	KR-OT-X**	Date of compilation:	14 November 2022	Version: 4

	Requirements for storage rooms and vessels:	Keep away from food and drink. Keep the containers tightly closed.
	Advices for storage equipment:	Keep away from heat, flames, sparks and sunlight.
	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 9).
7.3.	Specific end use(s)	
	Recommendations:	Secure stations for rinsing eyes and showering in the vicinity of work area.
	Industrial sector specific solutions:	-

					viciriity	vicinity of work area.				
	Industrial sector specific solutions:				-					
				ols/persona	l pro	tection				
8.1.	Contro	ol para	meters							
	Substa	ince		CAS	No	Occupational values/shor			Biolo	ogical limit values
						ppm	ı	mg/m³		
-				-		-		-		-
Substar name:	nce	-								
EC No:		-		CAS No:		-				
DNEL										
						Industrial				
Davita	- £	of exposure:		ute effect A		Acute effect		Chronic effect		Chronic effect
Koute	от ехро			local		systemic	systemic			systemic
Oral			-		-		-			-
Inhalati	ion		1		-		-			-
Dermal			-		-		-			-
Critical	physical	paran	neters: s	olubility, fla	mmal	bility, corrosivity:				
						Consumer				
Douts	of over		Acu	te effect		Acute effect		Chronic effe	ct	Chronic effect
Koute	of expo	sure:		local		systemic		local		systemic
Oral			-		-		-			-
Inhalati	ion		1		-		-			-
Dermal			-		-		-			-
					•				,	



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Trade name:		NUCLEAR FAST RED (KERNECHTROT) REAGENT							
Product code:	KR-OT-X**	Date of compilation:	14 November 2022	Version: 4					

Environm	ental protection target		PNEC		
Fresh wat	er		No information available		
Freshwate	er sediments		No information available		
Marine wa	ater		No information available		
Marine se	ediments		No information available		
Food chai	in		No information available		
Microorga	anisms in sewage treatment		No information available		
Soil (agric	cultural)		No information available		
Air			No information available		
8.2.	Exposure controls				
8.2.1.	Appropriate engineering control	S			
	mageriae to brought avrocilla		product in well ventilated rooms. Use personal protective ent. Do not eat, drink or smoke in the workspace.		
	Structural measures to prevent exposure:	In accor	ccordance with Section 7.		
	Organisational measures to prevent exposure:	_	anization of work in order to reduce other worker's influence ng work process.		
	Technical measures to prevent exposure:		re proper workspace ventilation in order to keep entration levels in air below permitted levels.		
8.2.2.	Personal protection equipment				
8.2.2.1.	Eye and face protection:	levels o	plasses that stick to face (EN 166) or visor in case of lower f concentration in air; protective gas mask that covers the ace in case of higher levels of concentration in air.		
8.2.2.2.	Skin protection				
			ive gloves must be according to the EU Directive 25/EEC and standard EN 374.		
	Hand protection:		Glove material: nitrile rubber		
			Glove thickness: ≥0.50 mm		
			Break through time: >480 min		
			ntistatic clothing made of natural fibers (such as cotton) ng sleeves (EN 13034), and shoes that cover the entire foot (35).		
8.2.2.3.	Respiratory protection:	Suitable mask or half mask equipped with a combined "A-P" filter and used when concentration levels exceed GVI.			
8.2.2.4.	Thermal hazards:	No info	rmation available		
8.2.3.	Environmental exposure controls				



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Trade name:		NUCLEAR FAST RED	(KERNECHTROT) REAGE	NT
Product code:	KR-OT-X**	Date of compilation:	14 November 2022	Version: 4

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 ar	d chemical properties			
		Value	Method		
	Physical state:	liquid	No information available		
	Colour:	red	No information available		
	Odour/odour threshold:	No information available	No information available		
	Melting point / freezing point:	No information available	No information available		
	Boiling point or initial boiling point and boiling range:	No information available	No information available		
	Flammability:	No information available	No information available No information available		
	point and boiling range: Flammability: Lover and upper explosion limit: Flash point: Auto-ignition temperature: Decomposition temperature: pH:	No information available			
	Flash point:	No information available	No information available		
	Auto-ignition temperature:	No information available	No information available		
	Decomposition temperature:	No information available	No information available		
	рН:	No information available	No information available		
	Kinematic viscosity:	No information available	No information available		
	Solubility:	No information available	No information available		
	Partition coefficient noctanol/water (log value):	No information available	No information available		
	Vapour pressure:	No information available	No information available		
	Density and/or relative density	No information available	No information available		
	Relative vapour density:	No information available	No information available		
	Particle characteristics:	No information available	No information available		
.2.	Other information				

SECTION 10.: Stability and reactivity



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Trade name:		NUCLEAR FAST RED (I	KERNECHTROT) REAGEN	г
Product code:	KR-OT-X**	Date of compilation:	14 November 2022	Version: 4

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:	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.

SECTION 11 Toxico	ological information							
	n on toxicological effe	cts						
Acute toxic	ity:							
Route of exposure:	Method	Species	LD ₅₀ ,	Effective dose LD_{50}/LC_{50} or $ATE_{mixture}$		e time	Results	
Oral:	No information available	_	No info availabl		No information available		_	
Dermal:	No information available	-	No info availabl		No infor		-	
Inhalation:	No information available	-	No info availabl		No infor		-	
Specific tar	rget organ toxicity – single exposure (STOT SE): Specific effects Target organ Note							
	•						Note	
Oral:	No information avail			No information available -				
Dermal:	No information avail		No information availab					
Inhalation:	No information avail	able	No inf	ormation ava	ailable	-		
Aspiration	hazard:	-						
Irritation ar	nd corrosion							
	Exposure tin	ne Sp	ecies	Evaluation	Me	ethod	Note	
Skin corrosion/irritation:			-	-			No information available	
Gerious eye damage/irritation		-	-				No information available	



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Trade name:		NUCLEAR FAST RED (KERNECHTROT) REAGE	NT
Product code:	KR-OT-X**	Date of compilation:	14 November 2022	Version: 4

<u> </u>											
Sensitiza											
Dermal exposure	·										
Inhalation exposure:	No informatio	n available									
Sympto	ms related to the p	hysical, chemic	al and toxicolog	ical characteristi	CS						
Oral exposure:	Symptoms related to the physical, chemical and toxicological characteristics Oral exposure: No information available										
Dermal exposure	: No informatio	n available									
Inhalation exposure:	No informatio	n available									
Eye exposure:	No informatio	n available									
Repeate	ed dose toxicity (su		onic, chronic)								
	Dose	Exposure time	Species	Method	Evaluation	Note					
Subacute oral	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	-					
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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Trade name:	ade name: NUCLEAR FAST RED (KERNECHTROT) REAGENT								
Product code:	KR-OT-X**	Date of com	pilation:	2022	Version: 4				
Chronic inhalation	No information available	No information available	No information available	No information available	No informatio available	on -			
Specific	target organ toxic	city – repeated e	exposure (STOT	RE):					
		Specific effects		Target orga	n	Note			
Subacute oral	No info	rmation availabl	e No i	nformation availa	ble	-			
Subacute derma	l No info	rmation availabl	e No i	nformation availa	ble	-			
Subacute inhalat	ion No info	rmation availabl	e No i	nformation availa	ble	-			
Subchronic oral	No info	rmation availabl	e No i	nformation availa	ble	-			
Subchronic derm	nal No info	rmation availabl	e No i	nformation availa	ble	-			
Subchronic inhal	ation No info	rmation availabl	e No i	nformation availa	ble	-			
Chronic oral	No info	rmation availabl	e No i	No information available					
Chronic dermal	No info	e No i	nformation availa	ble	-				
Chronic inhalation	on No info	e No i	nformation availa	ble	-				
:									
CMR ef	fects (carcinogenio	ity; mutagenicit	y; reproductive	toxicity)					
Carcino	genicity:		No informati	on available					
Mutage	enicity <i>in-vitro</i> :		No information available						
Genoto	xicity:		No information available						
Mutage	enicity <i>in-vivo</i> :		No information available						
Germ c	ell mutagenicity:		No information available						
Reprod	uctive toxicity:		No information available						
Summa propert	ry of evaluation ies:	of the CMR	No informati	on available					
11.2. Informa	ation on other haza	ards:							
11.2.1. Endocri	ne disrupting prop	perties:							
	wn endocrine disru ect human health.	upting propertie	S						
11.2.2. Other is	nformations:		•						
-									

SECTION 12. General notes	SE	CTIO	N 12.	General	notes
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12.1. Toxicity



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Trade name:		NUCLEAR FAST RED (K	(ERNECHTROT) REAGENT	7
Product code:	KR-OT-X**	Date of compilation:	14 November 2022	Version: 4

Acute (short-teritoxicity	m)	Dose	Exposure time	Species	Method	Eval	uation	N	ote
Fish		LC ₅₀	96 hours	No information available	-	No inforr available	mation	-	
Crustacea: EC ₅₀		EC ₅₀	48 hours	No information available	-	No inforr available	nation	-	
Algae/aquatic pl	ants	IC ₅₀	72 hours	No information available	-	No inforr available	nation	_	
Other organisms	5	-	_	-	-	-		-	
Chronic (long-te toxicity	rm)	Dose	Exposure time	Species	Method	Eval	uation	N	ote
Fish		LC ₅₀	96 hours	No information available	-	No inforr available	nation	-	
Crustacea:		EC ₅₀	48 hours	No information available	-	No inforr available	mation	-	
Algae/aquatic pl	Algae/aquatic plants IC ₅₀		72 hours	No information available	-	No inforr available	mation	-	
Other organisms -			-	-				-	
12.2. Persiste Abiotic	degra								
	De	egradation h	alf-lives	Method	E۱	Evaluation		Note	
Marine water	No ir	nformation a	vailable	No information av	ailable	No information available		e	-
Fresh water	No ir	nformation a	vailable	No information av	ailable	No information available			-
Air	No ir	nformation a	vailable	No information av	ailable	No information available		e	-
Soil	No ir	nformation a	vailable	No information av	railable	No informa	ation availabl	e	-
Biodegi	radatio	on							
% Degradation		Time (days	()	Method	Eva	luation	N	ote	
		inforn	nation			nformation le			mation
12.3. Bioaccu	ımulat	ive potential							
Octano	l-wate	er partition co	pefficient (lo	g Kow)					
Value	Conce	entration	рН	°C Method	E	valuation	1	Note	



Trade name:

SAFETY DATA SHEET According to Regulation (EC) No. 1907/2006 amended by Regulation (EU) No. 2020/878

NUCLEAR FAST RED (KERNECHTROT) REAGENT

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Product code: KR-OT-X**			Г-Х**	Date of compilation:			1.	14 November 2022 Version			Versior	ո: 4	
						:		·					
No informa available	available			_	No informatic available		n No information available		tion	No information available			
				<u> </u>	<u> </u>	<u> </u>						i	
	Bioco	ncent	ration 1	factor (BCI	=)								
V	alue			Species		N	1ethod			Evaluation		No	te
No info		ı	No info	ormation ble		No info availabl			No ii avail	nformation able		No informat available	ion
		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1											
	Clause	.:											
	Cnror	iic eco	otoxicit	y	Ev	nocuro					: : : : : : : :		
Value Dose				Dose	Exposure time		S	Species		Method I		Evaluation N	
Chronic toxicity on fish LC			LC ₅₀		No information available		No information available		lo nformation vailable		ormation ilable	-	
	Chronic toxicity on crustacea (Daphnia)			1			rmation lable			i	ormation ilable	-	
				i.							i		
12.4.	Mobil	ity in	soil										
	Know	n or p	oredicte	ed distribu	tion in e	environm	ental c	ompartm	nents	:			
	No in	forma	ation av	ailable									
	Surfac	ce ten	sion:										
	Vá	alue		°C	С	oncentra	tion		Met	hod		Note	
	I intormation intormation							No info availabl	oformation able		-		
	Λ -!			.: -									
	Adsor	•	/ deso										
Transpo	rt		/D coef enry's co		lo	og Kow	Ev	aporatio	n rate	e Meth	od	ſ	Note



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Trade name:	NUCLEAR FAST RED (KERNECHTROT) REAGENT						
Product code:	KR-OT-X**	Date of compilation:	14 November 2022	Version: 4			

					ı		
Soil-wat	t∆r :	No Ivailable	information	No information available	No information available	No information available	-
Water-a	air	No Ivailable	information	No information available	No information available	No information available	-
Soil-air	air		No information available	No information available	No information available	-	
12.5.	Results	s of PBT a	and vPvB asses	sment			
	No info	ormation	available				
12.6.	Endocı	rine disru	pting properti	es			
	No kno	own endo	ocrine disrupti	ng properties that	affect the environm	nent.	
	:						
12.7.	Other	adverse e	effects				
	No info	ormation	available				
SECTIO	N 13. D	Disposal c	onsideration	5			
13.1.	Wast	te treatm	ent methods				
13.1.1.			aging disposal				
		mit for dis ection.	sposal to the le	egal person autho	rized by the Ministry	y of Environmental a	and Nature
	FIOR	ection.					
13.1.2.	Wast	te codes/	waste designa	tions according to	Low:		
		11 10*: pac stances	ckaging that co	ontains residual h	azardous substances	s or is contaminated	l with hazardous
13.1.3.	Wast	te treatm	ent – relevant	information:			
	No ii	nformatic	on available				
13.1.4.	Sewa	age dispo	sal – relevant	information:			
	Wast	te must n	ot be dispose	d of into the sewa	ge system.		
13.1.5.	Othe	er disposa	l recommenda	ations:			



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Trade name:	NUCLEAR FAST RED (KERNECHTROT) REAGENT					
Product code:	KR-OT-X**	Date of compilation:	14 November 2022	Version: 4		

	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. Do not dispose of in places where ignition may occur.				
13.1.6.	Relevant Community prov	visions:			
		gement Act, Ordinance on Waste Management, Regulation on categories, f waste with waste catalog and list of hazardous waste			
SECTION	N 14. Transport information	on			
	Transporting/shipment by r				
UN num		Not subject to transport regulations			
UN prop	er shipping name:	-			
	rt hazard class(es):	-			
Packing		-			
-	nental hazards:	-			
Special p	precautions for user:	-			
	Transporting/shipment by r	rail (RID)			
UN num		Not subject to transport regulations			
UN prop	er shipping name:	-			
	rt hazard class(es):	-			
Packing	group:	-			
Environn	nental hazards:	-			
Special p	precautions for user:	-			
	Transporting/shipment by i	nland waterways (ADN)			
UN num	ber:	Not subject to transport regulations			
UN prop	er shipping name:	-			
Transpor	t hazard class(es):	-			
Packing	group:	-			
Environn	nental hazards:	-			
Special p	precautions for user:	-			
	Transporting/shipment by s	sea (IMDG)			
UN num	ber:	Not subject to transport regulations			
UN prop	er shipping name:	-			
Transpor	t hazard class(es):	-			
Packing	group:	-			
Environn	nental hazards:	Not subject to transport regulations			



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Trade name:	NUCLEAR FAST RED (KERNECHTROT) REAGENT			-	
Product code:	KR-OT-X**	Date of compilation:	14 November 2022	Version:	4

Special precautions for user:	-
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code:	-
Transporting/shipment by air (ICA	AO-TI/IATA-DGR)
UN number:	Not subject to transport regulations
UN proper shipping name:	-
Transport hazard class(es):	-
Packing group:	-
Environmental hazards:	-
Special precautions for user:	-
Further information: -	

15.1.	Safety, health and environmental regulations/legislation specific for the substance or mixture		
	EU regulations		
	Authorisations and/or res	trictions of use	
	Authorisations:	-	
	Restrictions:	-	
	Other EU regulations:	Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/9: and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC; Directive 2004/42/CE of the European Parliament and of the Council of 21 April 2004 on the limitation of emissions of volatile organic compounds due to the use of organic solvents in certain paints and varnishes and vehicle refinishing products and amending Directive 1999/13/EC; Council Directive 98/24/EC of 7 April 1998 on the protection of the health and safety of workers from the risks related to chemical agents at work; Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 10 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006; REACH Restrictions on the manufacturing, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVIII);	



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Trade name:		IT		
Product code:	KR-OT-X**	Date of compilation:	14 November 2022	Version: 4

	National regulation:	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, Transport of Hazardous Substances Act
15.2.	Chemical safety assessment	
	None	

SECTIO	ON 16	6. Other information			
16.1.	Ind	ication of changes:	-		
16.2.		oreviations and onyms:	ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road) IMDG: International Maritime Code for Dangerous Goods IATA: International Air Transport Association GHS: Globally Harmonised System of Classification and Labelling of Chemicals EINECS: European Inventory of Existing Commercial Chemical Substances CAS: Chemical Abstracts Service (division of the American Chemical Society) DNEL: Derived No-Effect Level (UK REACH) LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative		
16.3.	Key literature references and source of data:		-		
16.4.	Classification and procedure 1272/2008 (CLP)		used to derive the classification for mixture according to Regulation (EC)		
Classif	icatior	1	Classification procedure		
-					
16.5.	Rele	evant H statements (numl	per and full text)		
		H315	Causes skin irritation.		
	H:	H319	Causes serious eye irritation.		
		H335	May cause respiratory irritation.		
16.6.	Trai	ining advice:	-		
			** "X" in the product code marks different volumes (different packagings of the product)		
16.7.	Fur	ther 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



SAFETY DATA SHEET

According to Regulation (EC) No. 1907/2006 amended by Regulation (EU) No. 2020/878

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Trade name:		NUCLEAR FAST REI	D (KERNECHTROT) REAGENT		
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SAFETY DATA SHEET

According to Regulation (EC) No. 1907/2006 amended by Regulation (EU) No. 2020/878

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Trading name:	SODIUM TETRABORATE, SOLUTION				
Product code:	NTB-OT-X**	Revision date:	14 November 2022	Version:	7

SECTI	ION 1: Identification of	the substance	e/mixture	and of the company/undertaking	
1.1	Product identifier				
	Trading name:	SODIUM TETRABORATE, SOLUTION			
	Chemical name:	-	-		
	Catalogue number:	NTB-OT-X*	3-OT-X**		
1.2	Relevant identified us	Relevant identified uses of the substance or mixture and uses advised against			
	Uses:		For use	with special staining kits.	
	Uses advised against:		Only the	e identified uses are advised.	
Reason why uses advised agains		sed 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	
	Other information:			-	

SECTIO	SECTION 2. Hazards identification					
2.1	Classification of the substance or mixture					
2.1.1	Classification according to Regulation (EC) No 1272/2008 (CLP)					
	Hazard class and categ	ory code:	Hazard statements*:			
	Flam. Liq. 2		H225			
	Eye Irr. 2		H319			
	STOT SE 3		H336			
2.1.2.	Additional information					
	-					
*For ful	*For full text of Hazard- and EU Hazard-statements: see SECTION 16					
2.2	Label elements					
	Product identification:	SODIUM TETRA	BORATE, SOLUTION			
	Identification number: -					



SAFETY DATA SHEET

According to Regulation (EC) No. 1907/2006 amended by Regulation (EU) No. 2020/878

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Trading name:	SODIUM TETRABORATE, SOLUTION				
Product code:	NTB-OT-X**	Revision date:	14 November 2022	Version:	7

	Authorization number:	-		
	Hazard pictograms:	GHS02 GHS07		
	Signal word:	Danger		
	Hazard statements:	H225 Highly flammable liquid and vapor.H319 Causes serious eye irritation.H336 May cause drowsiness or dizziness		
	Precautionary statements:	P210 Keep away from heat/sparks/open flames/hot surfaces. Do not smoke. P280 Wear protective gloves/protective clothing/eye/protection/face protection. P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.		
	Supplemetal hazard information (EU):	-		
2.3	Other hazards			
	Endocrine Disrupting Properties:			
	No known endocrine disrupting properties. This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.			

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- 0147	40 - 60 %	ethanol	Flam. Liq. 2; H225		
67-63-0/ 200-661-7/ 603-117-00-0	-	20 - 30 %	propan-2-ol	Flam. Liq. 2; H225 Eye Irr. 2; H319 STOT SE 3; H336		
1330-43-4/ 215-540-4/ 005-011-00-4	-	< 0.5 %	sodium tetraborate	Eye Irr. 2; H319 Repr. 1B; H360FD		



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Trading name:		SODIUM TETRABORATE, SOLUTION					
Product code:	NTB-OT-X**	Revision date:	14 November 2022	Version:	7		

Following inhalation: Following skin contact: Following eye contact: Following ingestion: Following inhalation: Following ingestion: Following inhalation: Following eye contact: Following ingestion: Following ingestion: Following inhalation: Following inhalation: Following ingestion: Following ingestion: Following inhalation: Central nervous system depression, prolonged or repeated expectance and cause: nausea, headache, vomiting, narcosis, drowsiness. Following eye contact: Defatting, dry skin. Depending on concentration and exposure time, it may lead to irritation, tearing, redness and pain. Overexposure may cause mild, reversible liver effects. Aspiration	4.1	Description of first aid measures				
Following inhalation: ventilated area or out for fresh air. In case of difficult breathing, provide the afflicted person with oxygen. Remove contaminated clothing. Immediately wash with plenty of water for at least 20 minutes. Seek medical assistance if the sym of irritation remain. Rinse out with plenty of water with the eyelid held wide open for least 20 minutes. If the symptoms remain, immediately call in ophthalmologist. Do not induce vomiting. Do not insert any object into the unconscious person's mouth. Immediately consult a physician as show the container or label. In case of swallowing large quantit transport the afflicted person to the hospital. Self-protection of the first aider: Self-protection of the first aider: 4.2 Most important symptoms and effects, both acute and delayed Following inhalation: Central nervous system depression, prolonged or repeated exprancance cause: nausea, headache, vomiting, narcosis, drowsiness. Following skin contact: Defatting, dry skin. Depending on concentration and exposure time, it may lead to irritation, tearing, redness and pain. Overexposure may cause mild, reversible liver effects. Aspiration		General notes:	If the suggested first aid measures do not prove sufficient, seek medical attention.			
Following skin contact: water for at least 20 minutes. Seek medical assistance if the sym of irritation remain. Rinse out with plenty of water with the eyelid held wide open for least 20 minutes. If the symptoms remain, immediately call in ophthalmologist. Do not induce vomiting. Do not insert any object into the unconscious person's mouth. Immediately consult a physician as show the container or label. In case of swallowing large quantitition transport the afflicted person to the hospital. Self-protection of the first aider: Self-protection of the first aider: Following inhalation: Central nervous system depression, prolonged or repeated expectance can cause: nausea, headache, vomiting, narcosis, drowsiness. Following skin contact: Defatting, dry skin. Depending on concentration and exposure time, it may lead to irritation, tearing, redness and pain. Overexposure may cause mild, reversible liver effects. Aspiration		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 eye contact: least 20 minutes. If the symptoms remain, immediately call in ophthalmologist. Do not induce vomiting. Do not insert any object into the unconscious person's mouth. Immediately consult a physician a show the container or label. In case of swallowing large quantititions transport the afflicted person to the hospital. Self-protection of the first aider:		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 ingestion: unconscious person's mouth. Immediately consult a physician a show the container or label. In case of swallowing large quantition transport the afflicted person to the hospital. Self-protection of the first aider: Most important symptoms and effects, both acute and delayed Following inhalation: Central nervous system depression, prolonged or repeated expersance cause: nausea, headache, vomiting, narcosis, drowsiness. Following skin contact: Defatting, dry skin. Depending on concentration and exposure time, it may lead to irritation, tearing, redness and pain. Overexposure may cause mild, reversible liver effects. Aspiration		Following eye contact:				
4.2 Most important symptoms and effects, both acute and delayed Following inhalation: Central nervous system depression, prolonged or repeated expectance can cause: nausea, headache, vomiting, narcosis, drowsiness. Following skin contact: Defatting, dry skin. Depending on concentration and exposure time, it may lead to irritation, tearing, redness and pain. Overexposure may cause mild, reversible liver effects. Aspiration		Following ingestion:	unconscious person's mouth. Immediately consult a physician and show the container or label. In case of swallowing large quantities,			
Following inhalation: Central nervous system depression, prolonged or repeated expersal can cause: nausea, headache, vomiting, narcosis, drowsiness. Defatting, dry skin. Depending on concentration and exposure time, it may lead to irritation, tearing, redness and pain. Overexposure may cause mild, reversible liver effects. Aspiration		Self-protection of the first aider:	-			
Following innalation: can cause: nausea, headache, vomiting, narcosis, drowsiness. Defatting, dry skin. Depending on concentration and exposure time, it may lead to irritation, tearing, redness and pain. Overexposure may cause mild, reversible liver effects. Aspiration	4.2	Most important symptoms and ef	fects, both acute and delayed			
Following eye contact: Depending on concentration and exposure time, it may lead to irritation, tearing, redness and pain. Overexposure may cause mild, reversible liver effects. Aspiration		Following inhalation:	Central nervous system depression, prolonged or repeated exposure can cause: nausea, headache, vomiting, narcosis, drowsiness.			
Following eye contact: irritation, tearing, redness and pain. Overexposure may cause mild, reversible liver effects. Aspiration		Following skin contact:	Defatting, dry skin.			
FOUNTING INDESTION.		Following eye contact:				
lead to: lung edema, pneumonia		Following ingestion:	Overexposure may cause mild, reversible liver effects. Aspiration may lead to: lung edema, pneumonia			

SECTIO	SECTION 5. Firefighting measures				
5.1	Extinguishing media				
	Suitable extinguishing media:	Carbon dioxide (CO ₂), foam, dry powder.			
	Unsuitable extinguishing media:	No information available.			
5.2	Special hazards arising from the substance or mixture				
	Hazardous combustion products:	Carbon oxides Combustible. Pay attention to flashback. Vapors are heavier than air and may spread along floors. Development of hazardous combustion gases or vapours possible in the event of fire. Forms explosive mixtures with air at ambient temperatures.			
5.3	Advice for firefighters				



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Product code:	NTB-OT-X**	Revision date:	14 November 2022	Version:	7		

	Use a self-contained open-circuit compressed air breathing apparatus and fireproof clothing.
5.4	Additional information
	Remove container from danger zone and cool with water. Prevent fire extinguishing water from contaminating surface water or the ground water system.

6.1	Personal precautions, protecti	ve equipment and emergency procedures			
6.1.1.	For non-emergency personne	ı			
	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:				
	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, 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.			
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.			

SECTION 7. Handling and storage			
7.1	Precautions for safe handling		
7.1.1.	Protection measures		



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Trading name:		SODIUM TETRABORATE, SOLUTION					
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	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	n:	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	oroughly was	sh hands after work and before eating.		
7.2	Conditions for safe storage, including any incon				
	Technical measures and storage conditions:	well ventil	ghtly closed and upright set containers in a ated storage rooms at temperatures ranging 25 °C. Protect from heat and direct sunlight.		
	Packaging materials:		Manufacturer's original packaging. Suitable material: HDPE containers.		
	Requirements for storage rooms and vessels:	Keep away	y from food and drink. Keep the containers sed.		
	Advices for storage equipment:	The storage must be made of hard material; floors must be resistant to chemicals. There must be no dra that directly leads into sewage system. Secure proper ventilation.			
	Further information on storage conditions:	and do no	ace the unused material in the storage room of 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: -				

SECTION 8. Exposure controls/personal protection						
8.1 Control parameters						
Occupational exposure limit Substance CAS No values/short term values Biological limit values						
		ppm	mg/m³			
Ethanol	64-17-5	1000/-	1900/-	-		
Propan-2-ol	67-63-0	400/500	999/1250	-		
		·				
Substance name: -						



According to Regulation (EC) No. 1907/2006 amended by Regulation (EU) No. 2020/878

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Trading name: SUDIUM TETRABURATE, SULUTION								
Product code:	NTB-O1	Γ-X**	Revisi	on date:	14 Noven	nber 2022	Version:	7
	:		:		3		:	
EC No:	-	CAS No						
DNEL								
			In	dustrial				
Route of	Acı	ute	Acute	Chronic			Chronic	
exposure:	effect	local	effect system	ic effect local effect system			effect systemic	
Oral	-		-	-		-		
Inhalation	1900 mg/m³ - (ethanol)		-		_	/m³ (ethanol) /m³ (propan-2-	ol)	
Dermal			-		_	/kg (ethanol) /kg bw/day n-2-ol)		
Critical physical par	ameters:	solubility,	flammability, co	rrosivity:	-			
			Co	onsumer				
Route of	A	cute	Acute		Chronic		Chronic	
exposure:	effe	ct local	effect system	ic	effect local	6	effect systemic	
Oral	-		-	-		_	kg bw/day (eth kg bw/day n-2-ol)	anol)
Inhalation	950 m (ethar	•	-	-		114 mg	114 mg/m³ (ethanol) 89 mg/m³ (propan-2-ol)	
Dermal	-		-	-			/kg (ethanol) /kg (propan-2-	ol)
PNEC								
Environmental prot	ection tar	get		PNEC				
Fresh water				0.96 mg/	l (ethanol)			
Freshwater sedimer	nts			3.6 mg/kg (ethanol)				
Marine water				0.79 mg/l (ethanol)				
Marine sediments				no inforn	nation available			
Food chain				no information available				
Microorganisms in sewage treatment			no information available					
Soil (agricultural)			0.63 mg/kg (ethanol)					
Air				nation available				
				1				
8.2 Exposu	ure contro	ls						
8.2.1. Appro	priate eng	ineering	controls					



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Trading name:		SODIUM TETRABORATE, SOLUTION					
Product code:	NTB-OT-X**	Revision date:	14 November 2022	Version:	7		

	Structural measures to prevent exposure:	Use mo	nodern equipment.			
	Substance/mixture related measures to prevent exposure:	See Se	ction 6			
8.2.3.	Environmental exposure controls					
8.2.2.4.	Thermal hazards:		ormation available			
8.2.2.3.	Respiratory protection:	If the concentration level exceeds the GVI values (or because of inadequate ventilation), use a filter for organic vapors, type "A" (boiling point >65°C) according to EN 14387.				
	Other skin protection:	suitable cover to	everyday work use antistatic clothing (EN 13688) and e footwear, such as rubber boots (EN 20345) or shoes that the entire foot. In case of spilling hazard, use clothing made ermeable material suitable for protection from liquid cals (Viton, PVC, himex) and footwear made from the same al.			
	Hand protection:	Full co	Regulation (EU) 2016/425 and the related standard EN 374. Full contact: Glove material: butyl rubber Glove thickness: ≥ 0.50 mm Time until perforation: > 480 min Splash contact: Glove material: nitrile rubber Glove thickness: 0.4 mm Break through time: 35 min			
8.2.2.2.	Skin protection		otective gloves have to satisfy the specification of			
	Eye and face protection:		of concentration in air; protective gas mask that covers the face in case of higher levels of concentration in air.			
8.2.2.1.	Personal protection equipment		glasses that stick to face (EN 166) or visor in case of lower			
8.2.2.	·	.posuic.	stations for rinsing eyes and showering.			
	Technical measures to prevent ex	vnosura:	Secure proper workspace ventilation in order to keep concentration levels in air below permitted levels. Secure			
	Organizational measures to preve exposure:	ent	Organization of work in order to reduce other worker's influence during work process.			
	Structural measures to prevent exposure:		In accordance with Section 7.			
	Substance/mixture related measures to prevent exposure during identified uses:		Use the product in well ventilated rooms. Use personal protective equipment. Do not eat, drink or smoke in the workspace.			



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Trading name:		SODIUM TETRAB	SODIUM TETRABORATE, SOLUTION				
Product code:	NTB-OT-X**	Revision date:	14 November 2022	Version:	7		

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/odour threshold:	ethanol like/no information available	No information available			
	Melting point / freezing point:	No information available	No information available			
	Boiling point or initial boiling point and boiling range:	No information available	No information available			
	Flammability:	No information available	No information available			
	Lover and upper explosion limit:	No information available	No information available			
	Flash point:	25 ℃	No information available			
	Auto-ignition temperature:	No information available	No information available			
	Decomposition temperature:	No information available	No information available			
	рН:	No information available	No information available			
	Kinematic viscosity:	No information available	No information available			
	Solubility:	No information available	No information available			
	Partition coefficient n- octanol/water (log value):	No information available	No information available			
	Vapour pressure:	No information available	No information available			
	Density and/or relative density	No information available	No information available			
	Relative vapour density:	No information available	No information available			
	Particle characteristics:	No information available	No information available			

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.					



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Trading name:		SODIUM TETRABO	BORATE, SOLUTION			
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10.4	Conditions to avoid:	Avoid heat, sparks, open flames and other ignition sources.
10.5	Incompatible materials:	Acids, bases, oxidants.
10.6	Hazardous decomposition products:	Carbon monoxide and carbon dioxide.

SECTION 11. To	oxicological infor	mation					
11.1 Informa	ation on toxicologi	cal effects					
Acute t	oxicity:						
Route of exposure:	Method	Species	Dos	se LD ₅₀ /LC ₅₀ or ATE _{mix}	Exposure 1	time	Results
Oral:	-	rat		LD ₅₀			7.060 mg/kg (ethanol) 5.840 mg/kg (2-propanol)
Dermal:	-	rabbit		LD ₅₀	-		>20.000 mg/kg (ethanol) 12.800 mg/kg (2-propanol)
Inhalation:	-	rat		LC ₅₀	4 h		>8.000 mg/l (ethanol) 37.5 mg/l (2- propanol)
c :c:				TOT (F)			
Specific	target organ toxic		(posure (S				
	-	ecific effects		Target			Note
Oral:	No information			No information available		-	
Dermal:	No information	on available	No information available		-		
Inhalation:	No information	on available	No information available may cause drows or dizziness				
Aspirat	ion hazard:		No infor	mation available.			
Irritatio	n and corrosion						
	Expos	ure time	Spec	ies Evaluat	ion Method		Note
Skin corrosion/irritat	ion:		_	-	-	-	
Serious eye damage/irritatio	on -		rabbit	-	-	cause irritat	s serious eye ion



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Sensitiza	ation						
Skin sensitizatior	1:	No inf	ormation avail	able.			
Respiratory sensitization: No info			ormation avail	able.			
Sympto	ms related	d to the ph	nysical, chemic	al and toxicolog	jical characterist	ics	
Oral exposure:	No	informati	on available.				
Dermal exposure	: No	informati	on available.				
Inhalation exposi	ure: No	informati	on available.				
Eye exposure:	No	informati	on available.				
_							
Repeate		ose (sub	acute, subchro Exposure time	Species	Method	Evaluation	Note
Subacute oral	cute 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 info	ormation e	No information available	No information available	No information available	No information available	-
Subchronic oral	ubchronic 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	-
Subchronic inhalation			No information available	No information available	No information available	No information available	-
Chronic oral	No info	ormation e	No information available	No information available	No information available	No information available	_
Chronic dermal	No info	ormation e	No information available	No information available	No information available	No information available	-



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Chronic inhalation			No information available	No information available	No information available	No information available	on	-
Speci	fic target	organ toxicit	y – repeated e	exposure (STOT	RE):			
<u>i</u>			Specific effe	cts	Target o	rgan		Note
Subacute oral		No informa	tion available		No information	n available	_	
Subacute derr	nal	No informa	tion available		No informatio	n available	-	
Subacute inha	lation	No informa	tion available		No information	n available	-	
Subchronic or	al	No informa	tion available		No informatio	n available	-	
Subchronic de	rmal	No informa	tion available		No information	n available	-	
Subchronic inl	nalation	No informa	tion available		No informatio	n available	-	
Chronic oral		No informa	tion available		No information	n available	-	
Chronic derma	al	No informa	tion available		No informatio	No information available -		
Chronic inhala	ition	No informa	tion available		No informatio	n available	-	
Carci	nogenicit	y:	y; mutagenicit		able data, the cla			
	genicity i	n vitro:		Based on available data, the classification criteria are not met. Based on available data, the classification criteria are not met.				
	toxicity:							
	genicity i				able data, the cla			
		agenicity:			able data, the cla			
керго	oductive t	oxicity:		Based on available data, the classification criteria are not met.				
Sumr prop	mary of erties:	evaluation	of the CI	MR Based on met.	available data, 1	the classifica	ation	criteria are not
11.2 Infor	mation or	n other hazard	ds:					
11.2.1. Endo	crine disr	upting prope	rties:					
No ki	No known endocrine disrupting properties that affect human health.							
11.2.2. Othe	r informa	tions:						
_								

SECTION	12. Eco	logical ir	nformation
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12.1 Toxicity



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Acute (short-term) toxicity	Dose	Exposure time	Species	Method	Evaluation	Note
Fish	LC ₅₀	96 hours	Pimephales promelas	No information available	8.140 mg/l (ethanol) 9.640 mg/l (2- propanol)	-
Crustacea:	EC ₅₀	48 hours	Daphnia magna	No information available	7.800 mg/l (ethanol) 13.299 mg/l (2-propanol)	-
Algae/aquatic plants	IC ₅₀	4 days	algae	No information available	5.000 mg/l (ethanol) >1,000 mg/l (2-propanol)	-
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	-



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	1												
	Bioc	degrad	ation										
% De	egrada	ation		Time (days)		N	1ethod		Evaluation	ı		Note
-			-				-		No i avail	nformatior lable	١	-	
12.3	Bioa	accumu	ılative p	ootentia	al								
	Octa	anol-w	ater pa	rtition o	oeffic	cient (log Kow)					
Valu	ie	Cor	ncentra	tion	рŀ	1	°C	Method		Ev	valuation	1	Note
-		_			-		_	-		-			-
				i		i_	i		<u> </u>				i
	Bioc	concen	tration	factor (BCF)								
V	/alue			Speci			Method			Evaluation			Note
No info	rmati	on	No		forma	ation No information		No	No information				
availabl	le		availa	ble		availab		le	available			-	
	Chr	onic ec	otoxici	ty									
	1/2	lue		Dos		Ехр	osure	Species		Method	Eval	uation	Note
	Va	iue		DOS	se	t	ime	species	ľ	vietnou	EVall	uation	note
						No		No	No		No info	ormation	
Chronic	c toxic	ity on	fish	LC ₅₀		infor availa	mation	information available		ormation ailable	availab		-
						No	anie	No	No				
Chronic		-		EC ₅₀			mation	information		ormation		ormation	-
crustac	ea (Do	арппіа)			availa	able	available	ava	ailable	availab	le	
12.4	Mol	oility in	soil										
	Kno	wn or	predict	ed distr	ibutic	n in e	environm	ental compar	tmen	ts:			
	No	inform	ation a	vailable									
	Surf	ace te	nsion:										
	,	Value		°C		C	oncentra	ition		Metho	od		Note



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Produc	oduct code: NTB-OT-X**			Rev	ision d	ate: 1	4 November 2022	Version:	7
	No No information available available		No inform available	No information available No inform		ation available	-		
	1					<u> </u>		<u> </u>	
	Ads	orption /	desorption						
Transpo	ort		coefficient ry's constant	log Kow	Evap	ooration rate	e Method	Note	
Soil-wa	ter	No availabl	information e	No informatio n available	No info	ormation ble	No information available	-	
Water-a	air	No availabl	information e	No informatio n available	nformatio No information		No information available	-	
Soil-air		No availabl	information e	No informatio n available	No info	ormation ble	No information available	-	
					•		·		
12.5.	Res	ults of PB	T and vPvB asses	ssment					
				•			be either persistent, bi at levels of 0.1% or higl		e and
	1								
12.6.			srupting properti						
	acco	ording to		7(f) or Comm	ission De	elegated regi	ed to have endocrine d ulation (EU) 2017/2100		
	<u>. </u>								
12.7.	Oth	er advers	e effects						
	No	further re	elevant information	on available.					
			al consideration	S					
13.1	W	aste trea	tment methods						
12 1 1	р.	/D		1.					
13.1.1.			ckaging disposa		uthoriza	d by the Min	nistry of Environmental	and Nature	
		otection.	•	egai person a	401126	a by the will	istry of Environmental	and Nature	



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13.1.2.	Waste codes/waste designations according to Law:						
	Packaging that contains residual hazardous substances or is contaminated with hazardous substances						
13.1.3.	Waste treatment – relevan	t information:					
	No information available						
13.1.4.	Sewage disposal – relevant	t information:					
	Waste must not be dispose	ed of into the sewage system.					
13.1.5.	Other disposal recommend	dations:					
	authorized by the ministry	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.					
13.1.6.	Relevant Community provi	sions:					
	Disposal must be made ac	cording to official regulations.					
SECTIO	N 14 TRANSPORT INFORMA	ATION					
	Transporting/shipment by ro	ad (ADR)					
UN num	iber:	1993					
UN prop	per shipping name:	Flammable liquid, n.o.s. (ethanol, isopropanol)					
Transpo	rt hazard class(es):	3					
Packing	group:	II					
Environr	mentally hazardous:	-					
Special	orecautions for user:	-					
	Transporting/shipment by ra	il (RID)					
UN num	ber:	1993					
UN prop	er shipping name:	Flammable liquid, n.o.s. (ethanol, isopropanol)					
Transpo	rt hazard class(es):	3					
Packing	group:	II					
Environr	mentally hazardous:	-					
Special	orecautions for user:	-					
	Inland waterway transport (A	NDN)					
UN num	ber:	1993					
UN prop	per shipping name:	Flammable liquid, n.o.s. (ethanol, isopropanol)					
Transpo	rt hazard class(es):	3					
Packing	group:						



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Environmentally hazardous:	-
Special precautions for user:	-
Transporting/shipment by sea (IN	MDG)
UN number:	1993
UN proper shipping name:	Flammable liquid, n.o.s. (ethanol, isopropanol)
Transport hazard class(es):	3
Packing group:	II
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.	AO-TI/IATA-DGR)
UN number:	1993
UN proper shipping name:	Flammable liquid, n.o.s. (ethanol, isopropanol)
Transport hazard class(es):	3
Packing group:	II
Environmentally hazardous:	-
Special precautions for user:	-
Further information: -	

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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	Other EU regulations:	Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC; Directive 2004/42/CE of the European Parliament and of the Council of 21 April 2004 on the limitation of emissions of volatile organic compounds due to the use of organic solvents in certain paints and varnishes and vehicle refinishing products and amending Directive 1999/13/EC; Council Directive 98/24/EC of 7 April 1998 on the protection of the health and safety of workers from the risks related to chemical agents at work; Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006; REACH Restrictions on the manufacturing, placing on the market and use of certain
	Information according 1999 guideline)	dangerous substances, mixtures and articles (Annex XVII); 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	

SECTION	SECTION 16. Other information		
16.1	Indication of changes:	-	
16.2	Abbreviations and acronyms:	ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road) IMDG: International Maritime Code for Dangerous Goods IATA: International Air Transport Association GHS: Globally Harmonised System of Classification and Labelling of Chemicals EINECS: European Inventory of Existing Commercial Chemical Substances CAS: Chemical Abstracts Service (division of the American Chemical Society) DNEL: Derived No-Effect Level (UK REACH) LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative	
16.3.	Key literature references and source of data:	Manufacturer's MSDS file.	



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16.4.	Classification and procedure used to derive the classification for mixture according to Regulation (EC) 1272/2008 (CLP)				
Classifi	Classification		Classification procedure		
-			-		
16.5.	Relevant H statements (num		ber and full text)		
	225		Highly flammable liquid and vapor.		
	H:	319	Causes serious eye irritation.		
		336	May cause drowsiness or dizziness.		
		360FD	May damage fertility. May damage the unborn child.		
16.6.	Training advice:		-		
			** "X" in the product code marks different volumes (different packagings of the product)		
16.7. Further informa		her 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
-