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Trading name:	POTASSIUM PERMANGANATE, 0.5% SOLUTION				
Product code:	KP05-OT-X**	Date of compilation:	03.06.2019.	Version: 5	

SECTI	ON 1 IDENTIFICATION (OF THE SUE	BSTANCE/MI	XTURE AND OF THE COMPANY/UNDERTAKING		
1.1.	Product identifier					
	Trading name:	POTASSIL	POTASSIUM PERMANGANATE, 0.5% SOLUTION -			
	Chemical name:	-				
	Catalogue number:	KP05-OT-	KP05-OT-X**			
1.2.	Relevant identified use	es of the sub	of the substance or mixture and uses advised against			
	Uses:		For use wi	th special staining kits.		
	Uses advised against:		Only the i	dentified uses are advised.		
	Reason why uses advis	sed against:	The product is intended for use only as an <i>in vitro</i> diagnostic medical device, registered at the Agency for Medicinal Production Medical Devices and there is no reason to use it for other put			
1.3.	Details of the supplier	of the safet	y data sheet			
	Supplier:		BioGnost Ltd.			
	Address:		Medjugorska	59, Zagreb		
	Telephone number:		+385 1 24099	97		
	Fax no.:		+385 1 24040	39		
	e-mail of competent p	erson:	msds@biogn	<u>ost.hr</u>		
	National contact:		-			
1.4.	Emergency telephone	number				
	National Protection an	d Rescue D	irectorate:	112		
	Medical information:	Medical information:		+385 1 2348 342		
	Other information:			-		

SECTIO	SECTION 2 HAZARDS INFORMATION					
2.1.	Classification of the substance or mixture					
2.1.1.	Classification (REGULATION (EC) No. 1272/2008 (CLP)					
	Hazard class and category	code:	Hazard statements*:			
	Aquatic Chronic 3		H412			
2.1.2.	Additional information					
	-					
*For ful	I text of Hazard- and EU Hazard-sta	tements: see S	ection 16			
2.2.	Classification according to EC Dire	ective Nr. 1272/	2008 CLP)			
	Product identification:	POTASSIUM F	PERMANGANATE, 0.5% SOLUTION			
	Identification number:	-				
	Authorization no.: -					
	Hazard pictograms: -					
	Signal word:	-				



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	Hazard statements:	H412 Harmful to aquatic life with long lasting effects.		
	Precautionary statements:	P273 Avoid release to the environment P501 Dispose of contents/container in accordance with local regulations.		
	Further information:	-		
2.3.	Other hazards			
	-			

SECTION 3 CO	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)			
7722-64-7/ 231-760-3/ 025-002-00-9	-	<1%	potassium permanganate	Oxid. Solid 2; H272 Acute Tox. 4; H302 Aquatic Acute 1; H400 Aquatic Chronic 1; H410			

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



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

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

SECTIO	SECTION 6 ACCIDENTAL RELEASE MEASURES				
6.1.	Personal precautions, protective equipment and emergency procedures				
6.1.1.	For non-emergency personne				
	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 (s	see Section 8).			
6.2.	Environmental precautions:				
	Do not dispose of in sewage, drainage system and waterways. In case of large spillage contact National Protection and Rescue Directorate (NPRD) on 112.				
6.3.	Methods and material for containment and cleaning up				
6.3.1.	Bunding, covering of drains; capping procedures:	Sand or clay barriers.			



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

SECTION	ON 7 HANDLING AN STORAGE				
7.1.	Precautions for safe handling				
7.1.1.	Protection measures				
	Measures to prevent fire:	Keep away from sources of heat and ignition. Do not smoke.			
	Measures to prevent aerosol and dust generation	on: Secure proper ventilation.			
	Measures to protect the environment:	Prevent spilling into the sewage system and waterways.			
	Other measures:	-			
7.1.2.	2. Advice on general occupational hygiene:				
	noroughly 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:	_			



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SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION								
8.1. Control parameters								
Substance		CAS I	No	values/short	exposure limit term values	Biological limit values		
				ppm	mg/m ³	N 1 6 11 11 11		
Potassium permanga	nate	7722-6	54-7	-	5	No information available		
Substance	- Company of the comp							
EC No: -		CAS No:	-					
DNEL								
				Industrial				
Route of exposure:		Acute ect local	effe	Acute ect systemic	Chron effect lo			
Oral	-		-		-	-		
Inhalation	-		-		-	-		
Dermal	-		-		-	-		
Critical physical parar	meters: s	solubility, fla	ımmabilit	ty, corrosivity:	-			
				Consumer				
Route of	, A	Acute		Acute	Chron	nic Chronic		
exposure:	effe	ect local	effe	ect systemic	effect lo	ocal effect systemic		
Oral	-		-		-	-		
Inhalation	-		-		-	-		
Dermal	-				-	-		
PNEC								
Environmental protect	tion tar	get		PNEC				
Fresh water				No infor	No information available			
Freshwater sediments	S			No infor	No information available			
Marine water				No infor	No information available			
Marine sediments				No infor	No information available			
Food chain	Food chain				No information available			
Microorganisms in sewage treatment				No infor	No information available			
Soil (agricultural)				No infor	No information available			
Air	Air					le		
8.2. Exposure	e contro	ls						



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

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



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

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

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



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Route of exposure:	Method	Species	Effective dose LD ₅₀ /LC ₅₀ or ATE _{mixture}	Exposur	e time	Results
Oral exposure:	No information available	-	No information available	-		-
Dermal exposure:	No information available	-	No information available	-		-
Inhalation exposure:	No information available	-	No information available	_		-
Specific tar	get organ toxicity – si	ngle exposure	(STOT SE):			
	Specifi	c effects	Target	organ		Note
Oral exposure:	No information a	available	No information	on available	-	
Dermal exposure:	No information a	available	No information	on available	-	
Inhalation exposure	: No information a	available	No information	on available	-	
Respiratory		No info	ormation available			
Irritation a	nd corrosion					
	Exposure time	Specie	s Evaluation	Method		Note
Skin irritation:	-	rabbit	-	-	-	
Eye irritation:	-	rabbit	-	-	-	
Sensitizatio	on					
Dermal exposure:	No information avail	able				
Inhalation exposure:	No information avail	able				
Symptoms	related to the physica	L chemical and	d toxicological chara	octeristics		
Symptoms			of mucosa, tingling		the mou	uth burning
Oral exposure:	sensation; higher l	levels of conce g, aspiration ca	entration may cause auses coughing, diff	nausea, abo	dominal p	pain and vomiting.
Dermal exposure:	_	Slight irritation. After short exposure, resorption effects are not likely. Long-term exposure may cause drying, cracking and tingling sensation of skin.				
Inhalation exposure	Inhalation of large coughing, sneezin		apors in inadequate nd nausea.	ly ventilated	d perimet	er may cause
Eye exposure:	Direct eye contact sensation.	Direct eye contact may cause slight to moderate irritation, lacrimation and burning				



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кереате	ed dose to	oxicity (Sub	acute, subchro	onic, chroni	C)	***			
	Do	ose	Exposure time	Species		Method	Evaluatio	n	Note
Subacute oral	No infavailable	ormation e	No information available	No informati available	on	No information available	No informati available		-
Subacute dermal	No infavailable	ormation e	No information available	No informati available	on	No information available	No informati available		-
Subacute inhalation	No infavailable	ormation e	No information available	No informati available	on	No information available	No informati available		-
Subchronic oral	No infavailable	ormation e	No information available	No informati available	on	No information available	No n information available		-
Subchronic dermal	No infavailable	ormation e	No information available	No informati available	on	No information available	No informati available		-
Subchronic inhalation	No infavailable	ormation e	No information available	No informati available	on	No information available	No informati available		-
Chronic oral	No infavailable	ormation e	No information available	No informati available	on	No information available	No informati available		-
Chronic dermal	No infavailable	ormation e	No information available	No informati available	on	No information available	No informati available	_	-
Chronic inhalation	No infavailable	ormation e	No information available	No informati available	on	No information available	No informati available		-
Specific	target or		y – repeated e	xposure (S	TOT R				
			pecific effects			Target orga			Note
Subacute oral			tion available			nformation avai		-	
Subacute dermal No information						nformation avai		-	
Subacute inhalat			tion available			nformation avai		-	
Subchronic oral			tion available			nformation avai		-	
Subchronic derm			tion available			nformation avai		-	
Subchronic inhalation No informa			tion available		NO II	nformation avai	iabie	-	



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	-		,	
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Chroni	ic dermal	No informa	tion available	9	No information available	-		
Chroni	ic inhalation	No informa	tion available	2	No information available	-		
	CMR effects	(carcinogenicity	, mutagenici	ty, repro	ductive toxicity)			
	Carcinogenicity: Curren			studies o	on test animals did not indicate ca	rcinogenic effects.		
	Mutagenicity	in-vitro:	Current	in vitro	tests did not indicate mutageni	c effects.		
	Genotoxicity:		No infor	mation	available			
	Mutagenicity <i>in-vivo</i> : Curren			in vivo	tests did not indicate mutagenio	effects.		
	Germ cell mutagenicity: No info			lo information available				
	Reproductive toxicity: No to organ:			city on	reproductive organs was deter	mined in reproductive		
	Summary of	evaluation of th	ne CMR prop	erties:	-			
11.2.	Practical exp	eriences:						
	Remarks rele	vant for classifi	cation:	No info	ormation available			
	Other remark	<s:< td=""><td></td><td>No info</td><td>ormation available</td><td></td></s:<>		No info	ormation available			
11.3.	General note	S:						
	-							

SECTION 12 ECOLOGICAL INFORMATION:

12.1.

Toxicity

Exposure Acute toxicity Method Dose **Species** Evaluation Note time

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	8 days	No information available	No information available	No information available	-
Microorganisms	LC ₅₀	72 hours	-	-	-	-
Chronic toxicity	Dose	Exposure time	Species	Method	Evaluation	Note



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

Persistence and degradability 12.2.

Abiotic degradation

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

D: 1			. •
Biod	lear	ลดล	tion
טוטט	CUI	aua	uon

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

12.3. Bioaccumulative potential

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

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

Bioconcentration factor (BCF)

Value	Species	Method	Evaluation	Note
No information available				



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Tradin	g nan	ne:		РО	TASSIUM	1 PEF	RMANG	ANATE	, 0.5% S	OLUT	ION	
Produ	ct coc	le: ŀ	<p05-ot-x**< td=""><td></td><td>Date</td><td>of co</td><td>ompilati</td><td>on: 0</td><td>3.06.201</td><td>9.</td><td>Versic</td><td>n: 5</td></p05-ot-x**<>		Date	of co	ompilati	on: 0	3.06.201	9.	Versic	n: 5
	Chro	onic ecot	oxicity									
	Val	lue	Dose	E	xposure time	Sp	ecies	Meth	nod	Evalu	ıation	Note
Chronic	c toxic	ity on fis	sh LC ₅₀		ormation ailable		rmation able	No inform availab	ation	lo infor vailable	mation	-
Chronic		•	EC ₅₀		ormation nilable	_	rmation able	No inform availab	ation	lo infor vailable	mation	-
12.4.	Mot	oility in s	oil									
		······································	edicted distributi	ion ir	ı environme	ental	compart	ments:				
			ion available									
	Surface tension:		1				1					
		/alue	°C		Concentration Method		od	Note		ote		
		rmation lable	No information available	No information available		ion	No information available		-	-		
	Ads	-	/ desorption								* * * * * * * * * * * * * * * * * * *	
Transp	ort		O coefficient ry's constant		log Kow Evaporat		ivaporati	on rate Method			Note	
Soil-wa	ater	No availabl	information le		informatio ilable		lo inform vailable	nation	No info availabl		n _	
Water-	air	No availabl	information le	_	informatio ilable		lo inforn vailable	nation	No info availabl		n	
Soil-air	-	No availabl	information le		informatio ilable		lo inform vailable	nation	No info availabl		n _	
12.5.	Resu	ults of PE	BT and vPvB asses	ssme	nt							
	No i	nformat	ion available									
12.6.	Othe	er advers	se effects									
	No i	nformati	ion available									



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13.1.	Waste treatment method	4c			
13.1.	waste treatment method	72			
13.1.1. Product/Packaging disp		osal:			
	Submit for disposal to the Protection.	ne legal person authorized by the Ministry of Environmental and Nature			
13.1.2. Waste codes/waste designations according to Law:					
	No information available				
13.1.3.	Waste treatment – releva	ant information:			
	No information available				
13.1.4.	Sewage disposal – relevant information:				
	Waste must not be disposed of into the sewage system.				
13.1.5.	.5. Other disposal recommendations:				
	Do not dispose of the product's remains into the sewage system. Submit the remains to the collector authorized by the ministry in charge. Do not dispose of the packaging into the sewage system. Subm the packaging to the collectors authorized by the ministry in charge. Do not dispose of in places whe ignition may occur.				
13.1.6.	Relevant Community pro	ovisions:			
	-				
SECTIO	N 14 TRANSPORT INFORM	MATION			
	Transporting/shipment by	road (ADR)			
UN num	ber:	3082			
UN prop	per shipping name:	Environmentally hazardous substance, liquid, n.o.s. (potassium permanganate)			
Transpo	rt hazard class(es):	9			
Packing group:		III			
Environmentally hazardous:		-			
Special p	precautions for user:	-			
	Transporting/shipment by	rail (RID)			
		3082			
UN num	ber:	3082			



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T	0				
Transport hazard class(es)	9				
Packing group:	III				
Environmentally hazardou	: -				
Special precautions for us	r: -				
Inland waterway	ransport (ADN)				
UN number:	3082				
UN proper shipping name	Environmentally hazardous si permanganate)	ubstance, liquid, n.o.s. (potassium			
Transport hazard class(es)	9				
Packing group:	III				
Environmentally hazardou	: -				
Special precautions for us	r: -				
Transporting/ship	ment by sea (IMDG)				
UN number:	3082				
UN proper shipping name	Environmentally hazardous si permanganate)	ubstance, liquid, n.o.s. (potassium			
Transport hazard class(es)	9				
Packing group:	Ш	Ш			
Environmentally hazardou	: -				
Special precautions for us	r: -				
Transporting/ship	ment by air (ICAO-TI/IATA-DGR)				
UN number:	3082				
UN proper shipping name	Environmentally hazardous si permanganate)	ubstance, liquid, n.o.s. (potassium			
Transport hazard class(es)	9				
Packing group:	III				
Environmentally hazardou	: -				
Special precautions for us	r: -				
	'				
Further information:	combination packagings containing a net or less for liquids or having a net mass per olids, are not subject to classification.				

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: -	



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Trading name:	РОТА	ASSIUM PERMANGANA)N		
Product code:	KP05-OT-X**	Date of compilation:	03.06.2019.	Version:	5

Restr	ictions:	-
Othe	r EU regulations:	EC Regulation No. 1906/2007 and EC Regulation No. 1272/2008 of the European Parliament and the European Council; The European Commission Regulation No. 453/2006 of 2010 on changes and amendments to the Regulation (EC) No. 1907/2006 of the European Parliament and Council on registration, evaluation, authorization and restriction of chemical substances (REACH); EC Regulation No. 2037/200 of the European Parliament and Council from 29 June 2000 on substances that damage the ozone layer; EC Regulation No. 689/2008 of the European Parliament and Council from 17 June 2008 concerning the export and import of dangerous chemicals; EC Regulation No. 850/2004 of the European Parliament and Council from 29 April 2004 about persistent organic pollutants; Directive 2008/98/EC of the European Parliament and Council of 19 November 2008 on waste and repealing certain Directives
Inforr guide		13/EC about limitation of emissions of volatile organic compounds (VOC-
Natio	onal 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
5.2. Chem	nical safety assessment	
None	2	

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



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Trading name:	P	OTASSIUM PERMANGANA	SIUM PERMANGANATE, 0.5% SOLUTIO		
Product code:	KP05-OT-X**	Date of compilation:	03.06.2019.	Version: 5	

	H: H272 H302 H400 H410	May intensify fire; oxidiser. Harmful if swallowed. Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects.
16.6.	Training advice:	-
16.7.	Further information:	** "X" in the product code marks different volumes (different packagings of the product) We are not responsible for consequences in case of failure to comply with instructions for use or improper use of the product described in this material safety data sheet.

ANNEX:

EXPOSURE SCENARIO RESULTING TO CHEMICAL SAFETY ASSESSMENT



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Trading name:	SULFURIC ACID, 0.5% SOLUTION			
Product code:	SK05-OT-X**	Date of compilation:	03.06.2019.	Version: 3

SECTI	ON 1 IDENTIFICATION	OF THE SUI	BSTANCE/MI	XTURE AND OF THE COMPANY/UNDERTAKING		
1.1.	Product identifier					
	Trading name:	SULFURIO	SULFURIC ACID, 0.5% SOLUTION			
	Chemical name:	-				
	Catalogue number:	SK05-OT-X**				
1.2.	Relevant identified uses of the substance or mixture and uses advised against					
	Uses: For use with special staining kits.					
	Uses advised against:		Only the i	dentified uses are advised.		
	Reason why uses advi	sed against:	The product is intended for use only as an <i>in vitro</i> diagnostic medical device, registered at the Agency for Medicinal Produ Medical Devices and there is no reason to use it for other pur			
1.3.	Details of the supplier	of the safet	y data sheet			
	Supplier:		BioGnost Ltd.			
	Address:		Medjugorska 59, Zagreb			
	Telephone number:		+385 1 2409997			
	Fax no.:		+385 1 2404039			
	e-mail of competent p	erson:	msds@biogn	<u>ost.hr</u>		
	National contact:		-			
1.4.	Emergency telephone	number				
_	National Protection ar	nd Rescue D	irectorate:	112		
	Medical information:			+385 1 2348 342		
	Other information:	Other information:		-		

SECTIO	SECTION 2 HAZARDS INFORMATION					
2.1.	Classification of the substance or mixture					
2.1.1.	Classification (REGULATION (EC) No. 1272/2008 (CLP)					
	Hazard class and category	code:	Hazard statements*:			
	Not identified as hazardous substance					
2.1.2.	Additional information					
	-					
*For ful	ll text of Hazard- and EU Hazard-sta	tements: see S	ection 16			
2.2.	Classification according to EC Dire	ective Nr. 1272	(2008 CLP)			
	Product identification:	SULFURIC AC	ID, 0.5% SOLUTION			
	Identification number:	-				
	Authorization no.: -					
	Hazard pictograms: -					
	Signal word:	-				



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Trading name:	SULFURIC ACID, 0.5% SOLUTION			
Product code:	SK05-OT-X**	Date of compilation:	03.06.2019.	Version: 3

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

SECTION 3 CO	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)			
7664-93-9 / 231-639-5 / 016-020-00-8	-	<1%	sulfuric acid	Skin Corr. 1A; H314			

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



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Т	rading name:	SULFURIC ACID, 0.5% SOLUTION			
Р	Product code:	SK05-OT-X**	Date of compilation:	03.06.2019.	Version: 3

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

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

SECTIO	SECTION 6 ACCIDENTAL RELEASE MEASURES					
6.1.	Personal precautions, protect	Personal precautions, protective equipment and emergency procedures				
6.1.1.	For non-emergency personne					
	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 (s	see Section 8).				
6.2.	Environmental precautions:					
	Do not dispose of in sewage, drainage system and waterways. In case of large spillage contact National Protection and Rescue Directorate (NPRD) on 112.					
6.3.	Methods and material for containment and cleaning up					
6.3.1.	Bunding, covering of drains; capping procedures: Sand or clay barriers.					



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Trading name:	SULFURIC ACID, 0.5% SOLUTION				
Product code:	SK05-OT-X**	Date of compilation:	03.06.2019.	Version:	3

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

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



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Trading name:		SULFURIC ACID, 0.5% SOLUTION					
Product code:	SK05-OT-X**	Date of compilation:	03.06.2019.	Version:	3		

SECTION 8 EXPOSUI	SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION						
8.1. Control para	meters						
Substance				Occupational values/short	•	Biological limit values	
				ppm	mg/m ³		
-		-		-	-	No information available	
Substance - name:							
EC No: -		CAS No:	-				
DNEL							
				Industrial	_		
Route of exposure:		Acute ect local	effe	Acute ect systemic	Chro effect		
Oral		-	,	-	-		
Inhalation		-		-	-		
Dermal					-	-	
Critical physical parar	neters: s	solubility, fla	mmabilit	y, corrosivity:	-		
				Consumer	i		
Route of	A	Acute		Acute	Chro	nic Chronic	
exposure:	effe	ect local	effe	ct systemic	effect	local effect systemic	
Oral	-		-		-	-	
Inhalation	-		-		-	-	
Dermal	-		-		-	-	
PNEC							
Environmental protec	tion tar	get		PNEC			
Fresh water					No information available		
Freshwater sediments	5			No infor	No information available		
Marine water					No information available		
Marine sediments				No information available			
Food chain				mation availab			
Microorganisms in sewage treatment				mation availab			
Soil (agricultural)				No information available			
Air				No infor	mation availab	ole	
8.2. Exposure	contro	ls					



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Trading name:	SULFURIC ACID, 0.5% SOLUTION				
Product code:	SK05-OT-X**	Date of compilation:	03.06.2019.	Version:	3

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

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



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Trading name:		SULFURIC ACID, 0.5% SOLUTION	
Product code:	SK05-OT-X**	Date of compilation: 03.06.2019.	Version: 3

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

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

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



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Trading name:		SULFURIC ACID, 0.5	% SOLUTION		
Product code:	SK05-OT-X**	Date of compilation:	03.06.2019.	Version:	3

Route of exposure:	Method	Species	Effective dose LD_{50}/LC_{50} or $ATE_{mixture}$	Exposui	re time	Results
Oral exposure:	No information available	-	LD ₅₀	-		-
Dermal exposure:	No information available	-	LD ₅₀	-		-
Inhalation exposure:	No information available	-	LC ₅₀	-		-
Specific tar	get organ toxicity – sir	ngle exposure (STOT SE):			
	Specifi	c effects	Target	organ		Note
Oral exposure:	No information a	available	No informati	on available	-	
Dermal exposure:	No information a	available	No informati	on available	-	
Inhalation exposure:	No information a	available	No informati	on available	-	
Respiratory	irritation:	No infor	rmation available			
Irritation an						
	Exposure time	Species	Evaluation	Method		Note
Skin irritation:	-	rabbit	-	-	-	
Eye irritation:	-	rabbit	-	-	-	
Sensitizatio	n					
Dermal exposure:	No information availa	able				
Inhalation exposure:	No information availa	able				
Symptoms	related to the physica	l, chemical and	toxicological chara	acteristics		
Oral exposure: Swallowing may cause irritation of mucosa, tingling sensation in the mouth, burning sensation; higher levels of concentration may cause nausea, abdominal pain and vomiting. In case of vomiting, aspiration causes coughing, difficult breathing. Higher levels of concentration may cause suffocation.						
Dermal exposure:	-	•	ure, resorption effe ngling sensation o		likely. Lo	ng-term exposure
Inhalation exposure:	Inhalation of large coughing, sneezing			ly ventilated	d perimet	ter may cause
Eye exposure:	Direct eye contact sensation.	may cause slig	ht to moderate irri	tation, lacrir	nation ar	nd burning



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Trading name:		SULFURIC ACID, 0.5	% SOLUTION		
Product code:	SK05-OT-X**	Date of compilation:	03.06.2019.	Version:	3

кереац	ed dose toxicity (sub	acute, subchro	onic, chroni	ic)	:		1
	Dose	Exposure time	Species		Method	Evaluatio	n Note
Subacute oral	No information available	No information available	No informati available	ion	No information available	No information available	on -
Subacute dermal	No information available	No information available	No informati available	ion	No information available	No information available	on -
Subacute inhalation	No information available	No information available	No informati available	ion	No information available	No information available	on -
Subchronic oral	No information available	No information available	No informati available		No information available	No information available	on -
Subchronic dermal	No information available	No information available	No informati available	on	No information available	No information available	on -
Subchronic inhalation	No information available	No information available	No informati available	on	No information available	No information available	on -
Chronic oral	No information available	No information available	No informati available		No information available	No information	on -
Chronic dermal	No information available	No information available	No informati available		No information available	No information available	on -
Chronic inhalation	No information available	No information available	No informati available		No information available	No information available	on -
Specific	target organ toxici	<u> </u>	xposure (S	TOT F			N
Subacute oral		Specific effects ation available		Na:	Target orga nformation avai		Note -
Subacute dermal		ation available					-
		ation available		No information available No information available			_
		ation available			nformation avai		_
Subchronic derm		ation available			nformation avai		-
Subchronic inhal	ation No informa	ation available		No i	nformation avai	lable	-
Chronic oral	Chronic oral No information ava			No i	nformation avai	lable	_



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Trading name:		SULFURIC ACID, 0.59	% SOLUTION	
Product code:	SK05-OT-X**	Date of compilation:	03.06.2019.	Version: 3

Chron	Chronic dermal No information		tion available		No information available	-	
Chronic inhalation No informati			tion available		No information available	-	
	CMR effects	(carcinogenicity	, mutagenicit	y, reprod	uctive toxicity)		
	Carcinogenic	city:	Current s	studies or	test animals did not indicate ca	arcinogenic effects.	
	Mutagenicity	ı in-vitro:	Current	Current in vitro tests did not indicate mutagenic effects.			
	Genotoxicity: Mutagenicity <i>in-vivo</i> :		No infor	mation av	ailable		
			Current	Current in vivo tests did not indicate mutagenic effects.			
	Germ cell mu	No information available					
	Reproductive	No toxicity on reproductive organs was determined in reproductive organs.					
	Summary of	evaluation of th	ne CMR prope	erties:	-		
11.2.	Practical exp	eriences:					
	Remarks rele	vant for classifi	cation:	No infor	mation available		
	Other remark	ks:		No infor	mation available		
11.3.	General note	PS:					
	-						

SECTION 12 ECOLOGICAL INFORMATION:

12.1. Toxicity

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



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			9
Trading name:		SULFURIC ACID, 0.5% SOLUTION	
Product code:	SK05-OT-X**	Date of compilation: 03.06.2019.	Version: 3

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

Persistence and degradability 12.2.

Abiotic degradation

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

D: 1		
RIAN	Dara	dation
DIOU	curat	aation

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

12.3. Bioaccumulative potential

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

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

Bioconcentration factor (BCF)

Value	Species	Method	Evaluation	Note
No information available				



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Trading	name:			SUI	.FURI	C ACID,	0.5%	OLUT	ION			
Product	code:	SK0	5-OT-X**	Date	e of co	mpilati	on: 0	3.06.20	019.	Versio	Version: 3	
2		:		:			1		i			
	Chronic 6	ecotoxio	city									
	Value		Dose	Exposure time	Sp	ecies	Meth	nod	Evalua	tion	Note	
Chronic t	coxicity o	n fish	LC ₅₀	No information available	No infor avail	mation able	No inform availab		No inform available	nation	-	
	toxicity or a (<i>Daphni</i>		EC ₅₀	No information available	No infor avail	mation able	No inform availab		No inform available	nation	_	
					•		•					
	Mobility											
	No inforr			on in environn	nental	compart	ments:					
	Surface to		avaiiabie									
	Value		°C	Concentra	ation		Metho	nd		No	ite	
	No informati available	on ir	lo nformation vailable	No information		No information available		-				
	Adsorption	on / des	sorption									
ranspor	t i		efficient constant	log Kow	E	vaporati	on rate		Method		Note	
oil-wate	er No avai	lable	information	No information available		No information available		No information available		-		
Vater-ai	Vater-air No information available		information	No information available				No information available		-		
Soil-air No information available		No information No informavailable available					-					
.2.5.	Results o	f PBT ai	nd vPvB asses	ssment								
	No inforr											
L2.6.	Other ad	verse et	ffects									
			available									



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Trading name:		SULFURIC ACID, 0.5% SOLUTION	l
Product code:	SK05-OT-X**	Date of compilation: 03.06.2019.	Version: 3

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



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Trading name:		SULFURIC ACID, 0.5	% SOLUTION		
Product code:	SK05-OT-X**	Date of compilation:	03.06.2019.	Version:	3

Packing	group:	-
Environ	mentally hazardous:	-
Special	precautions for user:	-
	Inland waterway transport (ADN)	
UN nun	nber:	Not subject to transport regulations.
UN pro	per shipping name:	-
Transpo	ort hazard class(es):	-
Packing	group:	-
Environ	mentally hazardous:	-
Special	precautions for user:	-
	Transporting/shipment by sea (II	MDG)
UN number:		Not subject to transport regulations.
UN proper shipping name:		-
Transpo	ort hazard class(es):	-
Packing	group:	-
Environ	mentally hazardous:	-
Special	precautions for user:	-
	Transporting/shipment by air (IC	AO-TI/IATA-DGR)
UN nun	nber:	Not subject to transport regulations.
UN pro	per shipping name:	-
Transport hazard class(es):		-
Packing group:		-
Environmentally hazardous:		-
Special	precautions for user:	-
Further	information: The product is	not subject to classification.

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



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15.2.	Chemical safety assessmen	nt
	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
	Information according 199 guideline)	9/13/EC about limitation of emissions of volatile organic compounds (VOC-
		Directive 2008/98/EC of the European Parliament and Council of 19 November 2008 on waste and repealing certain Directives
	Other EU regulations:	EC Regulation No. 689/2008 of the European Parliament and Council from 17 June 2008 concerning the export and import of dangerous chemicals; EC Regulation No. 850/2004 of the European Parliament and Council from 29 April 2004 about persistent organic pollutants;
		EC Regulation No. 2037/200 of the European Parliament and Council from 29 June 2000 on substances that damage the ozone layer;
		The European Commission Regulation No. 453/2006 of 2010 on changes and amendments to the Regulation (EC) No. 1907/2006 of the European Parliament and Council on registration, evaluation, authorization and restriction of chemical substances (REACH);
		EC Regulation No. 1906/2007 and EC Regulation No. 1272/2008 of the European Parliament and the European Council;

SECTIO	ON 16 Other information			
16.1.	Indication of changes:	-		
		PBT	Stable, bioaccumulative and toxic	
		vPvB	Strongly stable and strongly bioaccumulative.	
16.2.	Abbreviations and acronyms:	LD ₅₀	Lethal dose, 50%	
		LC ₅₀	Lethal concentration, 50%	
		STOT-SE	Specific target organ toxicity - single exposure	
16.3.	Key literature references and source of data:	-		
16.4.	16.4. Classification and procedure used to derive the classification for mixture according to Regulation (EC 1272/2008 (CLP)			
Classifi	cation	Classification procedure		
_		_		
16.5.	Relevant H statements (number and full text)			
	H: H314	Causes severe skin burns and eye damage.		
16.6.	Training advice:	-		



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

Δ	N	N	J	F	X	•

EXPOSURE SCENARIO RESULTING TO CHEMICAL SAFETY ASSESSMENT



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Trading name:		OXALIC ACID, 1%	SOLUTION	
Product code:	OKS1-OT-X**	Date of compilation:	03.06.2019.	Version: 3

SECTI	ON 1 IDENTIFICATION	OF THE SU	BSTANCE/MI	XTURE AND OF THE COMPANY/UNDERTAKING		
1.1.	Product identifier					
	Trading name:	OXALIC A	ACID, 1% SOLU	JTION		
	Chemical name:	-				
	Catalogue number:	OKS1-OT	-X**			
1.2.	Relevant identified us	es of the su	bstance or mi	xture and uses advised against		
	Uses:		For use w	ith special staining kits.		
	Uses advised against:		Only the i	dentified uses are advised.		
	Reason why uses advi	s advised against: medical device, registered at the Agency for		uct is intended for use only as an <i>in vitro</i> diagnostic evice, registered at the Agency for Medicinal Products and Devices and there is no reason to use it for other purposes		
1.3.	Details of the supplier	of the safe	ty data sheet			
	Supplier:		BioGnost Ltd.			
	Address:		Medjugorska 59, Zagreb +385 1 2409997 +385 1 2404039			
	Telephone number:					
	Fax no.:					
	e-mail of competent p	person:	msds@biognost.hr			
	National contact:	-				
1.4.	Emergency telephone	Emergency telephone number				
_	National Protection ar	nd Rescue D	Directorate:	112		
	Medical information:			+385 1 2348 342		
	Other information:			-		

SECTIO	SECTION 2 HAZARDS INFORMATION				
2.1.	Classification of the substance or mixture				
2.1.1.	Classification (REGULATION (EC) N	No. 1272/2008	(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	ntements: see S	ection 16		
2.2.	Classification according to EC Dire	ective Nr. 1272	/2008 CLP)		
	Product identification:	OXALIC ACID	, 1% SOLUTION		
	Identification number:	-			
	Authorization no.:	-			
	Hazard pictograms:	-			
	Signal word:	-			



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Product code:	OKS1-OT-X**	Date of compilation:	03.06.2019.	Version: 3

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

SECTION 3 CO	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)				
-	-	-	_	-				

SECTION	TION 4 FIRST AID MEASURES					
4.1.	Description of first aid measu	res				
	General notes:	-				
	Following inhalation:	ve st	arry the afflicted person out of the contaminated area into a well- entilated area or out for fresh air. If breathing becomes erratic or it cops, immediately apply artificial respiration (other than mouth-to- nouth) and contact a physician.			
	Following skin contact: Following eye contact: Following ingestion:		emove contaminated clothing. Immediately wash with plenty of rater and soap. Seek medical assistance if the symptoms of irritation emain.			
			inse out with plenty of water with the eyelid held wide open using ean fingers. If the symptoms remain, immediately call a physician.			
			o not induce vomiting. Make the afflicted person drink a glass of later. If spontaneous vomiting occurs, wash the mouth with water, nen make the person drink 100-200 ml of water and seek medical ttention.			
	Self-protection of the first aid	ler: Tı	reat symptomatically.			
4.2.	Most important symptoms a	nd effect	s, both acute and delayed			
	Following inhalation:		on of large amounts of vapors in inadequately ventilated perimeter use coughing, sneezing, headache and nausea.			
	Following skin contact:	_	rritation. After short exposure, resorption effects are not likely. Long- oposure may cause drying, cracking and tingling sensation of skin.			
	Following eye contact:	Direct eye contact may cause slight to moderate irritation, lacrimation a burning sensation.				



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

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

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



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Product code:	OKS1-OT-X**	Date of compilation:	03.06.2019.	Version:	3

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

SECTIO	ON 7 HANDLING AN STORAGE	
7.1.	Precautions for safe handling	
7.1.1.	Protection measures	
	Measures to prevent fire:	Keep away from sources of heat and ignition. Do not smoke.
	Measures to prevent aerosol and dust generati	ion: Secure proper ventilation.
	Measures to protect the environment:	Prevent spilling into the sewage system and waterways.
	Other measures:	-
7.1.2.	Advice on general occupational hygiene:	
	Do not eat, drink or smoke in the workspace. T	horoughly wash hands after work and before eating.
7.2.	Conditions for safe storage, including any inco	mpatibilities
	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:	-



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SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION								
8.1. Control parameters								
Substance				values/short		Biological limit values		
			ppm	mg/m ³	Nie liefe was die aus austiele e			
-		-		-	-	No information available		
Substance - name:	-							
EC No: -		CAS No:	-					
DNEL			:					
				Industrial				
Route of exposure:		Acute ect local	effe	Acute ect systemic	Chron effect lo			
Oral	-		-		-	-		
Inhalation	-		-		-	-		
Dermal	Dermal							
Critical physical parar	neters: s	solubility, fla	mmabilit	ty, corrosivity:	-			
				Consumer				
Route of		Acute		Acute	Chron			
exposure:	effe	ect local	effe	ect systemic	effect lo	ocal effect systemic		
Oral	-		-		-	-		
Inhalation	-		-		-	-		
Dermal	-		-		-	-		
PNEC								
Environmental protec	tion tar	get		PNEC				
Fresh water					No information available			
Freshwater sediments	5				No information available			
Marine water					No information available			
Marine sediments					No information available			
Food chain					No information available			
Microorganisms in sewage treatment					No information available			
Soil (agricultural)					No information available			
Air	Air				mation availabl	le		
8.2. Exposure	contro	ls						



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8.2.1.	Engineering measures			
	Substance/mixture related measures to prevent expoduring identified uses:		Use the product in well ventilated rooms. Use personal protective equipment. Do not eat, drink or smoke in the workspace.	
	Structural measures to pr exposure:	event	No information available	
	Organisational measures prevent exposure:	to	Organization of work in order to reduce other worker's influence during work process.	
	Technical measures to pre exposure:	event	Secure proper workspace ventilation in order to keep concentration levels in air below permitted levels.	
8.2.2.	Personal protection equip	ment		
8.2.2.1.	Eye and face protection:		Safety glasses that stick to face (preventing splashing) (EN 166) or visor.	
8.2.2.2.	8.2.2.2. Skin protection			
	Hand protection:	Protective gloves must be according to the EU Directive 2016/425/EEC and standard EN 374. Glove material: nitrile rubber Glove thickness: ≥0.50 mm Break through time: >480 min		
	Other skin protection:		antistatic clothing made of natural fibers (such as cotton) with long s (EN 13034), and shoes that cover the entire foot (EN 10335).	
8.2.2.3.	Respiratory protection:	filter f	ctive 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	

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



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

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

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

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



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Route of exposure:	Method	Species	Effective dose LD ₅₀ /LC ₅₀ or ATE _{mixture}	Exposu	e time	Results		
Oral exposure:	No information available	_	LD ₅₀	-		-		
Dermal exposure:	No information available	-	LD ₅₀	-		-		
Inhalation exposure:	No information available	-	LC ₅₀	-		-		
Specific tar	get organ toxicity – si	ngle exposure (STOT SE):					
	Specifi	c effects	Target	organ		Note		
Oral exposure:	No information a	available	No information	on available	-			
Dermal exposure:	No information a	available	No information	on available	-			
Inhalation exposure	: No information a	available	No information	on available	-	_		
Respiratory	/ irritation:	No info	rmation available					
Irritation a	nd corrosion							
	Exposure time	Species	Evaluation	Method		Note		
Skin irritation:	-	rabbit	-	_	-			
Eye irritation:	-	rabbit	-	-	-			
Sensitizatio	on							
Dermal exposure:	No information avail	able						
Inhalation exposure:	No information avail	able						
·	:							
Symptoms	related to the physica	l, chemical and	toxicological chara	cteristics				
Oral exposure:	sensation; higher l	evels of concer g, aspiration ca	of mucosa, tingling ntration may cause uses coughing, diff tion.	nausea, abo	dominal p	pain and vomiting.		
Dermal exposure:	_	•	ure, resorption effe		likely. Lo	ng-term exposure		
Inhalation exposure	Inhalation of large amounts of vapors in inadequately ventilated perimeter may cause							
Eye exposure:	Direct eye contact sensation.	Direct eye contact may cause slight to moderate irritation, lacrimation and burning						



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1 2	ed dose toxicity (sub			-,			
	Dose	Exposure time	Species		Method	Evaluation	n Note
Subacute oral	No information available	No information available	No informati available		No information available	No information available	on -
Subacute dermal	No information available	No information available	No informati available		No information available	No information available	on -
Subacute inhalation	No information available	No information available	No informati available	ion	No information available	No information available	on -
Subchronic oral	No information available	No information available	No informati available		No information available	No information available	on -
Subchronic dermal	No information available	No information available	No informati available	ion	No information available	No information available	on -
Subchronic inhalation	No information available	No information available	No informati available	ion	No information available	No information available	on -
Chronic oral	No information available	No information available	No informati available		No information available	No information available	on -
Chronic dermal	No information available	No information available	No informati available		No information available	No information available	on -
Chronic inhalation	No information available	No information available	No informati available		No information available	No informatio available	on -
Specific	target organ toxici	•	xposure (S	IOT R			N
Cubacuta aral		specific effects		NIa :	Target orga nformation avai		Note
Subacute oral No information available Subacute dermal No information available					nformation avai		_
Subacute dermal No information available Subacute inhalation No information available					nformation avai		_
Subchronic oral	ation available			nformation avai		-	
Subchronic derm	ation available		No information available			-	
Subchronic inhal	ation No informa	ation available		No ii	nformation avai	lable	-
			Na i	nformation avai	lahla	-	



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Trading name:					
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Chronic dermal No informat		tion available	No information available -					
Chronic inhalation No informat			tion available	No information available -				
	CMR effects	(carcinogenicity	, mutagenicit	r, reproductive toxicity)				
	Carcinogenic	city:	Current	tudies on test animals did not indicate carcinogenic effects.				
	Mutagenicity	ı in-vitro:	Current	n vitro tests did not indicate mutagenic effects.				
	Genotoxicity: Mutagenicity <i>in-vivo</i> :		No infor	No information available				
			Current in vivo tests did not indicate mutagenic effects.					
	Germ cell mutagenicity: No			No information available				
	Reproductive toxicity:			No toxicity on reproductive organs was determined in reproductive organs.				
	Summary of	evaluation of th	ne CMR prope	rties: -				
11.2.	Practical exp	eriences:						
	Remarks rele	vant for classifi	cation:	No information available				
	Other remarks:			No information available				
11.3.	General note	es:						
	-							

SECTION 12 ECOLOGICAL INFORMATION:

12.1. Toxicity

11.1. 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



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

Persistence and degradability 12.2.

Abiotic degradation

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

D: 1		- 1		•
Biod	മറ	rad	lat	ınn
טוטט	CU	II a u	ıαι	1011

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

12.3. Bioaccumulative potential

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

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

Bioconcentration factor (BCF)

Value	Species		Method	Evaluation	Note
No information available	No ir available	nformation	No information available	No information available	No information available



Tradin	va nam	20.	OXALIC ACID, 1% SOLUTION								
Tradin Produ			NC1 OT V**							Varcian	7
Produ	ct coa	e. C	OKS1-OT-X**	Date	9 01 0	ompilati	on: U	3.06.201	9.	Versior	n: 3
		·		·							
	Chrc	nic ecot	oxicity								
	Val	ue	Dose	Exposure time	Sp	oecies	Meth	nod	Evaluatio	on	Note
Chronic toxicity on fish LC ₅₀			No information available	1	rmation lable	No inform availab	ation	No information available		-	
Chroni		-	EC ₅₀	No information available		rmation lable	No inform availab	ation	No informa Ivailable	tion	-
			i .	i						I	
12.4.	Mob	ility in so	oil								
	Known or predicted distribution in environmental compartments:										
	No i	nformati	ion available								
	Surfa	ace tensi	ion:								
	\	/alue	°C	Concentra	Concentration Meth			nod		Not	e
	No infor avail	mation able	No information available	No informa available	ntion	n No information available		-			
	Δdsα	orntion /	desorption								
Transp		A/D	coefficient ry's constant	log Kow		Evaporati	on rate	Me	ethod		Note
Soil-wa	ater	No availabl	information e	No informati available		No inform vailable	nation	No info	rmation le	-	
Water-	Vater-air No information No information available No information available		nation	No info	rmation le	-					
Soil-air	r	No availabl	information e	No informati available		No inform Ivailable	nation	No info	rmation le	_	
12.5.			BT and vPvB asses	ssment							
	No i	nformati	ion available								
12.6	0.1		((- ·								
12.6.			se effects								
	No i	ntormati	ion available								



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



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Trading name:		<u> </u>			
Product code:	OKS1-OT-X**	Date of compilation:	03.06.2019.	Version:	3

Packing	group:	-
Environ	mentally hazardou	: -
Special	precautions for use	r: -
	Inland waterway	ansport (ADN)
UN nun	nber:	Not subject to transport regulations.
UN pro	per shipping name	-
Transpo	ort hazard class(es):	-
Packing	ı group:	-
Environ	mentally hazardou	: -
Special precautions for user:		r: -
	Transporting/ship	ment by sea (IMDG)
UN number:		Not subject to transport regulations.
UN proper shipping name:		-
Transport hazard class(es):		-
Packing	group:	-
Environ	mentally hazardou	: -
Special	precautions for use	r: -
	Transporting/ship	ment by air (ICAO-TI/IATA-DGR)
UN nun	nber:	Not subject to transport regulations.
UN pro	per shipping name	-
Transpo	ort hazard class(es):	-
Packing	ı group:	-
Environ	mentally hazardou	: -
Special	precautions for us	r: -
Further	information:	The product is not subject to classification.

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



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

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Trading name:	OXALIC ACID, 1% SOLUTION				
Product code:	OKS1-OT-X**	Date of compilation:	03.06.2019.	Version: 3	

	Other EU regulations:	EC Regulation No. 1906/2007 and EC Regulation No. 1272/2008 of the European Parliament and the European Council; The European Commission Regulation No. 453/2006 of 2010 on changes and amendments to the Regulation (EC) No. 1907/2006 of the European Parliament and Council on registration, evaluation, authorization and restriction of chemical substances (REACH); EC Regulation No. 2037/200 of the European Parliament and Council from 29 June 2000 on substances that damage the ozone layer; EC Regulation No. 689/2008 of the European Parliament and Council from 17 June 2008 concerning the export and import of dangerous chemicals; EC Regulation No. 850/2004 of the European Parliament and Council from 29 April 2004 about persistent organic pollutants; Directive 2008/98/EC of the European Parliament and Council of 19 November 2008 on waste and repealing certain Directives
	Information according 1999 guideline)	1/13/EC about limitation of emissions of volatile organic compounds (VOC-
	National legislation:	Chemicals Act, Regulation on classification, packaging and labeling of dangerous substances, Ordinance on occupational exposure limit values and on biological limit values, Regulation on categories, types and classification of waste with a waste catalog and list of hazardous waste, Ordinance on writing Material safety data sheet, Transport of Hazardous Substances Act
15.2.	Chemical safety assessment	
	None	

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



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Trading name:	OXALIC ACID, 1% SOLUTION				
Product code:	OKS1-OT-X**	Date of compilation:	03.06.2019.	Version: 3	

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

Δ	N	N	J	F	X	•

EXPOSURE SCENARIO RESULTING TO CHEMICAL SAFETY ASSESSMENT



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Trading name:		SILVER AMMONIA	REAGENT		
Product code:	SAR-OT-X**	Date of compilation:	09 July 2019	Version:	5

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

SECTIO	SECTION 2. Hazards identification				
2.1	Classification of the substance or mixture				
2.1.1	Classification according to Re	Classification according to Regulation (EC) No 1272/2008 (CLP)			
	Hazard class and category code: Hazard statements*:				
	Aquatic Chronic 3 H412				
2.1.2.	Additional information				
	-				
*For fu	ll text of Hazard- and EU Hazard	d-statements: see S	SECTION 16		
2.2	Label elements				
	Product identification:	SILVER AMMO	NIA SOLUTION		
	Identification number:	-			
	Authorization number:	-			
	Hazard pictograms:	-			
	Signal word:	-			



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Trading name:		SILVER AMMONIA	REAGENT	<u> </u>	
Product code:	SAR-OT-X**	Date of compilation:	09 July 2019	Version:	5

	Hazard statements:	H412 Harmful to aquatic life with long lasting effects.
	Precautionary statements:	P273 Avoid release to the environment P501 Dispose of contents/container in accordance with local regulations.
	Supplemetal hazard information (EU):	-
2.3	Other hazards	
	-	

SECTION 3. Cor	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)	
7761-88-8/ 231-853-9/ 047-001-00-2	-	< 1 %	silver nitrate	Ox. Sol. 2; H272 Skin Corr. 1B; H314 Aquatic Acute 1; H400 Aquatic Chronic 1; H410	
1336-21-6/ 215-647-6/ 007-001-01-2	-	< 2 %	ammonia	Skin Corr. 1B; H314 Aquatic Acute 1; H400	

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



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Trading name:		SILVER AMMONIA	REAGENT		
Product code:	SAR-OT-X**	Date of compilation:	09 July 2019	Version:	5

	Following skin contact:	Depending on concentration and exposure time, it may lead to irritation, rash, skin drying and skin cracking.
	Following eye contact:	Depending on concentration and exposure time, it may lead to irritation, tearing, redness and pain.
	Following ingestion:	Danger of gastric perforattion.
4.3	Indication of any immediate medical attention and special treatment needed	
	-	

SECTI	SECTION 5. Firefighting measures			
5.1	Extinguishing media			
	Suitable extinguishing media:	Water spray, foam, dry powder, CO ₂ or alcohol resistant foam.		
	Unsuitable extinguishing media:	Water with full jet.		
5.2	Special hazards arising from the substance or mixture			
	Hazardous combustion products:	Nitrogen oxides (NOx). During heating or in case of fire poisonous gases are produced.		
5.3	Advice for firefighters			
	Use a self-contained open-circuit compressed air breathing apparatus and fireproof clothing.			
5.4	Additional information			
	Do not contaminate the environm	ent with extinguishing media.		

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



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Trading name:		SILVER AMMONIA	REAGENT	<u> </u>	
Product code:	SAR-OT-X**	Date of compilation:	09 July 2019	Version:	5

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:	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	nformation.	

SECTION	ON 7. Handling and storage				
7.1	Precautions for safe handling				
7.1.1.	Protection measures				
	Measures to prevent fire:		Use in well ventilated storage rooms. Keep away from sources of ignition and heat.		
	Measures to prevent aerosol and dust generation	n:	Secure proper ventilation.		
	Measures to protect the environment:		Prevent spilling into the sewage system and waterways.		
	Other measures:		-		
7.1.2.	Advice on general occupational hygiene:				
	Do not eat, drink or smoke in the workspace. Thoroughly wash hands after work and before eating.				
7.2	Conditions for safe storage, including any incompatibilities				
	Technical measures and storage conditions:		ghtly closed and upright set containers at ures ranging from +2 to +8 °C.		
	Packaging materials:	Manufacti containers	way from food and drink. Keep the containers		
	Requirements for storage rooms and vessels:	Keep away			
	Advices for storage equipment:	The storage or storage equipment: that direct 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:	_			



Soil (agricultural)

Air

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	Industrial	sector spe	cific solut	ions:		_			
						•			
SECTIO	N 8. Expos	ure contr	ols/perso	nal pro	tection				
8.1	Control pa	rameters							
	Substance		CA	S No			exposure limit t term values	Biological	limit values
					ı	opm	mg/m³		
Silver (a	s Ag)			-		-	0.01		-
Ammon	ia		1330	6-21-6	2	0/50	14/36		
Substan	ce name:	-							
EC No:		_	CAS No	•	_				
DNEL				i					
					Ind	lustrial			
Route o	of	Acı	ıte	Acute			Chronic		Chronic
exposu	re:	effect	local	effect	systemic	emic effect local		effec	t systemic
Oral		-		-		-		-	
Inhalatio	on	-		-		-		-	
Dermal		-		-		-		-	
Critical p	ohysical par	ameters: s	olubility,	flammal	bility, cor	rosivity:	-		
					Cor	nsumer			
Route o		Acı effect		Acute effect systemic		:	Chronic effect local		Chronic et systemic
Oral		-		-		-		-	
Inhalatio	on	-		-		-		-	
Dermal		-		-		-		-	
PNEC									
Environmental protection target					PNEC				
Fresh water					no inforr	nation available			
Freshwater sediments					no information available				
Marine water						no inforr	nation available		
Marine s	sediments					no inforr	nation available		
Food ch	ain					no inforr	nation available		
Microor	ganisms in	sewage tr	eatment			no information available			

no information available no information available



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8.2	Exposure controls				
8.2.1.	Appropriate engineering controls				
	Substance/mixture related measu prevent exposure during identifie		Use the product in well ventilated rooms. Use personal protective equipment. Do not eat, drink or smoke in the workspace.		
	Structural measures to prevent exposure:		In accordance with Section 7.		
	Organisational measures to preve exposure:	ent	Organization of work in order to reduce other worker's influence during work process.		
	Technical measures to prevent exposure:		Secure proper workspace ventilation in order to keep concentration levels in air below permitted levels. Secure stations for rinsing eyes and showering.		
8.2.2.	Personal protection equipment				
8.2.2.1.	Eye and face protection:	Safety glasses that stick to face (EN 166) or visor in case of lower levels of concentration in air; protective gas mask that covers the entire face in case of higher levels of concentration in air.			
8.2.2.2.	Skin protection	L			
	Hand protection:	Protect	tive nitrile gloves, >0.11 mm thick (EN 374).		
	Other skin protection:		antistatic clothing made of natural fibers (such as cotton) ang sleeves (EN 340) and shoes that cover the entire foot.		
8.2.2.3.	Respiratory protection:		quired under normal conditions of use. Use suitable tory protective device when high concentrations are t.		
8.2.2.4.	Thermal hazards:	No info	ormation available		
8.2.3.	Environmental exposure controls				
	Substance/mixture related measures to prevent exposure:	See Se	ction 6		
	Structural measures to prevent exposure:	Use mo	odern equipment.		
	Organisational measures to prevent exposure:	Adapt workpl	the work process to the required working conditions of the ace.		
	Technical measures to prevent exposure:	See Se	ction 6		

SECTION	SECTION 9. Physical and chemical properties				
9.1	Information on basic physical and ch	nemical properties			
		Value	Method		
	Physical state:	liquid	No information available		



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Trading name:		SILVER AMMONIA	REAGENT	<u> </u>	
Product code:	SAR-OT-X**	Date of compilation:	09 July 2019	Version:	5

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

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

SECTION 11. Toxicological information



							Pag	e 8 ot 16)
Trading name:			SILVE	R AMMONI	A REAGE	NT			
Product code:	SAR-OT-X**		Date of c	compilation:	09 Ju	ly 2019	Ver	sion:	5
					·		·		
11.1 Information	n on toxicologic	cal effects							
Acute toxic	ity:								
Route of exposure:	Method	Species	Do	ose LD ₅₀ /LC ₅₀ o	or Ex	xposure time	e	Result	ts
Oral:	-	-		-		-		-	
Dermal:	-	-		-		-		_	
Inhalation:	-	_		_		-		-	

Specific tar	get organ toxic	city – single	exposure (S	STOT SE):		i			
	Spe	ecific effects		Tar	get organ			Note	
Oral:	No information	n available		No informat	ion availal	ble -			
Dermal:	No information available			No informat	ation available -				
Inhalation:		No information available -							
Aspiration	hazard:		No infor	mation availal	ole.				
:									
Irritation ar	nd corrosion								
	Exposi	ure time	Spec	cies Eva	luation	Method		Note	
Skin corrosion/irritation:	–		-	-		-	_		
Serious eye									
damage/irritation	-		-	-		-	-		
Sensitizatio	un.								
Skin sensitization:	/11 -								
Respiratory sensitiza									
Respiratory sensitize	1011.								
Symptoms	related to the p	ohysical, che	emical and t	toxicological c	haracteris	tics			
Oral exposure:	No informa	ntion availab	le.						
Dermal exposure:	No informa	ntion availab	le.						
Inhalation exposure		ition availab							
Eye exposure:		ition availab	le.						
<u> </u>	<u> </u>								
Repeated o	lose toxicity (su	ıbacute, sub	chronic, ch	ronic)					
<u> </u>		Exposure			.1. 1				

Species

Dose

time

Method

Evaluation

Note



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Trading name:		SILVER AMMONIA	REAGENT		
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Subacute oral	No information available	No information available	No information available	No information available	No information available	-
Subacute dermal	No information available	No information available	No information available	No information available	No information available	-
Subacute inhalation	No information available	No information available	No information available	No information available	No information available	-
Subchronic oral	No information available	No information available	No information available	No information available	No information available	-
Subchronic dermal	No information available	No information available	No information available	No information available	No information available	-
Subchronic inhalation	No information available	No information available	No information available	No information available	No information available	-
Chronic oral	No information available	No information available	No information available	No information available	No information available	-
Chronic dermal	No information available	No information available	No information available	No information available	No information available	-
Chronic inhalation	No information available	No information available	No information available	No information available	No information available	-

Specific target or	rgan tovicity –	reneated evan	SUITA (STOT RE)

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

CMR effects (carcinogenicity; mutagenicity; reproductive toxicity)



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Trading name:		SILVER AMMONIA	REAGENT		
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	Carcinogenicity:	No information available.
	Mutagenicity in vitro:	No information available.
	Genotoxicity:	No information available.
	Mutagenicity in vivo:	No information available.
	Germ cell mutagenicity:	No information available.
	Reproductive toxicity:	No information available.
	Summary of evaluation of the CMR properties:	No information available.
11.2	Practical experiences:	
	Classification observations:	-
	Other observations:	-
11.3	General notes:	
	-	

SECTION 12. Ecologi	cal informat	tion				
12.1 Toxicity						
Acute (short-term) toxicity	Dose	Exposure time	Species	Method	Evaluation	Note
Fish	LC ₅₀	96 hours	Leuciscus idus (Golden orfe)	-	-	0.011 mg/l (silver nitrate)
Crustacea:	EC ₅₀	48 hours	Daphnia magna (Water flea)	-	-	0.0082 mg/l (silver nitrate)
Algae/aquatic plants	IC ₅₀	4 days	Pseudokirchner iella subcapitata (green algae)	-	-	0.19 mg/l (silver nitrate)
Other organisms	-	-	-	-	-	-
Chronic (long-term) toxicity	Dose	Exposure time	Species	Method	Evaluation	Note
Fish	LC ₅₀	96 hours	No information available	No information available	No information available	-
Crustacea:	EC ₅₀	48 hours	No information available	No information available	No information available	-



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Trading name	•				SILVER AMM	ONIA	REAGEN	IT		
Product code:	S	AR-OT-X**		Г	Date of compilat	ion:	09 July	[,] 2019	Version:	5
Algae/aquatic p	olants	IC ₅₀	72 hours		No information available	No inforn availa	nation ble	No information available	-	
Other organism	ıs	-	_		_	-		_	-	
		<u> </u>	<u> </u>				i		_ !	
12.2 Persist	ence a	nd degradab	lity							
Abiotic	degra	dation								
	De	gradation ha	lf-lives		Method	E	Evaluation	1	Note	
Marine water	No ir	nformation av	ailable		information ailable	No in	formation ble	-		
Fresh water	No ir	nformation av	ailable		information ailable	No in	formation ble	-		
Air	No ir	nformation av	ailable		information ailable	No in availa	formation ble	-		
Soil	No ir	nformation av	ailable		information ailable	No inta	formation ble	-		
Biodeg	radatio	on						,		
% Degradation	on	Time (d	ays)		Method		Evaluation	1	Note	
No information available		No infavailable			No information available				No information available	
12.3 Bioacc	umulat	ive potential								
Octano	ol-wate	er partition co	efficient (log k	Kow)					
Value	Conce	ntration	рН	°C	Method		Evalua	ntion	Note	
			-	-	-	-		-		
1		:	1		i	:		:		
	centra	tion factor (B								
Value		Specie		_	Method		Evaluation		Note	
No information available		o info vailable	ormation		information ailable		nformatic lable	on -		



13.1

Waste treatment methods

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	Value	Dose	Exposure time	Species	Metho	od E	valuation	Note
Chronic	c toxicity on fi	sh LC ₅₀	information	No information available	No informa		ormation ailable	-
	c toxicity on ea (<i>Daphnia</i>)	EC ₅₀	information	No information available	1	No No information available available		-
12.4	Mobility in s	oil						
	Known or p	edicted distribut	on in environme	ntal compart	ments:			
	No informat	ion available						
	Surface tens	ion:					1	
	Value °C No information information available available		Concentrati	on	n No information			Note
			No information				-	
	Adsorption							
Transpo	ort :	O coefficient ary's constant	log Kow	Evaporati	on rate	on rate Metho		Note
Soil-wa	nter No availab	information le	No information available	n No inform available	nation	No infori available		-
Water-	air No availab	information le	No information available	No inform available	nation	No infori available		-
	No availab	information le	No informatior available	No inform available	nation	No infori available		-
Soil-air								
Soil-air	Results of P	BT and vPvB asse	ssment					
		BT and vPvB asse	ssment					
			ssment					
		ion available	ssment					



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Trading name:		SILVER AMMONIA	REAGENT		
Product code:	SAR-OT-X**	Date of compilation:	09 July 2019	Version:	5

13.1.1.	Product/Packaging dispo	osal:
	Submit for disposal to the Protection.	ne legal person authorized by the Ministry of Environmental and Nature
13.1.2.	Waste codes/waste design	gnations according to Law:
		residual hazardous substances or is contaminated with hazardous substances
13.1.3.	Waste treatment – releva	ant information:
	No information available	
13.1.4.	Sewage disposal – releva	ant information:
	Waste must not be dispo	osed of into the sewage system.
13.1.5.	Other disposal recomme	endations:
	Do not dispose of the prauthorized by the minist	roduct's remains into the sewage system. Submit the remains to the collectors ry in charge. Do not dispose of the packaging into the sewage system. Submit lectors authorized by the ministry in charge.
13.1.6.	Relevant Community pro	ovisions:
13.1.6.	Relevant Community pro	ovisions:
	-	
SECTION	- N 14 TRANSPORT INFORM	MATION
SECTION	- N 14 TRANSPORT INFORM	MATION road (ADR)
SECTION UN num	- N 14 TRANSPORT INFORM Transporting/shipment by lber:	MATION road (ADR) 3082
UN num	- N 14 TRANSPORT INFORM	MATION road (ADR)
UN num	Transporting/shipment by ber: Der shipping name: rt hazard class(es):	road (ADR) 3082 Environmentally hazardous substance, liquid, n.o.s. (silver ammonium)
UN num UN prop Transpor	Transporting/shipment by ber: Der shipping name: rt hazard class(es):	road (ADR) 3082 Environmentally hazardous substance, liquid, n.o.s. (silver ammonium) 9
UN num UN prop Transpor Packing Environn	Transporting/shipment by ber: Der shipping name: rt hazard class(es): group:	road (ADR) 3082 Environmentally hazardous substance, liquid, n.o.s. (silver ammonium) 9 III
UN num UN prop Transpor Packing Environn Special p	Transporting/shipment by ber: Der shipping name: rt hazard class(es): group: mentally hazardous:	road (ADR) 3082 Environmentally hazardous substance, liquid, n.o.s. (silver ammonium) 9 III
UN num UN prop Transpor Packing Environn Special p	Transporting/shipment by ber: oer shipping name: rt hazard class(es): group: mentally hazardous: orecautions for user: Transporting/shipment by	road (ADR) 3082 Environmentally hazardous substance, liquid, n.o.s. (silver ammonium) 9 III
UN num UN prop Transpor Packing Environn Special p	Transporting/shipment by ber: oer shipping name: rt hazard class(es): group: mentally hazardous: orecautions for user: Transporting/shipment by	road (ADR) 3082 Environmentally hazardous substance, liquid, n.o.s. (silver ammonium) 9 III - rail (RID)
UN num UN prop Transpor Packing Environn Special p UN num UN prop	Transporting/shipment by ber: ber shipping name: rt hazard class(es): group: mentally hazardous: brecautions for user: Transporting/shipment by ber:	road (ADR) 3082 Environmentally hazardous substance, liquid, n.o.s. (silver ammonium) 9 III - rail (RID) 3082
UN num UN prop Transpor Packing Environn Special p UN num UN prop	Transporting/shipment by ber: per shipping name: rt hazard class(es): group: mentally hazardous: precautions for user: Transporting/shipment by ber: per shipping name: rt hazard class(es):	road (ADR) 3082 Environmentally hazardous substance, liquid, n.o.s. (silver ammonium) 9 III rail (RID) 3082 Environmentally hazardous substance, liquid, n.o.s. (silver ammonium)
UN num UN prop Transpor Packing Environn Special p UN num UN prop Transpor Packing	Transporting/shipment by ber: per shipping name: rt hazard class(es): group: mentally hazardous: precautions for user: Transporting/shipment by ber: per shipping name: rt hazard class(es):	road (ADR) 3082 Environmentally hazardous substance, liquid, n.o.s. (silver ammonium) 9 III rail (RID) 3082 Environmentally hazardous substance, liquid, n.o.s. (silver ammonium) 9



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Trading name:		SILVER AMMONIA	REAGENT		
Product code:	SAR-OT-X**	Date of compilation:	09 July 2019	Version:	5

UN number:	3082	
UN proper shipping name:	Environmentally hazardous substance, liquid, n.o.s. (silver ammonium)	
Transport hazard class(es):	9	
Packing group:		
Environmentally hazardous:	-	
Special precautions for user:	-	
Transporting/shipment by sea (IN	MDG)	
UN number:	3082	
UN proper shipping name:	Environmentally hazardous substance, liquid, n.o.s. (silver ammonium)	
Transport hazard class(es):	9	
Packing group:	III	
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:	3082	
UN proper shipping name:	Environmentally hazardous substance, liquid, n.o.s. (silver ammonium)	
Transport hazard class(es):	9	
Packing group:	III	
Environmentally hazardous:	-	
Special precautions for user:	_	

SECTI	N 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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Trading name:		SILVER AMMONIA	REAGENT	<u> </u>	
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	Other EU regulations:	EC Regulation No. 1906/2007 and EC Regulation No. 1272/2008 of the European Parliament and the European Council; The European Commission Regulation No. 453/2006 of 2010 on changes and amendments to the Regulation (EC) No. 1907/2006 of the European Parliament and Council on registration, evaluation, authorization and restriction of chemical substances (REACH); EC Regulation No. 2037/200 of the European Parliament and Council from 29 June 2000 on substances that damage the ozone layer; EC Regulation No. 689/2008 of the European Parliament and Council from 17 June 2008 concerning the export and import of dangerous chemicals; EC Regulation No. 850/2004 of the European Parliament and Council from 29 April 2004 about persistent organic pollutants;
	Information according 199 guideline)	Directive 2008/98/EC of the European Parliament and Council of 19 November 2008 on waste and repealing certain Directives 9/13/EC about limitation of emissions of volatile organic compounds (VOC-
	National legislation:	Chemicals Act, Regulation on classification, packaging and labeling of dangerous substances, Ordinance on occupational exposure limit values and on biological limit values, Regulation on categories, types and classification of waste with a waste catalog and list of hazardous waste, Ordinance on writing Material safety data sheet, Transport of Hazardous Substances Act
15.2	Chemical safety assessmen	t
	None	

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



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Trading name:		SILVER AMMONIA	REAGENT	<u> </u>	
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	H272	May intensify fire; oxidiser.
	H314	Causes severe skin burns and eye damage.
	H: H400	Very toxic to aquatic life.
	H410	Very toxic to aquatic life with long lasting effects.
	H412	Harmful to aquatic life with long lasting effects
16.6. Training advice:		-
16.7. Further information:		** "X" in the product code marks different volumes (different packagings of the product) We are not responsible for consequences in case of failure to comply with instructions for use or improper use of the product described in this material safety data sheet.

ANNEX: Exposure scenario resulting to chemical safety assessment



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Trading name:		SODIUM THIOSULFATE,	5% SOLUTION		
Product code:	NT5-OT-X**	Date of compilation:	05 July 2019	Version:	3

SECTION	ON 1: Identification of	the substance	e/mixture	and of the company/undertaking	
1.1	Product identifier				
	Trading name:	SODIUM TH	HIOSULFA [*]	TE, 5% SOLUTION	
	Chemical name:	-			
	Catalogue number:	NT5-OT-X*	*		
1.2	Relevant identified use	es of the subs	tance or m	nixture and uses advised against	
	Uses:		For use	with special staining kits.	
	Uses advised against:			identified uses are advised.	
	Reason why uses advised against:		The product is intended for use only as an <i>in vitro</i> diagnostic medical device, registered at the Agency for Medicinal Products and Medical Devices and there is no reason to use it for other purposes.		
1.3	Details of the supplier of the safety data sheet				
	Supplier:		BioGnos	t 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 ar	nd Rescue Dire	ectorate:	ate: 112	
	Medical information:			+385 1 2348 342	
	Medical information:			T303 1 2340 342	

SECTIO	SECTION 2. Hazards identification					
2.1	Classification of the substance or mixture					
2.1.1	Classification according to Regu	ulation (EC) No 12	272/2008 (CLP)			
	Hazard class and catego	ory code:	Hazard statements*:			
	Not identified as hazardous substance					
2.1.2.	Additional information					
	-					
*For fu	ll text of Hazard- and EU Hazard-	statements: see S	ECTION 16			
2.2	Label elements					
	Product identification:	SODIUM THIOS	ulfate, 5% solution			
	Identification number: -					
	Authorization number: -					
	Hazard pictograms: -					



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Trading name: S		ODIUM THIOSULFATE, 5% SOLUTION			
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	Signal word:	-
	Hazard statements:	-
	Precautionary statements:	-
	Supplemetal hazard information (EU):	-
2.3	Other hazards	
	-	

SECTION 3. Con	SECTION 3. Composition/information on ingredients					
CAS/ EC/ Index number	REACH Registration No	Weight % content (or range)	Identification name	Classification according to Regulation (EC) No 1272/2008 (CLP)		
7772-98-7/ 231-867-5/ -	-	< 5 %	sodium thiosulphate	not classified		

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



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Trading name: S		ODIUM THIOSULFATE, 5% SOLUTION		<u> </u>	
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	Following ingestion:	According to our findings, chemical, physical and toxicological properties of the substance have not been entirely tested.	
4.3	Indication of any immediate medical attention and special treatment needed		
	-		

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

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



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

SECTIO	ON 7. Handling and storage			
7.1	Precautions for safe handling			
7.1.1.	. Protection measures			
	Measures to prevent fire:		Use in well ventilated storage rooms. Keep away from sources of ignition and heat. Do not use tools that cause sparks. Do not smoke.	
	Measures to prevent aerosol and dust generation	on:	Secure proper ventilation.	
	Measures to protect the environment:		Prevent spilling into the sewage system and waterways.	
	Other measures:		Protect against electrostatic charges.	
7.1.2.	Advice on general occupational hygiene:			
	Do not eat, drink or smoke in the workspace. The	noroughly was	sh hands after work and before eating.	
7.2	Conditions for safe storage, including any incon	mpatibilities		
	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:	Manufactu	ırer's original packaging.	
	Requirements for storage rooms and vessels:	Keep away tightly clo	r 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 prope ventilation. Do not place the unused material in the storage roor and do not use empty containers for storing other chemicals. Do not store with incompatible materials (see Section 10).		
	Further information on storage conditions:			



Soil (agricultural)

Air

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

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

Industrial sector specific solutions:								
SECTION 8. Expos	ure contr	ols/perso	nal protec	tion				
8.1 Control pa	arameters							
Substance		CAS No			Occupational exposure limit values/short term values			Biological limit values
					ppm	mg/m³		
-			-		-	-	ı	
Substance name:	-							
EC No:	-	CAS No	: -					
DNEL			<u> </u>					
				Inc	dustrial			
Route of	Acı	ıte	Acut	te		Chronic		Chronic
exposure:	effect	t local effect system		stemi	c effect local			effect systemic
Oral	-		1		-			-
Inhalation	-		-		-			-
Dermal	-		-		-	:		-
Critical physical pa	rameters: s	olubility,	flammabilit	ty, coı	rrosivity:	-		
			1	Co	nsumer			
Route of	Ad	cute	Acute			Chronic		Chronic
exposure:	effec	t local	effect sys	stemi	С	effect local		effect systemic
Oral	-		-		-			-
Inhalation	-		-		-			-
Dermal			-					-
PNEC								
Environmental protection target				PNEC				
Fresh water					no information available			
Freshwater sediments					no information available			
Marine water				no information available				
Marine sediments				no information available				
Food chain				no information available				
Microorganisms in sewage treatment				no information available				

no information available

no information available



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



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

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

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



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

SECTION 11. T		xicological e							
	toxicity:								
Route of exposure:		1ethod	Species	Do	ose LD ₅₀ /LC ₅₀ or ATE _{mix}	Exp	osure ti	me	Results
Oral:	No in availa	formation ble	_		information lable		-		_
Dermal:	No in availa	formation ble	_		information lable		_		_
Inhalation:	No in availa	formation ble	_		information lable		_		-
Specif	ic target or	gan toxicity -	single exp	osure (S	TOT SE):				
		Specific	effects		Target o	organ			Note
Oral:	No in	formation av	ailable	No information available			-		
Dermal:	No in	formation av	ailable	No information available			-		
Inhalation:	No in	formation av	ailable	No information available -					
1									
Aspira	tion hazard	:	١	No infor	mation available.				
Irritati	on and corr								
		Exposure t	ime	Spec	ies Evaluati	ion	Method		Note
Skin corrosion/irrita	tion:		-		-	_		-	
Serious eye damage/irritati	on -		-		-	-		-	
Sensit	ization								
Skin sensitization	on:	No infor	mation avai	ilable.					
Respiratory sensitization: No information a				ilabla					



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Sympto	ms rela	ated to the ph	ysical, chemic	al and toxicolog	gical characterist	ics	
Oral exposure:		Swallowing n	nay cause disc	omfort in abdo	men and abdom	inal pains.	
Dermal exposure	: :	Allergic perso	ons may displa	y irritation.			
Inhalation expos	ure:	Allergic perso	ons may displa	y irritation afte	r prolonged or re	epeated exposu	re.
Eye exposure:		May cause ey	e irritation.				
Repeate	ed dose	e toxicity (sub	acute, subchro	onic, chronic)			
, -		Dose	Exposure time	Species	Method	Evaluation	Note
Subacute oral	No availa	information able	No information available	No information available	No information available	No information available	-
Subacute dermal	No availa	information able	No information available	No information available	No information available	No information available	-
Subacute inhalation	No availa	information able	No information available	No information available	No information available	No information available	-
Subchronic oral	No availa	information able	No information available	No information available	No information available	No information available	-
Subchronic dermal	No availa	information able	No information available	No information available	No information available	No information available	-
Subchronic inhalation	No availa	information able	No information available	No information available	No information available	No information available	-
Chronic oral	No availa	information able	No information available	No information available	No information available	No information available	-
Chronic dermal	No availa	information able	No information available	No information available	No information available	No information available	-
Chronic inhalation	No availa	information able	No information available	No information available	No information available	No information available	-
Specific	target	organ toxicit	y – repeated e	xposure (STOT	RE):		
			Specific effec	ets	Target o	rgan	Note
Subacute oral		No informa	tion available		No information	n available -	
Subacute derma		No informa	tion available		No informatio	n available -	



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Trading name:		SODIUM THIOSULFATE,	5% SOLUTION		
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11.3	General notes:						
	Other observa	uons.	No information availa	bie			
	Classification of		No information available				
11.2	Practical exper						
	Summary of properties:	evaluation of the CM	R Based on available d met.	ata, the classifica	ation criteria are no		
	Reproductive t	oxicity.	Based on available data, the classification criteria are not met.				
	Reproductive t		,				
	Mutagenicity <i>i</i> Germ cell muta		Based on available data, the classification criteria are not met. Based on available data, the classification criteria are not met.				
	Genotoxicity:		Based on available data, the classification criteria are not met.				
	Mutagenicity in vitro:		Based on available data, the classification criteria are not met.				
	Carcinogenicity:		Based on available data, the classification criteria are not met.				
	CMR effects (c	arcinogenicity; mutagenicity	reproductive toxicity)				
Chronic	inhalation	No information available	No inforn	nation available	-		
	dermal	No information available		nation available	-		
Chronic		No information available		nation available	-		
Subchro	onic inhalation	No information available	No inforn	nation available	-		
Subchro	ubchronic dermal No information available		No inforn	nation available	-		
Subchro	onic oral	No information available	No inforn	nation available	-		
Subacu	te inhalation	No information available	No inforn	nation available	-		

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



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Trading name:	S	ODIUM THIOSULFATE,	5% SOLUTION		
Product code:	NT5-OT-X**	Date of compilation:	05 July 2019	Version:	3

Algae/aquatic plants	IC ₅₀	4 days	No information available	No information available	No information available	-
Other organisms	-	-	-	_	-	-
Chronic (long-term) toxicity	Dose	Exposure time	Species	Method	Evaluation	Note
Fish	LC ₅₀	96 hours	No information available	No information available	No information available	-
Crustacea:	EC ₅₀	48 hours	No information available	No information available	No information available	-
Algae/aquatic plants	IC ₅₀	72 hours	No information available	No information available	No information available	-
Other organisms	-	-	-	-	-	-
12.2 Persistence Abiotic deg	and degrada	oility				
	egradation h	alf-lives	Method	Evaluatio	on	Note

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

Biodegradation

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

12.3 Bioaccumulative potential

Octanol-water partition coefficient (log Kow)

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



											Page 12 of	10
Tradin	ng nam	ne:		SC	DIUM	THI	OSULF	ATE, 5	% SOLU	JTION		
Produ	ct cod	e: N	T5-OT-X**		Date o	f cor	mpilati	on:	05 July	2019	Version:	3
	8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8							1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				
	Rioco	ncentrat	ion factor (BCF)								
	Value	Jilceilliat	Species	,	Me	thod		F\	/aluatior	<u> </u>	Note	
	ormatic	on No	· · · · · · · · · · · · · · · · · · ·	nation N	o inforn				ormation		11010	
availab			ailable		/ailable	. ia ci o		availab		-		
			• • •									
	Chro	nic ecoto	xicity	Fyrnasi								
	Val	ue	Dose	Exposu time		Spe	ecies	Meth	nod	Evaluation	n N	ote
				No N		No		No		No		
Chroni	c toxici	ty on fish	LC ₅₀	informat available	1	nforn availa	nation	inform availab	1	informatior available	า -	
						No	DIE	No		No		
	ic toxici cea (<i>Da</i>	-	EC ₅₀	information i			nation	-		information -		
Crustac	Lea (Du	рина		available	e a	availa	ble	availab	le	available		
12.4	N4 1		.1									
12.4	1	ility in so		::	·	.4.1.						
		······································	dicted distribut n available	ion in envi	ironmer	itai c	ompart	ments:				
		ace tensio										
		alue	°C	Conc	entratio	nn -		Metho	nd.		Note	
	No	dide	No								14010	
	infor	mation	information	No inf availat	ormatio ole	n	No inf availal	ormationale	n	-		
	avail	able	available	arana.	J.C		u v u ii u i					
	Δdsc	rntion / a	desorption									
			coefficient									
Transp	ort		's constant	log k	Kow	Ev	aporati	on rate	M	lethod	No	te
Soil-wa	ater	No	information	No infor			inform	nation		ormation	_	
JU11-W	u (C)	available		available			ailable		availak			
Water-	-air	No available	information	No infor			o inform ailable	nation	No inf availab	ormation	_	



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Trading name:			SODIUM THIOSULFATE, 5% SOLUTION							
Produc	t code:	NT5-OT-X**	Date of	compilation:	05 July 2019	Version:	3			
Soil-air	No availa	information able	No information available	No information available	No information available	-				
12.5	Results of	PBT and vPvB asses	ssment							
	Not applic									
12.6		erse effects								
	No further	relevant information	on available.							
SECTIO	N 13. Disp	osal consideration	S							
13.1	Waste tr	reatment methods								
13.1.1.		/Packaging disposa								
	Submit f Protection	•	egal person autho	rized by the Minis	try of Environmental	l and Nature				
	:									
13.1.2.	Waste co	odes/waste designa	ations according to	c Law:						
	15 01 10 substand		ontains residual h	azardous substanc	es or is contaminate	ed with hazardo	ous			
13.1.3.	Wasta tr	reatment – relevant	information:							
13.1.3.		mation available	information.							
13.1.4.	Sewage	disposal – relevant	information:							
	Waste m	nust not be dispose	d of into the sewa	ge system.						
12.15	0.1									
13.1.5.		sposal recommend		46	e. Culturait the automain	+- +				
	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	t Community provis	ions:							
	Disposa	must be made acc	ording to official r	egulations.						
SECTIO	N 14 TDAN	ISPORT INFORMA	TION							
JECTIO		ng/shipment by roa								
UN num		g, 5pслс by 100	······	o transport regula	tions					
	per shipping	g name:		₁						



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Trading name:	SODIUM THIOSULFATE, 5% SOLUTION					
Product code:	NT5-OT-X**	Date of compilation:	05 July 2019	Version:	3	

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



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Trading name:		SODIUM THIOSULFATE,	E, 5% SOLUTION		
Product code:	NT5-OT-X**	Date of compilation:	05 July 2019	Version:	3

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

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



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Trading name:	S	SODIUM THIOSULFATE,			
Product code:	NT5-OT-X**	Date of compilation:	05 July 2019	Version:	3

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

ANNEX: Exposure scenario resulting to chemical safety assessment
-



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Trading name:	NUCLEAR FAST RED (KERNECHTROT) REAGENT				
Product code:	KR-OT-X**	Date of compilation:	03 July 2019	Version:	3

SECTI	ON 1: Identification of	the substance	e/mixture	and of the company/undertaking	
1.1	Product identifier				
	Trading name:	NUCLEAR F	AST RED (KERNECHTROT) REAGENT	
	Chemical name:	-			
	Catalogue number:	KR-OT-X**			
1.2	Relevant identified use	es of the subst	tance or m	nixture and uses advised against	
	Uses:		Counter	stain in many special staining kits.	
	Uses advised against:		Only the	identified uses are advised.	
	Reason why uses advised against:		The product is intended for use only as an <i>in vitro</i> diagnostic medical device, registered at the Agency for Medicinal Products and Medical Devices and there is no reason to use it for other purposes.		
1.3	Details of the supplier of the safety data sheet				
	Supplier:		BioGnos	t Ltd.	
	Address:		Medjugorska 59, Zagreb		
	Telephone number:		+385 1 2409997		
	Telefax.:		+385 1 2404039		
	e-mail of competent p	erson:	msds@biognost.hr		
	National contact:		-		
1.4	Emergency telephone	Emergency telephone number			
	National Protection ar	nd Rescue Dire	ectorate:	112	
	Medical information:			+385 1 2348 342	
	Other information:			-	

SECTIO	TION 2. Hazards identification					
2.1	Classification of the substance or mixture					
2.1.1	Classification according to Regu	ulation (EC) No 12	272/2008 (CLP)			
	Hazard class and catego	ory code:	Hazard statements*:			
	Not identified as hazardous sub	ostance.	-			
2.1.2.	Additional information					
	-					
*For fu	ll text of Hazard- and EU Hazard-	statements: see S	ECTION 16			
2.2	Label elements					
	Product identification:	NUCLEAR FAST	RED (KERNECHTROT) REAGENT			
	Identification number:	-				
	Authorization number:	-				
	Hazard pictograms:	-				



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Trading name:	NUCL	EAR FAST RED (KERNECHTROT) REAGEN		NT	
Product code:	KR-OT-X**	Date of compilation:	03 July 2019	Version:	3

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

SECTION 3. Con	SECTION 3. Composition/information on ingredients						
CAS/ EC/ Index number	REACH Registration No	Weight % content (or range)	Identification name	Classification according to Regulation (EC) No 1272/2008 (CLP)			
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			

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



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Trading name:	NUCL	EAR FAST RED (KERNEC	NT		
Product code:	KR-OT-X**	Date of compilation:	03 July 2019	Version:	3

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

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

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



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Trading name:	NUCLEAR FAST RED (KERNECHTROT) REAGENT			Т	
Product code:	Product code: KR-OT-X**		03 July 2019	Version:	3

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 ir	nformation.	

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



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Trading name:			NUCLEA	R FAST	RED (KE	RNECHTR	OT) REAGE	NT	
Product code:	KR-OT-	X**	D	ate of c	ompilation	on: 03 J	uly 2019	Version:	3
7.3 Specific e									
Recomme					-				
Industrial	sector spe	cific solut	tions:		-				
SECTION 8. Expos		ols/perso	onal protec	tion					
8.1 Control p	arameters	T		ı			T		
					Occupational exposure limit				
Substance		CAS No		values/short term values		Biolo	Biological limit values		
				pp	pm mg/m³				
-			-	-			-		
Substance name:	-								
EC No:	-	CAS No) : -						
DNEL									
				Indus	strial				
Route of Acut		ıte	Acut	te	Chronic			Chronic	
exposure:	effect	local	effect sys	stemic	emic effect local			effect systemic	
Oral	-		-	-			-		
Inhalation	-		-		-		-		
Dermal	-		-		-		-		
Critical physical pa	rameters:	olubility	flammahilit	COTTO	sivity:	_			

 p, 5ca	parameters	55.6.5,	,	
				ī

C	on	su	m	er

Route of	Acute	Acute	Chronic	Chronic
exposure:	effect local	effect systemic	effect local	effect systemic
Oral	-	-	-	-
Inhalation	-	-	-	-
Dermal	-	-	-	-

PNEC

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



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Trading name:	NUCLEAR FAST RED (KERNECHTROT) REAGENT			NT	
Product code:	KR-OT-X**	Date of compilation:	03 July 2019	Version:	3

8.2	Exposure controls				
8.2.1.	Appropriate engineering controls	5			
	Substance/mixture related measurevent exposure during identifie		Use the product in well ventilated rooms. Use personal protective equipment. Do not eat, drink or smoke in the workspace.		
	Structural measures to prevent exposure:		In accordance with Section 7.		
	Organisational measures to preve exposure:	ent	Organization of work in order to reduce other worker's influence during work process.		
	Technical measures to prevent ex	rposure:	Secure proper workspace ventilation in order to keep concentration levels in air below permitted levels. Secure stations for rinsing eyes and showering.		
8.2.2.	Personal protection equipment				
8.2.2.1.	Eye and face protection:	Safety glasses that stick to face (EN 166) or visor in case of lower levels of concentration in air; protective gas mask that covers the entire face in case of higher levels of concentration in air.			
8.2.2.2.	Skin protection				
	Hand protection:	The protective gloves have to satisfy the specification of Regulation (EU) 2016/425 and the related standard EN 374. Glove material: nitrile rubber Glove thickness: 0.40 mm Time until perforation: > 480 min			
	Other skin protection:	footwe entire impern	everyday work use cotton clothing (EN 340) and suitable ear, such as rubber boots (EN 20345) or shoes that cover the foot. In case of spilling hazard, use clothing made of meable material suitable for protection from liquid chemicals PVC, himex) and footwear made from the same material.		
8.2.2.3.	Respiratory protection:	Protective full face mask (EN 136) or half mask (EN 140) equipped with a filter for organic vapors, type "A" (boiling point >65°C) acording to EN 14387) used when concentration levels exceed GVI.			
8.2.2.4.	Thermal hazards:	No info	ormation available		
8.2.3.	Environmental exposure controls				
	Substance/mixture related measures to prevent exposure:	See Se	ction 6		
	Structural measures to prevent exposure:	Use mo	odern equipment.		
	Organisational measures to prevent exposure:	Adapt the work process to the required working conditions of the workplace.			



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Trading name:	NUCI	EAR FAST RED (KERNECHTROT) REAGENT			
Product code:	KR-OT-X**	Date of compilation:	03 July 2019	Version:	3

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

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

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



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Trading name:		NUCLEAR FAST RED (KERNECHTROT) REAGENT				
Product code:	KR-OT-X**	Date of compilation:	03 July 2019	Version:	3	

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

SECTION 11. T		xicological e								
	toxicity:									
Route of exposure:		1ethod	Species	Do	ose LD ₅₀ /LC ₅₀ or ATE _{mix}	Exp	osure ti	me	Results	
Oral:	No in availa	formation ble	_		information lable			_		
Dermal:	No in availa	formation ble	_		information lable		_		_	
Inhalation:	No in availa	formation ble	_		information lable		_		-	
Specif	ic target or	gan toxicity -	single exp	osure (S	TOT SE):					
		Specific effects			Target o	Target organ			Note	
Oral:	No in	No information available			No information available			-		
Dermal:	No in	formation av	ailable		No information available			-		
Inhalation:	No in	formation av	ailable		No information available -					
1										
Aspira	tion hazard	:	١	No infor	mation available.					
Irritati	on and corr									
		Exposure t	ime	Spec	ies Evaluati	ion	Method		Note	
Skin corrosion/irrita	tion:		-		-	_		-		
Serious eye damage/irritati	Serious eye damage/irritation		-		-	-		-		
Sensit	ization									
Skin sensitization	on:	No infor	mation avai	ilable.						
Respiratory sensitization: No information a				ilabla						



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Oral exposure:		Harmful if sw	allowed.				
Dermal exposure	: :	Harmful if ab	sorbed throug	jh skin. May cau	ıse skin irritation	•	
Inhalation expos	ure:	Harmful if inl	naled. May cau	ıse respiratory t	ract irritation.		
Eye exposure:		May cause ey	e irritation.				
Repeate	ed dos	e toxicity (sub	acute, subchro	onic, chronic)			
		Dose	Exposure time	Species	Method	Evaluation	Note
Subacute oral	No avail	information able	No information available	No information available	No information available	No information available	ı -
Subacute dermal	No avail	information able	No information available	No information available	No information available	No informatior available	- -
Subacute inhalation	No avail	information able	No information available	No information available	No information available	No informatior available	ı -
Subchronic oral	No avail	information able	No information available	No information available	No information available	No information available	n -
Subchronic dermal	No avail	information able	No information available	No information available	No information available	No information available	ı -
Subchronic inhalation	No avail	information able	No information available	No information available	No information available	No information available	ı -
Chronic oral	No avail	information able	No information available	No information available	No information available	No information available	ı -
Chronic dermal	No avail	information able	No information available	No information available	No information available	No information available	ı -
Chronic inhalation	No avail	information able	No information available	No information available	No information available	No information available	ı -
Specific	targe	t organ toxicit	<u> </u>	xposure (STOT			
<u> </u>		N	Specific effec	ts	Target o		Note
Subacute oral	I		tion available		No information	n available n available	



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

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



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							T			
Algae/aquatic pl	lants	IC ₅₀	4 days	No information available	No inform availat		No information available	on	-	
Other organisms	S	-	-	-		-	-		_	
Chronic (long-te toxicity	erm)	Dose	Exposure time	e Species	Met	thod	Evaluat	ion	Note	
Fish		LC ₅₀	96 hours	No information available	No inform availab		No information available	on	-	
Crustacea:		EC ₅₀	48 hours	No information available	No inform availat		No information available	on	_	
Algae/aquatic pl	lants	IC ₅₀	72 hours	No information available	No inform availab		No information available	on	_	
Other organisms	S	-	-	-	-		-		_	
12.2 Persiste	ence a	nd degradal	oility							
Abiotic	degra	adation								
	De	egradation h	alf-lives	Method	E	valuatio	n	N	lote	
Marine water	No ir	nformation a	available	No information	No inf	ormatio	n -			

	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	-

Biod		

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

12.3 Bioaccumulative potential

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

Value	Concentration	Ριι		Wicthod	Evaluation	Note
Value	Concentration	На	۰٫	Method	Evaluation	Note
Octanor-water partition coefficient (log Now)						



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Trading	name:	NUCLEAR FAST RED (KERNECHTROT) REAGENT										
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	Bioconce	ntration	factor (BCF)								
Va	alue		Species		М	ethoc	l	Ev	/aluatior	1	Note	
No infor		No	inforn	nation	No infor		n		ormation	1		
available	9	availa	ble		available	9		availab	le			
	Chronic e	ecotoxici	ty									
	Value		Dose		osure me	Spe	ecies	Meth	nod	Evaluatio	n No	ote
Chronic	toxicity o	n fish	LC ₅₀	1	ormation information		No inform availab	ation	No informatior available	۱ -		
	toxicity o a (<i>Daphn</i>		EC ₅₀	No inforn availa	nation	No inforr availa	mation ible	No inform availab	ation	No informatior available	۱ -	
			I	- 1	I_			I.			l .	
12.4	Mobility	in soil										
	Known o	r predict	ed distribut	ion in e	nvironme	ental c	ompart	ments:				
	No infor	mation a	vailable									
	Surface t											
	Value		°C	Co	ncentrat	ion		Metho	od		Note	
	No informat available		o formation vailable		informati ilable	ion	No inf availal	ormation ole	n	-		
		İ					<u> </u>			<u></u>		
	Adsorpti	on / desc	orption									
Transpo	rt I	A/D coe Henry's c	efficient constant	lo	g Kow	Εν	/aporati	on rate	M	ethod	Not	te
Soil-wat	er No ava	i lable	nformation	No in availa	formatio ble		o inform ailable	nation	No info	ormation ole	-	
Water-a	ir No	i lable	nformation	No in availa	formatio		o inform	nation	No info	ormation	-	



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Trading name:			NUCLEAR FAS	T RED (KERNEC	HTROT) REAGEN	Ţ	
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Soil-air	No avail	information able	No information available	No information available	No information available	-	
12.5	Doculto of	PBT and vPvB asse	ecomont				
12.3	Not applic		essinent				
	1101 аррік	cabic.					
12.6	Other adv	erse effects					
	No furthe	r relevant informat	ion available.				
SECTIO	N 13. Disp	osal consideration	ns				
13.1	Waste to	reatment methods					
10.1.1							
13.1.1.		/Packaging disposi		uin a d la cetta a NAimia	tu. of Faring and out of	Land Nations	
	Protecti	•	iegai person autho	rized by the Minis	try of Environmental	i and Nature	
13.1.2.	Waste c	odes/waste design	ations according to	c Law:			
	15 01 10 substan		contains residual h	azardous substand	es or is contaminate	ed with hazardo	ous
13.1.3.	Waste t	reatment – relevan	t information:				
13.1.3.		mation available	t imormation.				
13.1.4.	Sewage	disposal – relevan	t information:				
	Waste n	nust not be dispose	ed of into the sewa	ge system.			
	,						
13.1.5.	Other d	isposal recommend	dations:				
	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.	Relevan	t Community provi	sions:				
	Disposa	I must be made ac	cording to official r	egulations.			
SECTIO		ISPORT INFORMA					
	·	ing/shipment by ro					
UN nun	nber: per shippin		Not subject t	o transport regula	tions		



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



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

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



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16.4.	Classification and procedure used to derive the classification for mixture according to Regulation (EC) 1272/2008 (CLP)					
Classifi	catior	1	Classification procedure			
-			-			
16.5.	Rele	evant H statements (num	ber and full text)			
		H315	Causes skin irritation.			
	H:	H319	Causes serious eye irritation.			
		H335	May cause respiratory irritation.			
16.6.	Trai	ning advice:	-			
	16.7. Further information:		** "X" in the product code marks different volumes (different packagings of the product)			
16.7.			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
_	