

BIOGRAM ECO KIT

The kit contains:

Gram Crystal Violet, phenol-free reagent
Gram Sodium hydrogencarbonate, solution
Gram Lugol solution, stabilized
Gram Decolorizer solution 2
Gram Safranin solution



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Trading name:	GRAM	CRYSTAL VIOLET, I	PHENOL FREE REAGEN	Т	
Product code:	GCF-OT-X**	Revision date:	23 Dec 2022	Version:	2

		tne substance	e/mixture	and of the company/undertaking	
1.1	Product identifier				
	Trading name:	GRAM CRYSTAL VIOLET, PHENOL FREE REAGENT			
	Chemical name:	-			
	Catalogue number:	GCF-OT-X*	*		
1.2	Relevant identified us	es of the subs	tance or n	nixture and uses advised against	
	Uses:		For use	in microbiology for staining according to Gram.	
	Uses advised against:	Uses advised against:		e identified uses are advised.	
	Reason why uses advised against:		The product is intended for use only as an <i>in vitro</i> diagnostic medical device, registered at the Agency for Medicinal Products and Medical Devices and there is no reason to use it for other purposes.		
1.3	Details of the supplie	Details of the supplier of the safety data sheet			
	Supplier:		BioGnost Ltd.		
	Address:		Medjugorska 59, Zagreb		
	Telephone number:		+385 1 2409997		
	Telefax.:		+385 1 2404039		
	e-mail of competent	person:	msds@biognost.hr		
	National contact:				
1.4	Emergency telephone	number			
1.4	National Protection and Rescue Dire			112	
1.4	National Protection a	nd Rescue Dire	ectorate:	112	
1.4	National Protection a Medical information:	nd Rescue Dire	ectorate:	+385 1 2348 342	

SECTIO	ON 2. Hazards identification				
2.1	Classification of the substan	ce or mixture			
2.1.1	Classification according to F	Regulation (EC) No 12	272/2008 (CLP)		
	Hazard class and cat	egory code:	Hazard statements*:		
	Flam. Liq. 3		H226		
2.1.2.	Additional information	Additional information			
	-				
*For fu	ll text of Hazard- and EU Haza	rd-statements: see S	ECTION 16		
2.2	Label elements				
	Product identification:	GRAM CRYSTAL	VIOLET, PHENOL FREE REAGENT		
***************************************	Identification number:	-			
	Authorization number:	-			



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	Hazard pictograms:	GHS02	
	Signal word:	Danger	
	Hazard statements:	H226 Flammable liquid and vapor.	
	Precautionary statements:	P210 Keep away from heat, hot sparks, open flames and other ignition sources. No smoking. P233 Keep container tightly closed. P280 Wear protective gloves/protective clothing/eye/protection/face protection.	
	Supplemetal hazard information (EU):	-	
2.3	Other hazards		
	The product has no other known specific hazards for human or environment.		
	Results of PBT and vPvB asses PBT or vPvB substances.	ssment: Based on available data, the product does not contain any	
	Endocrine disrupting propert	y: Based on available data, does not contain endocrine disruptors.	

SECTION 3. Co	SECTION 3. Composition/information on ingredients					
CAS/ EC/ Index number	REACH Registration No	Weight % content (or range)	Identification name	Classification according to Regulation (EC) No 1272/2008 (CLP)		
64-17-5/ 200-578-6/ 603-002-00-5	01-2119457610-43- 0147	10 – 20 %	ethanol	Flam. Liq. 2; H225		

SECT	SECTION 4. First aid measures			
4.1	Description of first aid measu	res		
	General notes:	If the suggested first aid measures do not prove sufficient, seek medical attention.		
	Following inhalation:	Take the victim into fresh air, loosen his clothes and place him in a comfortable position. If breathing difficulty occurs, administer artificial respiration. In case of complaints call a physician.		
	Following skin contact:	Remove the contaminated clothes. Wash the skin surface under plenty of running water. Seek medical assistance if the symptoms of irritation remain.		



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	Following eye contact:	In case of contact with eyes flush with water holding eyelids apart and moving the eyeballs (for at least 10 minutes). If the symptoms remain, immediately call in ophthalmologist.	
	Following ingestion:	Place the victim in a comfortable position. Rinse the mouth with clean water. If the victim is conscious induce vomiting. Do not give the victim anything orally, and do not induce vomiting if the victim is unconscious or suffers from convulsions.	
	Self-protection of the first aider:	-	
4.2	Most important symptoms and effects, both acute and delayed		
	Following inhalation:	Inhalation of larger quantities may affect the central nervous system.	
	Following skin contact:	Prolonged or repeated dermal contact may cause the defatting and dryness of the skin.	
	Following eye contact:	May irritate the eyes.	
	Following ingestion:	Ingestion of larger quantities may affect the central nervous system.	
4.3	,	cal attention and special treatment needed ne body, obtain medical treatment (gastric lavage, activated carbon).	

SECTION	ON 5. Firefighting measures	
5.1	Extinguishing media	
	Suitable extinguishing media:	Extinguishing powder, alcohol-resistant foam, water, carbon-dioxide.
	Unsuitable extinguishing media:	Water with full jet.
5.2	Special hazards arising from the su	ubstance or mixture
	Hazardous combustion products:	Highly flammable liquid and vapour. In case of fire, smoke, and other combustion products (carbon monoxide, carbon dioxide) may be formed, the inhalation of such combustion products can have serious adverse effects on health. Vapours may form an explosive mix with air. Vapours may be ignited by open flames, sparks, electrical equipment, or static charge. Vapours may travel to great distances, ignite in contact with ignition sources and flash back to the primer source (container). Vapours of ethyl alcohol mix greatly with air and may form an explosive mixture. Air containing 3.3 – 19 % ethyl alcohol vapours may explode in contact with ignition sources. Diluting the mixture with large amounts of water results in the loss of its flammability (around 10 % concentration of ethyl alcohol).
5.3	Advice for firefighters	
	Wear full protective clothing and s water spray. Use water spray to dis	elf-contained breathing apparatus. Cool the fire affected containers with ssipate alcohol vapours.
5.4	Additional information	
	-	



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6.1	Personal precautions, protective	Personal precautions, protective equipment and emergency procedures		
6.1.1.	For non-emergency personnel			
	Protective equipment:	Use personal protective equipment (see Section 8).		
	Accident prevention methods:	Evacuate members of all non-essential personnel and those members without protective equipment.		
	Emergency procedures:	Mark the area using proper signs.		
6.1.2.	For emergency responders:			
	Avoid contact with skin, eyes and clothing and inhaling gases, vapours and aerosols. Ensure adequate ventilation. Vapours may accumulate at floor level in low and confined spaces. Remove all heat, ignition and spark sources, turn off machines. Ignition spark arrestor must not be operated in the danger area. Use spark-proof tools. Be aware of the risk of slipping.			
6.2	Environmental precautions:			
	Dispose of the spillage and the resulting waste according to the applicable environmental regulations. Do not allow the product and the resulting waste to enter sewers/soil/surface or ground water. Notify the respective authorities in accordance with local law in the case of environmental pollution immediately.			
6.3	Methods and material for con-	tainment and cleaning up		
6.3.1.	Bunding, covering of drains; capping procedures:	Sand protective barrier or barriers made of similar materials.		
6.3.2.	Cleaning up:	Collect the spilled product with inert, non-combustible absorbent (e.g. sand, vermiculite, earth) then place into a suitable, closed, properly labelled chemical waste container for removal/disposal. During the collection, placement, disposal of the waste, wear appropriate individual protective equipment. Flush the remains with plenty of water. The product loses its flammability, if diluted with significant amount of water (approx. 10% solution).		
6.3.3.	6.3.3. Other information: Secure proper ventilation. Do not use incompatible materials (some proper ventilation).			
6.4	Reference to other sections			
	See Section 7 for information	on safe handling.		

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



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	Measures to prevent fire:		Use in well ventilated storage rooms. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use non-sparkling tools and equipment.	
	Measures to prevent aerosol and dust generation	ո:	Ensure adequate ventilation.	
	Measures to protect the environment:		Prevent spilling into the sewage system and waterways.	
	Other measures:		Protect against electrostatic charges.	
7.1.2.	Advice on general occupational hygiene:			
	Do not eat, drink or smoke in the workspace. The	oroughly was	sh hands after work and before eating.	
7.2	Conditions for safe storage, including any incom	patibilities		
	Technical measures and storage conditions:	away from unopened	well-ventilated place, protected from sunlight, a sources of heat and ignition, in its original, and hermetically sealed packaging, away dizing agents, food, feed and articles of ion.	
	Packaging materials:	Manufacturer's original packaging.		
	Requirements for storage rooms and vessels:	Keep away tightly clos	r from food and drink. Keep the containers sed.	
	Advices for storage equipment:	be resistar	ge must be made of hard material; floors must nt to chemicals. There must be no drain that eads into sewage system. Secure proper n.	
	Further information on storage conditions:	and do n	ace the unused material in the storage room ot use empty containers for storing other Do not store with incompatible materials (see I).	
7.3	Specific end use(s)			
	Recommendations:	-		
	Industrial sector specific solutions:	-		

SECTION 8. Exposure control	SECTION 8. Exposure controls/personal protection				
8.1 Control parameters					
Substance	CAS No		exposure limit term values	Biological limit values	
		ppm	mg/m³	_	
Ethanol	64-17-5	1000/-	1900/-	-	
Substance name: -					



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	i.							
EC No:	-	CAS No	:	-				
DNEL								
				Inc	dustrial			
Route of	Acu			Acute			nronic	Chronic
exposure:	effect	local	effec	t systemic		effe	ct local	effect systemic
Oral	- 1000 mg	/m ³	-		-			-
Inhalation	1900 mg (ethanol)		-		-			380 mg/m³ (ethanol)
Dermal	-		-		-			343 mg/kg (ethanol)
Critical physical pa	rameters: s	olubility,	flamma	ability, cor	rosivity:		-	
				Co	nsumer			1
Route of		cute		Acute			ronic	Chronic
exposure:	effec	t local	effe	ct systemic		effe	ct local	effect systemic
Oral	-	, 2	-		-			87 mg/kg bw/day (ethanol)
Inhalation	950 m (ethan	_	-		-			114 mg/m³ (ethanol)
Dermal	-		-		-			206 mg/kg (ethanol)
PNEC								
Environmental pro	tection targ	get			PNEC			
Fresh water					0.96 mg/l (ethanol)			
Freshwater sedime	ents				3.6 mg/kg (ethanol)			
Marine water					0.79 mg/l (ethanol)			
Marine sediments					2.9 mg/kg (ethanol)			
Food chain					380-720 mg/kg (ethanol)			
Microorganisms in	sewage tre	eatment			580 mg/l (ethanol)			
Soil (agricultural)					0.63 mg/kg (ethanol)			
Air	no information available							
8.2 Expos	curo control	c						
•	sure control		control	c				
σ.ζ.τ. Αμρι	opriate eng	meening (CONTROL	3	In case	of a	hazardous	material with no controlled
Substance/mixture related measures to prevent exposure during identified uses:		concentration co	ation ation scien	limit it is t levels dowr tific and tec	the employer's duty to keep to a minimum achievable by hnological means, where the sono harm to workers.			
Struc expo:	tural measu sure:	res to pre	event		In accord	ance	with Section	7.



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	Organisational measures to preve exposure:	ent	Organization of work in order to reduce other worker's influence during work process.		
	Technical measures to prevent exposure:		In pursuance of work is proper foresight needed to avoid spilling onto clothes and floors and to avoid contact with eyes and skin. Use according to general application methods and with adequate ventilation.		
	•	'	Use non-sparkling ventilation system.		
			Provide appropriate personal protective equipment, safety shower and eye-wash station.		
8.2.2.	Personal protection equipment				
8.2.2.1.	Eye and face protection:		propriate, chemical-proof protective glasses/face shield (EN 321-1:2022, EN 166).		
8.2.2.2.	Skin protection				
	Hand protection:	Use appropriate, chemical-resistant protective gloves (EN 374).			
	Other skin protection:	Use appropriate protective clothing.			
8.2.2.3.	Respiratory protection:	concer in the contac	e of normal usage and ventilation, it is not necessary. If ntration of ethyl alcohol exceeds occupational exposure limits air, use a self-contained breathing apparatus. For short at and if the oxygen content of the air is greater than 18 %, use ective gas mask with filter A (EN 14837/A1).		
8.2.2.4.	Thermal hazards:	No the	ermal hazards known.		
8.2.3.	Environmental exposure controls				
	Substance/mixture related measures to prevent exposure:	See Se	ection 6		
	Structural measures to prevent exposure:	Use modern equipment.			
	Organisational measures to prevent exposure:	Adapt workpl	the work process to the required working conditions of the lace.		
	Technical measures to prevent exposure:	See Section 6			

SECTI	SECTION 9. Physical and chemical properties				
9.1	Information on basic physical and chemical properties				
		Value	Method		
	Physical state:	liquid	No information available		
	Colour:	purple	No information available		
	Odour/odour threshold:	ethanol like/no information available	No information available		
	Melting point / freezing point:	No information available	No information available		



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	-		
9.2	Other information		
	Particle characteristics:	No information available	No information available
	Relative vapour density:	No information available	No information available
	Density and/or relative density:	No information available	No information available
	Vapour pressure:	No information available	No information available
	Partition coefficient n-octanol/water (log value):	No information available	No information available
	Solubility:	No information available	No information available
	Kinematic viscosity:	No information available	No information available
	pH:	No information available	No information available
	Decomposition temperature:	No information available	No information available
	Auto-ignition temperature:	No information available	No information available
	Flash point:	49 °C	No information available
	Lower and upper explosion limit:	No information available	No information available
	Flammability:	No information available	No information available
	Boiling point or initial boiling point and boiling range:	No information available	No information available

SECTIO	SECTION 10. Stability and reactivity			
10.1	Reactivity:	See Section 10.5.		
10.2	Chemical stability:	Stable within normal temperature and general work conditions.		
10.3	Possibility of hazardous reactions:	See Section 10.5.		
10.4	Conditions to avoid:	Keep away from heat, sparks, open flames, strong heating and ignition sources. No smoking.		
10.5	Incompatible materials:	Strong oxidizing agents (inorganic strong acid, nitric acid, perchlorates, peroxy compounds, perchloric acid, permanganates etc.), alkali metals, alkali earth metals.		
10.6	Hazardous decomposition products:	Carbon monoxide and carbon dioxide.		

SECTION 11. Toxicological information										
11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008										
Acute toxicity:										
Route of exposure:	Method	Species	Dose LD ₅₀ /LC ₅₀ or ATE _{mix}	Exposure time	Results					
Oral:	-	rat (ethanol)	LD ₅₀	_	7.060 mg/kg					
Dermal:	_	rabbit (ethanol)	LD ₅₀	_	>20.000 mg/l					



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Inhalation:	-		rat (ethanol)		LC ₅₀		4 h		>8.000 mg/l
Specific	target orgai	n toxicity	/ – single expo	sure (STO	OT SE):				
		Specif	fic effects			Target orga	n	l	Vote
Oral:	No info	rmation	available	I	No information available -			-	
Dermal:	No info	rmation	available	١	No information available			-	
Inhalation:	No info	rmation	available	I	No info	ormation avail	able	-	
Aspiratio	on hazard:		N	No information available.					
Irritation	and corros	ion							
	I	Exposure	time	Specie	S	Evaluation	Method		Note
Skin corrosion/irritatio	on:		-			-	-	—	
Serious eye damage/irritation	-		_			-	-	——————————————————————————————————————	
<u>-</u>	i		i		i		1		
Sensitiza	ition								
Skin sensitization		No info	rmation avail	able.					
Respiratory sensit	tization:	No info	rmation avail	able.					
Symptor	ns related to	o the phy	ysical, chemic	al and to	xicolog	ical character	istics		
Oral exposure:	unco	nsciousn	of great q ess and alcoh occur. Repea	ol poison	ing. In	case of swallo	wing great	•	nausea and
Dermal exposure	•	prolong ing of sk		ted expo	sure s	symptoms ma	ay include:	defatting,	dryness and
Inhalation exposu	ire.	ation of o	great quantitie	es may ca	use diz	ziness, eupho	ria and mile	d irritation o	of the mucous
Eye exposure:	May	cause irri	itation and red	dness.					
	-								
Repeate	d dose toxic	ity (suba	acute, subchro	nic, chro	nic)				
	Dose	<u>,</u>	Exposure time	Species		Method	Evalua	tion	Note
Subacute oral	No inforr available	nation	No information available	No informa availabl		No information available	No inf availal	ormation ole	-



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Subacute dermal	No availa	information able	No information available	No information available	No information available	No inform available	nation	
Subacute inhalation	No availa	information able	No information available	No information available	No information available	No inform available	nation	–
Subchronic oral	No availa	information able	No information available	No information available	No information available	No inform available	nation	-
Subchronic dermal	No availa	information able	No information available	No information available	No information available	No inform available	nation	-
Subchronic inhalation	No availa	information able	No information available	No information available	No information available	No inform available	No information available	
Chronic oral	No availa	information able	No information available	No information available	No information available	No inform available	No information available	
Chronic dermal	No availa	information able	No information available	No information available	No information available	No inform available	nation	-
Chronic inhalation	No availa	information able	No information available	No information available	No information available	No inform available	nation	-
				vnosure (STOT	DE).			
Specific	target	organ toxicity	v – repeated ei	ADUSUIE (SIOI	KE).			
Specific	target	organ toxicity	y – repeated e Specific effec	-	Target o	rgan		Note
Specific	target		·	-			_	Note
: *		No informa	Specific effec	-	Target o	n available	_	Note
Subacute oral	l	No informa	Specific effection available	-	Target o	n available n available		Note
Subacute oral Subacute derma	l	No informa No informa No informa	Specific effection available	-	Target o No information	n available n available n available	-	Note
Subacute oral Subacute derma Subacute inhalat Subchronic oral	l	No informa No informa No informa No informa	Specific effection available tion available tion available	-	Target o No information No information No information	n available n available n available n available	-	Note
Subacute oral Subacute derma Subacute inhalat Subchronic oral Subchronic dern	l :ion	No informa No informa No informa No informa No informa	Specific effection available tion available tion available tion available	-	Target o No information No information No information No information	n available n available n available n available n available	-	Note
Subacute oral Subacute derma Subacute inhalat Subchronic oral Subchronic dern Subchronic inha	l :ion	No informa No informa No informa No informa No informa No informa	Specific effection available tion available tion available tion available tion available	-	Target o No information No information No information No information No information	n available n available n available n available n available n available	-	Note
Subacute oral Subacute derma Subacute inhalat	l :ion	No informa	Specific effection available tion available tion available tion available tion available tion available tion available	-	Target o No information No information No information No information No information No information	n available n available n available n available n available n available	-	Note



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	7								
	Mutagenicity in vitro:	Bas	ed on available data, the classification criteria are not met.						
	Genotoxicity:	Based on available data, the classification criteria are not met.							
	Mutagenicity in vivo:	Based on available data, the classification criteria are not met.							
	Germ cell mutagenicity:	Based on available data, the classification criteria are not me							
	Reproductive toxicity:	Bas	ed on available data, the classification criteria are not met.						
	Summary of evaluation of the CN properties:	1R	Based on available data, the classification criteria are not met.						
11.2	Information on other hazards:								
11.2.1.	Endocrine disrupting properties:								
	Based on available data, does not conta endocrine disruptors.	ain							
11.2.2.	Other informations:								
	-								

SECTION 12. Ecologic	cal informat	ion				
12.1 Toxicity						
Acute (short-term) toxicity	Dose	Exposure time	Species	Method	Evaluation	Note
Fish	LC ₅₀	96 hours	golden orf	No information available	8.140 mg/l /48 h (ethanol)	-
Crustacea:	EC ₅₀	48 hours	daphnia magna	No information available	7.800 mg/l (ethanol)	-
Algae/aquatic plants	IC ₅₀	4 days	algae	No information available	5.000 mg/l / 7d (ethanol)	-
Other organisms	-	-	-	-	-	_
Chronic (long-term) toxicity	Dose	Exposure time	Species	Method	Evaluation	Note
Fish	LC ₅₀	96 hours	No information available	No information available	No information available	-
Crustacea:	EC ₅₀	48 hours	No information available	No information available	No information available	-



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Algae/aquatic p	olants	IC ₅₀	72 hours	•	No information available	No information	าก	No information available		
Other organism	ıs	-	-	-	•	-	-		-	
		and degrada	bility							
ADIOUG		adation egradation h	alf-lives	0 0 0 0 0 0 0 0 0 0 0 0	Method	Eval	uation		Note	
Marine water		nformation a			information ilable	No information available		-	NOTE	
Fresh water	No i	nformation a	available		information lable	No inform	nation	-		
Air	No i	nformation a	n available		information lable	No inforn available	nation	-		
Soil	No i	nformation a	available		information lable	No inform available	nation	-		
Biodeg	gradati	ion								
% Degradation Time (days)				Method	Eval	uation	Ŋ	lote		
No information available		No ir available	formation	No information available No information available		nation	No informa available	ation		
12.3 Bioacc	umula	tive potentia	al							
Octano	i	er partition o	coefficient (ow)					
Value -	Con -	ocentration	pH -	°C -	Method -	-	Evaluation	-	Note	
Biocor	ıcentra	ation factor (BCF)							
Value		Speci	es		Method	Eva	luation		Note	
-		lo in vailable	formation		information lable	No information available		-		



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	Chroni	c ecotoxi	city							
	Value		Dose	Exposure time	Species	Metl	nod	Evalu	ıation	Note
Chroni	c toxicity	on fish	LC ₅₀	No information available	No information available		nformation inf	No inform availab		-
	c toxicity cea (<i>Daph</i>		EC ₅₀	No information available	No informatio available	No inform availab		No inform availat		-
12.4	Mobilit	y in soil								
			cted distributi	on in environme	ental comp	artments:				
	No info	ormation	available							
	Surface	tension:	,							
	Val	ue	°C	Concentrat	tion	Metho	od		Note	
	No No information available available		No informat available		No information available		–			
	Adsorn	ution / de	sorption							
	Ausorp	1	coefficient							
Transp	ort	-	s constant	log Kow	Evapo	Evaporation rate		Method		Note
Soil-wa	ater	No availab	information le	No informatio available				No information available		-
			information le	No informatio available	n No info availab	ormation lle		No information available		_
Water-	-aır	avaiiab						No information available		_
		No availab	information le	No informatio available						
Soil-aiı	r	No availab		available						
Soil-aiı	Results	No availab	nd vPvB asses	available	availab	ile	avail	able		
Water-Soil-aii	Results Based o	No availab of PBT a	nd vPvB asses	available ssment product does no	availab	ile	avail	able		



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12.7.	Other adverse effects					
	Do not let the product or i	ts residues reach sewer system, waterways and soil.				
SECTIO	ON 13. Disposal considerati	ions				
13.1	Waste treatment methods					
13.1.1.	Product/Packaging disposal:					
	Submit for disposal to the Protection.	Submit for disposal to the legal person authorized by the Ministry of Environmental and Nature Protection.				
13.1.2.		gnations according to Law:				
	Packaging that contains	residual hazardous substances or is contaminated with hazardous substances				
13.1.3.	Waste treatment – releva	ant information				
13.1.3.	No information available					
	140 Illioilliation available	•				
13.1.4.	Sewage disposal – relevant information:					
	Waste must not be dispo	ste must not be disposed of into the sewage system.				
	·					
13.1.5.	Other disposal recomme					
	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. Unused product residues may be burnt.					
13.1.6.	Relevant Community pro	Relevant Community provisions:				
	Disposal must be made	according to official regulations.				
SECTIO	N 14 TRANSPORT INFORM	MATION				
	Transporting/shipment by	road (ADR)				
UN nur	mber:	1170				
UN pro	per shipping name:	Ethanol solution				
Transpo	ort hazard class(es):	3				
Packing group:		lii e				
Environmentally hazardous:		-				
Special	precautions for user:	-				
	Transporting/shipment by	rail (RID)				
UN number:		1170				



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Product code:	GCF-OT-X**	Revision date:	23 Dec 2022	Version:	2

UN proper shipping name:		Ethanol solution	
Transport hazard class(es):		3	
Packing group:		Ш	
Environmentally hazardo	us:	-	
Special precautions for u	ser:	-	
Inland waterway	/ transport (ADN)		
UN number:		1170	
UN proper shipping nam	ie:	Ethanol solution	
Transport hazard class(es	s):	3	
Packing group:		III	
Environmentally hazardo	us:	-	
Special precautions for u	ser:	-	
Transporting/sh	ipment by sea (IN	MDG)	
UN number:		1170	
UN proper shipping nam	ie:	Ethanol solution	
Transport hazard class(es	s):	3	
Packing group:		III	
Environmentally hazardo	us:	-	
Special precautions for u	ser:	-	
Transport in bulk accord of MARPOL 73/78 and the		-	
Transporting/sh	ipment by air (IC	AO-TI/IATA-DGR)	
UN number:		1170	
UN proper shipping nam	ie:	Ethanol solution	
Transport hazard class(es	s):	3	
Packing group:		III	
Environmentally hazardous:		-	
Special precautions for user:		-	
ADR: Special Provision 144 – An aqueous solution containing 24% or less alcohol by volume is not subject to classification. IATA: Special Provision A58 - An aqueous solution containing 24% or less alcohol by volume is not subject to classification.			

SECTION 15. Regulatory information

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



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Trading name:	GRAM CRYSTAL VIOLET, PHENOL FREE REAGENT			T	
Product code:	GCF-OT-X**	Revision date:	23 Dec 2022	Version:	2

	EU regulations				
	Authorization and/or res	Authorization and/or restrictions of use			
	Authorizations:	-			
	Restrictions:	-			
	Other EU regulations:	Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC; Directive 2004/42/CE of the European Parliament and of the Council of 21 April 2004 on the limitation of emissions of volatile organic compounds due to the use of organic solvents in certain paints and varnishes and vehicle refinishing products and amending Directive 1999/13/EC; Council Directive 98/24/EC of 7 April 1998 on the protection of the health and safety of workers from the risks related to chemical agents at work; Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006; COMMISSION REGULATION (EU) 2020/878 of 18 June 2020 amending Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).			
		dangerous substances, mixtures and articles (Annex XVII);			
	Information according 19 guideline)	999/13/EC about limitation of emissions of volatile organic compounds (VOC-			
	National legislation:	Chemicals Act, Regulation on classification, packaging and labeling of dangerous substances, Ordinance on occupational exposure limit values and on biological limit values, Regulation on categories, types and classification of waste with a waste catalog and list of hazardous waste, Ordinance on writing Material safety data sheet, Transport of Hazardous Substances Act			
15.2	Chemical safety assessme	ent			
	None				

SECTION 16. Other information	
16.1 Indication of changes:	-



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16.2	Abbreviations and acronyms	ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road) IMDG: International Maritime Code for Dangerous Goods IATA: International Air Transport Association GHS: Globally Harmonised System of Classification and Labelling of Chemicals EINECS: European Inventory of Existing Commercial Chemical Substances CAS: Chemical Abstracts Service (division of the American Chemical Society) DNEL: Derived No-Effect Level (UK REACH) LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative		
16.3.	Key literature references and source of data:	and _		
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	ber and full text)		
	H: 225	Highly flammable liquid and vapor.		
	226	Flammable liquid and vapor.		
16.6.	Training advice:	-		
16.7.	Further information:	** "X" in the product code marks different volumes (different packagings of the product) We are not responsible for consequences in case of failure to comply with instructions for use or improper use of the product described in this material safety data sheet.		

ANNEX: Exposure scenario resulting to chemical safety assessment	
-	



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Trading name:		ZER SOLUTION 2			
Product code:	GD2-OT-X**	Revision date:	23 Dec 2022	Version:	5

SECTI	ION 1: Identification of	the substance	e/mixture	e and of the company/undertaking	
1.1	Product identifier				
	Trading name:	GRAM DEC	OLORIZER	R SOLUTION 2	
	Chemical name:	-			
	Catalogue number:	GD2-OT-X*	*		
1.2	Relevant identified us	es of the subs	tance or n	nixture and uses advised against	
	Uses:		For use	in Gram bacterial staining.	
	Uses advised against:		Only the	e identified uses are advised.	
	Reason why uses advised against:		The product is intended for use only as an <i>in vitro</i> diagnostic medical device, registered at the Agency for Medicinal Products and Medical Devices and there is no reason to use it for other purposes.		
1.3	Details of the supplier of the safety data sheet				
	Supplier:		BioGnost Ltd.		
	Address:		Medjugorska 59, Zagreb		
	Telephone number:		+385 1 2409997		
	Telefax.:		+385 1 2404039		
	e-mail of competent person:		msds@biognost.hr		
	National contact:				
1.4	Emergency telephone number				
	National Protection a	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 Regulation (EC) No 1272/2008 (CLP)				
	Hazard class and category code:	Hazard statements*:				
	Flam. Liq. 2 H225					
	Eye Irrit. 2	H319				
	STOT SE 3	H336				
		EUH066				
2.1.2.	Additional information					
	-					
*For fu	For full text of Hazard- and EU Hazard-statements: see SECTION 16					
2.2	Label elements					
	Product identification: GRAM D	ECOLORIZER SOLUTION 2				



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Trading name:		GRAM DECOLORIZ	ZER SOLUTION 2		
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	Identification number:	-
	Authorization number:	-
	Hazard pictograms:	GHS02 GHS07
	Signal word:	Danger
	Hazard statements:	 H225 Highly flammable liquid and vapor. H319 Causes serious eye irritation. H336 May cause drowsiness or dizziness. EUH066 Repeated exposure may cause skin dryness or cracking.
	Precautionary statements:	P210 Keep away from heat/sparks/open flames/hot surfaces. Do not smoke. P280 Wear protective gloves/protective clothing/eye/protection/face protection. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
	Supplemetal hazard information (EU):	-
2.3	Other hazards	
	The product has no other kno	own specific hazards for human or environment.
	Results of PBT and vPvB asset PBT or vPvB substances.	ssment: Based on available data, the product does not contain any
	Endocrine disrupting propert	y: Based on available data, does not contain endocrine disruptors.

SECTION 3. Co	SECTION 3. Composition/information on ingredients						
CAS/ EC/ Index number	REACH Registration No	Weight % content (or range)	Identification name	Classification according to Regulation (EC) No 1272/2008 (CLP)			
64-17-5/ 200-578-6/ 603-002-00-5	01-2119457610-43- 0147	40 – 60 %	ethanol	Flam. Liq. 2; H225			
67-64-1/ 200-662-2/ 606-001-00-8	-	50 - 70 %	acetone	Flam. Liq. 2; H225 Eye Irrit. 2; H319 STOT SE 3; H336			

SECTION 4. First aid measures



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	General notes:	If the suggested first aid measures do not prove sufficient, seek medical attention.
	Following inhalation:	Take the victim into fresh air, loosen his clothes and place him in a comfortable position. If breathing difficulty occurs, administer artificial respiration. In case of complaints call a physician.
	Following skin contact:	Remove the contaminated clothes. Wash the skin surface under plenty of running water. Seek medical assistance if the symptoms of irritation remain.
	Following eye contact:	In case of contact with eyes flush with water holding eyelids apart and moving the eyeballs (for at least 10 minutes). If the symptoms remain, immediately call in ophthalmologist.
	Following ingestion:	Place the victim in a comfortable position. Rinse the mouth with clean water. If the victim is conscious induce vomiting. Do not give the victim anything orally, and do not induce vomiting if the victim is unconscious or suffers from convulsions.
	Self-protection of the first aider:	-
4.2	Most important symptoms and eff	ects, both acute and delayed
	Following inhalation:	Depending on concentration and exposure time, it may lead to mucosa irritation, cough, and dyspnea.
	Following skin contact:	Defatting, dry skin.
	Following eye contact:	Depending on concentration and exposure time, it may lead to irritation, tearing, redness and pain.
	Following ingestion:	Depending on concentration and exposure time, it may lead to stinging and digestive mucus damage, abdominal pain, nausea, vomiting.
4.3	Indication of any immediate media	cal attention and special treatment needed

SECTI	ION 5. Firefighting measures			
5.1	Extinguishing media			
	Suitable extinguishing media:	Dry powder, alcohol-resistant foam, water spray, carbon-dioxide.		
	Unsuitable extinguishing media:	No information available.		
5.2	Special hazards arising from the substance or mixture			
	Hazardous combustion products: No information available.			
5.3	Advice for firefighters			
		Wear full protective clothing and self-contained breathing apparatus. Cool the fire affected containers with water spray. Use water spray to dissipate alcohol vapors.		
5.4	Additional information			



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-

6.1	Personal precautions, protective equipment and emergency procedures				
6.1.1.	. For non-emergency personnel				
	Protective equipment:	Use personal protective equipment (see Section 8).			
	Accident prevention methods:	Evacuate members of all non-essential personnel and those members without protective equipment.			
	Emergency procedures:	Mark the area using proper signs.			
6.1.2.	For emergency responders:				
	Avoid contact with skin, eyes and clothing and inhaling gases, vapors and aerosols. Ensure adequate ventilation. Vapors may accumulate at floor level in low and confined spaces. Remove all heat, ignition and spark sources, turn off machines. Ignition spark arrestor must not be operated in the danger area. Use spark-proof tools. Be aware of the risk of slipping.				
6.2	Environmental precautions:				
	not allow the product and the	pose of the spillage and the resulting waste according to the applicable environmental regulations. Do tallow the product and the resulting waste to enter sewers/soil/surface or ground water. Notify the pective authorities in accordance with local law in the case of environmental pollution immediately.			
6.3	Methods and material for containment and cleaning up				
6.3.1.	Bunding, covering of drains; capping procedures:	Sand protective barrier or barriers made of similar materials.			
6.3.2.	Cleaning up:	Collect the spilled product with inert, non-combustible absorbent (e.g. sand, vermiculite, earth) then place into a suitable, closed, properly labelled chemical waste container for removal/disposal. During the collection, placement, disposal of the waste, wear appropriate individual protective equipment. Flush the remains with plenty of water. The product loses its flammability, if diluted with significant amount of water (approx. 10% solution).			
6.3.3.	Uther information:	Secure proper ventilation. Do not use incompatible materials (see Section 10).			
6.4	Reference to other sections				
	See Section 7 for information of	on safe handling.			
	See Section 8 for information of	on personal protection equipment.			
	See Section 13 for disposal info	ormation			

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



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	Measures to prevent fire:		Use in well ventilated storage rooms. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use non-sparkling tools and equipment.		
	Measures to prevent aerosol and dust generatio	n:	Ensure adequate 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 incompatibilities				
	Technical measures and storage conditions:	away from unopened	well-ventilated place, protected from sunlight, a sources of heat and ignition, in its original, and hermetically sealed packaging, away dizing agents, food, feed and articles of ion.		
	Packaging materials:	Manufactu	cturer's original packaging.		
	Requirements for storage rooms and vessels:		eep away from food and drink. Keep the containers ghtly closed.		
	Advices for storage equipment:	be resistar	ge must be made of hard material; floors must nt to chemicals. There must be no drain that leads into sewage system. Secure proper n.		
	Further information on storage conditions:	and do n	ace the unused material in the storage room of use empty containers for storing other Do not store with incompatible materials (see)).		
7.3	Specific end use(s)				
	Recommendations:	-			
	Industrial sector specific solutions:	-			

CAS No		•	Biological limit values
	ppm	mg/m³	-
64-17-5	1000/-	1900/-	-
67-64-1	500/-	1210/-	
	64-17-5	CAS No values/short ppm 64-17-5 1000/-	ppm mg/m³ 64-17-5 1000/- 1900/-



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Trading name:				GRAM	DECOLO	RIZER SOLUTI	ION 2		y	
Product code:	GD2-OT	-X**		Revisio	on date:	23 Dec 20	22	Version:	5	
Substance name:	-									
EC No:	-	CAS No	1:	-					_	
DNEL										
				Ind	dustrial					
Route of	Acu	te		Acute		Chronic		Chronic		
exposure:			t systemic		effect local	•	effect systemic			
Oral			-		-		-			
Inhalation	1900 mg/ (ethanol)		-		-			/m³ (ethanol) g/m³ (acetone)		
Dermal	-		-		-			/kg (ethanol) /kg (acetone)		
Critical physical para	ımeters: s	olubility,	flamma	ability, cori	rosivity:	-		<u>- '</u>		
		<u>, , , , , , , , , , , , , , , , , , , </u>		•	nsumer	;				
Route of	Ac	ute		Acute		Chronic		Chronic		
exposure:	effec	t local	effec	ct systemic		effect local		effect systemic		
Oral	-		-		-			kg bw/day (etha	anol)	
Inhalation	950 mg (ethan	_	-		-			/m³ (ethanol) /m³ (acetone)		
Dermal	-		-		-		206 mg	/kg (ethanol) kg (acetone)		
PNEC			1				19/	5 (-)230.10)		
Environmental prote	ction tarc	jet			PNEC					
·						l (ethanol)				
Fresh water					10.6 mg/l (acetone)					
Freshwater sedimen	ts				3.6 mg/kg	g (ethanol)				
. restiwater seuillell					30.4 mg/l	kg (acetone)				
Marine water					_	l (ethanol)				
						kg (acetone)				
Marine sediments						g (ethanol)				
Food chain						kg (acetone)				
1 OOU CHAIII						mg/kg (ethanol)				
Microorganisms in s	ewage tre	eatment			580 mg/l 100 mg/l	(etnanol) (acetone)				
Soil (agricultural)					_	kg (ethanol)				
						kg (acetone)				
Air					no inform	nation available				



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8.2	Exposure controls				
8.2.1.	Appropriate engineering controls	5			
	Substance/mixture related measurevent exposure during identifie		In case of a hazardous material with no controlled concentration limit it is the employer's duty to keep concentration levels down to a minimum achievable by existing scientific and technological means, where the hazardous substance poses no harm to workers.		
	Structural measures to prevent exposure:		In accordance with Section 7.		
	Organisational measures to preve exposure:	ent	Organization of work in order to reduce other worker's influence during work process.		
	Technical measures to prevent ex	φosure:	In pursuance of work is proper foresight needed to avoid spilling onto clothes and floors and to avoid contact with eyes and skin. Use according to general application methods and with adequate ventilation.		
	•		Use non-sparkling ventilation system.		
			Provide appropriate personal protective equipment, safety shower and eye-wash station.		
8.2.2.	Personal protection equipment				
8.2.2.1.	Eye and face protection:		propriate, chemical-proof protective glasses/face shield (EN 321-1:2022, EN 166).		
8.2.2.2.	Skin protection				
	Hand protection:	Use ap	appropriate, chemical-resistant protective gloves (EN 374).		
	Other skin protection:	Use ap	propriate protective clothing.		
8.2.2.3.	Respiratory protection:	concer in the contac	e of normal usage and ventilation, it is not necessary. If atration of ethyl alcohol exceeds occupational exposure limits air, use a self-contained breathing apparatus. For short and if the oxygen content of the air is greater than 18 %, use ective gas mask with filter A (EN 14837/A1).		
8.2.2.4.	Thermal hazards:	No the	rmal hazards known.		
8.2.3.	Environmental exposure controls				
	Substance/mixture related measures to prevent exposure:	See Se	ction 6		
	Structural measures to prevent exposure:	Use mo	odern equipment.		
	Organisational measures to prevent exposure:	Adapt workpl	t the work process to the required working conditions of the blace.		
	Technical measures to prevent exposure:	See Se	ction 6		



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.1	Information on basic physical and o	chemical properties	
		Value	Method
	Physical state:	liquid	No information available
	Colour:	colourless	No information available
	Odour/odour threshold:	acetone like/no information available	No information available
	Melting point / freezing point:	No information available	No information available
	Boiling point or initial boiling point and boiling range:	No information available	No information available
	Flammability:	No information available	No information available
	Lower and upper explosion limit:	No information available	No information available
	Flash point:	20 °C	No information available
	Auto-ignition temperature:	No information available	No information available
	Decomposition temperature:	No information available	No information available
	pH:	No information available	No information available
	Kinematic viscosity:	No information available	No information available
	Solubility:	No information available	No information available
	Partition coefficient n-octanol/water (log value):	No information available	No information available
	Vapour pressure:	No information available	No information available
	Density and/or relative density:	No information available	No information available
	Relative vapour density:	No information available	No information available
	Particle characteristics:	No information available	No information available
.2	Other information		

SECTION	SECTION 10. Stability and reactivity					
10.1	Reactivity:	See Section 10.5.				
10.2	Chemical stability:	Stable within normal temperature and general work conditions.				
10.3	Possibility of hazardous reactions:	See Section 10.5.				
10.4	Conditions to avoid:	Keep away from heat, sparks, open flames, strong heating and ignition sources. No smoking.				
10.5	Incompatible materials:	Strong oxidizing agents (inorganic strong acid, nitric acid, perchlorates, peroxy compounds, perchloric acid, permanganates etc.), alkali metals, alkali earth metals.				
10.6	Hazardous decomposition products:	Carbon monoxide and carbon dioxide.				



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11.1 Informa	ation on hazard cla	sses as defined i	in Regulation	on (EC) No 1272	2/2008		
Acute t			-9	- (- / -			
Route of exposure:	Method	Species		LD ₅₀ /LC ₅₀ or ATE _{mix}	Exposure t	ime	Results
Oral:	-	rat		LD ₅₀	-		7.060 mg/kg (ethanol) 5.800 mg/kg (acetone)
Dermal:	-	rabbit		LD ₅₀	-		>20.000 mg/l (ethanol) :0.000 mg/kg (acetone)
Inhalation:	-	rat		LC ₅₀	4 h		>8.000 mg/l (ethanol) 76 mg/l (acetone)
Specific	c target organ toxi		osure (STO				
	•	ecific effects		Target or			Note
Oral:	No information		No information available			-	
Dermal:	No information	on available	No information available			-	
Inhalation:	Narcotic effe	ets	No information available May cause of or dizziness.				e drowsiness ess.
Aspirat	ion hazard:	N	o informat	ion available.			
Irritatio	on and corrosion						
Cl.:-	Expos	ure time	Species	Evaluatio	n Method	1	Note
Skin corrosion/irritat	ion:	-		-	-	-	
Serious eye damage/irritatio	on -	-		-	-	-	
Sensitiz	zation						
Skin sensitizatio		nformation avail	able.				
Respiratory sens	sitization: No i	nformation avail	ahle				



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Sympto			•		ical characterist			
Oral exposure:	unco	Absorption of great quantities may cause dizziness, drunkenness, euphoria, unconsciousness and alcohol poisoning. In case of swallowing great quantities, nausea and vomiting may occur. Repeated or prolonged exposure may lead to liver cirrhosis.						
Dermal exposure	١•	prolon	•	ted exposure s	ymptoms may	include: defatting,	dryness an	
Inhalation expos	irα.	ation of branes.	great quantitie	es may cause diz	ziness, euphoria	and mild irritation	of the mucou	
Eye exposure:	May	cause in	ritation and re	dness.				
Repeate	ed dose toxic	city (sub	acute, subchro	onic, chronic)				
	Dose	Э	Exposure time	Species	Method	Evaluation	Note	
Subacute oral	bacute 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 infor	mation	No information available	No information available	No information available	No information available	-	
Subchronic oral	No infor	mation	No information available	No information available	No information available	No information available	-	
Subchronic dermal	No infor	mation	No information available	No information available	No information available	No information available	-	
Subchronic inhalation	No infor	mation	No information available	No information available	No information available	No information available	-	
Chronic oral	No infor	mation	No information available	No information available	No information available	No information available	-	
Chronic dermal	No infor	mation	No information available	No information available	No information available	No information available	-	
Chronic inhalation	No infor	mation	No information available	No information available	No information available	No information available	-	



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	Chacific target	organ toxicity reported	ave c	cura (CTOT	DE).			
	Specific target	organ toxicity – repeated e		sure (STOT	<u> </u>	Note		
Cla a a		Specific effective No information available				Note		
Subacu					No information available	-		
	te dermal	No information available			No information available	_		
	te inhalation	No information available			No information available	_		
	onic oral	No information available			No information available	-		
	onic dermal	No information available			No information available	-		
	onic inhalation	No information available			No information available	-		
Chronic		No information available			No information available	-		
	dermal	No information available			No information available	-		
Chronic	inhalation	No information available	!		No information available	-		
	-	arcinogenicity; mutagenicit	<u> </u>					
	Carcinogenicity		Based on available data, the classification criteria are not met.					
	Mutagenicity i	Basin vivo: Basin sin vivo:		Based on available data, the classification criteria are not met. Based on available data, the classification criteria are not met.				
	Genotoxicity:							
	Mutagenicity i			Based on available data, the classification criteria are not met.				
	Germ cell muta			Based on available data, the classification criteria are not met. Based on available data, the classification criteria are not met.				
	Reproductive t							
	Summary of properties:	evaluation of the CI	MR	Based on met.	available data, the classific	ation criteria are no		
11.2	Information or	other hazards:						
11.2.1.	Endocrine disr	upting properties:						
	The substance/mixture does not corcomponents considered to have endot disrupting properties according to RE Article 57(f) or Commission Deleg regulation (EU) 2017/2100 or Commis Regulation (EU) 2018/605 at levels of 0.1 higher.							
11.2.2.	Other informat	tions:						

SECTION 12. Ecological information



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Acute (short-term) toxicity	Dose	Exposure time	Species	Method	Evaluation	Note
Fish	LC ₅₀	96 hours	golden orf	No information available	8.140 mg/l /48 h (ethanol) 6.210 mg/l (acetone)	-
Crustacea:	EC ₅₀	48 hours	daphnia magna	No information available	7.800 mg/l (ethanol) 8.800 mg/l (acetone)	-
Algae/aquatic plants	IC ₅₀	4 days	algae	No information available	5.000 mg/l / 7d (ethanol) 530 mg/l (acetone)	-
Other organisms	-	-	-	-	-	-
Chronic (long-term) toxicity	Dose	Exposure time	Species	Method	Evaluation	Note
Fish	LC ₅₀	96 hours	No information available	No information available	No information available	-
Crustacea:	EC ₅₀	48 hours	No information available	No information available	No information available	-
Algae/aquatic plants	IC ₅₀	72 hours	No information available	No information available	No information available	-
Other organisms	-	-	-	-	-	_

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	-
		No information	No information	

Fresh water	No information available	No information available	No information available	-
Air	No information available	No information available	No information available	-
Soil	No information available	No information available	No information available	-



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	Biodegr	adati	ion										
% De	gradation	า		Time (d	ays)		Ν	lethod		Evaluatio	า		Note
No info availabl	rmation e		No availa		ormatio		o info /ailab	ormation le		informatior ilable	1	No info	ormation le
		i				<u> </u>		į.				<u> </u>	
12.3	Bioaccu	mula	tive p	otential									
	Octanol	-wat	er par	tition co	efficien	t (log	Kow)	1					
Val	lue	Cor	ncentra	ation	рН	°C		Method		Evalua	ation		Note
-		-			-	-	-	•		-		-	
	Bioconc	entra	ation f					4 - 4		Frank at			N - t -
V	alue		1-	Specie				/lethod		Evaluation			Note
-			No Ivailab		ormatio		o into ailabl	rmation le		o informationalication in information in informatio	on	-	
						•						,	
	Chronic	ecot	oxicity	/									
	Value			Dose	E	xposu time		Species		Method	Eva	luation	Note
Chronic	toxicity o	on fis	sh	LC ₅₀		ormat ailable		No information available	1	o formation ailable	No infor availa	mation able	-
	toxicity on the toxicity of th			EC ₅₀		ormat ailable		No information available		o formation ailable	No infor availa	mation able	-
12.4	Mobility	/ in s	oil										
	Known	or pr	edicte	d distrik	oution i	n envii	ronm	ental compar	tmer	nts:			
	No info	rmati	ion av	ailable									
	Surface	tensi	ion:										
	Valu	ie		°C		Conc	entra	tion	N	lethod			Note



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Product	t code:	ode: GD2-O1-X**		Revision date: 23 Dec 2022			Version: 5		
	No information	No information available	No informatio available	n No int	formation ble	1	-		
	Adsorptio	on / desorption							
Transpoi	rt	A/D coefficient Henry's constant	log Kow	Evaporati	on rate	Meth	nod	Note	
Soil-wate	er	No informatio available	n No information available			No information available		-	
Water-ai	ir	No informatio available	n No information available			No inforn available	nation	-	
Soil-air		No informatio available	n No information available	No inform available	nation	No inforn available	nation	-	
12.5	This subs	f PBT and vPvB ass tance/mixture con), or very persiste	sessment tains no componen nt and very bioaccu	ts considere mulative (vF	ed to be PvB) at le	either persi vels of 0.1%	stent, bi 6 or high	oaccumulative ner.	and
	This substactoring Endocring The substaccording	tance/mixture con), or very persiste e disrupting prope ance/mixture doe g to REACH Article	tains no componen nt and very bioaccu	onents cons	PvB) at le	vels of 0.19	6 or high ocrine d	ner. isrupting prope	erties
12.6.	This substactoxic (PBT Endocrine The substaccording Regulatio	tance/mixture con), or very persiste e disrupting prope ance/mixture doe g to REACH Article	rties s not commonen 57(f) or Commissio	onents cons	PvB) at le	vels of 0.19	6 or high ocrine d	ner. isrupting prope	erties
12.6.	This subst toxic (PBT Endocrine The subst according Regulatio	tance/mixture cont T), or very persiste e disrupting prope tance/mixture doe to REACH Article in (EU) 2018/605 a	rties s not commonen 57(f) or Commissio	onents cons n Delegated igher.	evB) at le	o have endion (EU) 20	6 or high ocrine d	ner. isrupting prope	erties
12.6.	Endocrine The subst according Regulatio Other adv	tance/mixture cont T), or very persiste e disrupting prope tance/mixture doe to REACH Article in (EU) 2018/605 a	tains no componen nt and very bioaccurties s not contain comp 57(f) or Commissio t levels of 0.1% or he s residues reach sev	onents cons n Delegated igher.	evB) at le	o have endion (EU) 20	6 or high ocrine d	ner. isrupting prope	erties
12.6. 12.7.	Endocrine The subst according Regulatio Other adv Do not le	tance/mixture con T), or very persiste e disrupting properance/mixture doe to REACH Article on (EU) 2018/605 a verse effects t the product or it	rties s not contain comp 57(f) or Commissio t levels of 0.1% or h	onents cons n Delegated igher.	evB) at le	o have endion (EU) 20	6 or high ocrine d	ner. isrupting prope	erties
12.6. 12.7. SECTION	This substactoxic (PBT Endocrine The substaccording Regulatio Other adv Do not le	tance/mixture cont c), or very persiste e disrupting propertance/mixture does to REACH Article on (EU) 2018/605 and verse effects t the product or it	rties s not contain comp 57(f) or Commissio t levels of 0.1% or h	onents cons n Delegated igher.	evB) at le	o have endion (EU) 20	6 or high ocrine d	ner. isrupting prope	erties
12.6. 12.7. SECTION	Endocrine The subst according Regulatio Other adv Do not le	tance/mixture control of the disrupting properties of the disrupting properties of the disrupting properties of the product or it the product or it the product or it posal consideration reatment method of the disposal to the for disposal to the product or it the product of the product	rties s not contain comp 57(f) or Commissio t levels of 0.1% or h	onents cons n Delegated igher.	sidered to d regulat waterway	o have endion (EU) 20	ocrine d	isrupting propo or Commissio	erties
12.5 12.6. 12.7. SECTION 13.1. 13.1.1.	This substactoxic (PBT Endocrine The substaccording Regulatio Other adv Do not let N 13. Disp Waste t Product Submit Protecti	tance/mixture control.), or very persiste e disrupting propertance/mixture does to REACH Article on (EU) 2018/605 and verse effects the product or it the product or it expectation and the disposal consideration of the disposal to the foot.	rties s not contain comp 57(f) or Commissio t levels of 0.1% or h s residues reach sev	onents cons n Delegated higher.	sidered to d regulat waterway	o have endion (EU) 20	ocrine d	isrupting propo or Commissio	erties



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1212	\\\t-\	
13.1.3.	Waste treatment – releva	nt information:
	No information available	
13.1.4.	Sewage disposal – releva	nt information:
		sed of into the sewage system.
	· ·	
13.1.5.	Other disposal recommer	ndations:
	authorized by the ministr	roduct's remains into the sewage system. Submit the remains to the collectors by in charge. Do not dispose of the packaging into the sewage system. Submit lectors authorized by the ministry in charge. Unused product residues may be
13.1.6.	Relevant Community pro	visions:
	Disposal must be made a	ccording to official regulations.
SECTIO	N 14 TRANSPORT INFORM	IATION
	Transporting/shipment by	road (ADR)
UN num	ber:	1170
UN prop	er shipping name:	Ethanol solution
Transpo	rt hazard class(es):	3
Packing	group:	II .
Environr	mentally hazardous:	-
Special p	precautions for user:	-
	Transporting/shipment by	rail (RID)
UN num	ber:	1170
UN prop	er shipping name:	Ethanol solution
Transpo	rt hazard class(es):	3
Packing	group:	II .
Environr	mentally hazardous:	-
Special p	precautions for user:	-
	Inland waterway transport	(ADN)
UN num	ber:	1170
UN prop	er shipping name:	Ethanol solution
Transpo	rt hazard class(es):	3
Packing	group:	II .
Environr	mentally hazardous:	-
Special p	precautions for user:	-



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Transporting/shipment by sea (IN	MDG)
UN number:	1170
UN proper shipping name:	Ethanol solution
Transport hazard class(es):	3
Packing group:	II
Environmentally hazardous:	-
Special precautions for user:	-
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code:	-
Transporting/shipment by air (IC.	AO-TI/IATA-DGR)
UN number:	1170
UN proper shipping name:	Ethanol solution
Transport hazard class(es):	3
Packing group:	II
Environmentally hazardous:	-
Special precautions for user:	-

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



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	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; COMMISSION REGULATION (EU) 2020/878 of 18 June 2020 amending Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).	
	Information according 1999	dangerous substances, mixtures and articles (Annex XVII); (13/FC about limitation of emissions of volatile organic compounds (VOC)	
	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 assessment		
İ	None		

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



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16.3.		erature references and of data:	-
16.4.	Classification and procedure used to derive the classification for mixture according to Regulation (EC) 1272/2008 (CLP)		
Classifi	fication		Classification procedure
_			-
16.5.	Relevant H statements (numl		ber and full text)
		225	Highly flammable liquid and vapor.
	H:	319	Causes serious eye irritation.
		336	May cause drowsiness or dizziness.
		(EUH066)	Repeated exposure may cause skin dryness or cracking.
16.6.	Training advice:		-
	16.7. Further information:		** "X" in the product code marks different volumes (different packagings of the product)
16.7.			We are not responsible for consequences in case of failure to comply with instructions for use or improper use of the product described in this material safety data sheet.

ANNEX: Exposure scenario resulting to	chemical safety assessment
-	



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SECTI	ON 1: Identification of	the substan	ce/mixture a	and of the company/undertaking	
1.1.	Product identifier				
	Trading name:	GRAM LU	GRAM LUGOL SOLUTION, STABILIZED		
	Chemical name:	-			
	Catalogue number:	GLS-OT-X	**		
1.2.	Relevant identified use	es of the sub	stance or mi	xture and uses advised against	
	Uses:		Solution f	or use in BioGram 4 Gram bacteria staining kit.	
	Uses advised against:		Only the i	dentified uses are advised.	
	Reason why uses advis	sed against:	The product is intended for use only as an <i>in vitro</i> diagnostic inst: device, registered at the Agency for Medicinal Products and N Devices and there is no reason to use it for other purposes		
1.3.	Details of the supplier	of the safet	y data sheet		
	Supplier:	E	BioGnost Ltd.		
	Address:	1	Medjugorska	59, Zagreb	
	Telephone number:	-	+385 1 24099	997	
	Fax no.:	-	+385 1 24040	039	
	e-mail of competent p	erson: <u>r</u>	msds@biogn	<u>ost.hr</u>	
	National contact:	-	-		
1.4.	Emergency telephone	Emergency telephone number			
	National Protection ar	nd Rescue Di	rectorate:	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 Regulati	ion (EC) No 12	72/2008 (CLP)		
	Hazard class and category o	code:	Hazard statements*:		
	Not identified as hazardous substa	nce.	-		
2.1.2.	Additional information				
	-				
*For ful	l text of Hazard- and EU Hazard-state	ements: see S	ection 16		
2.2.	Label elements				
	Product identification:	GRAM LUGOI	SOLUTION, STABILIZED		
	Identification number: -				
	Authorization no.: -				
	Hazard pictograms:	-			



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

SECTION 3. Co	SECTION 3. Composition/information on ingredients					
CAS/ EC/ Index no.	REACH Registration No	Weight % content (or range)	Identification name	Classification according to Regulation (EC) No 1272/2008 (CLP)		
-	-	-	Contains no hazardous substances	-		

SECTI	CTION 4. First aid measures					
4.1.	Description of first aid measu	ures				
	General notes:	-				
	Following inhalation:	Carry the afflicted person out of the contaminated area into a well-ventilated area or out for fresh air. If breathing becomes erratic or it stops, immediately apply artificial respiration (other than mouth-to-mouth) and contact a physician.				
	Following skin contact:	Remove contaminated clothing. Immediately wash with plenty of water and soap. Seek medical assistance if the symptoms of irritation remain.				
	Following eye contact:	Rinse out with plenty of water with the eyelid held wide open using clean fingers. If the symptoms remain, immediately call a physician.				
	Following ingestion:	Do not induce vomiting. Make the afflicted person drink a glass of water. If spontaneous vomiting occurs, wash the mouth with water, then make the person drink 100-200 ml of water and seek medical attention.				
	Self-protection of the first ai	der: Treat symptomatically.				
4.2.	Most important symptoms a	nd effects, both acute and delayed				
	Following inhalation:	According to our findings, chemical, physical and toxicological properties of the substance have not been entirely tested.				
	Following skin contact:	According to our findings, chemical, physical and toxicological properties of the substance have not been entirely tested.				
	Following eye contact:	According to our findings, chemical, physical and toxicological properties of the substance have not been entirely tested.				



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

SECTIO	SECTION 6. Accidental release measures				
6.1.	Personal precautions, protective equipment and emergency procedures				
6.1.1.	For non-emergency personne	· I			
	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 section	ns
	See Section 7 for information about secure handling. See Section 8 for information about personal protective equipment. See Section 13 for information about containment.	

SECTIO	ON 7. Handling and storage					
7.1.	Precautions for safe handling					
7.1.1.	Protection measures					
	Measures to prevent fire:		Keep away from sources of heat and ignition. Do not smoke.			
	Measures to prevent aerosol and dust generat	on: S	Secure proper ventilation.			
	Measures to protect the environment:		Prevent spilling into the sewage system and waterways.			
	Other measures:	-	-			
7.1.2. Advice on general occupational hygiene:						
	Do not eat, drink or smoke in the workspace. Thoroughly wash hands after work and before eating.					
7.2.	Conditions for safe storage, including any incompatibilities					
	Technical measures and storage conditions:	ventil	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:	Manu	ıfacturer's original packaging.			
	Requirements for storage rooms and vessels:		Keep away from food and drink. Keep the containers tightly closed.			
	Advices for storage equipment:	be res	The storage must be made of hard material; floors must be resistant to chemicals. There must be no drain that directly leads into sewage system. Secure proper ventilation.			
	Further information on storage conditions:	and d	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)					



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Recommendations:	-
Industrial sector specific solutions:	-

SECTION 8. E	xposur	e contr	ols/persona	l protec	tion					
8.1. Cont	rol para	meters								
Subs	Substance					cupational exposure limit alues/short term values		Biological limit values		
					ppm	r	mg/m³		-	
-	-		-			-		-	No infor	mation available
Substance name:	_									
EC No:	_		CAS No:	-						
DNEL	DNEL									
					Inc	dustrial				
Route of exposure:			Acute ect local	Acut			Chronic effect local			Chronic effect systemic
Oral -				-	ec sys	conne	-		, cui	-
Inhalation -		_		-			-			_
Dermal		_		_			-			_
Critical physic	al para	neters: s	solubility, fla	mmabilit	tv, cor	rosivity:		_		<u> </u>
1 7			,,		•	nsumer		<u>I</u>		
		l A	Acute		Acut	e		Chron	ic	Chronic
Route of expo	osure:	effe	ect local	local effect sy		temic	effect local		cal	effect systemic
Oral		-		-			-			-
Inhalation		-		-			-			-
Dermal		-		-			-			-
PNEC										
Environmenta	l proted	tion tar	get			PNEC				
Fresh water						No information available				
Freshwater se	diment	S				No information available				
Marine water						No information available				
Marine sedim	ents					No infor	matio	on availabl	e	
Food chain						No infor	matio	on availabl	e	
Microorganis	ms in se	wage tr	eatment			No infor	matio	on availabl	e	
Soil (agricultu	ral)					No information available				



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Air			No information available				
8.2.	Exposure controls						
8.2.1.	Appropriate engineering	controls	S				
	Substance/mixture relate measures to prevent expeduring identified uses:		Use the product in well ventilated rooms. Use personal protective equipment. Do not eat, drink or smoke in the workspace.				
	Structural measures to prexposure:	revent	No information available				
	Organisational measures prevent exposure:	to	Organization of work in order to reduce other worker's influence during work process.				
	Technical measures to prevent exposure:		Secure proper workspace ventilation in order to keep concentration levels in air below permitted levels.				
8.2.2.	Personal protection equip	pment					
8.2.2.1.	Eye and face protection:		Safety glasses that stick to face (preventing splashing) (EN 166) or visor.				
8.2.2.2.	Skin protection						
			ective gloves must be according to the EU Directive 2016/425/EEC and dard EN 374.				
	Hand protection:		Glove material: nitrile rubber				
			Glove thickness: ≥0.50 mm Break through time: >480 min				
	Other skin protection:		es (EN 13034), and shoes that cover the entire foot (EN 10335).				
8.2.2.3.	Respiratory protection:	filter f	ective full face mask (EN 136) or half mask (EN 140) equipped with a for organic vapors, type "A" (boiling point >65°C) acording to EN 7) used when concentration levels exceed GVI.				
8.2.2.4.	Thermal hazards:	No inf	formation available				
8.2.3.	Environmental exposure	controls					
	Substance/mixture relate measures to prevent expe		See Section 6				
	Structural measures to prexposure:	event	Use modern equipment.				
	Organisational measures prevent exposure:	to	Adapt the work process to the required working conditions of the workplace.				
	Technical measures to preexposure:	event	See Section 6				

SECTION 9. Physical and chemical properties



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Trading name:		GRAM LUGOL SOLUTION, STABILIZED	
Product code:	GLS-OT-X**	Date of compilation: 14 November 2022	Version: 5

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

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

SECTION 11. Toxicological information



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Trading name:		GRAM LUGOL SOLUTION, STABILIZED
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Acute toxic	ity:						
Route of exposure:	Method	Species	Effective Dose LD ₅₀ /LC ₅₀ or ATE _{mixture}	Exposure tii	me Results		
Oral exposure:	No information available	-	LD ₅₀	-	-		
Dermal exposure:	No information available	-	LD ₅₀	-	-		
Inhalation exposure:	No information available	-	LC ₅₀	-	-		
Specific tar	get organ toxicity – si	ngle exposure (STOT SE):				
, , , , , , , , , , , , , , , , , , ,	5 5	ic effects	-	: organ	Note		
Oral exposure:	No information		No information		-		
Dermal exposure:	No information	available	No information	No information available -			
Inhalation exposure:	No information	available	No information	No information available -			
Irritation ar	nd corrosion:						
	Exposure time	Species	Evaluation	Method	Note		
Skin irritation:	-	-	-				
Eye irritation:	-	-	-				
Sensitizatio	n						
Dermal exposure:	No information avail	able					
Inhalation exposure:	No information avail	able					
	related to the physica	al, chemical and	toxicological chara	acteristics			
Symptoms	related to the physics	According to our findings, chemical, physical and toxicological properties of the substance have not been entirely tested.					
	According to our	-	cal, physical and to	xicological prop	erties of the substanc		
Symptoms Oral exposure: Dermal exposure:	According to our have not been en	tirely tested. findings, chemic	-		erties of the substance		



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Eye exposure:	_	o our findings, en entirely test	•	ysical and toxicolo	gical propertie	es of the substand
Danasta			:			
Кереате	ed dose toxicity (sub		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	ı -
Subacute dermal	No information available	No information available	No informatio available	No information available	No information available	า -
Subacute inhalation	No information available	No information available	No informatio available	No information available	No information available	۱ -
Subchronic oral	No information available	No information available	No informatio available	No information available	No information available	۱ -
Subchronic dermal	No information available	No information available	No informatio available	No information available	No information available	۱ -
Subchronic inhalation	No information available	No information available	No information available	No information available	No information available	۱ -
Chronic oral	No information available	No information available	No information available	No information available	No informatior available	۱ -
Chronic dermal	No information available	No information available	No informatio available	No information available	No information available	- ١
Chronic inhalation	No information available	No information available	No informatio available	No information available	No information available	۱ -
- · · ·			· · ·			
Specific	target organ toxicit	y – repeated e pecific effects	exposure (STO	OT RE): Target org	ıan	Note
Subacute oral		ation available		No information ava		-
Subacute dermal		ation available		No information ava		_
Subacute inhalat		ation available		No information ava		-
Subchronic oral		ation available		No information ava		_



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Subchro	onic dermal	No information	on available	No information available	_				
	onic inhalation	No information		No information available					
					-				
Chronic		No information		No information available	-				
	Chronic dermal No informatio			No information available	-				
Chronic	inhalation	No information	on available	No information available	-				
	-								
	CMR effects (c	arcinogenicity; ı	mutagenicity; reprod	ductive toxicity)					
	Carcinogenicit	y:	Current studies o	n test animals did not indicate ca	arcinogenic effects.				
	Mutagenicity i	n-vitro:	Current in vitro	Current in vitro tests did not indicate mutagenic effects.					
	Genotoxicity:		No information a	vailable					
	Mutagenicity i	n-vivo:	Current in vivo tests did not indicate mutagenic effects.						
	Germ cell muta	agenicity:	No information available						
	Reproductive t	toxicity:	No toxicity on organs.	toxicity on reproductive organs was determined in reproductions.					
	Summary of ev	valuation of the	CMR properties:	-					
	<u>.i</u>								
11.2.	Information or	n other hazards:							
11.2.1.	Endocrine disr	upting properti	es:						
			ng properties that af	fect human health.					
11.2.2.	Other information	•	<u> </u>						

SECTION 12. Ecological information									
12.1. Toxicity									
Acute toxicity	Dose	Exposure time	Species	Method	Evaluation	Note			
Fish	LC ₅₀	96 hours	No information available	No information available	-	-			
Crustacea:	EC ₅₀	48 hours	No information available	No information available	_	-			
Algae/aquatic plants	IC ₅₀	8 days	No information available	No information available	_	-			
Microorganisms	LC ₅₀	72 hours	-	-	-	-			
Chronic (long-term) toxicity	Dose	Exposure time	Species	Method	Evaluation	Note			



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

12.2. I	Persistence and degradability	nce and degradability								
j	Abiotic degradation	biotic degradation								
	Degradation half-lives Method Evaluation									
Marine water	No information available	No information available	No information available	-						
Fresh wat	ter 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	-						

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

12.3. Bic	paccumulative potenti	al								
Oc	Octanol-water partition coefficient (log Kow)									
Value	Concentration	рН	°C	Method	Evaluation	Note				
-	No information available	-	-	No information available	No information available	-				
Bio	concentration factor	(BCF)								
Value	Spec	ies		Method	Evaluation	Note				



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3	ame:	GRAM LUGOL SOLUTION, STABILIZED											
Product c	ode:	GLS-0	DT-X**	Г	Date of compilation: 14 November 2022 V		Version:	5					
No inform available	ation	No availab	inform	ation	No infor available		on	No info	ormation le		No ir availa	nformatio able	n
C	hronic ec	otoxicit	у										
,	Value		Dose		osure ime	Spe	ecies	Met	hod	Eva	luatio	n	Note
Chronic to	xicity on	fish	LC ₅₀	No infor avail	mation	No infori availa	mation able	No informa availab	ation	No inforn availa		۱ -	
Chronic to crustacea (-)	EC ₅₀	No infor avail	mation	No infori availa	mation able	No informa availab	ation	No inforn availa		ı -	
12.4. N	1obility in	soil											
			ed distributi	on in e	environme	ntal o	compart	ments:					
	lo informa		vailable										
Sı	urface ter Value	nsion:	°C		oncentrati	on		Metho	d			Note	
				No	informati iilable		No infavailat	ormation		-		Note	
A	dsorptior	n / deso	rption										
Transport		/D coef enry's co		lo	og Kow	E۱	/aporati	on rate	Me	Method Note		ote	
	No information No information No information		formation					nation	No info		n	_	
Soil-water	avaiia				information No information available		No info	formation _					
Soil-water Water-air	No availa		formation	No ir availa		av	ailable		available	е		_	



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12.6.	Endocrine disrupting properties					
	No known endocrine disrupting prop	No known endocrine disrupting properties that affect the environment.				
12.7.	Other adverse effects					
	No adverse effects are expected.					
SECTIO	N 13. Disposal considerations					
13.1.	Waste treatment methods					
13.1.1.	Product/Packaging disposal:					
	Submit for disposal to the legal per Protection.	son authorized by the Ministry of Environmental and Nature				
13.1.2.	Waste codes/waste designations ac	cording to Law:				
	No information available					
13.1.3.	Waste treatment – relevant informa	tion:				
	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:					
	-					
SECTIO	SECTION 14. Transport information					
	Transporting/shipment by road (ADR					
UN num	nber: No	t subject to transport regulations.				
UN prop	per shipping name: -					
Transpo	ort hazard class(es):					



Trading name:

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Product code:	GLS-OT-X**	Date of compilation:	14 November 2022	Version: 5
Packing group:		-		
Environmentally h	azardous:	-		
Special precaution		-		
	ting/shipment by rail	(RID)		
UN number:	- J,	Not subject to transport	regulations.	
UN proper shippir	ng name:	-		
Transport hazard		_		
Packing group:		_		
Environmentally h	azardous:	-		
Special precaution		-		
	aterway transport (Al	DN)		
UN number:		Not subject to transport	regulations.	
UN proper shippir	ng name:	-		
Transport hazard	class(es):	-		
Packing group:		-		
Environmentally h	azardous:	-		
Special precaution	ns for user:	-		
Transpor	ting/shipment by sea	ı (IMDG)		
UN number:		Not subject to transport	regulations.	
UN proper shippir	ng name:	-		
Transport hazard	class(es):	-		
Packing group:		-		
Environmentally h	azardous:	-		
Special precaution	ns for user:	-		
Transpor	ting/shipment by air	(ICAO-TI/IATA-DGR)		
UN number:		Not subject to transport	regulations.	
UN proper shippir	ng name:	-		
Transport hazard	class(es):	-		
Packing group:		-		
Environmentally h	azardous:	-		
Special precaution	ns for user:	-		
Further information	on: The produc	t is not subject to classificatio	n.	



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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:	-



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Product code:	GLS-OT-X**	Date of compilation:	14 November 2022	Version: 5	5

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

ANNEX: Exposure scenario resulting to Chemical safety assessment



GSF-OT-X**

Trading name: Product code:

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GRAM SAFRANIN SOLUTION					
Revision date:	23 Dec 2022	Version:	6		

1.1	Product identifier	the substance	-/ IIIIACUI C	and of the company/undertaking	
	Trading name:	GRAM SAFF	RANIN SO	LUTION	
	Chemical name:	-			
	Catalogue number:	GSF-OT-X**			
1.2	Relevant identified us	es of the subst	tance or m	nixture and uses advised against	
	Uses:		For use i	in Gram staining using BioGram 4 kit.	
	Uses advised against:		Only the	identified uses are advised.	
	Reason why uses adv	vised against: device, registered at the Agency for Medicinal		duct is intended for use only as an <i>in vitro</i> diagnostic medical registered at the Agency for Medicinal Products and Medical and there is no reason to use it for other purposes.	
1.3	Details of the supplie	Details of the supplier of the safety data sheet			
	Supplier:		BioGnost Ltd.		
	Address:		Medjugorska 59, Zagreb		
	Telephone number:		+385 1 2409997		
	Telefax.:		+385 1 2404039		
	e-mail of competent	person:	msds@biognost.hr		
	National contact:		-		
1.4	Emergency telephone	number			
	National Protection and Rescue Direc		ectorate:	112	
	Medical information:			+385 1 2348 342	
	Other information:			-	

SECTIO	ECTION 2. Hazards identification					
2.1	Classification of the substan	Classification of the substance or mixture				
2.1.1	Classification according to R	Regulation (EC) No 1	272/2008 (CLP)			
	Hazard class and cat	egory code:	Hazard stateme	nts*:		
	Flam. Liq. 3		H226			
2.1.2.	Additional information					
	-					
*For fu	ıll text of Hazard- and EU Haza	rd-statements: see S	ECTION 16			
2.2	Label elements					
	Product identification:	GRAM SAFRAN	N SOLUTION			
	Identification number:	-				
	Authorization number:	-				



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Trading name:	GRAM SAFRANIN SOLUTION				
Product code:	GSF-OT-X**	Revision date:	23 Dec 2022	Version:	6

	Hazard pictograms:	GHS02	
	Signal word:	Danger	
	Hazard statements:	H226 Flammable liquid and vapor.	
	Precautionary statements:	P210 Keep away from heat, hot sparks, open flames and other ignition sources. No smoking. P233 Keep container tightly closed. P280 Wear protective gloves/protective clothing/eye/protection/face protection.	
	Supplemetal hazard information (EU):	-	
2.3	Other hazards		
	The product has no other kno	wn specific hazards for human or environment.	
	Results of PBT and vPvB assessment: Based on available data, the product does not contain any PBT or vPvB substances.		
	Endocrine disrupting propert	y: Based on available data, does not contain endocrine disruptors.	

SECTION 3. Co	SECTION 3. Composition/information on ingredients						
CAS/ EC/ Index number	REACH Registration No	Weight % content (or range)	Identification name	Classification according to Regulation (EC) No 1272/2008 (CLP)			
64-17-5/ 200-578-6/ 603-002-00-5	01-2119457610-43- 0147	10 – 20 %	ethanol	Flam. Liq. 2; H225			

SECTI	SECTION 4. First aid measures				
4.1	Description of first aid measures				
	General notes:	If the suggested first aid measures do not prove sufficient, seek medical attention.			
	Following inhalation:	Take the victim into fresh air, loosen his clothes and place him in a comfortable position. If breathing difficulty occurs, administer artificial respiration. In case of complaints call a physician.			
	Following skin contact:	Remove the contaminated clothes. Wash the skin surface under plenty of running water. Seek medical assistance if the symptoms of irritation remain.			



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	Following eye contact:	In case of contact with eyes flush with water holding eyelids apart and moving the eyeballs (for at least 10 minutes). If the symptoms remain, immediately call in ophthalmologist.		
	Following ingestion:	Place the victim in a comfortable position. Rinse the mouth with clean water. If the victim is conscious induce vomiting. Do not give the victim anything orally, and do not induce vomiting if the victim is unconscious or suffers from convulsions.		
	Self-protection of the first aider:	-		
4.2	Most important symptoms and effects, both acute and delayed			
	Following inhalation:	Inhalation of larger quantities may affect the central nervous system.		
	Following skin contact:	Prolonged or repeated dermal contact may cause the defatting and dryness of the skin.		
	Following eye contact:	May irritate the eyes.		
	Following ingestion:	Ingestion of larger quantities may affect the central nervous system.		
4.3	Indication of any immediate medical attention and special treatment needed If larger quantities have entered the body, obtain medical treatment (gastric lavage, activated carbon).			

SECTION	ON 5. Firefighting measures	
5.1	Extinguishing media	
	Suitable extinguishing media:	Extinguishing powder, alcohol-resistant foam, water, carbon-dioxide.
	Unsuitable extinguishing media:	Water with full jet.
5.2	Special hazards arising from the su	ubstance or mixture
	Hazardous combustion products:	Highly flammable liquid and vapour. In case of fire, smoke, and other combustion products (carbon monoxide, carbon dioxide) may be formed, the inhalation of such combustion products can have serious adverse effects on health. Vapours may form an explosive mix with air. Vapours may be ignited by open flames, sparks, electrical equipment, or static charge. Vapours may travel to great distances, ignite in contact with ignition sources and flash back to the primer source (container). Vapours of ethyl alcohol mix greatly with air and may form an explosive mixture. Air containing 3.3 – 19 % ethyl alcohol vapours may explode in contact with ignition sources. Diluting the mixture with large amounts of water results in the loss of its flammability (around 10 % concentration of ethyl alcohol).
5.3	Advice for firefighters	
	Wear full protective clothing and self-contained breathing apparatus. Cool the fire affected containers wit water spray. Use water spray to dissipate alcohol vapours.	
5.4	Additional information	
	-	



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6.1	Personal precautions, protective equipment and emergency procedures			
6.1.1.	For non-emergency personnel			
	Protective equipment:	Use personal protective equipment (see Section 8).		
	Accident prevention methods:	Evacuate members of all non-essential personnel and those members without protective equipment.		
	Emergency procedures:	Mark the area using proper signs.		
6.1.2.	For emergency responders:			
	Avoid contact with skin, eyes and clothing and inhaling gases, vapours and aerosols. Ensure adequate ventilation. Vapours may accumulate at floor level in low and confined spaces. Remove all heat, ignition and spark sources, turn off machines. Ignition spark arrestor must not be operated in the danger area. Use spark-proof tools. Be aware of the risk of slipping.			
6.2	Environmental precautions:			
	Dispose of the spillage and the resulting waste according to the applicable environmental regulations. Do not allow the product and the resulting waste to enter sewers/soil/surface or ground water. Notify the respective authorities in accordance with local law in the case of environmental pollution immediately.			
6.3	Methods and material for containment and cleaning up			
6.3.1.	Bunding, covering of drains; capping procedures:	Sand protective barrier or barriers made of similar materials.		
6.3.2.	Cleaning up:	Collect the spilled product with inert, non-combustible absorbent (e.g. sand, vermiculite, earth) then place into a suitable, closed, properly labelled chemical waste container for removal/disposal. During the collection, placement, disposal of the waste, wear appropriate individual protective equipment. Flush the remains with plenty of water. The product loses its flammability, if diluted with significant amount of water (approx. 10% solution).		
6.3.3.	Other information:	Secure proper ventilation. Do not use incompatible materials (see Section 10).		
6.4	Reference to other sections			
	See Section 7 for information on safe handling. See Section 8 for information on personal protection equipment. See Section 13 for disposal information.			

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



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Trading name:		GRAM SAFRAN	IN SOLUTION		
Product code:	GSF-OT-X**	Revision date:	23 Dec 2022	Version:	6

	Measures to prevent fire:		Use in well ventilated storage rooms. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use non-sparkling tools and equipment.
	Measures to prevent aerosol and dust generatio	n:	Ensure adequate ventilation.
	Measures to protect the environment:		Prevent spilling into the sewage system and waterways.
	Other measures:		Protect against electrostatic charges.
7.1.2.	Advice on general occupational hygiene:		
	Do not eat, drink or smoke in the workspace. The	oroughly was	sh hands after work and before eating.
7.2	Conditions for safe storage, including any incompatibilities		
	Technical measures and storage conditions:	away from unopened	well-ventilated place, protected from sunlight, a sources of heat and ignition, in its original, and hermetically sealed packaging, away dizing agents, food, feed and articles of ion.
	Packaging materials:	Manufactu	urer's original packaging.
	Requirements for storage rooms and vessels:	Keep away tightly clos	y from food and drink. Keep the containers sed.
	Advices for storage equipment:	be resistar	ge must be made of hard material; floors must nt to chemicals. There must be no drain that eads into sewage system. Secure proper n.
	Further information on storage conditions:	and do n	ace the unused material in the storage room not use empty containers for storing other . Do not store with incompatible materials (see)).
7.3	Specific end use(s)		
	Recommendations:	-	
	Industrial sector specific solutions:	-	

SECTION 8. Exposure control	SECTION 8. Exposure controls/personal protection					
8.1 Control parameters						
Substance	CAS No		exposure limit term values	Biological limit values		
		ppm	mg/m³	_		
Ethanol	64-17-5	1000/-	1900/-	-		
		•				
Substance name: -						



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Trading name:	GRAM SAFRANIN SOLUTION				
Product code:	GSF-OT-X**	Revision date:	23 Dec 2022	Version:	6

		,							
EC No:		-	CAS No	:	-				
DNEL									
					In	dustria	I		
Route of		Acu	ıte		Acute		Chron	nic	Chronic
exposure:		effect	local	effe	ect systemi	С	effect lo	ocal	effect systemic
Oral		-		-		-			-
Inhalation		1900 mg (ethanol)		-		-			380 mg/m³ (ethanol)
Dermal		-		-		-			343 mg/kg (ethanol)
Critical phy	sical par	ameters: s	olubility,	flamm	nability, co	rrosivity	<i>/</i> : -		
					Co	nsume	r		
Route of		Ad	cute		Acute		Chron	nic	Chronic
exposure:		effec	t local	effe	ect systemi	ic	effect lo	ocal	effect systemic
Oral		-		-		-			87 mg/kg bw/day (ethanol)
Inhalation		950 m (ethan	-	-		-			114 mg/m³ (ethanol)
Dermal		-		-		-			206 mg/kg (ethanol)
PNEC						_			
Environmer	ntal prot	ection tar	get			PNEC			
Fresh water						0.96 mg/l (ethanol)			
Freshwater	sedimer	nts				3.6 mg/kg (ethanol)			
Marine wat	er					0.79 mg/l (ethanol)			
Marine sed	iments					2.9 mg/kg (ethanol)			
Food chain						380-720 mg/kg (ethanol)			
Microorgan	isms in	sewage tr	eatment			580 mg/l (ethanol)			
Soil (agricu	ltural)					0.63 mg/kg (ethanol)			
Air						no information available			
8.2	Exposu	ire contro	ls						
8.2.1.	Appro	oriate eng	ineering	contro	ols				
	Appropriate engineering controls Substance/mixture related measures to prevent exposure during identified uses:			In case of a hazardous material with no controlled concentration limit it is the employer's duty to keep concentration levels down to a minimum achievable by existing scientific and technological means, where the hazardous substance poses no harm to workers.			e employer's duty to keep o a minimum achievable by nological means, where the		
	Structu exposu	ıral measu ıre:	ires to pr	event		In accordance with Section 7.			



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	Organisational measures to preve exposure:	ent	Organization of work in order to reduce other worker's influence during work process.			
	Technical measures to prevent ex	posure:	In pursuance of work is proper foresight needed to avoid spilling onto clothes and floors and to avoid contact with eyes and skin. Use according to general application methods and with adequate ventilation.			
	•	•	Use non-sparkling ventilation system.			
			Provide appropriate personal protective equipment, safety shower and eye-wash station.			
8.2.2.	Personal protection equipment					
8.2.2.1.	Eye and face protection:	Use appropriate, chemical-proof protective glasses/face shield (ISO 16321-1:2022, EN 166).				
8.2.2.2.	Skin protection					
	Hand protection:	Use ap	appropriate, chemical-resistant protective gloves (EN 374).			
	Other skin protection:	Use appropriate protective clothing.				
8.2.2.3.	Respiratory protection:	concer in the contac	e of normal usage and ventilation, it is not necessary. If ntration of ethyl alcohol exceeds occupational exposure limits air, use a self-contained breathing apparatus. For short at and if the oxygen content of the air is greater than 18 %, use ective gas mask with filter A (EN 14837/A1).			
8.2.2.4.	Thermal hazards:	No the	ermal hazards known.			
8.2.3.	Environmental exposure controls					
	Substance/mixture related measures to prevent exposure:	See Se	ction 6			
	Structural measures to prevent exposure:	Use m	odern equipment.			
	Organisational measures to prevent exposure:	Adapt workpl	t the work process to the required working conditions of the place.			
	Technical measures to prevent exposure:	See Se	ection 6			

SECTI	SECTION 9. Physical and chemical properties							
9.1	Information on basic physical and chemical properties							
		Value	Method					
	Physical state:	liquid	No information available					
	Colour:	red	No information available					
	Odour/odour threshold:	ethanol like/no information available	No information available					
	Melting point / freezing point:	No information available	No information available					



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Trading name:	GRAM SAFRANIN SOLUTION						
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	-		
9.2	Other information		
	Particle characteristics:	No information available	No information available
	Relative vapour density:	No information available	No information available
	Density and/or relative density:	No information available	No information available
	Vapour pressure:	No information available	No information available
	Partition coefficient n-octanol/water (log value):	No information available	No information available
	Solubility:	No information available	No information available
	Kinematic viscosity:	No information available	No information available
	pH:	No information available	No information available
	Decomposition temperature:	No information available	No information available
	Auto-ignition temperature:	No information available	No information available
	Flash point:	49 °C	No information available
	Lower and upper explosion limit:	No information available	No information available
	Flammability:	No information available	No information available
	Boiling point or initial boiling point and boiling range:	No information available	No information available

SECTION	SECTION 10. Stability and reactivity					
10.1	Reactivity:	See Section 10.5.				
10.2	Chemical stability:	Stable within normal temperature and general work conditions.				
10.3	Possibility of hazardous reactions:	See Section 10.5.				
10.4	Conditions to avoid:	Keep away from heat, sparks, open flames, strong heating and ignition sources. No smoking.				
10.5	Incompatible materials:	Strong oxidizing agents (inorganic strong acid, nitric acid, perchlorates, peroxy compounds, perchloric acid, permanganates etc.), alkali metals, alkali earth metals.				
10.6	Hazardous decomposition products:	Carbon monoxide and carbon dioxide.				

SECTION 11. Tox	SECTION 11. Toxicological information							
11.1 Informat	Information on hazard classes as defined in Regulation (EC) No 1272/2008							
Acute to	Acute toxicity:							
Route of exposure:	Method	Species	Dose LD ₅₀ /LC ₅₀ or ATE _{mix}	Exposure time	Results			
Oral:	-	rat (ethanol)	LD ₅₀	-	7.060 mg/kg			
Dermal:	-	rabbit (ethanol)	LD ₅₀	-	>20.000 mg/l			



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Trading name:			GRA	M SAFR	ANIN SO	LUTION			
Product code:	GSF-OT-X [*]	·*	Revisio	n date:	23 D	ec 2022	Versi	_	6
Inhalation:	-	rat (etha	nol)	LC ₅	50	4 h		>8.000 r	ng/l
Specific ta	rget organ to	xicity – single	evnosure	(STOT SE)•				
Specific to	 	Specific effects	•	(310132	Target o	rgan		Note	
Oral:		ition available		No inf	formation a		-		
Dermal:	No informa	tion available		No inf	ormation a	ıvailable	-		
Inhalation:	No informa	tion available		No inf	formation a	ıvailable	_		
Aspiration	hazard:		No inf	ormation	available.				
Irritation a	and corrosion								
	Ехр	osure time	Sp	ecies	Evaluation	on Method		Note	
Skin corrosion/irritation	: -		_		_	-	–		
Serious eye damage/irritation	-		-		-	-	-		
Sensitizati	on								
Skin sensitization:	N	o information	available.						
Respiratory sensitiz	zation: No	o information	available.						
Symptoms	s related to th	e physical, ch	emical an	d toxicolo	gical chara	cteristics			
	A b c o r o t	on of area	+ ~	itios man		diinacc du	ınlıannass	ما میں د	

Symptoms re	elated to the physical, chemical and toxicological characteristics
Oral exposure:	Absorption of great quantities may cause dizziness, drunkenness, euphoria, unconsciousness and alcohol poisoning. In case of swallowing great quantities, nausea and vomiting may occur. Repeated or prolonged exposure may lead to liver cirrhosis.
Dermal exposure:	After prolonged or repeated exposure symptoms may include: defatting, dryness and cracking of skin.
Inhalation exposure:	Inhalation of great quantities may cause dizziness, euphoria and mild irritation of the mucous membranes.
Eye exposure:	May cause irritation and redness.

Repeated dose toxicity (subacute, subchronic, 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	-		



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Trading name:	GRAM SAFRANIN SOLUTION							
Product code:	GSF-OT-X**	Revision date:	23 Dec 2022	Version:	6			

Subacute dermal	No availa	information able	No information available	No information available	No information available	No inform available	nation	-
Subacute inhalation	No availa	information able	No information available	No information available	No information available	No inform	nation	
Subchronic oral	No availa	information able	No information available	No information available	No information available	No inform available	nation	–
Subchronic dermal	No availa	information able	No information available	No information available	No information available	No inform available	nation	-
Subchronic inhalation	No information available		No information available	No information available	No information available	No inform available	nation	-
Chronic oral	No availa	information able	No information available	No information available	No information available	No inform available	nation	_
Chronic dermal	No availa	information able	No information available	No information available	No information available	No inform	No information available	
Chronic	No availa	information able	No information available	No information available	No information available	No inform	nation	-
inhalation			available		G. T. G. T. G. T. G.			
<u> </u>	target	organ toxicit		xposure (STOT				
<u> </u>	target	organ toxicit	y – repeated e	xposure (STOT	RE):	rgan		Note
Specific	target			•			_	Note
<u> </u>		No informa	y – repeated e Specific effec	•	RE): Target o	n available	-	Note
Specific Subacute oral Subacute derma	l	No informa	y – repeated e Specific effec ation available	•	RE): Target o	n available n available		Note
Specific Subacute oral	l	No informa No informa No informa	y – repeated e Specific effec ition available ition available	•	RE): Target o No information	n available n available n available		Note
Specific Subacute oral Subacute derma Subacute inhala	l	No informa No informa No informa No informa	y – repeated e Specific effec ation available ation available	•	RE): Target of the No information of the No	n available n available n available n available	-	Note
Specific Subacute oral Subacute derma Subacute inhalat Subchronic oral Subchronic dern	l :ion nal	No informa No informa No informa No informa No informa	y – repeated e Specific effect ation available ation available ation available	•	RE): Target of the No information No information No information No information No information	n available n available n available n available n available	-	Note
Specific Subacute oral Subacute derma Subacute inhalat Subchronic oral Subchronic dern Subchronic inha	l :ion nal	No informa No informa No informa No informa No informa No informa	y – repeated e Specific effect ation available ation available ation available ation available	•	RE): Target of No information	n available n available n available n available n available n available	-	Note
Specific Subacute oral Subacute derma Subacute inhalat Subchronic oral	l :ion nal	No informa	y – repeated e Specific effect ation available ation available ation available ation available ation available	•	RE): Target of No information	n available n available n available n available n available n available	-	Note



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	Mutagenicity in vitro:	Based on available data, the classification criteria are not met.				
	Genotoxicity:	Based on available data, the classification criteria are not met.				
	Mutagenicity in vivo:	Based on available data, the classification criteria are not met.				
	Germ cell mutagenicity:	Based on available data, the classification criteria are not met.				
	Reproductive toxicity:	Based on available data, the classification criteria are not met.				
	Summary of evaluation of the CN properties:	MR Based on available data, the classification criteria are not met.				
11.2	Information on other hazards:					
11.2.1.	Endocrine disrupting properties:					
	Based on available data, does not contain endocrine disruptors.					
11.2.2.	Other informations:					
	-					

SECTION 12. Ecologic	cal informat	ion				
12.1 Toxicity						
Acute (short-term) toxicity	Dose	Exposure time	Species	Method	Evaluation	Note
Fish	LC ₅₀	96 hours	golden orf	No information available	8.140 mg/l /48 h (ethanol)	-
Crustacea:	EC ₅₀	48 hours	daphnia magna	No information available	7.800 mg/l (ethanol)	-
Algae/aquatic plants	IC ₅₀	4 days	algae	No information available	5.000 mg/l / 7d (ethanol)	-
Other organisms	-	-	-	-	-	-
Chronic (long-term) toxicity	Dose	Exposure time	Species	Method	Evaluation	Note
Fish	LC ₅₀	96 hours	No information available	No information available	No information available	-
Crustacea:	EC ₅₀	48 hours	No information available	No information available	No information available	-



Trading name:

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Algae/a	aquatic plar	nts	IC ₅₀	72 hours		No information available	No informat available		No info		-	
Other o	organisms		-	-		_	_		-		-	
12.2	Persisten	ce a	nd degradab	oility								
	Abiotic de	egra	dation									
		De	gradation ha	alf-lives		Method	Eva	luation	1	1	Vote	
Marine	water N	lo ir	nformation a	vailable		information ilable	No infor		-	-		
Fresh w	h water No information available			information ilable	No infor		-	-				
Air	No information available		_	information ilable	No infor		-	-				
Soil	il No information available			information ilable	No infor		-	-				
	Biodegra	dati	on									
% De	gradation		Time (c	lays)		Method	Eva	luation	1		Vote	
	rmation			formation		information	No infor			No inform	ation	
availab	le		available		ava	ilable	available		á	available		
12.3			tive potential									
	-		er partition co									
Va	lue (Con	centration	рН	°C	Method		Evalua	ition		Note	
-	-	•			•	-	-			-		
	Bioconce	ntra	tion factor (E	BCF)								
٧	/alue		Specie	es		Method	Ev	aluatic	n		Note	
-		N a	o inf vailable	ormation		information ilable	No info		on	-		



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	Chroni	c ecotoxi	city							
	Value		Dose	Exposure time	Species	Metl	nod	Evalu	ıation	Note
Chronic toxicity on fish		LC ₅₀	No information available	No information available	No inform availab		No inform availab		-	
Chronic toxicity on crustacea (<i>Daphnia</i>)			No information available	No informatio available	No inform availab		No inform availak		-	
12.4	Mobilit	y in soil								
			cted distributi	on in environme	ental comp	artments:				
	No info	ormation	available							
	Surface	tension:	,							
	Val	ue	°C	Concentrat	tion	on Method			Note	
	No No information available available		No informat available		No information available		–			
	Adsorn	ution / de	sorption							
	Ausorp	1	coefficient							
Transp	ort	-	s constant	log Kow	Evaporation rate			Method		Note
Soil-wa	ater	No availab	information le	No informatio available				No information available		-
	ater-air No information available		No informatio available	n No info availab	ormation lle		No information available		_	
Water-	-aır	avaiiab	oil-air No information available		No information available		No ir	nformati	on	_
		No		No informatio available			avail			
Soil-aiı	r	No availab		available						
Soil-aiı	Results	No availab	nd vPvB asses	available	availab	ile	avail	able		
Water-Soil-aii	Results Based o	No availab of PBT a	nd vPvB asses	available ssment product does no	availab	ile	avail	able		



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12.7.	Other adverse effects						
	Do not let the product or its res	idues reach sewer system, waterways and soil.					
SECTIO	N 13. Disposal considerations						
13.1	Waste treatment methods						
13.1.1.	Product/Packaging disposal:						
	Submit for disposal to the leg Protection.	Submit for disposal to the legal person authorized by the Ministry of Environmental and Nature Protection.					
13.1.2.	Waste codes/waste designation	ons according to Law:					
13.11.2.		ual hazardous substances or is contaminated with hazardous substances					
	r dekaging that contains resid	dul inizardous substances of is containinated with inizardous substances					
13.1.3.	Waste treatment – relevant in	formation:					
	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 recommendat						
	authorized by the ministry in	ct's remains into the sewage system. Submit the remains to the collectors charge. Do not dispose of the packaging into the sewage system. Submit ors authorized by the ministry in charge. Unused product residues may be					
13.1.6.	Relevant Community provisio	ns:					
	Disposal must be made accor	ding to official regulations.					
SECTIO	N 14 TRANSPORT INFORMATI	ON					
	Transporting/shipment by road	(ADR)					
UN num	nber:	1170					
UN prop	per shipping name:	Ethanol solution					
Transpo	ort hazard class(es):	3					
Packing	group:	III					
Environ	mentally hazardous:	-					
Special	precautions for user:	-					
	Transporting/shipment by rail (RID)					
UN num	nber:	1170					



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UN proper shipping name:	Ethanol solution
Transport hazard class(es):	3
Packing group:	III
Environmentally hazardous:	-
Special precautions for user:	-
Inland waterway transp	ort (ADN)
UN number:	1170
UN proper shipping name:	Ethanol solution
Transport hazard class(es):	3
Packing group:	III
Environmentally hazardous:	-
Special precautions for user:	-
Transporting/shipment	by sea (IMDG)
UN number:	1170
UN proper shipping name:	Ethanol solution
Transport hazard class(es):	3
Packing group:	III
Environmentally hazardous:	-
Special precautions for user:	-
Transport in bulk according to of MARPOL 73/78 and the IBC c	
Transporting/shipment	by air (ICAO-TI/IATA-DGR)
UN number:	1170
UN proper shipping name:	Ethanol solution
Transport hazard class(es):	3
Packing group:	III
Environmentally hazardous:	-
Special precautions for user:	-
Further information: volur IATA:	Special Provision 144 – An aqueous solution containing 24% or less alcohol by ne is not subject to classification. Special Provision A58 - An aqueous solution containing 24% or less alcohol by ne is not subject to classification.

SECTION 15. Regulatory information

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



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Trading name:		GRAM SAFRANIN SOLUTION						
Product code:	GSF-OT-X**	Revision date:	23 Dec 2022	Version:	6			

	EU regulations	
	Authorization and/or rest	trictions of use
	Authorizations:	-
	Restrictions:	-
	Other EU regulations:	Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC; Directive 2004/42/CE of the European Parliament and of the Council of 21 April 2004 on the limitation of emissions of volatile organic compounds due to the use of organic solvents in certain paints and varnishes and vehicle refinishing products and amending Directive 1999/13/EC; Council Directive 98/24/EC of 7 April 1998 on the protection of the health and safety of workers from the risks related to chemical agents at work; Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006; COMMISSION REGULATION (EU) 2020/878 of 18 June 2020 amending Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).
		REACH Restrictions on the manufacturing, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII);
	Information according 19 guideline)	999/13/EC about limitation of emissions of volatile organic compounds (VOC-
	National legislation:	Chemicals Act, Regulation on classification, packaging and labeling of dangerous substances, Ordinance on occupational exposure limit values and on biological limit values, Regulation on categories, types and classification of waste with a waste catalog and list of hazardous waste, Ordinance on writing Material safety data sheet, Transport of Hazardous Substances Act
15.2	Chemical safety assessme	ent
	None	

SECTION 16. Other information		
16.1 Indication of changes:	-	



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16.2	Abbreviations and acronym	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 ar source of data:	d _	
16.4.	Classification and procedure used to derive the classification for mixture according to Regulation (EC) 1272/2008 (CLP)		
Classif	cation	Classification procedure	
_		-	
16.5.	Relevant H statements (nur	nber and full text)	
	H: 225	Highly flammable liquid and vapor.	
	226	Flammable liquid and vapor.	
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.	

F	ANNEX: Exposure scenario resulting to chemical safety assessment
-	-



SAFETY DATA SHEET

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

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Trading name:	GRAM SODIUM HYDROGENCARBONATE, SOLUTION			TION
Product code:	GNHK-OT-X**	Date of compilation:	14 November 2022	Version: 2

1.1.	Product identifier				
	Trading name:	GRAM SODIUM HYDROGENCARBONATE, SOLUTION			
	Chemical name:	-	-		
	Catalogue number:	GNHK-OT-	GNHK-OT-X**		
1.2.	Relevant identified us	es of the subs	tance or mi	xture and uses advised against	
	Uses:	Uses:		ith BioGram ECO kit.	
	Uses advised against:		Only the i	dentified uses are advised.	
	Reason why uses advised against: d		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: Bio		ioGnost Ltd.		
	Address:	M	ledjugorska	59, Zagreb	
	Telephone number: +:		-385 1 2409997		
	Fax no.:	Fax no.: +:		+385 1 2404039	
	e-mail of competent	person: <u>m</u>	msds@biognost.hr		
	National contact:	National contact: -			
1.4.	Emergency telephone number				
1.4.	National Protection and Rescue Direct			112	
1.4.	National Protection a	nd Rescue Dir	ectorate.		
1.4.	National Protection a Medical information:	nd Rescue Dir	ectorate.	+385 1 2348 342	

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



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Trading name:	GRAM SODIUM HYDROGENCARBONATE, SOLUTION			ΓΙΟΝ
Product code:	GNHK-OT-X**	Date of compilation:	14 November 2022	Version: 2

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

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)
144-55-8/ 205-633-8/ -	-	< 10%	sodium hydrogen carbonate	not classified

SECTIO	ECTION 4. First aid measures				
4.1.	Description of first aid measur	res			
	General notes:	-			
	Following inhalation:	Carry the afflicted person out of the contaminated area into a well-ventilated area or out for fresh air. If breathing becomes erratic or it stops, immediately apply artificial respiration (other than mouth-to-mouth) and contact a physician.			
	Following skin contact:	Remove contaminated clothing. Immediately wash with plenty of water and soap. Seek medical assistance if the symptoms of irritation remain.			
	Following eye contact:	Rinse out with plenty of water with the eyelid held wide open using clean fingers. If the symptoms remain, immediately call a physician.			
	Following ingestion:	Do not induce vomiting. Make the afflicted person drink a glass of water. If spontaneous vomiting occurs, wash the mouth with water, then make the person drink 100-200 ml of water and seek medical attention.			
	Self-protection of the first aid	er: Treat symptomatically.			
4.2.	Most important symptoms an	d effects, both acute and delayed			
	FOllowing inhalation.	According to our findings, chemical, physical and toxicological properties of the substance have not been entirely tested.			
	FUIIOWING SKIN CONTACT.	According to our findings, chemical, physical and toxicological properties of the substance have not been entirely tested.			



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

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

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



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6.3.2.	Cleaning up:	Where possible, the substance can be absorbed by using inflammable material (sand, diatomaceous earth, vermiculite). Place the waste material in tightly closed impermeable containers. Store the substance in well ventilated storage rooms until disposal. Submit for disposal to the legal persons authorized by the Ministry of Environmental and Nature Protection. After disposal of the products, wash the area and and involved materials with water.		
6.3.3.	Other information:	-		
6.4.	Reference to other section	ons		
	See Section 7 for information about secure handling. See Section 8 for information about personal protective equipment. See Section 13 for information about containment.			

	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 generati	ion:	Secure proper ventilation.		
	Measures to protect the environment:		Prevent spilling into the sewage system and waterways.		
	Other measures:		-		
7.1.2.	Advice on general occupational hygiene:				
	Do not eat, drink or smoke in the workspace. Thoroughly wash hands after work and before eating.				
7.2.	Conditions for safe storage, including any inco	Conditions for safe storage, including any incompatibilities			
	Technical measures and storage conditions:	ven	p in tightly closed and upright set containers in a well tilated storage rooms, and away from sources of heat, light, and other incompatible substances.		
	Packaging materials:	Mar	nufacturer's original packaging.		
	Requirements for storage rooms and vessels:		p away from food and drink. Keep the containers		
	Advices for storage equipment:	The storage must be made of hard material; fluide resistant to chemicals. There must be no driectly leads into sewage system. Secure proposed ventilation.			
	Further information on storage conditions:	and che	not place the unused material in the storage room do not use empty containers for storing other micals. Do not store with incompatible materials (see tion 9).		



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Recommendations:	-
Industrial sector specific solutions:	-

SECTION 8. E	xposur	e contr	ols/persona	l protec	tion					
8.1. Cont	rol para	meters								
Subs	tance		CAS No va		upational exposure limit lues/short term values			Bio	ological limit values	
						ppm	r	ng/m³		-
-			-	-		-		-	No infor	mation available
Substance name:										
EC No:	_		CAS No:	-						
DNEL	•			,						
					Inc	dustrial				
Route of exposure: Acute Acute Acute effect local Acute Acute Acute		Acut			Chronic effect local		Chronic effect systemic			
Oral			-			-				
Inhalation -		-		-	-		-			
Dermal		_		-			-			-
Critical physic	al parar	neters: s	solubility, fla	mmabili	ty, cor	rosivity:		_		
	•				-	nsumer		i		
Route of expo	ocura.	A	Acute		Acut	e		Chron	ic	Chronic
Route of expe	Jane.	effe	ect local	effect system		temic		effect local		effect systemic
Oral		-		-			-			-
Inhalation		-		-			-			-
Dermal		-		-			-			-
PNEC						1				
Environmenta	l proted	tion tar	get			PNEC				
Fresh water			No information available							
Freshwater sediments			No information available							
Marine water				No information available						
Marine sediments				No information available						
Food chain						No infor	matio	on availabl	е	
Microorganis	ms in se	wage tr	eatment			No infor	matio	on availabl	е	
Soil (agricultu	ral)					No information available				



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Air			No information available				
8.2.	Exposure controls						
8.2.1.	Appropriate engineering	controls	5				
	Substance/mixture relate measures to prevent exp during identified uses:		Use the product in well ventilated rooms. Use personal protective equipment. Do not eat, drink or smoke in the workspace.				
	Structural measures to preserve:	revent	No information available				
	Organisational measures prevent exposure:	to	Organization of work in order to reduce other worker's influence during work process.				
	Technical measures to prevent exposure:		Secure proper workspace ventilation in order to keep concentration levels in air below permitted levels.				
8.2.2.	Personal protection equi	ipment					
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						
5.2.2.2.	Hand protection:		otective gloves must be according to the EU Directive 2016/425/EEC and andard EN 374. Glove material: nitrile rubber Glove thickness: ≥0.50 mm Break through time: >480 min				
	Other skin protection:		antistatic clothing made of natural fibers (such as cotton) with long es (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 for organic vapors, type "A" (boiling point >65°C) acording to EN 7) used when concentration levels exceed GVI.				
8.2.2.4.	Thermal hazards:	No in	formation available				
8.2.3.	Environmental exposure	controls					
	Substance/mixture relate measures to prevent exp		See Section 6				
	Structural measures to preserve:	revent	Use modern equipment.				
	Organisational measures prevent exposure:	to	Adapt the work process to the required working conditions of the workplace.				
	Technical measures to prexposure:	event	See Section 6				

SECTION 9. Physical and chemical properties



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

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

SECTION 11. Toxicological information



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Acute toxic	rity:					
Route of exposure:	Method	Species	Effective Dose LD ₅₀ /LC ₅₀ or ATE _{mixture}	Exposure t	ime	Results
Oral exposure:	No information available	-	LD ₅₀	-		-
Dermal exposure:	No information available	-	LD ₅₀	-		-
Inhalation exposure:	No information available	-	LC ₅₀	_		-
Specific tar	get organ toxicity – si	ngle exposure (STOT SE):			
	Specif	ic effects	Target	organ		Note
Oral exposure:	No information	available	No information	on available	-	
Dermal exposure:	No information	available	No information	on available	-	
Inhalation exposure	: No information	available	No information	on available	-	
Irritation a	nd corrosion:			****		
	Exposure time	Species	Evaluation	Method		Note
Skin irritation:	-	-	-			
Eye irritation:	-	-	-	-		
Sensitizatio	on					
Dermal exposure:	No information avail	able				
Inhalation	No information avail	able				
exposure:						
•	related to the physica	al, chemical and	toxicological chara	cteristics		
Symptoms		findings, chemic	toxicological chara		perties o	f the substanc
•	According to our have not been en	findings, chemic tirely tested. findings, chemic		xicological pro		



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Eye exposure:		_	our findings, en entirely test	•	hysic	al and toxicolog	gical propertie	es of the substance
Reneate	ed dose toxici	tv (sub	acute, subchro	onic chroni	c)			
Переше	Dose	ty (Sub	Exposure time	Species	<u> </u>	Method	Evaluation	Note
Subacute oral	No inform available	nation	No information available	No information	on	No information available	No information available	n -
Subacute dermal	No inform available	nation	No information available	No information available	on	No information available	No information available	า -
Subacute inhalation	No inform available	nation	No information available	No information available	on	No information available	No information available	n -
Subchronic oral	No inform available	nation	No information available	No information available	on	No information available	No information available	n -
Subchronic dermal	No inform available	nation	No information available	No information available	on	No information available	No information available	า -
Subchronic inhalation	No inform available	nation	No information available	No information available	on	No information available	No information available	า -
Chronic oral	No inform available	nation	No information available	No information available	on	No information available	No information available	า -
Chronic dermal	No inform available	nation	No information available	No information available	on	No information available	No information available	n -
Chronic inhalation	No inform available	nation	No information available	No information available	on	No information available	No information available	า -
		,).F)		
Specific	target organ		y – repeated e pecific effects	xposure (S	101 F	RE): Target orga	an	Note
Subacute oral	No i		tion available		No i	nformation avai		-
Subacute dermal			ition available			nformation avai		_
Subacute inhalat	ion No i	nforma	ition available		No i	nformation avai	lable	-
Subchronic oral	No i	nforma	ition available		No i	nformation avai	ilable	_



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				·

			2 0.00 0.00		
					-
Subchro	onic dermal	No information	on available	No information available	-
Subchro	onic inhalation	No information	on available	No information available	-
Chronic	: oral	No information	on available	No information available	-
Chronic	dermal	No information	on available	No information available	-
Chronic	inhalation	No information	on available	No information available	-
	CMR effects (c	arcinogenicity;	mutagenicity; repro	ductive toxicity)	
	Carcinogenicit	y:	Current studies	on test animals did not indicate ca	rcinogenic effects.
	Mutagenicity i	n-vitro:	Current in vitro	tests did not indicate mutagenio	c effects.
	Genotoxicity:		No information	available	
	Mutagenicity i	n-vivo:	Current in vivo	tests did not indicate mutagenic	effects.
	Germ cell muta	agenicity:	No information	available	
	Reproductive t	toxicity:	No toxicity on organs.	reproductive organs was determ	mined in reproductive
	<u>i</u>				
	Summary of ev	valuation of the	CMR properties:	-	
	<u>:</u>				
11.2.	Information or	n other hazards:			
11.2.1.	Endocrine disr	upting properti	es:		
	No known end	locrine disruptir	ng properties that a	ffect human health.	
11.2.2.	Other information	tions:			
	-				
	1				

SECTION 12. Ecologi	cal informa	tion				
12.1. Toxicity						
Acute toxicity	Dose	Exposure time	Species	Method	Evaluation	Note
Fish	LC ₅₀	96 hours	No information available	No information available	-	-
Crustacea:	EC ₅₀	48 hours	No information available	No information available	-	-
Algae/aquatic plants	IC ₅₀	8 days	No information available	No information available	-	-
Microorganisms	LC ₅₀	72 hours	-	-	-	-
Chronic (long-term) toxicity	Dose	Exposure time	Species	Method	Evaluation	Note



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

12.2. Per	sistence and degradability			
Ab	iotic 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	-

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

12.3. Bio	accumulative potenti	al				
Oct	anol-water partition	coefficient	(log Ko	ow)		
Value	Concentration	рН	°C	Method	Evaluation	Note
-	No information available	-	-	No information available	No information available	-
Pio	concentration factor	(DCE)				
DIO	concentration factor	(DCF)				
Value	Spec	ies		Method	Evaluation	Note



No information available

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Trading na	me:		SRAM	SODIU	м нү	DROGI	ENCARI	BONAT	E, SOL	.UTION	
Product co	de: Gl	NHK-OT-X**	Г	Date of c	ompil	ation:	14 No	vembe	r 2022	Ver	rsion: 2
No informat available		o inform ailable	ation	No info		on	No info	ormation le	1	No infor	
Chr	ronic ecoto	xicity									
Va	alue	Dose		oosure :ime	Sp	ecies	Met	hod	Eva	aluation	Note
Chronic toxi	icity on fish	LC ₅₀	No infor avail	mation able	No infor availa	mation able	No informa availab		No inforr availa	mation Ible	-
Chronic toxi crustacea (<i>D</i>	•	EC ₅₀	No infor avail	mation able	No infor availa	mation able	No informa availab		No inforr availa	mation Ible	-
12.4. Mo	bility in soi	I									
Kno	own or pred	dicted distributi	on in (environm	ental (compart	ments:				
Kno No	own or pred	dicted distributi n available	on in (environm	iental d	compart	ments:				
Kno No	own or pred information	dicted distributi n available n:				compart					
Kno No Sur	own or pred informatio face tensio Value	dicted distributi n available n: °C		environm oncentra		compart	ments:	od		1	Note
Kno No Sur No info	own or pred informatio face tensio Value	dicted distributi n available n:	C		tion		Metho		-	1	Note
Kno No Sur No info	own or pred informatio rface tensio Value ormation	dicted distributin availablen: °C No information	C	oncentra informa	tion	No inf	Metho		-	ı	Note
No Sur No info	own or pred informatio rface tensio Value ormation	dicted distributin availablen: °C No information available	C	oncentra informa	tion	No inf	Metho		-	N	Note
No Sur No info	own or predinterior information Value ormation ailable sorption / c	dicted distributin availablen: °C No information available	No ava	oncentra informa	tion	No inf	Metho formation ple	n	- lethod	1	Note
No Sur No info ava	own or predinterior information Value ormation ailable sorption / c	dicted distribution available n: °C No information available	No ava	oncentra o informa ailable og Kow	tion tion	No inf availab	Metho ormation ole on rate	M	lethod ormatic		
No Sur No info ava Ads	own or predinterior information Value ormation ailable sorption / c A/D c Henry	dicted distribution available n: °C No information available desorption coefficient 's constant	No availa	oncentra o informa ailable og Kow nformatio able	tion tion Evon No	No inf availab vaporatio	Methoromation on rate	M No inf availab	lethod ormatic ole ormatic	on _	



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	:			

12.6.	Endocrine disrupting properties		
	No known endocrine disrupting properties that affect the environment.		
12.7.	Other adverse effects		
	No adverse effects are expected.		
SECTIO	N 13. Disposal considerations		
13.1.	Waste treatment methods		
13.1.1.	Product/Packaging disposal:		
	Submit for disposal to the legal population.	erson authorized by the Ministry of Environmental and Nature	
13.1.2.	Waste codes/waste designations	according to Law:	
	No information available		
	1		
13.1.3.	Waste treatment – relevant inforn	nation:	
	No information available		
13.1.4.	Sewage disposal – relevant inform		
	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:		
SECTION 14. Transport information			
	Transporting/shipment by road (ADR)		
UN num	nber: N	ot subject to transport regulations.	
UN prop	per shipping name: -		
Transpo	Transport hazard class(es): -		



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Packing group:		_		
Environmentally hazardous:		_		
Special precaution		_		
	ting/shipment by rail	(RID)		
UN number:		Not subject to transport	regulations.	
UN proper shippir	ng name:	_		
Transport hazard		_		
Packing group:		-		
Environmentally h	azardous:	-		
Special precaution	ns for user:	-		
Inland wa	aterway transport (AD	N)		
UN number:		Not subject to transport	regulations.	
UN proper shippir	ng name:	-		
Transport hazard	class(es):	-		
Packing group:		-		
Environmentally h	azardous:	-		
Special precaution	ns for user:	-		
Transpor	ting/shipment by sea	(IMDG)		
UN number:		Not subject to transport	regulations.	
UN proper shippir	ng name:	-		
Transport hazard	class(es):	-		
Packing group:		-		
Environmentally h	azardous:	-		
Special precaution	ns for user:	_		
Transpor	ting/shipment by air (ICAO-TI/IATA-DGR)		
UN number:		Not subject to transport	regulations.	
UN proper shippir	ng name:	-		
Transport hazard class(es):		-		
Packing group:		-		
Environmentally hazardous:		-		
Special precaution	ns for user:	-		
Further information	on: The product	is not subject to classification	n.	



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15.1.	Safety, health and environmental regulations/legislation specific for the substance or mixture			
	EU regulations			
	Authorization and/or rest	Authorization and/or restrictions of use		
	Authorizations: -			
	Restrictions:	-		
	Other EU regulations:	Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC; Directive 2004/42/CE of the European Parliament and of the Council of 21 April 2004 on the limitation of emissions of volatile organic compounds due to the use of organic solvents in certain paints and varnishes and vehicle refinishing products and amending Directive 1999/13/EC; Council Directive 98/24/EC of 7 April 1998 on the protection of the health and safety of workers from the risks related to chemical agents at work; Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006; REACH Restrictions on the manufacturing, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII);		
	Information according 1999/13/EC about limitation of emissions of volatile organic compounds (VOC-quideline)			
	National legislation:	Chemicals Act, Regulation on classification, packaging and labeling of dangerous substances, Ordinance on occupational exposure limit values and on biological limit values, Regulation on categories, types and classification of waste with a waste catalog and list of hazardous waste, Ordinance on writing Material safety data sheet, Transport of Hazardous Substances Act		
15.2.	Chemical safety assessme	nt		
	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 1272/2008 (CLP)	used to derive the classification for mixture according to Regulation (EC)	
Classifi	cation	Classification procedure	
-		-	
16.5.	Relevant H statements (numb	per and full text)	
	H: -	-	
16.6.	Training advice:	-	
16.7.	Further information:	** "X" in the product code marks different volumes (different packagings of the product) We are not responsible for consequences in case of failure to comply with instructions for use or improper use of the product described in this material safety data sheet.	

ANNEX: Exposure scenario resulting to Chemical safety assessment