

VON KOSSA KIT

The kit contains:

Lithium carbonate, solution

Nuclear Fast Red (Kernechtrot) reagent
Reducing buffer, solution

Silver ammonia reagent

Sodium thiosulfate, 5% solution



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Trading name:	LITHIUM CARBONATE, SOLUTION				
Product code:	LK-OT-X**	Date of compilation:	21 Dec 2022	Version:	4

SECTI	ION 1: Identification of	the substance	e/mixture	e and of the company/undertaking	
1.1	Product identifier			1 1	
	Trading name:	LITHIUM CA	ARBONAT	E, SOLUTION	
	Chemical name:	-			
	Catalogue number:	LK-OT-X**			
1.2	Relevant identified us	es of the subs	tance or n	nixture and uses advised against	
	Uses:		For use	with Von-Kossa staining kit.	
	Uses advised against:			e 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:	Supplier:		BioGnost Ltd.	
	Address:		Medjugorska 59, Zagreb		
	Telephone number:		+385 1 2409997		
	Telefax.:		+385 1 2404039		
	e-mail of competent	person:	msds@biognost.hr		
	National contact:		-		
1.4	Emergency telephone	Emergency telephone number			
	National Protection a	nd Rescue Dire	ectorate:	112	
	Medical information:			+385 1 2348 342	
	Medical information:			+385 2348 342	

SECTIO	ON 2. Hazards identification			
2.1	Classification of the substance	ce or mixture		
2.1.1	Classification according to R	egulation (EC) No 1	272/2008 (CLP)	
	Hazard class and cate	egory code:	Hazard statements*:	
	Not identified as hazardous	substance.	-	
2.1.2.	Additional information			
	-			
*For fu	ll text of Hazard- and EU Hazar	rd-statements: see S	SECTION 16	
2.2	Label elements			
	Product identification:	LITHIUM CARB	DNATE, SOLUTION	
	Identification number:	-		
	Authorization number:	-		
	Hazard pictograms:	-		



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	Signal word:	-
	Hazard statements:	-
	Precautionary statements:	-
	Supplemetal hazard information (EU):	-
2.3	Other hazards	
	Endocrine Disrupting Prope	rties:
	No known endocrine disrupti	ng properties
	Results of PBT and vPvB ass PBT or a vPvB.	sessment : According to the results of its assessment, this substance is not a

SECTION 3. Co	SECTION 3. Composition/information on ingredients					
CAS/ EC/ Index number	REACH Registration No	Weight % content (or range)	Identification name	Classification according to Regulation (EC) No 1272/2008 (CLP)		
554-13-2/ 209-062-5/ -	-	< 1 %	lithium carbonate	Acute Tox. 4; H302 Eye Irr. 2; H319		

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:	-



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	Following inhalation:	According to our findings, chemical, physical and toxicological properties of the substance have not been entirely tested.
	Following skin contact:	According to our findings, chemical, physical and toxicological properties of the substance have not been entirely tested.
	Following eye contact:	According to our findings, chemical, physical and toxicological properties of the substance have not been entirely tested.
	Following ingestion:	According to our findings, chemical, physical and toxicological properties of the substance have not been entirely tested.
4.3	Indication of any immediate med	lical 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 case of inadequate ventilation use adequate airways protective equipment (see Section 8).				
6.2	Environmental precautions:				
	Do not dispose of in sewage, drainage system and waterways. In case of large spillage contact National Protection and Rescue Directorate (NPRD) on 112.				
6.3	Methods and material for conta	inment and cleaning up			



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

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



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

amended by Regulation (EU) No. 2020/878

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Produ	ct code:	LK-OT-	X**	D	ate of	f compil	ation:	21 De	ec 2022	Version:	4
	Further in	formation	on storaç	ge conditior	าร:	and o	do not u	se empty o not sto	containers /	in the storage ro for storing other mpatible materia	r
7.3	Specific er	nd use(s)						•			
	Recomme	ndations:				-					
	Industrial	sector spe	cific solut	tions:		-					
SECTIO	ON 8. Expos	ure contr	ols/perso	onal protec	tion						
8.1	Control pa	arameters									
	Substance		CA	s No	1	ıpational ues/shor	•		Biolo	gical limit values	
					p	opm	mg	/m³			
-				-		-		-	-		
		9									
Substa	nce name:	-	1								
EC No:	•	-	CAS No): -							
DNEL											
					Ind	ustrial					
							Chro			Chronic	
	ure:	effect	local	effect sys	stemic		effect	local		effect systemic	
	tion	-		-		-					
		_		_		-			-		
		rameters: «	solubility	l flammabilit	ty corr	osivity.	_				
5	. руэ.са. ра.		, , , , , , , , , , , , , , , , , , ,		<u> </u>	sumer					
							Chro			Chronic effect systemic	
_		-		-		-			-	,	
Inhalat	tion	-		-		-			-		
Derma	ıl	-		-		-			-		
PNEC											
Enviror	nmental prot	tection tar	get			PNEC					
Fresh v	water					no inforr	nation a	vailable			
Freshw	vater sedime	nts				no inforr	mation a	vailable			
Route of exposure: effect local effect system of exposure effect local effect local effect system of exposure effect local effect local effect system of exposure effect local effect l				no inforr	mation a	vailable			·		
Marine	e sediments	·				no inforr	nation a	vailable			



Food chain

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

no information available

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Microorga	nisms in sewage treatment		no information available			
Soil (agrice	ultural)		no information available			
Air			no information available			
8.2	Exposure controls					
8.2.1.	Appropriate engineering controls					
	Substance/mixture related measur prevent exposure during identified		Use the product in well ventilated rooms. Use personal protective equipment. Do not eat, drink or smoke in the workspace.			
	Structural measures to prevent exposure:		In accordance with Section 7.			
	Organisational measures to prevent exposure: Technical measures to prevent exposure:		Organization of work in order to reduce other worker's influence during work process.			
			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	ment				
8.2.2.1.	Eye and face protection:	Safety glasses that stick to face (EN 166) or visor in case of low levels of concentration in air; protective gas mask that covers 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 action (EU) 2016/425 and the related standard EN 374. Glove material: nitrile rubber Glove thickness: 0.40 mm Time until perforation: > 480 min			
	Other skin protection:	During everyday work use cotton clothing (EN 340) and sur footwear, such as rubber boots (EN 20345) or shoes that co entire foot. In case of spilling hazard, use clothing made of impermeable material suitable for protection from liquid cl (Viton, PVC, himex) and footwear made from the same material suitable.				
8.2.2.3.	Respiratory protection:	with a	tive full face mask (EN 136) or half mask (EN 140) equipped filter for organic vapors, type "A" (boiling point >65°C) ng to EN 14387) used when concentration levels exceed GVI.			
8.2.2.4.	Thermal hazards:	No info	ormation available			
8.2.3.	Environmental exposure controls					
	Substance/mixture related measures to prevent exposure:	See Se	ction 6			



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Structural measures to prevent exposure:	Use modern equipment.
Organisational measures to prevent exposure:	Adapt the work process to the required working conditions of the workplace.
Technical measures to prevent exposure:	See Section 6

1	Information on basic physical and o	chemical properties		
		Value	Method	
	Physical state:	liquid	No information available	
	Colour:	colourless	No information available	
	Odour/odour threshold:	no information available/no information available	No information available	
	Melting point / freezing point:	No information available	No information available	
	Boiling point or initial boiling point and boiling range:	No information available	No information available	
	Flammability:	No information available	No information available	
	Lower and upper explosion limit:	No information available	No information available	
	Flash point:	No information available	No information available	
	Auto-ignition temperature:	No information available	No information available	
	Decomposition temperature:	No information available	No information available	
	рН:	No information available	No information available	
	Kinematic viscosity:	No information available	No information available	
	Solubility:	No information available	No information available	
	Partition coefficient n-octanol/water (log value):	No information available	No information available	
	Vapour pressure:	No information available	No information available	
	Density and/or relative density:	No information available	No information available	
	Relative vapour density:	No information available	No information available	
	Particle characteristics:	No information available	No information available	
9.2	Other information			

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

11.1 Informa	ation on hazard classes	as defined in	n Regulation	n (EC) No 1272/2	2008		
Acute t	oxicity:						
Route of exposure:	Method	Species	Dose LD ₅₀ /LC ₅₀ o		Exposure tin	ne Results	
Oral:	No information available	_	No infor	mation	_	-	
Dermal:	No information available	_	No infor	mation	_	-	
Inhalation:	No information available	-	No informavailable	mation	-	-	
Specific	target organ toxicity -		sure (STOT				
	-	effects	Target orga			Note	
Oral:	No information av	vailable	No	No information available		-	
Dermal:	No information av	vailable	No	_			
Inhalation:	No information av	vailable	No	-			
Aspirati	on hazard:	No	o informatio	n available.			
<u> </u>							
Irritatio	n and corrosion						
	Exposure t	ime	Species	Evaluation	Method	Note	
Skin corrosion/irritati	on:	-		-	-	-	
Serious eye damage/irritatio	n -	_		-	-	-	
Sensitiz	ation						
Skin sensitization	n: No infor	mation availa	ailable.				
Respiratory sens		mation availa					



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Oral exposure:		No informati	on available.				
Dermal exposure	:	No informati	on available.				
Inhalation expos	ure:	No informati	on available.				
Eye exposure:		No informati	on available.				
Repeate	ed dos	se toxicity (sub	acute, subchro	onic, chronic)			
		Dose	Exposure time	Species	Method	Evaluation	Note
Subacute oral	available		No information available	No information available	No information available	No information available	-
Subacute dermal		information lable	No information available	No information available	No information available	No information available	-
Subacute inhalation		information lable	No information available	No information available	No information available	No information available	-
Subchronic oral		information lable	No information available	No information available	No information available	No information available	-
Subchronic dermal		information lable	No information available	No information available	No information available	No information available	-
Subchronic inhalation		information lable	No information available	No information available	No information available	No information available	-
Chronic oral		information lable	No information available	No information available	No information available	No information available	-
Chronic dermal		information lable	No information available	No information available	No information available	No information available	-
Chronic inhalation		information lable	No information available	No information available	No information available	No information available	-



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Subacute	oral	No information available			No information	available	-	
Subacute	dermal	No information available			No information	available	-	
Subacute	inhalation	No information available			No information	available	-	
Subchroni	ic oral	No information available			No information	available	-	
Subchroni	onic dermal No information available				No information	available	-	
Subchroni	ronic inhalation No information available				No information	available	-	
Chronic o	ronic oral No information available				No information	available	-	
Chronic dermal No information available					No information	available	-	
Chronic in	halation	No information available			No information	available	-	
C	CMR effects (ca	arcinogenicity; mutagenicit	y; rep	roductive t	oxicity)			
C	Carcinogenicity	y:	Base	d on availa	ble data, the class	sification o	riteria are not met.	
N	Mutagenicity <i>in vitro</i> : Genotoxicity: Mutagenicity <i>in vivo</i> :			Based on available data, the classification criteria are not met.				
G				d on availa	ble data, the class	sification o	riteria are not met.	
N				d on availa	ble data, the class	sification o	riteria are not met.	
G	Germ cell muta	agenicity:	Base	d on availa	ble data, the class	sification o	riteria are not met.	
R	Reproductive t	oxicity:	Based on available data, the classification criteria are not met.					
	Summary of properties:	evaluation of the CN		Based on a	vailable data, th	e classific	ation criteria are no	
11.2 Ir	nformation on	other hazards:						
11.2.1. E	Indocrine disru	upting properties:						
c d A re R	components co disrupting pro Article 57(f) egulation (EU	e/mixture does not cont onsidered to have endocr operties according to REA or Commission Delegat) 2017/2100 or Commiss) 2018/605 at levels of 0.1%	ine CH ted ion					
	Other informat	ion:						

SECTION 12. Ecological information								
12.1 Toxicity								
Acute (short-term) toxicity	Dose	Exposure time	Species	Method	Evaluation	Note		



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			z ate et eempna			0.0.0
Fish	LC ₅₀	96 hours	No information available	No information available	No information available	-
Crustacea:	EC ₅₀	48 hours	No information available	No information available	No information available	-
Algae/aquatic plant	S IC ₅₀	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 plant	s IC ₅₀	72 hours	No information available	No information available	No information available	-
Other organisms	-	-	-	-	-	-
	e and degradal	bility				
Abiotic de	gradation	1		:	;	
	Degradation 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	-

Bioc		

= 10 0.09.000	****				
% Degradation	Time (days)	Time (days) Method		Note	
No information available	o information No information		No information available	No information available	



available

available

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Tradir	ng name:				LITH	HUM C	CARBO	NATE, SOLU	TION			
Produ	ıct code:	LK-C	OT-X**		Date	e of cor	mpilati	on: 21 De	c 2022	١	ersion:	4
									1			
12.3			potential									
			artition coef									
Val	ue Co	ncentr	ration p	Н	°C	Me	ethod	Evalu	ation		Note	
-	-		-		-	-		-		-		
		ntration	n factor (BCF)				1				
	Value Species			Method			Evaluati	Evaluation		Note		
	No information No available		inforn			ormatio	n	No information		-		
avallat	avaliable avaliab		abie		availab	ne		available				
	Claussia		-:									
	Chronic e	COTOXIC	city	F								
	Value		Dose		oosure ime	Spe	ecies	Method	Evalu	ation	Note	į
				No		No		No	No			
Chron	ic toxicity or	ı fish	LC ₅₀		mation		mation	information	informa		-	
				avail	able	availa	ıble	available	availab	le		
Chron	ic toxicity or	Ì	r.c	No	mation	No	matian	No	No	ation		
crusta	cea (<i>Daphni</i>	a)	EC ₅₀	avail	mation able	availa	mation Ible	information available	informa availab		-	
				1				<u> </u>				
12.4	Mobility i	n soil										
			ted distribut	ion in e	environn	nental c	ompart	ments:				
	No inforn											
	Surface to											
	Value		°C	С	oncentra	ation		Method			Note	
	No		No				-					
	information		nformation		informa ailable	ition	No inf availal	ormation ole	-			



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Transpo	rt A/D co	A/D coefficient		Evaporation rate	Method	Note			
	Henry's	s constant	log Kow	Lvaporation rate	Metriod	Note			
Soil-wat	er No available	information	No information available	No information available	No information available	-			
Water-a	ir No available	information	No information available	No information available	No information available	-			
Soil-air	No available	information	No information available	No information available	No information available	-			
12.5	Results of PBT a	and vPvB asses	ssment						
			•			isrupting properties			
	_		7(t) or Commission evels of 0.1% or hi	n Delegated regulat igher.	ion (EU) 2017/2100	or Commission			
				<u> </u>					
12.6.	Endocrine disru	ıpting properti	es						
	The substance/mixture does not contain components considered to have endocrine disrupting properties								
	•	according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.							
		•							
12.7	Other adverse effects								
	No further relev	vant information	on available.						
SECTIO	N 13. Disposal	consideration	s						
171	Waste treatm	ent methods							
13.1	Product/Packaging disposal:								
13.1.1.	Product/Pack	aging disposa	l:						
13.1.1.		<u> </u>		rized by the Ministr	y of Environmental	and Nature			
	Submit for di	<u> </u>		rized by the Ministr	y of Environmental	and Nature			
13.1.1.	Submit for dis Protection.	sposal to the l		,	y of Environmental	and Nature			
13.1.1.	Submit for dis Protection.	sposal to the l	egal person autho	,					
13.1.1.	Submit for dis Protection. Waste codes/ 15 01 10*: Par substances	sposal to the low	egal person autho ntions according to ontains residual ha) Law:					
13.1.1.	Submit for dis Protection. Waste codes/ 15 01 10*: Par substances Waste treatm	sposal to the lower designation of the lower d	egal person autho ntions according to ontains residual ha) Law:					
	Submit for dis Protection. Waste codes/ 15 01 10*: Par substances	sposal to the lower designation of the lower d	egal person autho ntions according to ontains residual ha) Law:					



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	Waste must not be disposed of into the sewage system.					
13.1.5.	Other disposal recomme	ndations:				
	Do not dispose of the product's remains into the sewage system. Submit the remains to the collectors authorized by the ministry in charge. Do not dispose of the packaging into the sewage system. Submit the packaging to the collectors authorized by the ministry in charge.					
13.1.6.	Relevant Community pro	visions:				
	Disposal must be made according to official regulations.					
SECTIO	N 14. Transport information	on				
	Transporting/shipment by	road (ADR)				
UN num	iber:	Not subject to transport regulations				
UN prop	per shipping name:	-				
Transpo	rt hazard class(es):	-				
Packing	group:	-				
Environr	mentally hazardous:	-				
Special p	orecautions for user:	-				
	Transporting/shipment by	rail (RID)				
UN num	ber:	Not subject to transport regulations				
UN prop	per shipping name:					
Transpo	rt hazard class(es):	-				
Packing	group:	_				
Environr	mentally hazardous:	-				
Special p	orecautions for user:	-				
	Inland waterway transport	(ADN)				
UN num	ber:	Not subject to transport regulations				
UN prop	per shipping name:	-				
Transpo	rt hazard class(es):	-				
Packing	group:	-				
Environmentally hazardous:		-				
Special p	orecautions for user:	-				
	Transporting/shipment by	sea (IMDG)				
UN num	ıber:	Not subject to transport regulations				
UN prop	per shipping name:	-				
Transpo	rt hazard class(es):	-				
Packing	group:	-				



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Trading name:	LITHIUM CARBONATE, SOLUTION				
Product code:	LK-OT-X**	Date of compilation:	21 Dec 2022	Version:	4

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:	Not subject to transport regulations
UN proper shipping name:	-
Transport hazard class(es):	-
Packing group:	-
Environmentally hazardous:	-
Special precautions for user:	-
Further information: -	

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



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Trading name:	LITHIUM CARBONATE, SOLUTION				
Product code:	LK-OT-X**	Date of compilation:	21 Dec 2022	Version:	4

	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:	-			
16.2 Abbreviations and acronym		ADR: Accord relatif au transport international des marchandises dangereuses route (European Agreement Concerning the International Carriage of Danger Goods by Road) IMDG: International Maritime Code for Dangerous Goods IATA: International Air Transport Association GHS: Globally Harmonised System of Classification and Labelling of Chemical EINECS: European Inventory of Existing Commercial Chemical Substances CAS: Chemical Abstracts Service (division of the American Chemical Society) DNEL: Derived No-Effect Level (UK REACH) LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative			
16.3.	Key literature references and source of data:	-			
16.4.	Classification and procedure 1272/2008 (CLP)	used to derive the classification for mixture according to Regulation (EC)			
Classifi	ication	Classification procedure			
-		-			
16.5.	Relevant H statements (number and full text)				
	H: 302	Harmful if swallowed.			
	319	Causes serious eye irritation			
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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Trade name:	NUCLEAR FAST RED (KERNECHTROT) R			Г
Product code:	KR-OT-X**	Date of compilation:	14 November 2022	Version: 4

1.1.	Product identifier					
	Trade name:	NUCLEAR F	AST RED (K	(ERNECHTROT) REAGENT		
	Chemical name:	-				
	Catalogue number:	KR-OT-X**				
1.2.	Relevant identified us	Relevant identified uses of the substance or mixture and uses advised against				
	Uses:			erstain in many special staining kits.		
	Uses advised against:		Only t	he identified uses are advised.		
	Reason why uses advised against:		medic	The product is intended for use only as an <i>in vitro</i> diagnostic medical device and there is no reason to use it for other purposes.		
1.3.	Details of the supplier of the safety data sheet					
	Supplier: BioG		ioGnost Ltd	Gnost Ltd.		
	Address: N		Лedjugorska 59, Zagreb			
	Telephone number:	+	+385 1 2409997			
	Telefax:	+	385 1 2404039			
	e-mail of competent person: m		nsds@biognost.hr			
	National contact: -					
1.4.	Emergency telephone number					
	National Protection a	nd Rescue Dir	ectorate:	112		
	Medical information:			+385 1 2348 342		
	Other information:			-		

SECTION 2. Hazards identification				
2.1.	Classification of the substance or mixture			
2.1.1.	Classification according to Regul	lation (EC) No 1272/2008 (CLP)		
	Hazard class and catego	ry code: Hazard statement*:		
	Not identified as hazardous subs	stance		
2.1.2.	Additional information			
	-			
* For fu	ıll text of Hazard- and EU Hazard-s	tatements: see SECTION 16		
2.2.	Label elements			
	Product identification:	NUCLEAR FAST RED (KERNECHTROT) REAGENT		
	Identification number: -			
	Authorisation number: -			
	Hazard pictograms:	-		



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

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

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		

SECTI	ON 4. First aid measures		
4.1.	Description of first aid meas	ures	
	General notes:	-	
	Following inhalation:	Remove person to fresh air. If breathing stops, immediately apply artificial respiration. If breathing difficulties occur, use emergency breathing apparatus. If the symptoms persist, immediately consult a physician.	
	Following skin contact:	Remove all contaminated clothes using sterile gauze. Immediately wash with plenty of water for at least 20 minutes. Seek medical assistance if the symptoms of irritation remain.	
	Following eye contact:	Rinse out with plenty of water with the eyelid held wide open for at least 20 minutes. If the symptoms remain, immediately call in ophthalmologist.	
	Following ingestion:	Rinse the oral cavity, drink 1-2 glasses of water. Do not induce vomiting. Immediately consult a physician and show the container or label. In case of swallowing large quantities, transport the afflicted person to the hospital.	
	Self-protection of the first aider:	-	
4.2.	Most important symptoms a	and effects, both acute and delayed	
	Following inhalation:	No information available	
	Following skin contact:	No information available	
	Following eye contact:	No information available	
	Following ingestion:	No information available	



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

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

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

SECTIO	CTION 6. Accidental release measures			
6.1.	Personal precautions, protective equipment and emergency procedures			
6.1.1.	. For non-emergency personnel			
	Protective equipment:	Use protective equipment in accordance with Section 8. Do not get in eyes or on skin. Do not inhale vapor/aerosols. Remove the persons not directly involved in rescuing procedure from the scene of event.		
	Accident prevention methods:	Keep away from heat, flames and sparks. Secure proper ventilation. Prevent electrostatic charge buildup. Use only grounded devices and equipment. Do not release in drains - explosion hazard.		
	Emergency procedures:	In case of accident secure the location and evacuate the personnel not involved in recovery.		
6.1.2.	For emergency responders:			
	Use protective equipment; in case (see Section 8).	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 containn	nent and cleaning up		



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

6.3.1.	Bunding, covering of drains; capping procedures:	Sand bags.	
6.3.2.	Cleaning up:	Where possible, soak up the product using inert matter, such as sand, silica gel, saw dust). Place the waste material in tightly closed impermeable containers. Store the substance in well ventilated storage rooms until disposal. Submit for disposal to the legal persons authorized by the Ministry of Environmental and Nature Protection. After disposal of the products, wash the area and and involved materials with water.	
6.3.3.	Other information:	Recovery of contaminated area should only be conducted by qualified person that uses stipulated protective equipment. Prevent the waste water from entering waterways.	
6.4.	Reference to other sections		
	See Section 7 for information about secure handling.		
	See Section 8 for information about personal protective equipment.		
	See Section 13 for info	rmation about containment.	

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



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

	Advices for storage equipment:	Keep away from heat, flames, sparks and sunlight.
	Further information on storage conditions:	Do not place the unused material in the storage room and do not use empty containers for storing other chemicals. Do not store with incompatible materials (see Section 9).
7.3.	Specific end use(s)	
	Recommendations:	Secure stations for rinsing eyes and showering in the vicinity of work area.
	Industrial sector specific solutions:	-

SECTION 8. I	xposur	e contro	ols/persona	l protect	tion			
8.1. Con	trol para	meters						
Substance					ccupational exposure limit values/short term values		Biological limit values	
					ppm	mg/m³		
-			-		-	-		-
	1							
Substance name:	-							
EC No:	-		CAS No:	-				
DNEL								
					Industrial			
Route of exposure:		Acute effect		Ad	cute effect	Chronic e	effect	Chronic effect
Noute of exp	osuie.		local		systemic	nic local		systemic
Oral		-		-		-		-
Inhalation		-		-		-		-
Dermal		-		-		-		-
Critical physic	al paran	neters: s	olubility, fla	mmabilit	y, corrosivity:			
					Consumer			
Route of exp	ocura.	Acu	te effect	Ad	cute effect Chroni		effect	Chronic effect
Noute of exp	osure.		local	!	systemic	local		systemic
Oral		-		-		-		-
Inhalation -		-		-		-		-
Dermal -		-		-		-		
PNEC								
Environmenta	al protec	tion targ	get		PNEC			
Fresh water					No info	No information available		



Freshwater sediments

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No information available

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			<u>l</u>		
Marine wa	ater		No information available		
Marine se	diments		No information available		
Food chai	'n		No information available		
Microorga	anisms in sewage treatment		No information available		
Soil (agric	cultural)		No information available		
Air			No information available		
8.2.	Exposure controls				
8.2.1.	Appropriate engineering control	S			
	measures to prevent exposure		product in well ventilated rooms. Use personal protective ent. Do not eat, drink or smoke in the workspace.		
	Structural measures to prevent exposure:		rdance with Section 7.		
	Organisational measures to prevent exposure:		Organization of work in order to reduce other worker's influence during work process.		
			proper workspace ventilation in order to keep tration levels in air below permitted levels.		
8.2.2.	Personal protection equipment				
8.2.2.1.	Eye and face protection:	levels o	glasses that stick to face (EN 166) or visor in case of lower f concentration in air; protective gas mask that covers the ace in case of higher levels of concentration in air.		
8.2.2.2.	Skin protection				
	Hand protection:		ive gloves must be according to the EU Directive 25/EEC and standard EN 374. Glove material: nitrile rubber Glove thickness: ≥0.50 mm Break through time: >480 min		
Other skin protection: wit			ntistatic clothing made of natural fibers (such as cotton) ng sleeves (EN 13034), and shoes that cover the entire foot (335).		
8.2.2.3.	Respiratory protection:		e mask or half mask equipped with a combined "A-P" filter ed when concentration levels exceed GVI.		
8.2.2.4.	Thermal hazards:	No info	rmation available		
8.2.3.	Environmental exposure controls				
	Substance/mixture related measures to prevent exposure:	See Sec	tion 6		



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Structural measures to prevent exposure:	Use modern equipment.
Organisational measures to prevent exposure:	Adapt the work process to the required working conditions of the workplace.
Technical measures to prevent exposure:	See Section 6

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

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



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

11.1. Information	n on toxicological effe	cts					
Acute toxic	ity:						
Route of exposure:	Method	Method Species		Exposu	re time	Results	
Oral:	No information available	_	No information available	No infor avail		_	
Dermal:	No information available	_	No information available	No infor avail		_	
Inhalation:	No information available	_	No information available	No infor		_	
Specific tar	get organ toxicity – si	ngle exposure ((STOT SE):				
	Specific 6	effects	Target or	Target organ		Note	
Oral:	No information avail	able	No information a	No information available -			
Dermal:	No information avail	able	No information a	No information available -			
Inhalation:	No information avail	able	No information a	No information available -			
Aspiration	hazard:	-					
leritation of	nd corrosion						
IIIItation ai	Exposure tim	ne Sr	pecies Evaluatio	n Me	ethod	Note	
Skin corrosion/irritation:	-	-	-	-		No information available	
Serious eye damage/irritation	-	-	-	-		No information available	



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

Sensitiz	ation					
Dermal exposure	: No informatio	n available				
Inhalation exposure:	No informatio	n available				
Sympto	ms related to the p	ohysical, chemic	cal and toxicolog	jical characterist	ics	
Oral exposure:	No informatio	n available				
Dermal exposure	: No informatio	n available				
Inhalation exposure:	No informatio	n available				
Eye exposure:	No informatio	n available				
Repeate	ed dose toxicity (su	bacute, subchro	onic, chronic)			
· ·	Dose	Exposure time	Species	Method	Evaluation	Note
Subacute oral	No information available	No information available	No information available	No information available	No information available	-
Subacute dermal	No information available	No information available	No information available	No information available	No information available	-
Subacute inhalation	No information available	No information available	No information available	No information available	No information available	-
Subchronic oral	No information available	No information available	No information available	No information available	No information available	-
Subchronic dermal	No information available	No information available	No information available	No information available	No information available	-
Subchronic inhalation	No information available	No information available	No information available	No information available	No information available	-
Chronic oral	No information available	No information available	No information available	No information available	No information available	-
Chronic dermal	No information available	No information available	No information available	No information available	No information available	-



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Trade name:	ame: NUCLEAR FAST RED (KERNECHTROT) REAGENT									
Product code:	KR-C	KR-OT-X** Date of comp			e of compilation: 14 November 2022		2022	Ve	ersion:	4
Chronic inhalation	No info	ormation le	No information available	No informat available		No information available	No information	on	-	
Specific	target o	rgan toxic	rity – repeated e	xposure (S	STOT	RE):				
<u> </u>		1	Specific effects	•		Target orga	n		No	te
Subacute oral		No infor	mation available	e	No in	formation availa	ble	-		
Subacute derma	ıbacute dermal No information available			е	No in	formation availa	ble	-		
Subacute inhalation No inform			mation available	е	No in	formation availa	ble	-		
Subchronic oral No information			mation available	е	No in	formation availa	ble	-		
Subchronic dermal No information available			e	No information available			-			
Subchronic inhalation No inform		mation available No i		No information available		-				
Chronic oral		No infor	rmation available No		No information available		-			
Chronic dermal		No infor	rmation available No i		No in	o information available		-		
Chronic inhalation	on	No infor	mation available	e	No in	formation availa	ble	_		
CMR ef	fects (car	cinogenic	ity; mutagenicity	y; reprodu	ctive 1	coxicity)				
Carcino	genicity:			No infor	matic	n available				
Mutage	enicity <i>in-</i>	vitro:		No infor	matic	n available				
Genoto	xicity:			No information available						
Mutage	enicity <i>in-</i>	vivo:		No information available						
Germ c	ell mutag	enicity:		No information available						
Reprod	uctive to	kicity:		No infor	matic	n available				
Summa propert	-	valuation	of the CMR	No infor	matic	n available				
11.2. Informa	ation on c	other haza	ırds:							
		oting prop								
11.2.1. LIIUUCII	ne distup	rang prop	Citics.							

SECTION 12. General notes:
12.1. Toxicity

No known endocrine disrupting properties

that affect human health.

Other information:

11.2.2.



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

Acute (short-terr toxicity	n) Do	se Expo		Species	Method	Eval	uation	No	ote
Fish	LC ₅₀	96 ho	ıırc	No information available	-	No inforr available	mation	-	
Crustacea:	EC ₅₀	48 ho	iirc	No information available	-	No inforr available	mation	-	
Algae/aquatic pl	ants IC ₅₀	72 ho	ıırc	No information available	-	No inforr available	nation	-	
Other organisms	-	-		_	-	-		-	
Chronic (long-te toxicity	rm) Do	se Expo		Species	Method	Eval	uation	No	ote
Fish	LC ₅₀	96 ho	iirc	No information available	-	No inforr available	mation	-	
Crustacea:	EC ₅₀	48 ho	iirc	No information available	-	No inforr available	mation	-	
Algae/aquatic pl	ants IC ₅₀	72 ho	ıırc	No information available	-	No inforr available	mation	-	
Other organisms -		-		-	-	-		-	
	nce and deg degradation	•				****			
	Degrada	tion half-live	S	Method		E۱	/aluation		Note
Marine water		tion available		No information av			ation available		-
Fresh water		tion available		No information available		No information available			-
Air		tion available		No information av		No information available			-
Soil	No informa	tion available	· 1	No information available No		No informa	ation available	e	-
Biodegr	adation								
% Degradation		(days)		Method	Eva	aluation	No	ote	
No information available	No available	information	No in	formation availab	le No i	nformation ble	No informat	tion av	ailable
12.3. Bioaccu	mulative po								
	-water parti								



Trade name:

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NUCLEAR FAST RED (KERNECHTROT) REAGENT

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Bioconcentration factor (BCF) Value	4
Value Species Method Evaluation Note No information available Species Method Evaluation Chronic toxicity on fish LC ₅₀ No information available No No No No Information available information available available Chronic toxicity on toxi	mation
No information available No information available No information available No information available No information available	
Available available available available available available available available Chronic ecotoxicity Value Dose Exposure time Species Method Evaluation Chronic toxicity on fish LC50 Information available available available available available Chronic toxicity on FC50 Information information available information information information available information information information information available information information information available information inform	
Value Dose Exposure time Species Method Evaluation Chronic toxicity on fish LC50 No information available No information available No information available No information available No information information available No information information available	
Value Dose Exposure time Species Method Evaluation Chronic toxicity on fish LC ₅₀ No information available No information available No information available No information available No information information available No information information available	
Chronic toxicity on fish Chronic toxicity on Chronic toxicity on Chronic toxicity on Chronic toxicity on FCro. Chronic toxicity on FCro. No Information	
Chronic toxicity on fish LC ₅₀ information available information available information available information available information information available information informat	Note
Chronic toxicity on FC _{co} information information information information -	
crustacea (Daphnia) available available available available available	
12.4. Mobility in soil	
Known or predicted distribution in environmental compartments:	
No information available	
Surface tension:	
Value °C Concentration Method Note	
No information available No information available No information available -	
Adsorption / desorption	
Transport A/D coefficient log Kow Evaporation rate Method Note	



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Trade name:		NUCLEAR FAST RED (I	ERNECHTROT) REAGENT			
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			•	•	ī	
Soil-wa	ter No availabl	information e	No information available	No information available	No information available	-
Water-a	air No availabl	information e	No information available	No information available	No information available	-
Soil-air	air No information available		No information available	No information available	No information available	-
12.5.	Results of PB	T and vPvB asses	ssment			
	No informati	on available				
12.6.	Endocrine dis	srupting propert	ies			
	No known er	ndocrine disrupti	ng properties that	affect the environm	nent.	
12.7.	Other advers	e effects				
	No informati	on available				
SECTIO	N 13. Disposa	al consideration	s			
13.1.	Waste trea	tment methods				
13.1.1.	Product/Pa	ickaging disposa	l:			
	Submit for Protection.	•	egal person autho	rized by the Ministr	y of Environmental a	and Nature
13.1.2.	Waste code	es/waste designa	ntions according to	D Low:		
	15 01 10*: substances		ontains residual h	azardous substance	s or is contaminated	I with hazardous
13.1.3.	Waste trea	tment – relevant	information:			
	No informa	ation available				
13.1.4.	Sewage dis	sposal – relevant	information:			
	Waste mus	t not be dispose	d of into the sewa	ge system.		
	Other disno	osal recommend	ations:			
13.1.5.	Other dispo					



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Trade name:		NUCLEAR FAST RED (KERNECHTROT) REAGENT				
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	Do not dispose of the product's remains into the sewage system. Submit the remains to the collectors authorized by the ministry in charge. Do not dispose of the packaging into the sewage system. Submit the packaging to the collectors authorized by the ministry in charge. Do not dispose of in places where ignition may occur.							
13.1.6.	Relevant Community pr	ovisions:						
		agement Act, Ordinance on Waste Management, Regulation on categories, types te with waste catalog and list of hazardous waste						
SECTIO	N 14. Transport informati	ion						
SECTIO	Transporting/shipment by							
UN num		Not subject to transport regulations						
	per shipping name:	-						
	rt hazard class(es):	-						
Packing		-						
·····	mental hazards:	_						
Special	precautions for user:	-						
•	Transporting/shipment by	rail (RID)						
UN num		Not subject to transport regulations						
UN prop	per shipping name:	-						
Transpo	rt hazard class(es):	-						
Packing	group:	-						
Environi	mental hazards:	-						
Special	precautions for user:	-						
	Transporting/shipment by	r inland waterways (ADN)						
UN num	nber:	Not subject to transport regulations						
UN prop	per shipping name:	-						
Transpo	rt hazard class(es):	-						
Packing	group:	-						
Environi	mental hazards:	-						
Special	precautions for user:	-						
	Transporting/shipment by	r sea (IMDG)						
UN num	nber:	Not subject to transport regulations						
UN prop	per shipping name:	-						
Transpo	rt hazard class(es):	-						
Packing	group:	-						
Environi	mental hazards:	Not subject to transport regulations						



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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:	Not subject to transport regulations
UN proper shipping name:	-
Transport hazard class(es):	-
Packing group:	-
Environmental hazards:	-
Special precautions for user:	-
Further information: -	

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



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

	National regulation:	Chemicals Act, Regulation on classification, packaging and labeling of dangerous substances, Ordinance on occupational exposure limit values and on biological limit values, Regulation on categories, types and classification of waste with a waste catalog and list of hazardous waste, Transport of Hazardous Substances Act
15.2.	Chemical safety assessment	
	None	

SECTIO	ON 16. Other information	
16.1.	Indication of changes:	-
16.2.	Abbreviations and acronyms:	ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road) IMDG: International Maritime Code for Dangerous Goods IATA: International Air Transport Association GHS: Globally Harmonised System of Classification and Labelling of Chemicals EINECS: European Inventory of Existing Commercial Chemical Substances CAS: Chemical Abstracts Service (division of the American Chemical Society) DNEL: Derived No-Effect Level (UK REACH) LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative
16.3.	Key literature references and source of data:	-
16.4.	Classification and procedure 1272/2008 (CLP)	used to derive the classification for mixture according to Regulation (EC)
Classifi	ication	Classification procedure
-		-
16.5.	Relevant H statements (num	ber and full text)
	H315	Causes skin irritation.
	H: H319	Causes serious eye irritation.
	H335	May cause respiratory irritation.
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



SAFETY DATA SHEET

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

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Trade name:		REDUCING BUFFER,	SOLUTION		
Product code:	RP-OT-X**	Date of compilation:	21 December 2022	Version:	4

SECTION	ON 1: Identification of t	he su	ıbstance/mixture	and of the company/undertaking		
1.1.	Product identifier					
	Trade name:	RED	REDUCING BUFFER, SOLUTION			
	Chemical name:	-				
	Catalogue number:	RP-	OT-X**			
1.2.	Relevant identified use	s of t	he substance or m	nixture and uses advised against		
	Uses:		For use with Von	Kossa kit.		
	Uses advised against:		Only the identifie	ed uses are advised.		
	Reasons why uses advi	The product is intended for use only as an <i>in vitro</i> diagnostic madvised registered at the Agency for Medicinal Products and Medical D there is no reason to use it for other purposes.				
1.3.	Details of the supplier	Details of the supplier of the safety data sheet				
	Supplier:		BioGnost Ltd	BioGnost Ltd.		
	Address:		Medjugorsk	Medjugorska 59, Zagreb		
	Telephone number :		+385 1 2409	+385 1 2409997		
	Telefax:		+385 1 2404	1039		
	e-mail of competent p	ersor	n: <u>msds@biog</u>	nost.hr		
	National contact:		_	-		
1.4.	Emergency telephone	numl	pers			
	National Protection an	d Res	scue Directorate:	112		
	Medical information:			+385 1 2348 342		
	Other information:			-		

SECTIO	ON 2. Hazards identification				
2.1.	Classification of the substance	Classification of the substance or mixture			
2.1.1.	Classification according to Re	egulation (EC) No	1272/2008 (CLP)		
	Hazard class and cat	egory code:	Hazard statement*:		
	Skin Sens. 1		H317		
	Muta. 2		H341		
	Carc. 1B		H350		
2.1.2.	Additional information				
	-				
*For fu	ll text of Hazard- and EU Hazar	d-statements: see	e Section 16.		
2.2.	Label elements				
	Product identification:	REDUCING BU	UFFER, SOLUTION		
	Identification number:	-			



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Trade name:	REDUCING BUFFER, SOLUTION				
Product code:	RP-OT-X**	Date of compilation:	21 December 2022	Version:	4

	Authorisation number:	-
	Hazard pictograms:	GHS08 GHS07
	Signal word:	Danger
	Hazard statement:	H317 May cause an allergic skin reaction.H341 Suspected of causing genetic defects.H350 May cause cancer.
	Precautionary statement:	P280 Wear protective gloves/protective clothing/eye/protection/face protection. P302 + P352 IF ON SKIN: Wash with plenty of water. P308+P313 IF exposed or concerned: Get medical advice/attention.
	Supplemental hazard information (EU):	_
2.3.	Other hazards	
		ains no components considered to be either persistent, bioaccumulative and and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3. Composition/information on ingredients					
CAS/ EC/ Index number	REACH Registration No	Weight % content (or range)	Identification name	Classification according to Regulation (EC) No 1272/2008 (CLP)	
30525-89-4/ 608-494-5/ -	-	3 – 4 %	paraformal de hyde	Acute Tox. 4; H302 Skin Irr. 2; H315 Skin Sens. 1; H317 Eye Dam. 1; H318 Acute Tox. 4; H332 STOT SE 3; H335 Muta. 2; H341 Carc. 1B; H350	

SECTIO	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.		



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Trade name:		REDUCING BUFFER, SOLUTION						
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	Following skin contact:	Remove all contaminated clothes using sterile gauze. Immediately wash with plenty of water for at least 20 minutes. Seek medical assistance if the symptoms of irritation remain.
	Following eye contact:	Rinse out with plenty of water with the eyelid held wide open for at least 20 minutes. If the symptoms remain, immediately call in ophthalmologist.
	Following ingestion:	Rinse the oral cavity, drink 1-2 glasses of water. Do not induce vomiting. Immediately consult a physician and show the container or label. In case of swallowing large quantities, transport the afflicted person to the hospital.
	Self-protection of the first aider	-
4.2.	Most important symptoms a	and effects, both acute and delayed
	Following inhalation:	Depending on concentration and exposure time, irritation of the mucous membrane of the nose/throat may occur (burning sensation, urge to sneeze, runny nose). High concentration levels may cause difficult breathing, coughing, chest tightness, headache, pneumonia and pulmonary edema.
	Following skin contact:	Depending on concentration and exposure time, redness accompanied by sensation of stinging and pain may occur, defatting, skin cracking, rash, swelling, burns, blisters and delayed onset of inflammations.
	Following eye contact:	Depending on concentration and exposure time, mucosa stinging, lacrimation, redness and pain may occur, as well as bleeding, delayed onset of inflammations and permanent eyesight damage.
	Following ingestion:	Depending on concentration and exposure time, stinging and possible damage to the mucous membrane of the digestive tract is possible, as well as abdominal pain, nausea, vomiting (bloody vomit is possible), vertigo, headache, eyesight disorders and permanent blindness due to optical nerve damage, loss of consiousness.
4.3.	Indication of any immediate	medical attention and special treatment needed
	-	

SECTION	TION 5. Firefighting measures						
5.1.	Extinguishing media						
	Suitable extinguishing media:	water spray or alcohol-resistant foam, dry powder, CO ₂					
	Unsuitable extinguishing media:	No information available					
5.2.	Special hazards arising from the substance or mixture						
	Hazardous by products of fire:	Possible liberation of toxic carbon monoxide and formaldehyde gases due to thermal decomposition (increased temperature). Explosive nixtures of formaldehyde vapors and air also present danger.					
5.3.	Advice for firefighters						
	·	mpressed air breathing apparatus and fireproof clothing. re with water spray, in order to prevent explosion.					



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Trade name:		REDUCING BUFFER, SOLUTION						
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5.4.	Additional information
	Remove sources of heat and ignition. Do not contaminate the environment with extinguishing media.

6.1.	Personal precautions, protective equipment and emergency procedures					
6.1.1.	•					
0.1.1.	For non-emergency	•				
	Protective equipmer					
	Accident prevention	methods: Evacuate members of all non-essential personnel and those members without protective equipment. Avoid breathing vapor and avoid contact with skin and eyes. Remove all sources of spark and ignition. Do not smoke.				
	Emergency procedu	res: Mark the area using proper signs.				
6.1.2.	For emergency responders:					
	Use protective equipment; in case of inadequate ventilation use adequate airways protective equipment (see Section 8).					
6.2.	Environmental preca	tal 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 mater	als for containment and cleaning up				
6.3.1.	Bunding, covering of drains; capping procedures:	Sand or clay barriers.				
6.3.2.	Cleaning up:	Where possible, the substance can be absorbed by using inflammable material (sand, diatomaceous earth, vermiculite). Place the waste material in tightly closed impermeable containers. Store the substance in well ventilated storage rooms until disposal. Submit for disposal to the legal persons authorized by the Ministry of Environmental and Nature Protection. After disposal of the products, wash the area and and involved materials with water.				
6.3.3.	Other information:	Do not use incompatible materials (see Section 10).				
6.4.	Reference to other s	ections				

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 heat and ignition. Carry out measures for preventing static electricity.
	Measures to prevent aerosol and dust formation:	Secure proper ventilation.



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	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:	well ve	n tightly closed and upright set containers in a entilated storage rooms at temperatures g from 15 to 25 °C.			
	Containers materials:	Manufacturer's original packaging.				
	Requirements for storage and containers:	Keep away from food and drink. Keep the containe tightly closed.				
	Advices for storage equipment:	must k drain t	orage must be made of hard material; floors peresistant to chemicals. There must be no that directly leads into sewage system. Secure reventilation.			
	Other information on storage conditions:	and do	t place the unused material in the storage room o not use empty containers for storing other cals. Do not store with incompatible materials ection 10).			
7.3.	Specific end use(s)					
	Recommendations:	-				
	Industrial sector specific solutions:	-				

SECTION 8. Exposure controls/personal protection										
8.1. Cont	rol para	parameters								
Substance		CAS No		· ·	Occupational exposure limit values/short term values		ological limit values			
				ppm	mg/m³					
-			-		-	-		-		
Substance:	-									
EC No:	-		CAS No.:	-						
DNEL										
					Industrial					
Acute effect		te effect	Acute effect		Chronic effect		Chronic effect			
Route of exposure:			local	systemic		local		systemic		
Oral		-		-		-		-		
		1				l				



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Salt water	F	RP-OT-X**	Date						
Dermal Critical physical Route of exposur Oral Inhalation Dermal PNEC Environmental p Fresh water Fresh water sedin Salt water Salt water sedin Food chain Microorganisms				of compilat	ion:	21 December 2	2022	Version:	4
Dermal Critical physical Route of exposur Oral Inhalation Dermal PNEC Environmental p Fresh water Fresh water sedin Salt water Salt water sedin Food chain Microorganisms		-	_		_		_		
Critical physical Route of exposur Oral Inhalation Dermal PNEC Environmental p Fresh water Fresh water sedin Salt water Salt water sedim Food chain Microorganisms		-	-		_		_		
Route of exposur Oral Inhalation Dermal PNEC Environmental p Fresh water Fresh water sedin Salt water Salt water sedin Food chain Microorganisms	paran	neters: solubility, fla	 ammability, cor	rosivity:		_			
Oral Inhalation Dermal PNEC Environmental p Fresh water Fresh water sedin Salt water Salt water sedim Food chain Microorganisms	<u>'</u>	<u> </u>		nsumer		1			
Oral Inhalation Dermal PNEC Environmental p Fresh water Fresh water sedin Salt water Salt water sedim Food chain Microorganisms		Acute effect	Acute e	ffect	C	Chronic effect		Chronic effect	t
Inhalation Dermal PNEC Environmental p Fresh water Fresh water sedin Salt water Salt water sedim Food chain Microorganisms	ire:	local	syster	mic		local		systemic	
PNEC Environmental p Fresh water Fresh water sedin Salt water Salt water sedim Food chain Microorganisms		-	-		-		-		
PNEC Environmental p Fresh water Fresh water sedir Salt water Salt water sedir Food chain Microorganisms		-	-		-		-		
Environmental p Fresh water Fresh water sedir Salt water Salt water sedir Food chain Microorganisms		-	-		-		-		
Fresh water Fresh water sedin Salt water Salt water sedin Food chain Microorganisms									
Fresh water sedin Salt water Salt water sedin Food chain Microorganisms	rotect	tion target		PNEC					
Salt water Salt water sedim Food chain Microorganisms				No inforn	nation	available			
Salt water sedim Food chain Microorganisms	Fresh water sediments			No information available					
Food chain Microorganisms	Salt water				No information available				
Microorganisms	Salt water sediments				No information available				
				No inforn	nation	available			
Soil (agricultural	in sev	wage treatment		No inforn	nation	available			
	l)			No inforn	nation	available			
Air				No inforn	nation	available			
8.2. Exp	osure	controls							
8.2.1. App	propri	ate engineering co	ntrols						
me	asures	e/mixture related to prevent exposu entified uses:	Ira :	•		ventilated rooms. I drink or smoke in t	-	•	tive
	uctura osure	l measures to prev :	ent No info	ormation av	ailable	9			
	Organisational measures to O			Organization of work in order to reduce other worker's influence during work process.					ce
	hnical osure	measures to preven:			-	e ventilation in ord ir below permitted		•	
8.2.2. Per	sonal	protection equipm	nent						
8.2.2.1. Eye	and f	ace protection:	levels o	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. Skir	n prot	ection							



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	Hand protection:	The protective gloves have to satisfy the specification of Regulation (EU) 2016/425 and the related standard EN374. Full contact: Material: Nitrile rubber Minimum layer thickness: 0,11 mm Break through time: 480 min Splash contact: Material: Nitrile rubber Minimum layer thickness: 0,11 mm Break through time: 480 min			
	Other skin protection:	Complete suit protecting against chemicals (EN 340) The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace and shoes that cover the entire foot.			
8.2.2.3.	Respiratory protection:	Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type P3 (EN 143) respirator cartridges as a backup to engineering controls.			
8.2.2.4.	Thermal hazards:	No information available			
8.2.3.	Environmental exposure controls				
	Substance/mixture related measures to prevent exposure:	See Section 6			
	Structural measures to prevent exposure:	Use modern equipment.			
	Organisational measures to prevent exposure:	Adapt the work process to the required working conditions of the workplace.			
	Technical measures to prevent exposure:	See Section 6			

SECTI	SECTION 9. Physical and chemical properties							
9.1.	Information on basic physical and chemical properties							
		Value	Method					
	Physical state:	liquid	No information available					
	Color:	colorless	No information available					
	Odour/odour threshold:	sharp/no information available	No information available					
	Melting point / freezing point:	No information available	No information available					
	Boiling point or initial boiling point and boiling range:	No information available	No information available					
	Flammability:	No information available	No information available					
	Lower and upper explosion limit:	No information available	No information available					



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Trade name:		REDUCING BUFFER,			
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	Flash point:	No information available	No information available
	Auto-ignition temperature:	No information available	No information available
	Decomposition temperature:	No information available	No information available
	pH:	No information available	No information available
	Kinematic viscosity:	No information available	No information available
	Solubility:	No information available	No information available
	Partition coefficient n- octanol/water (log value):	No information available	No information available
	Vapour pressure:	No information available	No information available
	Density and/or relative density	No information available	No information available
	Relative vapour density:	No information available	No information available
	Particle characteristics:	No information available	No information available
9.2.	Other information		
	-		

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

SECTIO	N 11. Toxic	ological inform	ation						
11.1.	Informatio	nformation on toxicological effects							
	Acute toxi	city:							
Route of exposure:		Method	Species	Effective Dose LD ₅₀ /LC ₅₀ or ATE _{mixture}	Exposure time	Results			
Oral No information available		rat (paraformaldehyde)	LD ₅₀	No information available	800 mg/kg				
Dermal		No information available	rabbit (paraformaldehyde)	LD ₅₀	No information available	10.000 mg/kg			



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Trade name:		REDUCI	NG BUFFER	, SOLUTION			
Product code:	RP-OT-X** Date of compilation: 21 December 2022 Ve						4
Inhalation	No information available	rat (paraformaldehyde)	LC ₅₀	4 1	1	1.07 mg/l	
Specific ta	rget organ toxicit	y - single exposure (ST	'OT-SF)·				
Бресте с	3 3	cific effects		get organ		Note	
Oral	No information	available		ation available	-		
Dermal	No information	available	No inform	ation available	-		
Inhalation	No information	available	No inform	ation available		cause respirato tion Respirat em	-
Aspiration	hazard:	no inform	ation availabl	e			
Irritation a	and corrosion						
miguon	Exposur	e time Speci	es Eval	uation Me	thod	Note	
Skin corrosion/irritation	-	-	_	-		no informatio available	n
Serious eye damage/irritation:	-	-	-	-		no informatio available	n
Sensitizati	on						
Skin sensitization:		cause an allergic skin i	eaction.				
Respiratory sensitiz	-	gic persons may displa					
	i						
Symptom	s related to the ph	ysical, chemical and to	oxicological ch	naracteristics			
Oral exposure:	and abdo of perfora	g on concentration ar minal pain, cramps, blo ation of the esophagu evelopment of strictur	oody vomiting s, stomach ar	ı, cyanosis, respii	ratory in	sufficiency, dar	nger
Depending on concentration and exposure time, superficial coagulation bermal exposure: hardening and tanning of the skin as well as anesthesia, allergic skin reactive edema, urticaria, delayed development of eczema).							
Inhalation exposure	g on concentration an /throat (burning sens reactions; for higher tightness in the chest lema/cramp, broncho	ation, urge to concentration headache, re	to sneeze, runr ons severe diffic actions of the cir	ning not culty in culatory	se), possibly e breathing, fits system, dange	even s of er of	



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Trade name:	REDUCING BUFFER, SOLUTION						
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Eye exposure:	peri		ent corneal lesio			slight, reversibl robaby only vis		_	
Repeate	ed dose toxicit	y (su	bacute, subchro	onic, chror	nic)				
	Dose		Exposure time	Species		Method	Evaluation	า	Note
Subacute oral	No informat available	ion	No information available	No informa available		No information available	No information	on	-
Subacute dermal	No informat available	ion	No information available	No informa available		No information available	No informatio available	on	-
Subacute Inhalation	No informat available	ion	No information available	No informa available		No information available	No information available	on	-
Subchronic oral	No informat available	ion	No information available	No informa available		No information available	No informatio available	on	-
Subchronic dermal	No informat available	ion	No information available	No informa available		No information available	No information available	on	-
Subchronic inhalation	No informat available	ion	No information available	No informa available		No information available	No information available	on	-
Chronic oral	No informat available	ion	No information available	No informa available		No information available	No information available	on	-
Chronic dermal	No informat available	ion	No information available	No informa available		No information available	No informatio available	on	-
Chronic inhalation	No informat available	ion	No information available	No informa available		No information available	No information available		-
Specific	target organ	tovic	ity - repeated e	vnosure (9	TOT-)E).			
Specific	target organi	COAIC	Specific effe	•	,,,,,,	Target orga	an		Note
Subacute oral N		No	information ava		No information available		-		
Subacute dermal			information ava		No information available -		-		
Subacute inhalin	9		information available				-		
Subchronic oral	-	Nο	information available				_		



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Trade name:		REDUCING BUFFER,	REDUCING BUFFER, SOLUTION				
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			'			
nic dermal	No information	n available	No information available	_		
				-		
oral				_		
dermal				-		
nhaling			No information available	-		
	i					
CMR effects (carcinog	genicity, mutage	nicity, reprod	ductive toxicity)			
Carcinogenicity:	Pr	resumed to h	nave carcinogenic potential for h	umans		
Mutagenicity In-vitro:	N	o informatio	n available			
Genotoxicity:	N	o informatio	n available			
Mutagenicity <i>In-vivo</i> :	N	No information available				
Germ cell mutagenici	ty: Sı	Suspected of causing genetic defects.				
Reproductive toxicity:	: N	No information available				
Summary of evaluate properties:	tion of the CN	CMR No information available				
Information on other	hazards:					
Endocrine disrupting	properties:					
components conside	ered to have en s according to	ndocrine REACH				
regulation (EU) 2018 Regulation (EU) 2018 higher.	7/2100 or Con					
	dermal nhaling CMR effects (carcinog Carcinogenicity: Mutagenicity In-vitro: Genotoxicity: Mutagenicity In-vivo: Germ cell mutagenicity Reproductive toxicity Summary of evaluate properties: Information on other Endocrine disrupting The substance/mixtocomponents consider disrupting properties	nic inhaling Poral No information Idermal No information No information No information No information No information No information CMR effects (carcinogenicity, mutage Carcinogenicity: Mutagenicity In-vitro: Genotoxicity: Mutagenicity In-vivo: Mutagenicity In-vivo: No Germ cell mutagenicity: Reproductive toxicity: No Summary of evaluation of the CN properties: Information on other hazards: Endocrine disrupting properties: The substance/mixture does not components considered to have edisrupting properties according to	No information available CMR effects (carcinogenicity, mutagenicity, reproductive formation in the components considered to have endocrine disrupting properties according to REACH	No information available CMR effects (carcinogenicity, mutagenicity, reproductive toxicity) Carcinogenicity: Presumed to have carcinogenic potential for house available No information available No information available No information available Suspected of causing genetic defects. Reproductive toxicity: No information available Suspected of causing genetic defects. No information available Summary of evaluation of the CMR properties: Information on other hazards: Endocrine disrupting properties: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH		

SECTION 12. Ecological information										
12.1. Toxicity	12.1. Toxicity									
Acute (short-term) toxicity	Dose	Exposure time	species	Method	Evaluation	Note				
Fish	LC ₅₀	96 hours	Oncorhynchus mykiss (rainbow trout)	No information available	46 – 78 mg/l (paraformaldehyde)	-				
Crustacea:	EC ₅₀	48 hours	Daphnia magna (water flea)	No information available	42 mg/l (paraformaldehyde)	_				



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Algae/aquatic plants:	IC ₅₀	8 days	No information available	No information available	No information available	-
Other organisms:	-	-	-	-	-	-
Chronic (long-term) toxicity	Dose	Exposure time	Species	Method	Evaluation	Note
Fish	LC ₅₀	96 hours	No information available	No information available	No information available	-
Crustacea:	EC ₅₀	48 hours	No information available	No information available	No information available	-
Algae/aquatic plants:	IC ₅₀	72 hours	No information available	No information available	No information available	-
Other organisms:	-	-	-	-	-	-

12.2. Persistence and degradability

Abiotic degradation

, 101011	Ablacia degli dadilari							
	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	No information available			No information available

12.3. Bioaccumulative potential

Octanol/water partition coefficient (log Pow):

			۰٫		F 1	
Value	Concentration	рН	°C	Method	Evaluation	Note
No information available	No information available	-	-	No information available	No information available	No information available



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Trade nan	ne:	REDUCING BUFFER, SOLUTION											
Product co	ode:	RP-OT-X** Date of			of co	mpilatio	n:	21 Decemb	er 2022	Versi	on:	4	
										VIII.			
Е	Bioconcen	tration Fac	tor (BC	CF)									
Valu			pecies		Me	thoc	ı	E	valuation		No	ote	
No inform available	nation	No available	infor	mation	No inform available	natio	on	No inta	formation ble	-			
C	Chronic ec	otoxicity											
	Value		Dose		posure time	9	Species		Method	Evalua	ation	No	te
Chronic to	oxicity on	fish L	C ₅₀	1	information i		rmation ilable		ormation ailable	No informa availabl		-	
Chronic to Crustacea	-	a) E	C ₅₀	No infor avail	mation		rmation ilable		ormation ailable	No informa availabl		-	
k		predicted of		ution in e	environmen	tal c	compartr	ments:					
	Value		°C	С	oncentratio	n		Meth	od		Note	e	
iı	No nformatio available	No inforn availa	nation ble		informatio ailable	n	No info		on	-			
Α		n / desorpt											
Transport		D coefficie nry's consta		log	g Kow	Εν	/aporatio	on rate	Meth	od		Note	
Soil-Wate	r No availa	informa able		No ir available	nformation e		o inform ailable	nation No informa		nation	-		_
Water-Air	. No availa	informa able		No ir	nformation e		o inform ailable	ation	No inforn	nation	_		



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Trade n	ame:	REDUCING BUFFER, SOLUTION							
Product	t code:	RP-OT-X**		Date c	of compilation:	21 December 2022	Version:	4	
Soil-Air	No availa	information able	No infor available	No information available	No information available	-			
12.5.	Results of	PBT and vPvB as	sessment						
				•		e either persistent, bio levels of 0.1% or highe		and	
12.6.	Endocrine	disrupting prop	erties						
	according		e 57(f) or Cor	nmissio	n Delegated regu	d to have endocrine dis lation (EU) 2017/2100 d			
12.7.	Other adv	erse effects							
12.7.		ation available							
SECTIO	N 13. Dispo	osal considerati	ons						
13.1.	Waste tr	eatment method	ls						
13.1.1.	Product	packaging dispo	veal.						
13.1.1.		or disposal to th		n autho	orized by the Mini	stry of Environmental a	and Nature		
13.1.2.	Waste co	odes/waste desig	nations acco	ording to	o law:				
		*: packaging tha				ces or is contaminated	with hazardo	us	
13.1.3.	Waste tr	eatment – releva	nt information	nn.					
15.1.5.		mation available		J11.					
13.1.4.	Sewage	disposal – releva	nt informatio	on:					
	Waste m	ust not be dispo	sed of into t	he sewa	ige system.				
12.1.5	0411		l - 4:						
13.1.5.	Do not o	ed by the minist	oduct's rema ry in charge.	Do not		m. Submit the remains ckaging into the sewag narge.			
13.1.6.	Relevant	Community pro	visions:						



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Trade name:		REDUCING BUFFER,	SOLUTION		
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-	
SECTION 14. Transport information	
Transporting/shipment by road ((ADR)
UN number	Not subject to transport regulations.
UN proper shipping name:	-
Transport hazard classes:	-
Packing group:	-
Environmental hazards:	-
Special precautions for user:	-
Transporting/shipment by rail (R	ID)
UN number	Not subject to transport regulations.
UN proper shipping name:	-
Transport hazard classes:	-
Packing group:	-
Environmental hazards:	-
Special precautions for user:	-
Transporting/shipment by inland	waterways (ADN)
UN number	Not subject to transport regulations.
UN proper shipping name:	-
Transport hazard classes:	-
Packing group:	-
Environmental hazards:	-
Special precautions for user:	-
Transporting/shipment by sea (II	MDG)
UN number	Not subject to transport regulations.
UN proper shipping name:	-
Transport hazard classes:	-
Packing group:	-
Environmental hazards:	-
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	3334
UN Proper shipping name:	Aviation regulated liquid, n.o.s. (formaldehyde)



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Transport hazard classes:	9	
Packing group:	III	
Environmentally hazardou	no	
Special precautions for us		
Further information:	No information available	

15.1.	Safety, health and enviro	nmental regulations/legislation specific for the substance or mixture				
	EU regulations					
	Authorisation and/or rest	rictions on use				
	Authorisations:	-				
	Restrictions:	-				
	Other EU regulations:	Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC; Directive 2004/42/CE of the European Parliament and of the Council of 21 April 2004 on the limitation of emissions of volatile organic compounds due to the use of organic solvents in certain paints and varnishes and vehicle refinishing products and amending Directive 1999/13/EC; Council Directive 98/24/EC of 7 April 1998 on the protection of the health and safety of workers from the risks related to chemical agents at work; Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006; REACH Restrictions on the manufacturing, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII);				
	Information according 19 guideline):	999/13/EC about limitation of emissions of volatile organic compounds (VOC-				
	Chemicals Act, Regulation on classification, packaging and labeling of dangerous substances, Ordinance on occupational exposure limit value on biological limit values, Regulation on categories, types and classification of waste with a waste catalog and list of hazardous waste, Transport of Hazardous Substances Act					
15.2.	Chemical safety assessme	ent				
	None					

SECTION 16. Other information



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Trade name:		REDUCING BUFFER,	SOLUTION	J	
Product code:	RP-OT-X**	Date of compilation:	21 December 2022	Version:	4

16.1.	Ind	ication of changes:	-
16.2.		previations and pnyms:	ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road) IMDG: International Maritime Code for Dangerous Goods IATA: International Air Transport Association GHS: Globally Harmonised System of Classification and Labelling of Chemicals EINECS: European Inventory of Existing Commercial Chemical Substances CAS: Chemical Abstracts Service (division of the American Chemical Society) DNEL: Derived No-Effect Level (UK REACH) LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative
16.3.	Key literature references and source of data:		-
16.4.		ssification and procedure 2/2008 (CLP)	used to derive the classification for mixture according to Regulation (EC)
Classific	catior	1	Classification procedure
_			-
16.5.	Rel	evant H statements (num	ber and full text)
		302	Harmful if swallowed.
		315	Causes skin irritation.
	H:	317	May cause allergic skin raction.
		318	Causes serious eye damage.
		332	Harmful if inhaled.
		335	May cause respiratory irritation.
		341	Suspected of causing genetic defects.
		350	May cause cancer.
16.6.	Trai	ning advice:	-
			** "X" in the product code marks different volumes (different packaging of the product).
16.7.	Fur	ther notice:	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
_

-



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

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Trading name:	SILVER AMMONIA REAGENT				
Product code:	SAR-OT-X**	Date of compilation:	21 Dec 2022	Version:	6

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

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



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

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Trading name:	SILVER AMMONIA REAGENT		REAGENT		
Product code:	SAR-OT-X**	Date of compilation:	21 Dec 2022	Version:	6

	Signal word:	-
	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	
	Endocrine Disrupting Prope	erties:
	No known endocrine disrupti	ing properties
	Results of PBT and vPvB as PBT or a vPvB.	sessment : According to the results of its assessment, this substance is not a

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	-	< 1 %	ammonia	Skin Corr. 1B; H314 Aquatic Acute 1; H400	

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



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Trading name:		SILVER AMMONIA	REAGENT		
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	Self-protection of the first aider:	-
4.2	Most important symptoms and ef	fects, both acute and delayed
	Following inhalation:	Depending on concentration and exposure time, it may lead to mucosa irritation, cough, and dyspnea.
	Following skin contact:	Depending on concentration and exposure time, it may lead to irritation, rash, skin drying and skin cracking.
	Following eye contact:	Depending on concentration and exposure time, it may lead to irritation, tearing, redness and pain.
	Following ingestion:	Danger of gastric perforattion.
4.3	Indication of any immediate medi	cal attention and special treatment needed

SECTIO	ON 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 su	ubstance 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	ON 6. Accidental release measur	es
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.
	Emergency procedures:	Mark the area using proper signs.
6.1.2.	For emergency responders:	
	Use protective equipment; in ca (see Section 8).	se of inadequate ventilation use adequate airways protective equipment
6.2	Environmental precautions:	



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Trading name:		SILVER AMMONIA	REAGENT	_	
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	Do not dispose of in sewage, Protection and Rescue Direct	drainage system and waterways. In case of large spillage contact National orate (NPRD) on 112.	
6.3	Methods and material for cor	ntainment and cleaning up	
6.3.1.	Bunding, covering of drains; capping procedures:	Sand or clay barriers.	
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	formation.	

SECTIO	ON 7. Handling and storage			
7.1	Precautions for safe handling			
7.1.1.	Protection measures			
	Measures to prevent fire:		Use in well ventilated storage rooms. Keep away from sources of ignition and heat.	
	Measures to prevent aerosol and dust generatio	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. The	oroughly was	sh hands after work and before eating.	
7.2	Conditions for safe storage, including any incom	patibilities		
	Technical measures and storage conditions:		ghtly closed and upright set containers at ares ranging from +2 to +8 °C.	
	Packaging materials:	Manufactu containers	urer's original packaging. Avoid metal s.	
	Requirements for storage rooms and vessels:	Keep away tightly clos	y from food and drink. Keep the containers sed.	
	Advices for storage equipment:	must be re	ge must be made of hard material; floors esistant to chemicals. There must be no drain ly leads into sewage system. Secure proper n.	



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

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	Further information on storage conditions:	Do not place the unused material in the storage room and do not use empty containers for storing other chemicals. Do not store with incompatible materials (see Section 10).
7.3	Specific end use(s)	
	Recommendations:	-
	Industrial sector specific solutions:	-

SECTION 8. Expos	ure contr	ols/perso	nal protec	tion			
8.1 Control pa			The process				
Substance		CA	.S No	valı	ues/short	exposure limit term values	Biological limit values
			F		pm	mg/m³	
-			-		-	-	-
Collection							
Substance name: EC No:	-	CAS No	· _				
DNEL	<u> </u>	CAS NO					
DIVEL				Ind	ustrial		
Route of	Acı	ıte	Acut		ustriai	Chronic	Chronic
exposure:	effect		effect sys			effect local	effect systemic
Oral	-		-		-		-
Inhalation	-		-		-		-
Dermal	-		-		-		-
Critical physical par	rameters: s	solubility,	flammabilit	ty, corr	osivity:	-	
				Con	sumer		
Route of exposure:	Ac effect	ute : local	Acut effect sys			Chronic effect local	Chronic effect systemic
Oral	-		-		-		-
Inhalation	-		-		-		-
Dermal	-		-		-		-
PNEC							
Environmental prot	tection tar	get			PNEC		
Fresh water			no information available				
Freshwater sedime	nts				no information available		
Marine water					no inform	nation available	?
Marine sediments					no information available		



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Food chain			no information available	
Microorga	anisms in sewage treatment		no information available	
Soil (agric	ultural)		no information available	
Air			no information available	
8.2	Exposure controls			
8.2.1.	Appropriate engineering controls			
	Substance/mixture related measure prevent exposure during identified		Use the product in well ventilated rooms. Use personal protective equipment. Do not eat, drink or smoke in the workspace.	
	Structural measures to prevent exposure:		In accordance with Section 7.	
	Organisational measures to prevent exposure:	t	Organization of work in order to reduce other worker's influence during work process.	
	Technical measures to prevent expo	osure:	Secure proper workspace ventilation in order to keep concentration levels in air below permitted levels. Secure stations for rinsing eyes and showering.	
8.2.2.	Personal protection equipment			
8.2.2.1.	Eye and face protection:	levels o	glasses that stick to face (EN 166) or visor in case of lower of concentration in air; protective gas mask that covers the face in case of higher levels of concentration in air.	
8.2.2.2.	Skin protection			
	Hand protection:	Protect	tive nitrile gloves, >0.11 mm thick (EN 374).	
	Uther skin protection.		intistatic clothing made of natural fibers (such as cotton) ng sleeves (EN 340) and shoes that cover the entire foot.	
8.2.2.3.	Respiratory protection:		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.	
	3	Adapt workpl	the work process to the required working conditions of the ace.	
	Technical measures to prevent exposure:	See Se	ction 6	



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Trading name:		SILVER AMMONIA	REAGENT	•	
Product code:	SAR-OT-X**	Date of compilation:	21 Dec 2022	Version:	6

Information on basic physical and	chemical properties	
	Value	Method
Physical state:	liquid	No information available
Colour:	colourless	No information available
Odour/odour threshold:	mild ammonia like/no information available	No information available
Melting point / freezing point:	No information available	No information available
Boiling point or initial boiling point and boiling range:	No information available	No information available
Flammability:	No information available	No information available
Lower and upper explosion limit:	No information available	No information available
Flash point:	No information available	No information available
Auto-ignition temperature:	No information available	No information available
Decomposition temperature:	No information available	No information available
pH:	No information available	No information available
Kinematic viscosity:	No information available	No information available
Solubility:	No information available	No information available
Partition coefficient n-octanol/water (log value):	No information available	No information available
Vapour pressure:	No information available	No information available
Density and/or relative density:	No information available	No information available
Relative vapour density:	No information available	No information available
Particle characteristics:	No information available	No information available

SECTION 10. Stability and reactivity				
10.1	Reactivity:	See subsections 10.3 through 10.5.		
10.2	Chemical stability:	The product is chemically stable under standard ambient conditions of storing and using.		
10.3	Possibility of hazardous reactions:	No 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		



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Trading name:	SILVER AMMONIA REAGENT				
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11.1 Information		lasses as defined in	Regulation	(FC) No 1272	/2008		
Acute toxic		lasses as actifica iii	Regulation	(LC) NO 1212	72000		
Route of exposure:	Method	Species		₅₀ /LC ₅₀ or E _{mix}	Exposure t	ime	Results
Oral:	-	No information available		_	No informatio available	on	_
Dermal:	-	No information available		1	No informatio available	on	-
Inhalation:	-	No information available			No informatio available	on	-
Specific tar	<u> </u>	xicity – single expos	ure (STOT S				
		pecific effects		Target or			Note
Oral:		tion available		No information available		-	
Dermal:	No informa	tion available	No i	No information available		-	
Inhalation:	No informa	tion available	No i	nformation av	vailable	-	
Irritation ar	nd corrosion						
	Ехро	osure time	Species	Evaluatio	n Method	d	Note
Skin corrosion/irritation:	-	-		-	-	-	
Serious eye damage/irritation	-	-			-	-	
Sensitizatio	n						
Skin sensitization:	_						
Respiratory sensitiza	tion: -						
. ,							
	ralated to th	e physical, chemical	and toxicol	ogical charac	teristics		
Symptoms	related to th						
		nation available.					
<u>:</u>	No infor	mation available. mation available.					
Oral exposure:	No infor						



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Repeate	ed dose toxicity (su	bacute, subchro	onic, chronic)			
	Dose	Exposure time	Species	Method	Evaluatior	n Note
Subacute oral	No information available	No information available	No information available	No information available	No informatio available	on -
Subacute dermal	No information available	No information available	No information available	No information available	No informatio available	on -
Subacute inhalation	No information available	No information available	No information available	No information available	No informatio available	on -
Subchronic oral	No information available	No information available	No information available	No information available	No informatio available	on -
Subchronic dermal	No information available	No information available	No information available	No information available	No informatio available	on -
Subchronic inhalation	No information available	No information available	No information available	No information available	No information available	on -
Chronic oral	No information available	No information available	No information available	No information available	No informatio available	on -
Chronic dermal	No information available	No information available	No information available	No information available	No informatio available	on -
Chronic inhalation	No information available	No information available	No information available	No information available	No informatio available	on -
			(07.07	25)		
Specific	target organ toxic	Specific effection			rgan	Note
Subacute oral	No inform	ation available		Target o		- Note
		nation available		No information		_
Subacute inhalat		nation available		No information		-
Subchronic oral	No inform	nation available		No information	n available	-
Subchronic derm	nal No inform	nation available		No information	n available	-
Subchronic inhal	ation No inform	nation available		No information	n available	-



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Chronic	c oral No information available		No information available	-		
Chronic	ic dermal No information available		No information available	-		
Chronic	inhalation	No information available	No information available	-		
	CMR effects	carcinogenicity; mutagenicity; re	eproductive toxicity)			
	Carcinogenic	ity:	No information available.			
	Mutagenicity	in vitro:	No information available.			
	Genotoxicity:		No information available.			
	Mutagenicity	in vivo:	No information available.			
	Germ cell mu	tagenicity:	No information available.			
	Reproductive	toxicity:	No information available.			
	Summary o properties:	f evaluation of the CMR	No information available.			
11.2.	Information of	on other hazards:				
11.2.1.	Endocrine dis	srupting properties:				
	No known e that affect hu	ndocrine disrupting properties iman health.				
11.2.2.	Other inform	ation:				
	_					

SECTION 12. Ecologi	SECTION 12. Ecological information							
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		



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		No information No	No						

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 Persi	stence and degradability								
Abiotic degradation									
	Degradation half-lives	Method	Evaluation	Note					
Marine water	No information available	No information available	No information available	-					
Fresh water	No information available	No information available	No information available	-					
Air	No information available	No information available	No information available	-					
Soil	No information available	No information available	No information available	-					

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

Octanol-water partition coefficient (log Kow)						
Value	Concentration	рН	°C	Method	Evaluation	Note
	-	-	-	_		



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	code: S	AR-OT-X**		Date o					2	
Valu	ue	Species		Me	thod	Ev	/aluatio	on		Note
No inform available		lo inform vailable	ation	No inforr available	nation	No info		on	-	
C	Chronic ecot	oxicity								
	Value	Dose		osure ime	Species	Meth	od	Eva	aluation	Note
Chronic to	oxicity on fis	h LC ₅₀	No infor availa	mation i	No nformation available	No informa availab			rmation lable	-
Chronic to crustacea	oxicity on (<i>Daphnia</i>)	EC ₅₀	No infor availa	mation i	No nformation available	No informa availab		_	rmation lable	-
	Mobility in so (nown or pre	edicted distributi	on in e	environmer	ntal compart	ments:				
K	Known or pre No informati Surface tensi	edicted distributi on available on:								
K N S	Known or pre	edicted distributi on available	C No	environmer oncentration information	on	Metho Formation			-	Note
K N S	Known or pre No information Surface tension Value No nformation	edicted distributi on available on: °C No information	C No	oncentratio informatio	on on No int	Metho Formation			_	Note
K N S	Known or pre No information Surface tension Value No nformation	edicted distribution available on: °C No information available	C No	oncentratio informatio	on on No int	Metho Formation				Note
K N S N ir a	Known or present information information invailable	edicted distribution available on: °C No information available	No ava	oncentratio informatio	on on No int	Metho formation ole	1	Metho		Note
K N S	Adsorption / ADD	edicted distribution available on: °C No information available desorption coefficient ry's constant information	No ava	oncentration information	on No infavailal	Metho Formation ole on rate	1	nform	od	
S N ir a	Adsorption / Adsorption / No	edicted distribution available on: °C No information available desorption coefficient ry's constant information e information	No availa	oncentration information able	Evaporati No inform	Metho formation on rate	No ir availa	nforma able nforma	od ation	

12.5 Results of PBT and vPvB assessment



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Trading	g name:		SILVER AMMONIA	A REAGENT		
Produc	t code:	SAR-OT-X**	Date of compilation:	21 Dec 2022	Version:	6
			ns no components considered to and very bioaccumulative (vPvB)	•		and
12.6.	Endocrine	disrupting propertie	28			
	The substa	ance/mixture does no to REACH Article 57(ot contain components consider (f) or Commission Delegated reg vels of 0.1% or higher.			
12.7.	Other adv	erse effects				
	No inform	nation available				
SECTIO	N 13. Disp	osal considerations				
13.1	Waste ti	reatment methods				
42.4.4	5 .	(D. 1				
13.1.1.	Submit		gal person authorized by the Mir	nistry of Environment	al and Nature	
	Protection	on.				
13.1.2.	Waste c	odes/waste designati	ions according to Law:			
	Packagii	ng that contains resic	dual hazardous substances or is	contaminated with ha	azardous substan	ices
13.1.3.	Waste ti	reatment – relevant ir	nformation:			
	No info	rmation available				
12.1.4	C	diamanal valavantio	of a manatic an			
13.1.4.		disposal – relevant ir	of into the sewage system.			
	vvaste ii	lust not be disposed	of file sewage system.			
13.1.5.	Other di	isposal recommendat	tions:			
	Do not o	dispose of the producted by the ministry in	ct's remains into the sewage system charge. Do not dispose of the pors authorized by the ministry in	oackaging into the sev		
13.1.6.	Relevan	t Community provisio	ons:			
	-					
SECTIO		NSPORT INFORMAT				
1 18 1	<u>.</u>	ing/shipment by roac				
UN nun	nber:		3082			



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Trading name:	SILVER AMMONIA REAGENT				
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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:	-		
Transporting/shipment by rail (R	ID)		
UN number:	3082		
UN proper shipping name:	Environmentally hazardous substance, liquid, n.o.s. (silver ammonium)		
Transport hazard class(es):	9		
Packing group:	Ш		
Environmentally hazardous:	-		
Special precautions for user:	-		
Inland waterway transport (ADN)			
UN number:	3082		
UN proper shipping name:	Environmentally hazardous substance, liquid, n.o.s. (silver ammonium)		
Transport hazard class(es):	9		
Packing group:	Ш		
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:	Ш		
Environmentally hazardous:	-		
Special precautions for user:	-		
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code:	-		
Transporting/shipment by air (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:	-		



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Further information: Packages smaller than or equal to 5 kg / L, not dangerous goods of Class 9.
--

15.1	ON 15. Regulatory information Safety, health and environment	nmental regulations/legislation specific for the substance or mixture			
	EU regulations				
	Authorization and/or rest	rictions of use			
	Authorizations:	-			
	Restrictions:	-			
	Other EU regulations:	Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC; Directive 2004/42/CE of the European Parliament and of the Council of 21 April 2004 on the limitation of emissions of volatile organic compounds due to the use of organic solvents in certain paints and varnishes and vehicle refinishing products and amending Directive 1999/13/EC; Council Directive 98/24/EC of 7 April 1998 on the protection of the health and safety of workers from the risks related to chemical agents at work; Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006; REACH Restrictions on the manufacturing, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII);			
	Information according 1999/13/EC about limitation of emissions of volatile organic compounds (VOC-quideline)				
	National legislation:	Chemicals Act, Regulation on classification, packaging and labeling of dangerous substances, Ordinance on occupational exposure limit values and on biological limit values, Regulation on categories, types and classification of waste with a waste catalog and list of hazardous waste, Ordinance on writing Material safety data sheet, Transport of Hazardous Substances Act			
15.2	Chemical safety assessme	ent			
	None				

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



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16.2	Abl	oreviations and acronyms	ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road) IMDG: International Maritime Code for Dangerous Goods IATA: International Air Transport Association GHS: Globally Harmonised System of Classification and Labelling of Chemicals EINECS: European Inventory of Existing Commercial Chemical Substances CAS: Chemical Abstracts Service (division of the American Chemical Society) DNEL: Derived No-Effect Level (UK REACH) LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative			
16.3.		literature references and rce of data:	-			
16.4.		ssification and procedure 2/2008 (CLP)	used to derive the classification for mixture according to Regulation (EC)			
Classifi	catio	า	Classification procedure			
-			-			
16.5.	Rel	evant H statements (num	per and full text)			
		272	May intensify fire; oxidiser.			
		314	Causes severe skin burns and eye damage.			
	Н:	400	Very toxic to aquatic life.			
		410	Very toxic to aquatic life with long lasting effects.			
		412	Harmful to aquatic life with long lasting effects			
16.6.	Tra	ining advice:	-			
16.7.	Fur	ther 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.			

A	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:	21 Dec 2022	Version:	4

SECTI	ON 1. Identification of	the substa	nce/mixture a	and of the company/undertaking
1.1.	Product identifier			
	Trading name:	SODIUM	1 THIOSULFATE	, 5% SOLUTION
	Chemical name:	-		
	Catalogue number:	NT5-OT	-X**	
1.2.	Relevant identified us	es of the si	ubstance or mix	xture and uses advised against
	Uses:		For use with	special staining kits.
	Uses advised against:		Only the ider	ntified uses are advised.
	Reason why uses advised against:		The product is intended for use only as an <i>in vitro</i> diagnostic medical device, registered at the Agency for Medicinal Products and Medical Devices and there is no reason to use it for other purposes	
1.3.	Details of the supplier of the safety data sheet			
	Supplier:		BioGnost Ltd.	
	Address:		Medjugorska 59, Zagreb	
	Telephone number:		+385 1 2409997	
	Fax no.:		+385 1 2404039	
	e-mail of competent person:		msds@biognost.hr	
	National contact:		-	
1.4.	Emergency telephone	number		
	National Protection ar	nd Rescue	Directorate:	112
	Medical information:			+385 1 2348 342
	Other information:			-

SECTIO	SECTION 2. Hazards identification				
2.1.	Classification of the substance or mixture				
2.1.1.	Classification according to Regulation (EC) No 1272/2008 (CLP)				
	Hazard class and category	code:	Hazard statements*:		
	Not identified as hazardous substa	ance.	-		
2.1.2.	Additional information				
	-				
*For fu	ll text of Hazard- and EU Hazard-sta	tements: see S	ection 16		
2.2.	Label elements				
	Product identification:	SODIUM THI	DSULFATE, 5% SOLUTION		
	Identification number:	-			
	Authorization no.:	-			
	Hazard pictograms:	-			



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

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

SECTION	ON 4. First aid measures		
4.1.	Description of first aid meas	ires	
	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 ai	der: Treat symptomatically.	
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.	



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

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



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



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-		ols/person	ai protec	uon				
8.1. Control para	meters							
Substance					ccupational exposure limit values/short term values		Biological limit values	
				ppm	1	mg/m³		
-		-		-		-	No information available	
Substance - name:								
EC No: -		CAS No:	-					
DNEL			·		•			
				Indust	rial			
Route of	A	Acute		Acute		Chronic	Chronic	
exposure:	effe	ect local	effe	ct system	ic	effect local	effect systemic	
Oral	-		-			-	-	
Inhalation	-		-			-	-	
Dermal	-		-			-	-	
Critical physical para	meters: s	solubility, fla	ammabili	ty, corrosi	vity:	-		
				Consu	mer			
Route of	A	Acute		Acute		Chronic	Chronic	
exposure:	effe	ect local	effe	effect systemic		effect local	effect systemic	
Oral	-		-			-	-	
Inhalation	-		-			-	-	
Dermal	-		-			-	-	
PNEC								
Environmental protection	ction tar	get		PN	PNEC			
Fresh water				No	No information available			
Freshwater sediments				No	No information available			
Marine water			No	No information available				
Marine sediments			No	No information available				
Food chain			No	No information available				
Microorganisms in sewage treatment			No	No information available				
Soil (agricultural)				No	inform	ation available		
Air				No information available				



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8.2.	Exposure controls			
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 pre 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.	2.2. Skin protection			
	Hand protection:		tive gloves must be according to the EU Directive 2016/425/EEC and ard 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	ontrols		
	Substance/mixture related measures to prevent expo		See Section 6	
	Structural measures to pre exposure:	event	Use modern equipment.	
	Organisational measures prevent exposure:	to	Adapt the work process to the required working conditions of the workplace.	
	Technical measures to pre exposure:	event	See Section 6	

SECTIO	SECTION 9. Physical and chemical properties				
9.1.	Information on basic physical and chemical properties				
		Value	Method		



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Physical state:	liquid	No information available
Colour:	colourless	No information available
Odour/odour threshold:	no information available	No information available
Melting point / freezing point:	No information available	No information available
Boiling point or initial boiling point and boiling range:	No information available	No information available
Flammability:	No information available	No information available
Lower and upper explosion limit:	No information available	No information available
Flash point:	No information available	No information available
Auto-ignition temperature:	No information available	No information available
Decomposition temperature:	No information available	No information available
рН:	No information available	No information available
Kinematic viscosity:	No information available	No information available
Solubility:	No information available	No information available
Partition coefficient n-octanol/water (log value):	No information available	No information available
Vapour pressure:	No information available	No information available
Density and/or relative density:	No information available	No information available
Relative vapour density:	No information available	No information available
Particle characteristics:	No information available	No information available
Other information		

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

SECTIO	SECTION 11. Toxicological information				
11.1.	Information on hazard classes as defined in Regulation (EC) No 1272/2008				
	Acute toxicity:				



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Route of exposure:	Method	Species	Effective dose LD ₅₀ /LC ₅₀ or ATE _{mixture}	Expos tim	RASHIT	 :S
Oral exposure:	Oral exposure: No information available		LD ₅₀	-	-	
Dermal exposure:	No information available	-	LD ₅₀	-	-	
Inhalation exposure:	No information available	-	LC ₅₀	-	-	
Specific ta	rget organ toxicity – s	ingle exposure	(STOT SE):			
	Specific	effects	Target organ		Note	
Oral exposure:	No information	available	No information available	_		
Dermal exposure:	No information	available	No information available	-		
Inhalation exposure: No inform			No information	-		
Respirator			available ormation available			_
Respirator	y irritation: nd corrosion	No info	ormation available	Meth	Note	
Respirator Irritation a	y irritation: nd corrosion Exposure time	No info	ormation available Evaluation	Meth od	Note	
Respirator Irritation a Skin irritation:	y irritation: nd corrosion Exposure time	No info	ermation available Evaluation	Meth od	_	
Respirator Irritation a	y irritation: nd corrosion Exposure time	No info	ormation available Evaluation	Meth od		
Respirator Irritation a Skin irritation:	y irritation: nd corrosion Exposure time -	No info	ermation available Evaluation	Meth od	_	
Respiratory Irritation a Skin irritation: Eye irritation:	y irritation: nd corrosion Exposure time -	Species	ermation available Evaluation	Meth od	_	
Respirator Irritation a Skin irritation: Eye irritation:	y irritation: nd corrosion Exposure time	Species	ermation available Evaluation	Meth od	_	
Respiratory Irritation a Skin irritation: Eye irritation: Sensitization Dermal exposure: Inhalation exposure:	y irritation: nd corrosion Exposure time No information avail	Species ilable	Evaluation	Meth od -	_	
Respiratory Irritation a Skin irritation: Eye irritation: Sensitization Dermal exposure: Inhalation exposure:	y irritation: nd corrosion Exposure time No information avail	Species ilable ilable al, chemical and	ermation available Evaluation	Meth od -	_	
Respiratory Irritation a Skin irritation: Eye irritation: Sensitization Dermal exposure: Inhalation exposure: Symptoms	y irritation: nd corrosion Exposure time No information available related to the physic	Species ilable ilable al, chemical and vailable	Evaluation	Meth od -	_	
Respiratory Irritation a Skin irritation: Eye irritation: Sensitization Dermal exposure: Inhalation exposure: Symptoms Oral exposure:	y irritation: nd corrosion Exposure time No information available related to the physical No information a No information a No information a No information a	Species Ilable Ilable al, chemical and vailable vailable	Evaluation	Meth od -	_	



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

	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	-



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Chronic	c inhalation	No informa	tion available	No information available	-
	CMR effects ((carcinogenicity	y, mutagenicity, re	eproductive toxicity)	
	Carcinogenic	ity:	Based on av	ailable data, the classification criteria	a are not met.
	Mutagenicity	in-vitro:	Based on av	ailable data, the classification criteria	a are not met.
	Genotoxicity:		Based on av	ailable data, the classification criteria	a are not met.
	Mutagenicity	in-vivo:	Based on av	ailable data, the classification criteria	a are not met.
	Germ cell mu	tagenicity:	Based on av	ailable data, the classification criteria	a are not met.
	Reproductive	toxicity:	Based on av	ailable data, the classification criteria	a are not met.
	Summary of o	evaluation of th	ne CMR propertie	s: -	
				S: -	
	Information o	on other hazard	ds:	S: -	
	Information of Endocrine dis	on other hazard	ds: rties:	s: -	
11.2	Information of Endocrine dis The substance components endocrine according to Commission 2017/2100 of Endocrine dis Endocrine according to Commission 2017/2100 of Endocrine dis Endocrine dis Endocrine according to Commission 2017/2100 of Endocrine dis Endocrine dis Endocrine dis Endocrine according to Commission 2017/2100 of Endocrine dis E	on other hazard	ds: rties: s not contain to have properties cle 57(f) or ulation (EU) Regulation	s: -	
	Information of Endocrine dis The substance components endocrine according to Commission 2017/2100 of (EU) 2018/66	on other hazard srupting proper e/mixture does considered disrupting or REACH Artion Delegated reg or Commission 05 at levels	ds: rties: s not contain to have properties cle 57(f) or ulation (EU) Regulation	S: -	

SECTION 12. Ecological information								
12.1. Toxicity								
Acute toxicity	Dose	Exposure time	Species	Method	Evaluation	Note		
Fish	LC ₅₀	96 hours	No information available	No information available	-	-		
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	_	_	_	_		



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Chronic 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. Pers	istence and degradability			
Abio	tic degradation			
	Degradation half-lives	Method	Evaluation	Note
Marine water	No information available	No information available	No information available	-
Fresh water	No information available	No information available	No information available	-
Air	No information available	No information available	No information available	-
Soil	No information available	No information available	No information available	-

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

Value	rtition coefficient: n-o Concentration	рН	°C	Method	Evaluation	Note
-	No information available	-	-	No information available	No information available	-



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١	Value		Species	Met	thod	Evaluation		Note	
	No information No information available		on No informa available			No info	No information available		
	Chronic	ecotoxic	city						
	Value		Dose	Exposure time	Species	Method	Eva	luation	Note
Chroni	c toxicity o	on fish	LC ₅₀	information	No information available	No information available	No info	ormation ble	-
	c toxicity o		EC ₅₀	information	No information available	No information available	No info	ormation ble	_
12.4.	Mobility	in soil							
	Known	or predic	ted distributi	on in environme	ntal compar	tments:			
	No info	mation a	available						
	Surface	tension:		1				1	
	Valu	e	°C	Concentrati	on	Method		N	ote
	No informa available	tion ir	lo nformation vailable	No informati available	on No int	formation avail	able	-	
	Adsorpt	ion / des	sorption						
		A/D coe	efficient	log Kow	Evapo	ration rate		Method	Note
Transp	ort	Henry's	constant			-	No inf	ormation	
Transp Soil-wa	No.	Henry's	information	No information available	No inforn available	nation	availab		-
	ater No	Henry's			available		availab	ole ormation	-



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12.5.	Results of PBT and vPvB assessment
***************************************	The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.
12.6.	Endocrine disrupting properties
	The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.
12.7.	Other adverse effects
	No information available
SECTIO	N 13. Disposal considerations
13.1.	Waste treatment methods
13.1.1.	Product/Packaging disposal:
	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 – 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 recommendations:
	Do not dispose of the product's remains into the sewage system. Submit the remains to the collectors authorized by the ministry in charge. Do not dispose of the packaging into the sewage system. Submit the packaging to the collectors authorized by the ministry in charge. Do not dispose of in places where ignition may occur.
1216	Relevant Community provisions:
13.1.6.	



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

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SECTION 14. Transport information	
Transporting/shipment by roa	ad (ADR)
UN number:	Not subject to transport regulations.
UN proper shipping name:	-
Transport hazard class(es):	-
Packing group:	-
Environmentally hazardous:	-
Special precautions for user:	-
Transporting/shipment by rail	I (RID)
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 (AI	ON)
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	a (IMDG)
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 air	(ICAO-TI/IATA-DGR)
UN number:	Not subject to transport regulations.
UN proper shipping name:	-
Transport hazard class(es):	-
Packing group:	-
Environmentally hazardous:	-



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Special precautions for us	ser:	-
Further information:	-	

15.1.	Safety, health and enviro	nmental regulations/legislation specific for the substance or mixture
	EU regulations	
	Authorization and/or rest	trictions of use
	Authorizations:	-
	Restrictions:	-
	Other EU regulations:	Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC; Directive 2004/42/CE of the European Parliament and of the Council of 21 April 2004 on the limitation of emissions of volatile organic compounds due to the use of organic solvents in certain paints and varnishes and vehicle refinishing products and amending Directive 1999/13/EC; Council Directive 98/24/EC of 7 April 1998 on the protection of the health and safety of workers from the risks related to chemical agents at work; Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006; REACH Restrictions on the manufacturing, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII);
	Information according 19 guideline)	999/13/EC about limitation of emissions of volatile organic compounds (VOC-
	National legislation:	Chemicals Act, Regulation on classification, packaging and labeling of dangerous substances, Ordinance on occupational exposure limit values and on biological limit values, Regulation on categories, types and classification of waste with a waste catalog and list of hazardous waste, Ordinance on writing Material safety data sheet, Transport of Hazardous Substances Act
15.2.	Chemical safety assessme	ent
	None	

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



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16.2.	Abbreviations and acronyms:	ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road) IMDG: International Maritime Code for Dangerous Goods IATA: International Air Transport Association GHS: Globally Harmonised System of Classification and Labelling of Chemicals EINECS: European Inventory of Existing Commercial Chemical Substances CAS: Chemical Abstracts Service (division of the American Chemical Society) DNEL: Derived No-Effect Level (UK REACH) LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative				
16.3.	Key literature references and source of data:	-				
16.4.	Classification and procedure used to derive the classification for mixture according to Regulation (EC) 1272/2008 (CLP)					
Classification		Classification procedure				
-		-				
16.5.	Relevant H statements (number and full text)					
	H: -	-				
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.				

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Exposure scenario resulting to Chemical safety assessment

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