

### **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

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

SECTIO	SECTION 2. Hazards identification					
2.1	Classification of the substance or mixture					
2.1.1	Classification according to R	Classification according to Regulation (EC) No 1272/2008 (CLP)				
	Hazard class and category code: Hazard statements*:					
	Not identified as hazardous substance.					
2.1.2.	Additional information					
	-					
*For fu	ll text of Hazard- and EU Haza	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			
	<b>Endocrine Disrupting Propert</b>	ies:		
	No known endocrine disrupting	properties		
	<b>Results of PBT and vPvB assessment</b> : According to the results of its assessment, this substance is no PBT or a vPvB.			

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 medical attention and special treatment needed			
	-			

SECTI	SECTION 5. Firefighting measures					
5.1	Extinguishing media	Extinguishing media				
	Suitable extinguishing media:	water spray, dry powder, CO <sub>2</sub> 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 co	ompressed air breathing apparatus and fireproof clothing.				
5.4	Additional information					
	Cool endangered receptacles with vicontaminate the environment with	water spray. Collect contaminated fire fighting water separately. Do not extinguishing media.				

SECTIO	ION 6. Accidental release measures				
6.1	Personal precautions, protective	equipment and emergency procedures			
6.1.1.	6.1.1. For non-emergency personnel				
	Protective equipment:	Use personal protective equipment (see Section 8).			
	Accident prevention methods:	Evacuate members of all non-essential personnel and those members without protective equipment. Avoid breathing vapors and avoid contact with skin and eyes. Do not smoke. Keep away from ignition sources.			
	Emergency procedures:	Mark the area using proper signs.			
6.1.2.	For emergency responders:				
	Use protective equipment; in ca (see Section 8).	se 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 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	See Section 7 for information on safe handling.					
	See Section 8 for information	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	n:	Secure proper ventilation.			
	Measures to protect the environment:		Prevent spilling into the sewage system and waterways.			
	Other measures:		Protect against electrostatic charges.			
7.1.2.	Advice on general occupational hygiene:					
	Do not eat, drink or smoke in the workspace. Thoroughly wash hands after work and before eating.					
7.2	Conditions for safe storage, including any incom	patibilities				
	Technical measures and storage conditions:	well ventil	htly closed and upright set containers in a ated storage rooms at temperatures ranging 25 °C. Protect from heat and direct sunlight.			
	Packaging materials:	Manufactu	ırer's original packaging.			
	Requirements for storage rooms and vessels:	ay from food and drink. Keep the containers osed.				
	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.				



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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	sure contr	ols/perso	nal pi	rotect	ion				
8.1 Control p	arameters								
Substance	2	CA	S No			Occupational exposure limit values/short term values			Diele wieel lieste velvee
Substance		CA	3 110	-		opm	mg/m³		Biological limit values
-			-		•	-	-	-	
		•		•					
Substance name:	-								
EC No:	i –	CAS No	:	-					
DNEL									
	_				Ind	ustrial			
Route of	Acı	ute		Acute	е		Chronic		Chronic
exposure:	effect	local	al effect systemic		temic	effect local			effect systemic
Oral	-		-			-			-
Inhalation	-		-			-			-
Dermal	-		-			-			-
Critical physical pa	rameters:	solubility,	flamm	nability	y, corr	osivity:	-		
					Cor	sumer			
Route of	A	cute		Acut	e		Chronic		Chronic
exposure:	effec	t local	effe	ect sys	temic		effect local		effect systemic
Oral	-		-			-			-
Inhalation			-			-			-
Dermal	-		-						-
PNEC									
Environmental pro	tection tar	get				PNEC			
Fresh water						no inform	ation available		
Freshwater sedime	ents					no information available			
Marine water						no inform	ation available		
Marine sediments						no information available			



Food chain

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

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no information available

Microorga	Microorganisms 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.					
	exposure:  Organisational measures to prevent		In accordance with Section 7.					
			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	t						
8.2.2.1.	Eye and face protection:	Safety glasses that stick to face (EN 166) or visor in case of lower levels of concentration in air; protective gas mask that covers the entire face in case of higher levels of concentration in air.						
8.2.2.2.	Skin protection							
		The protective gloves have to satisfy the specification (EU) 2016/425 and the related standard Glove material: nitrile rubber Glove thickness: 0.40 mm  Time until perforation: > 480 min						
	Other skin protection:	footwe entire f impern	everyday work use cotton clothing (EN 340) and suitable ear, such as rubber boots (EN 20345) or shoes that cover the foot. In case of spilling hazard, use clothing made of neable material suitable for protection from liquid chemicals PVC, himex) and footwear made from the same material.					
8.2.2.3.	Respiratory protection:	with a	tive full face mask (EN 136) or half mask (EN 140) equipped filter for organic vapors, type "A" (boiling point >65°C) ng to EN 14387) used when concentration levels exceed GVI.					
8.2.2.4.	Thermal hazards:	No info	ormation available					
8.2.3.	Environmental exposure controls							
	Substance/mixture related measures to prevent exposure:	See Se	ction 6					



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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

Information on basic phy	sical and ch	emical 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 bo point and boiling range:	iling	No information available	No information available
Flammability:		No information available	No information available
Lover and upper explosion	on limit:	No information available	No information available
Flash point:		No information available	No information available
Auto-ignition temperatu	re:	No information available	No information available
Decomposition temperat	ure:	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 d	ensity:	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			

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



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

SECTION 11. To	xicological informa	tion					
11.1 Informa	ation on hazard classe	es as defined i	in Regula	ation (EC) No 127	2/2008		
Acute t	oxicity:						
Route of exposure:	Method	Species	Dos	e LD <sub>50</sub> /LC <sub>50</sub> or ATE <sub>mix</sub>	Exposure ti	ime	Results
Oral:	No information available	-	No ir availa	nformation able	_		-
Dermal:	No information available	_	No ir availa	nformation able	_		_
Inhalation:	No information available	-	No ir availa	nformation able	-		-
Specific	target organ toxicity		osure (ST				Nata
	•	ic effects		Target organ			Note
Oral:	No information a			No information available		-	
Dermal:	No information a		No information available			-	
Inhalation:	No information a	available		No information a	vailable	_	
Aspirati	on hazard:	N	o inform	ation available.			
Irritatio	n and corrosion						
:	Exposure	time	Specie	es Evaluatio	on Method		Note
Skin corrosion/irritati	on:	-		-	-	-	
Serious eye damage/irritatio	n -	-		-	-	-	
Sensitiz	ation						
Skin sensitization	n: No info	rmation avail	able.				
Respiratory sens	itization: No info	rmation avail	able.				



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Orai exposure.	ral exposure: No information available.							
Dermal exposure	<u>)</u> :	No informati	No information available.					
Inhalation expos	ure:	No informati	on available.					
Eye exposure:		No informati	on available.					
Repeate	ed dos	e toxicity (sub	acute, subchro	onic, chronic)	,	,		
		Dose	Exposure time	Species	Method	Evaluation	Note	
Subacute oral	1	information lable	No information available	No information available	No information available	No information available	<b>–</b>	
Subacute dermal	1	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	<b>–</b>	
Chronic dermal		information lable	No information available	No information available	No information available	No information available	<b>-</b>	
Chronic inhalation		information lable	No information available	No information available	No information available	No information available	<b>-</b>	



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Subacute oral	No information availabl	e		No information available	-		
Subacute dermal	No information availabl	е		No information available	-		
Subacute inhalation	ute inhalation No information available			No information available	-		
Subchronic oral	No information availabl	e		No information available	-		
Subchronic dermal	ronic dermal No information available			No information available	-		
Subchronic inhalati	on No information availabl	e		No information available	-		
Chronic oral	No information availabl	e		No information available	-		
Chronic dermal	No information availabl	е		No information available	-		
Chronic inhalation	No information availabl	e		No information available	-		
CMR effec	ts (carcinogenicity; mutagenic	ity; re	eproductive t	toxicity)			
Carcinoge	nicity:	Ba	sed on availa	able data, the classification o	riteria are not met.		
Mutagenio	ity in vitro:	Ba	Based on available data, the classification criteria are not met.				
Genotoxic	Genotoxicity:  Mutagenicity <i>in vivo</i> :		Based on available data, the classification criteria are not met.  Based on available data, the classification criteria are not met.				
Mutagenio							
Germ cell	mutagenicity:	Ba	Based on available data, the classification criteria are not met.				
Reproduct	ive toxicity:	Ba	sed on availa	able data, the classification o	criteria are not met.		
Summary properties		CMR	Based on met.	available data, the classifica	ation criteria are not		
11.2 Information	n on other hazards:						
11.2.1. Endocrine	disrupting properties:						
componer disrupting Article 57 regulation	The substance/mixture does not components considered to have endocrification disrupting properties according to REA Article 57(f) or Commission Delegal regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.19 higher.						
11.2.2. Other info	rmations:						
_							

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



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Fish	LC <sub>50</sub>	96 hours	No information available	No information available	No information available	-
Crustacea:	EC <sub>50</sub>	48 hours	No information available	No information available	No information available	-
Algae/aquatic plants	IC <sub>50</sub>	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 <sub>50</sub>	96 hours	No information available	No information available	No information available	-
	EC <sub>50</sub>	48 hours	No information	No information	No information	-
Crustacea:	LC50		available	available	available	
Crustacea: Algae/aquatic plants	IC <sub>50</sub>	72 hours	No information available	available  No information available	available  No information available	_

	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	-

_					
R	$i \cap A$	ea	rad	<b>1</b>	inn
D	IOU	cu	ıau	аи	UI

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



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12.3	Bioaccum	ılative r	otential									
12.5		-	tition coeff	icient (	loa Kow	)						
Valu	-	ncentrat		Н	°C		ethod	Evalu	ation		Note	
-	-		_		_	-		-		-		
		tration	factor (BCF)			4 - 41		F l			NI-+-	
	alue ormation	No	Species inform	ation	No info	Method		Evaluati No informati			Note	
availabl		availak		ation	availab		711	available	OII	-		
	Chronic ed	cotoxicit	У									
	Value		Dose		osure ime	Spe	ecies	Method	Evalua	ation	Note	
				No		No		No	No			
Chronic	toxicity on	fish	LC <sub>50</sub>	infor avail	mation	inforr availa	mation	information available	informa availabl		-	
				No	able	No	ible	No	No	Е		
	toxicity on ea ( <i>Daphnia</i>	<i>י</i> )	EC <sub>50</sub>	infor	mation	inforr	mation	information	informa		-	
Crastae				avail	able	availa	able	available	availabl	е		
12.4	Mobility ir	n soil										
12.4	1		ed distributi	on in e	environm	ental o	ompart	ments:				
	No inform				JIIVIIOIIII	iciitai c	Jonipart	ments.				
	Surface te											
	Value		°C	С	oncentra	ition		Method			Note	
	No	No		Nο	informa	tion	No inf	ormation				
	information available		ormation ailable		ailable		availab		-			
		<u>i</u>		<u>.</u>					i			



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	Adsorption / desorption					
Transport	t A/D coefficient Henry's constant	log Kow	Evaporation rate	Method	Note	
Soil-wate	No information available	No information available	No information available	No information available	-	
Water-air	No information available	No information available	No information available	No information available	-	
Soil-air	No information available	No information available	No information available	No information available	-	
	Results of PBT and vPvB asse The substance/mixture does		onents considered to	have endocrine d	icrunting properties	
3	according to REACH Article 5 Regulation (EU) 2018/605 at	7(f) or Commission	n Delegated regulat			
12.6. I	Endocrine disrupting propert	ies				
(	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 relevant informati	on available.				
SECTION	I 13. Disposal consideration	S				
13.1						
	Product/Packaging disposal:					
13.1.1.	Product/Packaging disposa	l:				
13.1.1.	Product/Packaging disposal Submit for disposal to the I Protection.		rized by the Ministr	y of Environmental	and Nature	
13.1.1.	Submit for disposal to the I	egal person autho		y of Environmental	and Nature	
	Submit for disposal to the I Protection.	egal person autho	) Law:			
	Submit for disposal to the I Protection.  Waste codes/waste designated to the I Protection.	egal person autho ntions according to ontains residual ha	) Law:			
13.1.2.	Submit for disposal to the I Protection.  Waste codes/waste designated to the I Protection.	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 recommenda			
	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 provision	ons:		
	Disposal must be made according to official regulations.			
SECTION	N 14. Transport information			
i	Transporting/shipment by road	d (ADR)		
UN num	ber:	Not subject to transport regulations		
UN prop	er shipping name:	-		
Transpor	t hazard class(es):	-		
Packing	group:	-		
Environn	nentally hazardous:	-		
Special precautions for user:		-		
	Transporting/shipment by rail	(RID)		
UN num	ber:	Not subject to transport regulations		
UN prop	er shipping name:	_		
Transpor	t hazard class(es):	-		
Packing	group:	-		
Environm	nentally hazardous:	-		
Special p	recautions for user:	-		
	Inland waterway transport (AD	N)		
UN num	ber:	Not subject to transport regulations		
UN prop	er shipping name:	-		
Transpor	t hazard class(es):	-		
Packing	group:	-		
Environn	nentally hazardous:	-		
Special p	recautions for user:	-		
	Transporting/shipment by sea	(IMDG)		
UN num	ber:	Not subject to transport regulations		
UN prop	er shipping name:	-		
Transpor	t hazard class(es):	-		
Packing	group:	-		



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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: -	

15.1	Safety, health and environmental regulations/legislation specific for the substance or mixture			
	EU regulations			
	Authorization and/or rest	rictions of use		
	Authorizations:	-		
	Restrictions:	-		
	Other EU regulations:	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:		, 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 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	cation	Classification procedure		
-		-		
16.5.	Relevant H statements (num	per 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 assess	ment
-	



#### **SAFETY DATA SHEET**

### amended by Regulation (EU) No. 2020/878

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



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

1.1.	Product identifier				
	Trade name:	NUCLEAR FAS	T RED (K	ERNECHTROT) REAGENT	
	Chemical name:	_			
	Catalogue number:	KR-OT-X**			
1.2.	Relevant identified uses	of the substan	ce or mi	xture and uses advised against	
	Uses:		Counte	erstain in many special staining kits.	
	Uses advised against:			ne identified uses are advised.	
	Reason why uses advised against:		The product is intended for use only as an <i>in vitro</i> diagnostic medical device and there is no reason to use it for other purposes.		
1.3.	Details of the supplier of the safety data sheet				
	Supplier: BioG		nost Ltd.		
	Address: Med		djugorska 59, Zagreb		
	Telephone number: +38		5 1 2409997		
	Telefax: +385		5 1 2404039		
	e-mail of competent pe	e-mail of competent person: msds		s@biognost.hr	
	National contact:	-			
1.4.	Emergency telephone n	umber			
1.4.	National Protection and Rescue Director		orate:	112	
1.4.	National Protection and	Rescue Directi		<u> </u>	
1.4.	National Protection and Medical information:	Rescue Directi		+385 1 2348 342	

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



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

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

SECTION 3. Com	SECTION 3. Composition/information on ingredients							
CAS/ EC/ Index number	REACH Registration No	Weight % content (or range)	Identification name	Classification according to Regulation (EC) No 1272/2008 (CLP)				
6409-77-4/ 229-088-0/ -	-	≤ 1%	Disodium 1-amino-2,4-dihydroxy-9,10-dihydro-9,10-dioxoanthracene-3-sulphonate	Skin Irr. 2; H315 Eye Irr. 2; H319 STOT SE; H335				

SECTI	ION 4. First aid measures				
4.1.	. Description of first aid measures				
	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:	<b>NUCLEAR FAST RED (KERNECHTROT) REAGENT</b>			-
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 <sub>2</sub> , foam, dry powder			
	Unsuitable extinguishing medi	a:	No information available			
5.2.	Special hazards arising from th	ne substa	ance or mixture			
	Hazardous combustion products:	No information available.				
5.3.	Advice for firefighters					
	Firefighters must always use fireproof suit and self-sustaining breathing apparatus with open circle that contains pressurized air in case of fire in closed space.					
5.4.	Additional information					
	Prevent spills and water used f covering drains.	or puttir	ng out fire from contaminating waterways by enclosing and			

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



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



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

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

						viciriity	OI W	ork area.		
	Indust	rial sec	ctor spe	cific solutio	ns:	-				
				ols/persona	l pro	tection				
8.1.	Contro	ol para	meters							
	Substa	ince		CAS	No	Occupational values/shor			Biolo	ogical limit values
						ppm	ı	mg/m³		
-				-		-		-		-
Substar name:	nce	-								
EC No:		-		CAS No:		-				
DNEL										
						Industrial				
Davita	- <b>£</b>		Acute effect			Acute effect Chro		Chronic effe	ct	Chronic effect
Koute	of expo	sure:	local		systemic	systemic local		l systemic		
Oral			-		-		-			-
Inhalati	ion		1		-		-			-
Dermal			-		-		-			-
Critical	physical	paran	neters: s	olubility, fla	mmal	bility, corrosivity:				
						Consumer				
Douts	of over		Acu	te effect		Acute effect		Chronic effe	ct	Chronic effect
Koute	of expo	sure:		local		systemic		local		systemic
Oral			-		-		-			-
Inhalati	ion		1		-		-			-
Dermal			-		-		-			-
					•				,	



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



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Trade name:		NUCLEAR FAST RED (KERNECHTROT) REAGENT					
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Substance/mixture related measures to prevent exposure:	See Section 6
Structural measures to prevent exposure:	Use modern equipment.
Organisational measures to prevent exposure:	Adapt the work process to the required working conditions of the workplace.
Technical measures to prevent exposure:	See Section 6

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

#### **SECTION 10.: Stability and reactivity**



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

SECTION 11 Toxico	ological information						
	n on toxicological effe	cts					
Acute toxic	ity:						
Route of exposure:	Method	Species	LD <sub>50</sub> ,	ive dose /LC <sub>50</sub> or E <sub>mixture</sub>	Exposur	e time	Results
Oral:	No information available	_	No info availabl		No information available		_
Dermal:	No information available	-	No info availabl		No infor		_
Inhalation:	No information available	-	No info availabl		No infor		-
Specific tar	get organ toxicity – si Specific		(STOT SE):	Target orga	ın		Note
	•						Note
Oral:	No information avail			No information available -			
Dermal:	No information avail		No information available -				
Inhalation:	No information avail	able	No information available -				
Aspiration	hazard:	-					
Irritation ar	nd corrosion						
	Exposure tin	ne Sp	ecies	Evaluation	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					
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<u> </u>								
Sensitiza								
Dermal exposure	: No informatio	n available						
Inhalation exposure:	No informatio	n available						
Sympto	ms related to the p	hysical, chemic	al and toxicolog	ical characteristi	CS			
Oral exposure: No information available								
Dermal exposure	: No informatio	n available						
Inhalation exposure:	No informatio	n available						
Eye exposure:	No informatio	n available						
Repeate	ed dose toxicity (su		onic, chronic)					
	Dose	Exposure time	Species	Method	Evaluation	Note		
Subacute oral	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:	de name: NUCLEAR FAST RED (KERNECHTROT) REAGENT							
Product code:	tt code: KR-OT-X** Date of comp			pilation: 14 November 2022				
Chronic inhalation	No information available	No information available	No information available	No No information information available availab		on -		
Specific	target organ toxic	city – repeated e	exposure (STOT	RE):				
		Specific effects		Target orga	n	Note		
Subacute oral	No info	rmation availabl	e No i	nformation availa	ble	-		
Subacute derma	l No info	rmation availabl	e No i	nformation availa	ble	-		
Subacute inhalat	ion No info	rmation availabl	e No i	nformation availa	ble	-		
Subchronic oral	No info	rmation availabl	e No i	nformation availa	ble	-		
Subchronic derm	nal No info	rmation availabl	e No i	nformation availa	ble	-		
Subchronic inhal	ation No info	rmation availabl	e No i	o information available		-		
Chronic oral	No info	rmation available No ir		information available		-		
Chronic dermal	No info	rmation availabl	e No i	nformation availa	ble	-		
Chronic inhalation	on No info	rmation availabl	e No i	nformation availa	ble	-		
:								
CMR ef	fects (carcinogenio	ity; mutagenicit	y; reproductive	toxicity)				
Carcino	genicity:		No information available					
Mutage	enicity <i>in-vitro</i> :		No information available					
Genoto	xicity:		No information available					
Mutage	enicity <i>in-vivo</i> :		No information available					
Germ c	ell mutagenicity:		No information available					
Reprod	uctive toxicity:		No information available					
Summa propert	ry of evaluation ies:	of the CMR	No informati	on available				
11.2. Informa	ation on other haza	ards:						
11.2.1. Endocri	ne disrupting prop	perties:						
	No known endocrine disrupting properties that affect human health.							
11.2.2. Other is	nformations:		•					
-								

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



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



Trade name:

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

**NUCLEAR FAST RED (KERNECHTROT) REAGENT** 

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						:		·					
No informa available			inform lable	ation -		_	No in availabl	formation le		lo informa vailable	tion	No ii available	nformation
				<u> </u>	<u> </u>	<u> </u>						i	
	Bioco	ncent	ration 1	factor (BCI	=)								
V	alue			Species		N	1ethod			Evaluation		No	te
No information No informa available available				No info availabl			No ii avail	nformation able		No informat available	ion		
		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1											
	Clause	.:											
	Cnror	iic eco	otoxicit	y	Ev	nocuro					: : : : : : :		
Value		Dose		Exposure time		Species Metho		Method	Evaluation N		Note		
Chronic toxicity on fish		LC <sub>50</sub>		No information available		No ormation informa iilable availabl		nformation		No information - available			
	Chronic toxicity on crustacea (Daphnia)		1	information info		rmation lable	No on information available			ormation ilable	-		
				i.							i		
12.4.	Mobil	ity in	soil										
	Know	n or p	oredicte	ed distribu	tion in e	environm	ental c	ompartm	nents	:			
	No in	forma	ation av	ailable									
	Surfac	ce ten	sion:										
	Vá	alue		°C	С	oncentra	tion		Met	hod		Note	
	No No information available available					No info availabl	o information vailable		-				
	Λ -!	<b></b>		<b>.:</b> -									
	Adsor	•	/ deso										
Transpo	rt		/D coef enry's co		lo	og Kow	Ev	aporatio	n rate	e Meth	od	ſ	Note



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



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

	Do not dispose of the product's remains into the sewage system. Submit the remains to the collectors authorized by the ministry in charge. Do not dispose of the packaging into the sewage system. Submit the packaging to the collectors authorized by the ministry in charge. Do not dispose of in places where ignition may occur.					
13.1.6.	Relevant Community prov	visions:				
	Sustainable Waste Management Act, Ordinance on Waste Management, Regulation on categories, types and classification of waste with waste catalog and list of hazardous waste					
SECTION	N 14. Transport information	on				
	Transporting/shipment by r					
UN num		Not subject to transport regulations				
UN prop	er shipping name:	-				
	rt hazard class(es):	-				
Packing		-				
<del>-</del>	nental hazards:	-				
Special p	precautions for user:	-				
	Transporting/shipment by r	rail (RID)				
UN num		Not subject to transport regulations				
UN prop	er shipping name:	-				
	rt hazard class(es):	-				
Packing	group:	-				
Environn	nental hazards:	-				
Special p	precautions for user:	-				
	Transporting/shipment by i	nland waterways (ADN)				
UN num	ber:	Not subject to transport regulations				
UN prop	er shipping name:	-				
Transpor	t hazard class(es):	-				
Packing	group:	-				
Environn	nental hazards:	-				
Special p	precautions for user:	-				
	Transporting/shipment by s	sea (IMDG)				
UN num	ber:	Not subject to transport regulations				
UN prop	er shipping name:	-				
Transpor	t hazard class(es):	-				
Packing	group:	-				
Environn	nental hazards:	Not subject to transport regulations				



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

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

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



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

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

SECTIO	ON 16	6. Other information			
16.1.	Ind	ication of changes:	-		
16.2.		oreviations and onyms:	ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)  IMDG: International Maritime Code for Dangerous Goods  IATA: International Air Transport Association  GHS: Globally Harmonised System of Classification and Labelling of Chemicals EINECS: European Inventory of Existing Commercial Chemical Substances  CAS: Chemical Abstracts Service (division of the American Chemical Society)  DNEL: Derived No-Effect Level (UK REACH)  LC50: Lethal concentration, 50 percent  LD50: Lethal dose, 50 percent  PBT: Persistent, Bioaccumulative and Toxic  vPvB: very Persistent and very Bioaccumulative		
16.3.	Key literature references and source of data:		-		
16.4.		ssification and procedure 2/2008 (CLP)	used to derive the classification for mixture according to Regulation (EC)		
Classif	icatior	1	Classification procedure		
-					
16.5.	Rele	evant H statements (numl	per and full text)		
		H315	Causes skin irritation.		
	H:	H319	Causes serious eye irritation.		
		H335	May cause respiratory irritation.		
16.6.	Trai	ining advice:	-		
			** "X" in the product code marks different volumes (different packagings of the product)		
16.7.	Fur	ther information:	We are not responsible for consequences in case of failure to comply with instructions for use or improper use of the product described in this material safety data sheet.		

#### ANNEX:

**EXPOSURE SCENARIO RESULTING TO CHEMICAL SAFETY ASSESSMENT** 



#### **SAFETY DATA SHEET**

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

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

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

1.1.	Product identifier	Product identifier					
	Trade name:	RED	REDUCING BUFFER, SOLUTION				
	Chemical name:	-	-				
	Catalogue number:	RP-	RP-OT-X**				
1.2.	Relevant identified use	Relevant identified uses of the substance or mixture and uses advised against					
	Uses: For		For use with Von K	ossa kit.			
	Uses advised against: On		Only the identified	uses are advised.			
	reg		registered at the A	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	Details of the supplier of the safety data sheet					
	Supplier:		BioGnost Ltd.	BioGnost Ltd.			
	Address:		Medjugorska 5	Medjugorska 59, Zagreb			
	Telephone number :	Telephone number :		+385 1 2409997			
	Telefax:	Telefax:		+385 1 2404039			
	e-mail of competent p	ersor	n: <u>msds@biogno</u>	msds@biognost.hr			
	National contact:		-	-			
1.4.	Emergency telephone numbers						
	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 substan	Classification of the substance or mixture				
2.1.1.	Classification according to Regulation (EC) No 1272/2008 (CLP)					
	Hazard class and category 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 Haza	rd-statements: see	Section 16.			
2.2.	Label elements					
	Product identification: REDUCING BUFFER, 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:	<ul><li>H317 May cause an allergic skin reaction.</li><li>H341 Suspected of causing genetic defects.</li><li>H350 May cause cancer.</li></ul>
	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	
		nins no components considered to be either persistent, bioaccumulative and and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3. Con	SECTION 3. Composition/information on ingredients					
CAS/ EC/ Index number	REACH Registration No	Weight % content (or range)	Identification name	Classification according to Regulation (EC) No 1272/2008 (CLP)		
30525-89-4/ 608-494-5/ -	-	3 – 4 %	paraformaldehyde	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		

SECTION	SECTION 4. First aid measures					
4.1.	Description of first aid me	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
	-	

SECTI	ECTION 5. Firefighting measures				
5.1.	Extinguishing media				
	Suitable extinguishing media:	water spray or alcohol-resistant foam, dry powder, CO <sub>2</sub>			
	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 mixtures of formaldehyde vapors and air also present danger.			
5.3.	Advice for firefighters	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, in order to prevent explosion.				



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

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.	For non-emergency personnel:			
	Protective equipmen	it: 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. Remove all sources of sparks and ignition. Do not smoke.		
	Emergency procedur	res: Mark the area using proper signs.		
6.1.2.	For emergency response	onders:		
	Use protective equipment; in case of inadequate ventilation use adequate airways protective equipm (see Section 8).			
6.2.	Environmental preca	utions:		
		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 materi	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.		
	Otla :f t:	Do not use incompatible materials (see Section 10).		
6.3.3.	Other information:			

SECTIO	SECTION 7. Handling and storage				
7.1.	Precautions for safe handling				
7.1.1.	Protection measures				
	Measures to prevent fire:	Use in well ventilated storage rooms. Keep away from sources of 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. Th	oroughly wash hands after work and before eating.			
7.2.	Conditions for safe storage, including any incon	patibilities			
	Technical measures and storage conditions:	Keep in tightly closed and upright set containers in a well ventilated storage rooms at temperatures ranging from 15 to 25 °C.			
	Containers materials:	Manufacturer's original packaging.			
	Requirements for storage and containers:	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.			
	Other 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. Exposure controls/personal protection								
8.1. Cont	rol para	meters						
Substance		CAS No		Occupational exposure limit values/short term values		Biological limit values		
				ppm	mg/m³			
-			-		-	-		-
Substance:	-							
EC No:	-		CAS No.:	-				
DNEL								
					Industrial			
Route of exposure:		te effect local	Acute effect systemic		Chronic e		Chronic effect systemic	
Oral		-		-		-		



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Trade nam	ne:			REDU	JCING BL	JFFER,	SOLUTION		ge 6 of 17	
Product co	ode:	RP-OT-X**		Date o	of compila	tion:	21 December 2	2022	Version:	4
	i		,	i				ı	i	
Inhalation		-	-			-		-		
Dermal		-	-			-		-		
Critical ph	ysical para	meters: solubility, fla	ımmab	ility, cori	rosivity:		-			
				Cor	nsumer					
Route of e	exposure.	Acute effect		Acute ef	fect	Ch	ronic effect		Chronic effec	t.
		local		system	nic		local		systemic	
Oral		-	-			-		-		
Inhalation		-	-			-		-		
Dermal		-	-			-		-		
PNEC										
Environme	ental prote	ction target			PNEC					
Fresh wate	er				No inforr	mation a	available			
Fresh wate	er sedimen	ts			No inforr	nation a	available			
Salt water					No information available					
Salt water	sediments				No information available					
Food chair	n				No inforr	nation a	available			
Microorga	nisms in se	ewage treatment			No inforr	mation a	available			
Soil (agric	ultural)				No inforr	mation a	available			
Air					No inforr	mation a	available			
	1									
8.2.	Exposur	e controls								
8.2.1.	Approp	riate engineering co	ntrols							
	measure	ce/mixture related es to prevent exposu dentified uses:	ıre		•		entilated rooms. Urink or smoke in t	-	•	itive
	Structur exposur	ral measures to prevere:	ent	No information available						
		ational measures to exposure:		Organization of work in order to reduce other worker's influence during work process.				nce		
	Technic exposur	al measures to preve e:	ent				ventilation in ord below permitted			
8.2.2.	Persona	l protection equipm	ent							
8.2.2.1.	Eye and	face protection:		levels o	afety glasses that stick to face (EN 166) or visor in case of lower evels of concentration in air; protective gas mask that covers the ntire face in case of higher levels of concentration in air.					
8.2.2.2.	Skin pro	otection								



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Trade name:	REDUCING BUFFER, SOLUTION					
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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					
	Lover and upper explosion limit:	No information available	No information available					



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

	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	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.				

SECTION 11. Tox	SECTION 11. Toxicological information							
11.1. Informat	. Information on toxicological effects							
Acute to	xicity:							
Route of exposure:	Method	Species	Effective Dose LD <sub>50</sub> /LC <sub>50</sub> or ATE <sub>mixture</sub>	Exposure time	Results			
Oral	No information available	rat (paraformaldehyde)	LD <sub>50</sub>	No information available	800 mg/kg			
Dermal	No information available	rabbit (paraformaldehyde)	LD <sub>50</sub>	No information available	10.000 mg/kg			



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Trade name:			IG BUFFER,				
Product code:	RP-OT-X**	Date of co	mpilation:	21 Decem	nber 2022	Version:	4
Inhalation	No information available	rat (paraformaldehyde)	LC <sub>50</sub>		4 h	1.07 mg	/I
Coocific	araat araan tayisit	, single symposium (CTC	OT CEN				
Specific t		y - single exposure (STC cific effects		get organ	***	Note	
Oral	No information			ation availab	nle -	Note	
Dermal	No information			ation availab			
Inhalation	No information			ation availab	May	cause respira ition Respir em	-
Aspiratio	n hazard:	no informa	ition available	9			
Irritation	and corrosion						
IIIItation	Exposure	e time Species	s Fval	uation	Method	Note	
Skin corrosion/irritation		-	-	-	- Tricking a	no informat	tion
Serious eye damage/irritation:	_	-	-	-		no informat	tion
Sensitiza	tion		·	:		:	
Skin sensitization:		 cause an allergic skin re	action				
Respiratory sensiti		gic persons may display					
espiratory scrisiti	Zadon. Aller	gie persons may display	auon.				
Sympton	ns related to the ph	ysical, chemical and to	kicological ch	aracteristics			
Oral exposure:	Depending and abdor of perfora	g on concentration and minal pain, cramps, bloo ition of the esophagus, evelopment of stricture	d exposure ti ody vomiting , stomach an	me, mucous . cyanosis, re	membrane espiratory in	sufficiency, d	anger
Dermal exposure:	hardening	g on concentration and and tanning of the skir ticaria, delayed develor	n as well as an	esthesia, alle			
Inhalation exposu	the nose/ asthmoid coughing,	g on concentration and /throat (burning sensa reactions; for higher tightness in the chest, edema/cramp, broncho	tion, urge t concentratio headache, re	o sneeze, r ns severe c eactions of t	running not difficulty in the circulato	se), possibly breathing, f ory system, d	even fits of anger



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Trade name:	REDUCING BUFFER, SOLUTION					
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Eye exposure:	per		t corneal lesio			slight, reversibl robaby only visi		-
Repeate	ed dose toxici	ty (suba	acute, subchro	onic, chron	nic)			
: •	Dose	E	Exposure ime	Species		Method	Evaluation	Note
Subacute oral	No informa	tion i	No nformation available	No informa available		No information available	No information available	n -
Subacute dermal	No informa	tion	No nformation available	No informa available		No information available	No information available	n -
Subacute inhalation	No information available		No nformation available	No informa available		No information available	No information available	n -
Subchronic oral	No informa	information information ir		No informa available		No information available	No information available	n -
Subchronic dermal	No informa	tion i	No nformation available			No information available	No information available	n -
Subchronic inhalation	No informa	ation No information available		No informa available		No information available	No information available	n -
Chronic oral	No informa	tion i	No nformation available	No informa availabl		No information available	No information available	n -
Chronic dermal	No informa	tion	No nformation available	No informa available		No information available	No information available	n -
Chronic inhalation	No informa	tion	No nformation available	No informa available		No information available	No information available	n -
Specific	target organ	toxicity	/ - repeated e	vnosure (9	TOT-R	F)·		
Specific	- sarger organi	- CARCIE	Specific effe	•		Target orga	an	Note
Subacute oral		No in	formation ava		No ir	nformation avail		-
Subacute dermal			formation ava			nformation avai		_
Subacute inhalin	9	No in	formation ava	ailable	No ir	nformation avail	lable	-
Subchronic oral		No in	formation ava	ilable	No ir	nformation avai	lable	-



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

Subchr	onic dermal	No informati	on av	ailable	No information available	-				
Subchr	onic inhaling	No informati	ation available		No information available	-				
Chronic	c oral	No informati	tion available No information available		No information available	-				
Chronic	c dermal	No informati	tion available No information available		No information available	-				
Chronic	c inhaling	No informati	on av	ailable	No information available	-				
	CMR effects (carcino	ogenicity, mutag	genici	ty, reprod	uctive toxicity)					
	Carcinogenicity:		Presu	ımed to h	ave carcinogenic potential for h	umans				
	Mutagenicity <i>In-vitro</i>	o:	No in	formation	n available					
	Genotoxicity:		No in	nformation	n available					
	Mutagenicity <i>In-vivo</i>	):	No information available							
	Germ cell mutagenio	city:	Suspe	ected of c	ausing genetic defects.					
	Reproductive toxicit	y:	No in	nformation	n available					
	Summary of evaluation properties:	ation of the (	e CMR No information available							
11.2.	Information on othe	er hazards:								
11.2.1.	Endocrine disrupting	g properties:								
	The substance/mixture does not contain components considered to have endocring disrupting properties according to REAC Article 57(f) or Commission Delegate regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% of higher.									
		8/605 at levels	01 0.1							
11.2.2.		8/605 at levels	01 0.1							

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



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Algae/aquatic plants:	IC <sub>50</sub>	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 <sub>50</sub>	96 hours	No information available	No information available	No information available	-
Crustacea:	EC <sub>50</sub>	48 hours	No information available	No information available	No information available	-
Algae/aquatic plants:	IC <sub>50</sub>	72 hours	No information available	No information available	No information available	-
Other organisms:	-	-	-	-	-	-

## 12.2. Persistence and degradability

Abiotic degradation

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

Biodegradation

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

### 12.3. Bioaccumulative potential

Octanol/water partition coefficient (log Pow):

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 n	name:				REDU	EDUCING BUFFER, SOLUTION							
Product	t code:	RP-	OT-X**		Date (	of co	mpilatio	n:	21 Decemb	er 2022	Versi	on:	4
	Bioconce	ntration	r Factor (Bo	CF)									
V	/alue		Species		Ме	thod		E۱	/aluation		No	te	
No info availabl			rmation	No inforn available	natio	'n	No info	ormation lle	-				
	Chronic e	ecotoxic	ity				***************************************						
	value Dose t				posure time	S	Species		Method	Evalua	ation	Not	e
Chronic toxicity on fish LC <sub>50</sub>		information			rmation lable		ormation ilable	No informa availab		-			
Chronic toxicity on Crustacea (Daphnia)			No No information available available				ormation ilable	No informa availab		-			
12.4.		r predic		ution in e	environmer	ntal c	ompartr	ments:					
	No inform		available										
	Value		°C		oncentratio	nn		Metho			Note	۵	
	No informati available	on ir	lo nformation vailable	No	informatio ailable		No info	ormatio		-		-	
	Adsorption	on / des	orption										
Transpo	ort i	./D coef enry's co		log	g Kow	Ev	aporatio	on rate	Meth	nod		Note	
Soil-Wa	ater No avai	info lable	ormation	No ir availabl	nformation e		o inform ailable	ation	No inforr available	mation	-		
Water-A	Air No avai	info lable	ormation	No ir availabl	nformation e		o inform ailable	ation	tion No information available		-		



13.1.6.

Relevant Community provisions:

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

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						Pa	ge 14 of 1/					
Trade na	ame:			REDU	CING BUFFER,	SOLUTION						
Product	code:	RP-OT-X**		Date o	f compilation:	21 December 2022	Version:	4				
Soil-Air	No availa	information able	No inforr available	nation	No information available	No information available	-					
12.5.	Results of PBT and vPvB assessment											
				•		e either persistent, bio levels of 0.1% or high		and				
12.6.	Endocrine	disrupting prop	erties									
	according		e 57(f) or Com	missior	n Delegated regul	to have endocrine di ation (EU) 2017/2100						
12.7.	Other adv	erse effects										
		ation available										
SECTIO	N 13. Disp	osal considerati	ons									
13.1.	Waste tr	reatment method	ds									
13.1.1.	Product/packaging disposal:											
	Submit f Protection	•	e legal persor	n autho	rized by the Minis	try of Environmental a	and Nature					
13.1.2.	Waste co	odes/waste desid	gnations acco	rding to	law:							
	Waste codes/waste designations according to law:  15 01 10*: packaging that contains residual hazardous substances or is contaminated with hazardous substances											
13.1.3.		reatment – releva		n:								
	No infor	mation available										
13.1.4.	Sewage	disposal – releva	ınt informatio	n:								
	Waste m	nust not be dispo	sed of into th	ie sewa	ge system.							
13.1.5.	Other disposal recommendations:											
	Do not o	dispose of the pr ed by the minist	oduct's remai ry in charge. [	o not o		n. Submit the remains kaging into the sewag arge.						



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

-						
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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Product code:	RP-OT-X**	Date of compilation:	21 December 2022	Version:	4

Transport hazard classes:	9
Packing group:	III
Environmentally hazardous:	no
Special precautions for user:	-
Further information: No information	n available

SECTIO	ON 15. Regulatory informa	tion				
15.1.	Safety, health and environ	mental regulations/legislation specific for the substance or mixture				
	EU regulations					
	Authorisation and/or restr	ictions 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 199 guideline):	99/13/EC about limitation of emissions of volatile organic compounds (VOC-				
	National legislation:	Chemicals Act, Regulation on classification, packaging and labeling of dangerous substances, Ordinance on occupational exposure limit values and on biological limit values, Regulation on categories, types and classification of waste with a waste catalog and list of hazardous waste, Transport of Hazardous Substances Act				
15.2.	Chemical safety assessmen	nt				
	None					

## **SECTION 16. Other information**



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

16.1.	Indi	cation 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.	-	literature references source of data:	-
16.4.		ssification and procedure 2/2008 (CLP)	used to derive the classification for mixture according to Regulation (EC)
Classifi	catior	1	Classification procedure
_			-
16.5.	Relevant 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:	-
	5.7. Further notice:		** "X" in the product code marks different volumes (different packaging of the product).
16.7.			We are not responsible for consequences in case of failure to comply with instructions for use or improper use of the product described in this material safety data sheet.

ANNEX: Exposure scenario resulting to Chemical safet	y assessment

-



### **SAFETY DATA SHEET**

## 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

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

SECTIO	SECTION 2. Hazards identification				
2.1	Classification of the substance or mixture				
2.1.1	Classification according to Regu	ulation (EC) No 12	272/2008 (CLP)		
	Hazard class and catego	ory code:	Hazard statements*:		
	Aquatic Chronic 3		H412		
2.1.2.	Additional information				
	-				
*For ful	I text of Hazard- and EU Hazard-	statements: see S	ECTION 16		
2.2	Label elements				
	Product identification:	SILVER AMMON	IIA REAGENT		
	Identification number:	-			
	Authorization number:	-			
	Hazard pictograms:	-			



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

amended by Regulation (EU) No. 1907/2006

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Trading name:	SILVER AMMONIA 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 Properties:					
	No known endocrine disrupting properties					
	<b>Results of PBT and vPvB as</b> PBT or a vPvB.	<b>sessment</b> : According to the results of its assessment, this substance is not a				

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				
Product code:	SAR-OT-X**	Date of compilation:	21 Dec 2022	Version:	6

	Self-protection of the first aider:	-			
4.2	Most important symptoms and ef	Most important symptoms and effects, 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 medical attention and special treatment needed				
	-				

SECTIO	SECTION 5. Firefighting measures					
5.1	Extinguishing media	Extinguishing media				
	Suitable extinguishing media:	Water spray, foam, dry powder, CO <sub>2</sub> 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 environment	ent 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 r without protective equipment. Avoid breathing vapors and avoid with skin and eyes. Do not smoke.				
	Emergency procedures:	Mark the area using proper signs.			
6.1.2.	For emergency responders:				
	Use protective equipment; in case of inadequate ventilation use adequate airways protective equipment (see Section 8).				
6.2	Environmental precautions:				



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

	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 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	SECTION 7. Handling and storage					
7.1	Precautions for safe handling					
7.1.1.	Protection measures					
	Measures to prevent fire:		Use in well ventilated storage rooms. Keep away from sources of ignition and heat.			
	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 ures 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 from food and drink. Keep the containers tightly closed.				
	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.			



## SAFETY DATA SHEET

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

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	Further information	on storage conditior	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 spe	cific solutions:	-
SECTIO	ON 8. Exposure contro	ols/personal protec	ction
8.1	Control parameters		
			Occupational exposure limit

8.1 Control parameters							
Substance	CAS No	Occupational exposure limit values/short term values		Biological limit values			
		ppm	mg/m³	-			
-	-	-	-	-			
Substance name: -							

Substance name:	-			
FC No:	_	CAS No:	_	

#### **DNEL**

## Industrial

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

Critical physical parameters: solubility, flammability, corrosivity:

#### Consumer

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

## PNEC

Environmental protection target	PNEC
Fresh water	no information available
Freshwater sediments	no information available
Marine water	no information available
Marine sediments	no information available



Food chain

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no information available

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	Technical measures to prevent exposure:	See Se	ction 6		
	Organisational measures to prevent exposure:	Adapt workpl	the work process to the required working conditions of the ace.		
	Structural measures to prevent exposure:	Use mo	odern equipment.		
	Substance/mixture related measures to prevent exposure:	See Se	ction 6		
8.2.3.	Environmental exposure controls	5			
8.2.2.4.	Thermal hazards:	No info	ormation available		
8.2.2.3.	Respiratory protection:		quired under normal conditions of use. Use suitable tory protective device when high concentrations are t.		
	Other skin protection:		antistatic clothing made of natural fibers (such as cotton) ang sleeves (EN 340) and shoes that cover the entire foot.		
	Hand protection:	Protect	tive nitrile gloves, >0.11 mm thick (EN 374).		
8.2.2.2.	Skin protection	i			
8.2.2.1.	Eye and face protection:	Safety glasses that stick to face (EN 166) or visor in case of lower levels of concentration in air; protective gas mask that covers the entire face in case of higher levels of concentration in air.			
8.2.2.	Personal protection equipment				
	Technical measures to prevent ex	xposure:	Secure proper workspace ventilation in order to keep concentration levels in air below permitted levels. Secure stations for rinsing eyes and showering.		
	Organisational measures to prevent exposure:		Organization of work in order to reduce other worker's influence during work process.		
	Structural measures to prevent exposure:		In accordance with Section 7.		
	Substance/mixture related measure prevent exposure during identific		Use the product in well ventilated rooms. Use personal protective equipment. Do not eat, drink or smoke in the workspace.		
8.2.1.	Appropriate engineering control	S			
8.2	Exposure controls				
			·		
Air			no information available		
Soil (agric			no information available		
Microorg	icroorganisms in sewage treatment		no information available		



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

SECTIO	ON 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



## SAFETY DATA SHEET

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Trading name:		SILVER AMMONIA REAGENT						
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SECTION 11. Toxico							
		classes as defined in	Regulation	i (EC) No 127	2/2008		
Acute toxic	ity:						
Route of exposure:	Method	Species		D <sub>50</sub> /LC <sub>50</sub> or ΓΕ <sub>mix</sub>	Exposure t	ime	Results
Oral:	-	No information available		-	No information available	on	-
Dermal:	-	No information available		-	No information available	on	-
Inhalation:	-	No information available		-	No information available	on	-
Specific tar	get organ to	xicity – single expos	ure (STOT S	SE):			
	S	pecific effects		Target o	rgan		Note
Oral:	No informa	tion available	No	No information available		-	
Dermal:	No informa				-		
Inhalation:	No informa	tion available	No	information a	vailable	-	
Irritation an	d corrosion						
	Ехро	osure time	Species	Evaluatio	n Method	l	Note
Skin corrosion/irritation:	-	-		-	-	-	
Serious eye damage/irritation	-	-		-	-	-	
Sensitizatio	n						
Skin sensitization:	-						
Respiratory sensitiza	tion: -						
Symptoms	related to th	e physical, chemical	and toxico	logical charac	cteristics		
Oral exposure:	No inforr	mation available.					
Dermal exposure:	No inforr	mation available.					
Inhalation exposure:	No inforr	nation available.					



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

Repeate	d dose toxicity (sub	acute, subchro	nic, chronic)			
	Dose	Exposure time	Species	Method	Evaluation	n Note
Subacute oral	No information available	No information available	No information available	No information available	No informatic available	on -
Subacute dermal	No information available	No information available	No information available	No information available	No informatic available	on -
Subacute inhalation	No information available	No information available	No information available	No information available	No informatic available	on -
Subchronic oral	No information available	No information available	No information available	No information available	No informatic available	on -
Subchronic dermal	No information available	No information available	No information available	No information available	No informatic available	on -
Subchronic inhalation	No information available	No information available	No information available	No information available	No informatic 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 informatic available	on -
Specific	target organ toxicit	· · · · · · · · · · · · · · · · · · ·	·			NI-+
Subacute oral	No informa	Specific effec	.ts	Target o		Note
Subacute orai Subacute dermal		ation available		No information		-
Subacute dermai		ation available		No information		_
Subacute iiiilalati Subchronic oral		ation available		No information		_
Subchronic derm		ation available		No information		_
		or. available		No information		



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

Chronic	oral	No information available	No information av	ailable	-		
Chronic	dermal	No information available	No information av	ailable	-		
Chronic	inhalation	No information available	No information av	ailable	-		
	CMR effects	(carcinogenicity; mutagenicity; re	productive toxicity)				
	Carcinogenicity:		No information available.				
	Mutagenicity in vitro:		No information available.				
	Genotoxicity	•	No information available.				
	Mutagenicity	ı in vivo:	No information available.				
	Germ cell mu	utagenicity:	No information available.				
	Reproductive	e toxicity:	No information available.				
	Summary of properties:	of evaluation of the CMR	No information available.				
11.2.	Information (	on other hazards:					
11.2.1.	Endocrine di	srupting properties:					
	No known e that affect hu	endocrine disrupting properties uman health.					
11.2.2.	Other inform	ations:					
	-						

SECTION 12. Ecologi	cal informat	ion				
12.1 Toxicity						
Acute (short-term) toxicity	Dose	Exposure time	Species	Method	Evaluation	Note
Fish	LC <sub>50</sub>	96 hours	Leuciscus idus (Golden orfe)	-	-	0.011 mg/l (silver nitrate)
Crustacea:	EC <sub>50</sub>	48 hours	Daphnia magna (Water flea)	-	-	0.0082 mg/l (silver nitrate)
Algae/aquatic plants	IC <sub>50</sub>	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



Persistence and degradability

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

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

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

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

Oct	tanol-water partition	coefficier	it (log Kow	r)		
Value	Concentration	рН	°C	Method	Evaluation	Note
	-	-	-	-	-	-



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

V	/alue		Species		N	1ethod		Εν	/aluatio	on		Note
No info	ormation le	No availa	inform able	ation	No info availabl	rmation e		No info		on	-	
	Chronic e	ecotoxic	ity									
	Value		Dose		osure ime	Spec	cies	Meth	nod	Eval	uation	Note
Chronic	c toxicity o	n fish	LC <sub>50</sub>	No infori availa	mation able	No informa availab		No informa availab		No inforr availa	mation Ible	-
	c toxicity or ea ( <i>Daphni</i>		EC <sub>50</sub>	No infori availa	mation able	No informa availab		No informa availab		No inforr availa	nation Ible	-
12.4	Mobility	in soil										
	Known o	r predic	ted distributi	on in e	environm	ental co	mpart	ments:				
	Known o	r predic		on in e	environm	ental co	mpart	ments:				
	Known of No inform	r prediction a	available				mpart		nd .			Note
	Known o	r prediction a ension:  Non ir		Co	environm oncentra informat ilable	tion tion I		Metho		-		Note
	Known of No information Surface to Value	r prediction a ension:  Non ir	°C lo nformation	Co	oncentra informat	tion tion I	No inf	Metho		-		Note
	Known of No information Surface to Value	r prediction a ension:  Non ir	°C lo nformation vailable	Co	oncentra informat	tion tion I	No inf	Metho		-		Note
Transpo	Known of No information available  Adsorption	nation a ension: Non ir an	°C lo nformation vailable orption	No ava	oncentra informat	tion I	No infavailab	Metho	1	Method		Note
	Known of No informati available  Adsorption ort No No No Informati available	on / des	°C lo nformation vailable orption efficient	No ava	oncentra informat ilable og Kow	tion tion I	No infavailab	Metho ormation ole on rate	1	Method	d	
Transpo	Known of No informati available  Adsorption ort Hone air No informati available	on / des A/D coellenry's ellable	°C lo nformation vailable  orption efficient constant	No ava	oncentra informat ilable og Kow nformatic able	Evalum No i avai	No infavailab	Metho ormation on rate	No ir	Method nforma able nforma	d	



UN number:

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

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SECTION 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: Packaging that contains residual hazardous substances or is contaminated with hazardous substances  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.	Trading name:		SILVER AMMONIA REAGENT							
toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.  12.6. Endocrine disrupting properties  The substance/mixture does not contain components considered to have endocrine disrupting propertie 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  SECTION 13. Disposal considerations  13.1.1 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:  Packaging that contains residual hazardous substances or is contaminated with hazardous substances  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.  13.1.6. Relevant Community provisions:  -  SECTION 14 TRANSPORT INFORMATION	Produc	ct code:	SAR-OT-X**	Date of compilation:	21 Dec 2022	Version:				
The substance/mixture does not contain components considered to have endocrine disrupting propertia 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  SECTION 13. Disposal considerations  13.1.1 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:  Packaging that contains residual hazardous substances or is contaminated with hazardous substances  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.  13.1.6. Relevant Community provisions:				•	•					
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No information available		The subst	tance/mixture does not g to REACH Article 57(f)	or Commission Delegated reg						
SECTION 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:  Packaging that contains residual hazardous substances or is contaminated with hazardous substances  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.  13.1.6. Relevant Community provisions:  -  SECTION 14 TRANSPORT INFORMATION	12.7.	Other adv	verse effects							
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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: Packaging that contains residual hazardous substances or is contaminated with hazardous substances  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.  13.1.6. Relevant Community provisions:  -  SECTION 14 TRANSPORT INFORMATION	13.1	Waste t	reatment methods							
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: Packaging that contains residual hazardous substances or is contaminated with hazardous substances  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.  13.1.6. Relevant Community provisions:  -  SECTION 14 TRANSPORT INFORMATION	13.1.1.	Product	t/Packaging disposal:							
Packaging that contains residual hazardous substances or is contaminated with hazardous substances  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.  13.1.6. Relevant Community provisions:  -  SECTION 14 TRANSPORT INFORMATION		Submit	for disposal to the lega	al person authorized by the Mir	istry of Environment	tal and Nature				
Packaging that contains residual hazardous substances or is contaminated with hazardous substances  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.  13.1.6. Relevant Community provisions:	13.1.2.	Waste o	codes/waste designatio	ons according to Law:						
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.  13.1.6. Relevant Community provisions:  -  SECTION 14 TRANSPORT INFORMATION		Packagi	ing that contains residu	ual hazardous substances or is c	ontaminated with ha	azardous substances				
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.  13.1.6. Relevant Community provisions:  -  SECTION 14 TRANSPORT INFORMATION	13.1.3.	Waste t	reatment – relevant inf	ormation:						
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.  13.1.6. Relevant Community provisions:  -  SECTION 14 TRANSPORT INFORMATION		No info	rmation available							
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.  13.1.6. Relevant Community provisions:  -  SECTION 14 TRANSPORT INFORMATION	13 1 <i>I</i>	Sewage	a disposal – relevant inf	formation:						
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.  13.1.6. Relevant Community provisions:  -  SECTION 14 TRANSPORT INFORMATION	13.1.4.		· · · · · · · · · · · · · · · · · · ·							
Do not dispose of the product's remains into the sewage system. Submit the remains to the collectors authorized by the ministry in charge. Do not dispose of the packaging into the sewage system. Submit the packaging to the collectors authorized by the ministry in charge.  13.1.6. Relevant Community provisions:  -  SECTION 14 TRANSPORT INFORMATION			<u>'</u>	<u> </u>						
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 provisions:  -  SECTION 14 TRANSPORT INFORMATION	13.1.5.	Other d	lisposal recommendation	ons:						
SECTION 14 TRANSPORT INFORMATION		authori	zed by the ministry in c	harge. Do not dispose of the pa	ackaging into the se					
SECTION 14 TRANSPORT INFORMATION	13.1.6.	Relevar	nt Community provision	ns:						
		-								
	SECTIO									

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

amended by Regulation (EU) No. 1907/2006

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

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 (RI	ID)
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:	-
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:	III
Environmentally hazardous:	-
Special precautions for user:	-
Transporting/shipment by sea (IN	MDG)
UN number:	3082
UN proper shipping name:	Environmentally hazardous substance, liquid, n.o.s. (silver ammonium)
Transport hazard class(es):	9
Packing group:	III
Environmentally hazardous:	-
Special precautions for user:	-
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code:	-
Transporting/shipment by air (ICA	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:	Ш
Environmentally hazardous:	-
Special precautions for user:	-



## SAFETY DATA SHEET

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

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

15.1	Safety, health and enviror	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 19 guideline)	99/13/EC about limitation of emissions of volatile organic compounds (VOC-							
	National legislation:	Chemicals Act, Regulation on classification, packaging and labeling of dangerous substances, Ordinance on occupational exposure limit values and on biological limit values, Regulation on categories, types and classification of waste with a waste catalog and list of hazardous waste, Ordinance on writing Material safety data sheet, Transport of Hazardous Substances Act							
15.2	Chemical safety assessme	ent							
	None								

SECTION 16. Other information	
16.1 Indication of changes:	-



### **SAFETY DATA SHEET**

## 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

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 sou	-				
16.4.		ssification and procedure 2/2008 (CLP)	used to derive the classification for mixture according to Regulation (EC)			
Classifi	Classification		Classification procedure			
_			-			
16.5.	Rel	evant H statements (numl	per and full text)			
		272	May intensify fire; oxidiser.			
		314	Causes severe skin burns and eye damage.			
	H:	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			** "X" in the product code marks different volumes (different packagings of the product)			
16.7.	. Further information:		We are not responsible for consequences in case of failure to comply with instructions for use or improper use of the product described in this material safety data sheet.			

ANNEX: Exposure scenario resulting to chemical safety assessment	
-	



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Trading name:	SODIUM 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	and of the company/undertaking	
1.1.	Product identifier				
	Trading name:	SODIUM	1 THIOSULFATE	e, 5% solution	
	Chemical name:	-			
	Catalogue number:	NT5-OT	-X**		
1.2.	Relevant identified us	es of the su	ubstance or mi	xture and uses advised against	
	Uses:		For use with	special staining kits.	
	Uses advised against:		Only the ide	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	oerson:	msds@biognost.hr		
	National contact:		-		
1.4.	Emergency telephone	number			
	National Protection a	nd Rescue	Directorate:	112	
	Medical information:			+385 1 2348 342	
		Other information:			

SECTIO	TION 2. Hazards identification						
2.1.	Classification of the substance or	Classification of the substance or mixture					
2.1.1.	Classification according to Regula	tion (EC) No 12	.72/2008 (CLP)				
	Hazard class and category	code:	Hazard statements*:				
	Not identified as hazardous substance						
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.:	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	
	<b>Results of PBT and vPvB assessment</b> : According to the results of its assessment, this substance is not a PBT or a vPvB.	

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

SECTIO	CTION 4. First aid measures				
4.1.	Description of first aid measures				
	General notes:	-			
	Following inhalation:	Carry the afflicted person out of the contaminated area into a well-ventilated area or out for fresh air. If breathing becomes erratic or it stops, immediately apply artificial respiration (other than mouth-to-mouth) and contact a physician.			
	Following skin contact:	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 aide	r: Treat symptomatically.			
4.2.	Most important symptoms and effects, both acute and delayed				
		According to our findings, chemical, physical and toxicological properties of the substance have not been entirely tested.			
	FUIIOMING SKIN CONTACT.	According to our findings, chemical, physical and toxicological properties of the substance have not been entirely tested.			



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

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

SECTIO	SECTION 6. Accidental release measures		
6.1.	Personal precautions, protective equipment and emergency procedures		
6.1.1.	For non-emergency personne		
	Protective equipment:	Use personal protective equipment (see Section 8).	
	Accident prevention methods	Evacuate members of all non-essential personnel and those members without protective equipment. Remove all sources of sparks and ignition. Do not smoke.	
	Emergency procedures: Mark the area using proper signs.		
6.1.2.	For emergency responders:		
	Wear protective equipment (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:			
	Do not eat, drink or smoke in the workspace. T	eat, drink or smoke in the workspace. Thoroughly wash hands after work and before eating.		
7.2.	Conditions for safe storage, including any inco	mpatibilities		
	Technical measures and storage conditions:	Keep in tightly closed and upright set containers in a well ventilated storage rooms, and away from sources of heat, sunlight, and other incompatible substances.		
	Packaging materials:	Manufacturer's original packaging.		
	Requirements for storage rooms and vessels:	Keep away from food and drink. Keep the containers tightly closed.		
	Advices for storage equipment:	The storage must be made of hard material; floors must be resistant to chemicals. There must be no drain that directly leads into sewage system. Secure proper ventilation.		
	Further information on storage conditions:	Do not place the unused material in the storage room and do not use empty containers for storing other chemicals. Do not store with incompatible materials (see Section 9).		
7.3.	Specific end use(s)			
	Recommendations:	-		
	Industrial sector specific solutions:	-		



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SECTION 8. Exposure controls/personal protection								
8.1. Control par		013, per30110	ii protee					
Substance					ccupational exposure limit values/short term values		Biological limit values	
				р	pm	mg/m³		
-		-			-	-	No information available	
Substance name:								
EC No: -	CNo: - CAS No: -							
DNEL								
				Ind	ustrial			
Route of	A	Acute		Acute		Chronic	Chronic	
<b>exposure:</b> effec		ect local	effe	ct syst	emic	effect local	effect systemic	
Oral	-		-			-	-	
Inhalation				-	-			
Dermal	-		-			-	-	
Critical physical para	meters: s	solubility, fla	mmabilit	ty, corr	osivity:	-		
	1		ı	Con	sumer			
Route of exposure:		Acute ect local	effe	Acute ct syste		Chronic effect local	Chronic effect systemic	
Oral	-		-			-	-	
Inhalation	-		-			-	-	
Dermal	-		-			-	-	
PNEC								
Environmental prote	ction tar	get			PNEC			
Fresh water					No information available			
Freshwater sediment	:S				No information available			
Marine water					No information available			
Marine sediments					No infor	mation available		
Food chain					No infor	mation available		
Microorganisms in s	ewage tr	eatment			No information available			
Soil (agricultural)					No infor	mation available		
Air					No information available			



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8.2.	Exposure controls					
8.2.1.	Engineering measures					
	Substance/mixture related measures to prevent exposure during identified uses:  Structural measures to prevent exposure:  Organisational measures to prevent exposure:  Technical measures to prevent exposure:		Use the product in well ventilated rooms. Use personal protective equipment. Do not eat, drink or smoke in the workspace.			
			No information available			
			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.			
8.2.2.	Personal protection equip	oment				
8.2.2.1.	Eye and face protection:	Safety glasses that stick to face (preventing splashing) (EN 166) or visor.				
8.2.2.2.	Skin protection					
	Hand protection:	1	artive 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 f	ctive full face mask (EN 136) or half mask (EN 140) equipped with a or organic vapors, type "A" (boiling point >65°C) acording to EN ) used when concentration levels exceed GVI.			
8.2.2.4.	Thermal hazards:	No inf	ormation available			
8.2.3.	Environmental exposure	controls				
	Substance/mixture related measures to prevent expo		See Section 6			
	Structural measures to pr 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 pro	event	See Section 6			

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
Lover and upper explosion limit:	No information available	No information available
Flash point:	No information available	No information available
Auto-ignition temperature:	No information available	No information available
Decomposition temperature:	No information available	No information available
рН:	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 <sub>50</sub> /LC <sub>50</sub> or ATE <sub>mixture</sub>	Exposure time	Results
Oral exposure:	No information available	-	LD <sub>50</sub>	<del>-</del>	-
Dermal exposure:	No information available	-	LD <sub>50</sub>	-	-
Inhalation No information exposure: available		-	LC <sub>50</sub>	_	_
Specific tar	get organ toxicity – s	inale exposure	(STOT SF):		
opcome tan	Specific		Target organ		Note
Oral exposure:	No information		No information available	-	
Dermal exposure: No information		available	No information available	-	
Inhalation exposure:	No information	available	No information available		
Respiratory	irritation:	No inf	ormation available		
Irritation ar	d corrosion				
	Exposure time	Species	Evaluation	Meth od	Note
Skin irritation:	-	-	-		
Eye irritation:	-	-	-		
Sensitizatio	n				
Dermal exposure:	No information avai	lable			
Inhalation	No information avai	lable			
exposure:					
exposure:	related to the physic	al, chemical an	d toxicological characterist	ics	
exposure: Symptoms	related to the physic		d toxicological characterist	ics	
exposure:	1	vailable	d toxicological characterist	ics	
Symptoms Oral exposure:	No information a	vailable vailable	d toxicological characterist	ics	



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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 target organ toxicity – repeated exposure (STOT RE):								
	Specific effects	Target organ	Note					
Subacute oral	No information available	No information available	-					
Subacute dermal	No information available	No information available	-					
Subacute inhalation	No information available	No information available	-					
Subchronic oral	No information available	No information available	-					
Subchronic dermal	No information available	No information available	-					
Subchronic inhalation	No information available	No information available	-					
Chronic oral	No information available	No information available	-					
Chronic dermal	No information available	No information available	-					



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Chronic	inhalation	No informa	tion available	No information available	-
	CMR effects (c	carcinogenicity	, mutagenicity, r	eproductive toxicity)	
	Carcinogenicit	:y:	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 mut	agenicity:	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.
11.2	Information o	n other hazaro	s:		
11.2	Information o	n other hazard	s:		
11.2.1.	Endocrine disr				
	The substar contain com have endocri according to Commission E 2017/2100 or (EU) 2018/60 higher.	ponents con ne disrupting REACH Artic Delegated reg Commission	properties le 57(f) or ulation (EU) Regulation		
	Other informa	tions	·		
11.2.2.	Other informa	tions.			

### **SECTION 12. Ecological information**

#### Toxicity 12.1.

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



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Chronic toxicity	Dose	Exposure time	Species	Method	Evaluation	Note
Fish	LC <sub>50</sub>	96 hours	No information available	No information available	No information available	-
Crustacea:	EC <sub>50</sub>	48 hours	No information available	No information available	No information available	-
Algae/aquatic plants	IC <sub>50</sub>	72 hours	No information available	No information available	No information available	-
Other organisms	-	-	-	-	-	-

#### 12.2. Persistence and degradability

Abiotic degradation

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

2100	laara	dation
DIU.	ecnac	iaucii

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

#### 12.3. Bioaccumulative potential

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

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

Bioconcentration factor (BCF)



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	Value		Species	Me	ethod	Evaluation		Note	
No information available		•		on No information available		No information available	No information available		ailable
	Chronic	ecotoxic	rity						
	Value		Dose	Exposure time	Species	Method	Eva	luation	Note
Chronic toxicity on fish LC <sub>50</sub>		LC <sub>50</sub>	No information available	No information available	No information available	No info	ormation lle	-	
	ic toxicity o cea ( <i>Daphn</i>		EC <sub>50</sub>	No information available	No information available	No information available	No info	ormation lle	-
10.1									
12.4.	Mobility	in coil							
12.4.	Mobility		tad dictributi	ion in onvironm	ontal compart	tmonts:			
12.4.	Known c	or predic		on in environm	ental compart	tments:			
12.4.	Known o	or predic		on in environm	ental compart	tments:			
12.4.	Known of No infor	or predic mation a tension:						N	ote
12.4.	Known o	r prediction at tension:  e  kion ir	available	Concentra  No informatavailable	tion	Method formation avail	able	N	ote
12.4.	Known of No informat available	r prediction attension:  e  kion ir  a	°C Io oformation vailable	Concentra No informa	tion	Method	able		ote
Transp	No informat available	tension a tension ir a a a a a a a a a a a a a a a a a a	°C Io oformation vailable	Concentra No informa	tion No inf	Method			ote
	No informat available Adsorption No	ion / des	°C Io Information vailable  sorption efficient	Concentra  No informa available	tion No inf	Method formation avail ration rate		- Method ormation	
Transp	No informat available ort No available No av	ion / des	°C Io Information Vailable  sorption efficient constant	Concentra No information available log Kow	tion No inf  Evapo  No inform available	Method formation avail ration rate	No info	Method ormation ole ormation	Note



Trading name:

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

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12.5.	Results of	PBT and vPvB assessm	ent				
	according		contain components considere or Commission Delegated regules els of 0.1% or higher.			•	
12.6.	Endocrine	e 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 adv	verse effects					
12.7.		verse effects					
12.7.							

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.

#### 13.1.6. Relevant Community provisions:



### SAFETY DATA SHEET

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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 class(es):	-
Packing group:	-
Environmentally hazardous:	-
Special precautions for user:	-
Transporting/shipment by rail (R	ID)
UN number:	Not subject to transport regulations.
UN proper shipping name:	-
Transport hazard class(es):	-
Packing group:	-
Environmentally hazardous:	-
Special precautions for user:	-
Inland waterway transport (ADN	)
UN number:	Not subject to transport regulations.
UN proper shipping name:	-
Transport hazard class(es):	-
Packing group:	-
Environmentally hazardous:	-
Special precautions for user:	-
Transporting/shipment by sea (II	MDG)
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 (IC	AO-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	er:	-
Further information:	-	

15.1.	Safety, health and enviror	Safety, health and environmental regulations/legislation specific for the substance or mixture					
	EU regulations						
	Authorization and/or rest	rictions of use					
	Authorizations:	-					
	Restrictions:	-					
	Other EU regulations:	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-guideline)						
	National legislation:	Chemicals Act, Regulation on classification, packaging and labeling of dangerous substances, Ordinance on occupational exposure limit values and on biological limit values, Regulation on categories, types and classification of waste with a waste catalog and list of hazardous waste, Ordinance on writing Material safety data sheet, Transport of Hazardous Substances Act					
15.2.	Chemical safety assessme	ent					
	None						

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 u 1272/2008 (CLP)	sed to derive the classification for mixture according to Regulation (EC)
Classifi	cation	Classification procedure
-	-	
16.5.	Relevant H statements (number	r and full text)
	H:	
16.6.	Training advice:	
16.7.	** "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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Л	NI			x	
_	II.	ш	_	л	-

**Exposure scenario resulting to Chemical safety assessment** 

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