

Revision Date:

GD 116 LV Comp.A

Version

1.0	05.10.2022		0000020706	Date of first issue: 05.10.2022
SECTIO	ON 1: Identification of	the	substance/mi	cture and of the company/undertaking
-	duct identifier oduct name	:	GD 116 LV Co	mp.A
1.2 Rele	evant identified uses of t	the s	ubstance or mi	xture and uses advised against
	e of the Sub- nce/Mixture	:	Sealant	
	commended restrictions use	:	For industrial us	se only.
1.3 Deta	ails of the supplier of the	e saf	ety data sheet	
Co	mpany	:	H.B. Fuller, Isa	-Rakoll, S.A.
Ado	dress	:	Estrada Nacion PT-4486-851 N +351 229 288 2	indelo - Vila do Conde
	nail address of person ponsible for the SDS	:	EU-MSDS@hb	fuller.com
1.4 Eme	ergency telephone numb	ber		
Em	ergency telephone number	er :	In case of pois GBK-EMTEL I Tel.(24h): +49	
				sport accidents:) 352 323 3500 (Infotrac - Contract ID: 90373 /

SDS Number:

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SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Long-term (chronic) aquatic hazard, Category 3 H412: Harmful to aquatic life with long lasting effects.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard statements : H412 Harmful to aquatic life with long lasting effects.

Precautionary statements : Prevention:



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		P273 Avoid rel	ease to the environment.
		Disposal:	
		P501 Dispose disposal plant.	of contents/ container to an approved waste

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Components

Chemical name	CAS-No.	Classification	Concentration
	EC-No.		(% w/w)
	Index-No.		
	Registration number		
Propane, 1,2,3-trichloro-, polymer	68611-50-7	Aquatic Chronic 3;	>= 25 - < 30
with 1,1'-[methylenebis(oxy)]bis[2-		H412	
chloroethane] and sodium sulfide			
(Na2(Sx)), reduced			
For explanation of abbreviations se	e section 16		

For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice	:	Show this safety data sheet to the doctor in attendance. Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
If inhaled	:	Remove person to fresh air. If signs/symptoms continue, get medical attention. In case of unconsciousness bring patient into stable side posi- tion for transport.
In case of skin contact	:	If skin irritation persists, call a physician.
In case of eye contact	:	Flush eyes with water at least 15 minutes. Get medical atten- tion if eye irritation develops or persists.
If swallowed	:	If accidentally swallowed obtain immediate medical attention. Rinse mouth with water. If conscious, drink plenty of water. Do NOT induce vomiting.



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If symptoms persist, call a physician.

4.2 Most important symptoms and effects, both acute and delayed None known.

4.3 Indication of any immediate medical attention and special treatment needed Treatment

: No further relevant information available.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media	:	Use extinguishing measures that are appropriate to local cir- cumstances and the surrounding environment. Water mist Dry powder Carbon dioxide (CO2) Alcohol-resistant foam

5.2 Special hazards arising from the substance or mixture

Specific hazards during fire- fighting	:	May release toxic, irritating and/or corrosive gases. In case of fire, the following substance(s) may occur: Sulphur oxides (SOx) Hydrogen sulphide
5.3 Advice for firefighters Special protective equipment for firefighters	:	No special protective measures against fire required.

Further information : In the event of fire, wear self-contained breathing apparatus. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protec Personal precautions	tive :	e equipment and emergency procedures Use personal protective equipment. Ensure adequate ventilation.
6.2 Environmental precautions Environmental precautions	:	The product should not be allowed to enter drains, water courses or the soil. If the product contaminates rivers and lakes or drains inform respective authorities.



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6.3 Methods and material for containment and cleaning up

Methods for cleaning up	 Ensure adequate ventilation. Send for recovery or disposal in suitable containers. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Dispose of contaminated material as waste according to section 13.
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6.4 Reference to other sections

Refer to protective measures listed in sections 7 and 8., For disposal considerations see section 13.

SECTION 7: Handling and storage

1.1	Precautions for safe handling	J			
	Advice on safe handling	:	Avoid formation of dust and aerosols. Use only with adequate ventilation. Handle with care. Keep eye wash bottle available on working place. Avoid release to the environment. Keep away from children.		
	Advice on protection against fire and explosion	:	In the event of fire and/or explosion do not breathe fumes. Keep breathing equipment ready. Have fire extinguishing equipment ready in case of nearby fire.		
	7.2 Conditions for safe storage, including any incompatibilities				
7.2	Conditions for safe storage, i	incl	luding any incompatibilities		
7.2	Conditions for safe storage, i Requirements for storage areas and containers		l uding any incompatibilities Keep dark, cool and dry. Do not freeze.		
7.2	Requirements for storage				

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
limestone	1317-65-3	OELV - 8 hrs (TWA) (Respira- ble dust)	4 mg/m3	IE OEL
		OELV - 8 hrs	10 mg/m3	IE OEL



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			(TWA) (inhalat dust)	ble				
8.2 Expos	.2 Exposure controls							
-	Engineering measures Please take care on national and local requirements.							
Perse	onal protective equip	ment						
Eye p	protection	:	Tightly fitting safe	ety goggles				
	protection aterial	:	Nitrile rubber					
Remarks :			The glove material has to be impermeable and resistant to the product/the substance/the preparation. The exact break through time can be obtained from the protective glove pro- ducer and this has to be observed.					
Skina	and body protection	:	Protective clothin	g				
Resp	iratory protection	:	tilation is provide exposures are wi In case of brief et use breathing filte In case of intensi	rotection unless adequate local exhaust ven- d or exposure assessment demonstrates that thin recommended exposure guidelines. xposure or low pollution (exceeding of TLV) er apparatus. ve or longer exposure use breathing appa- bendent of circulating air.				
Prote	ctive measures	:	Instantly remove Wash hands before the product. Avoid contact wit	food, drink and animal feedingstuffs. any soiled and impregnated garments. ore breaks and immediately after handling h the eyes and skin. clothing separately.				
Envir	onmental exposure c	ontro	ols					
Air		:		down) gases/vapours/mists with a water				

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	:	solid
Colour	:	beige
Odour	:	rotten-egg like
Odour Threshold	:	is not determined



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	Melting	g point/freezing point	:	is not determined	1		
	Boiling	point/boiling range	:	is not determined	1		
	Flamm	ability	:	Not classified as	a flammability hazard		
		explosion limit / Upper ability limit	:	Upper flammabili			
		explosion limit / Lower ability limit	:	Lower flammabili			
	Flash p	point	:	Not applicable			
	Auto-ignition temperature		:	not self-igniting			
	Decom	position temperature	:	Not applicable			
	Viscos Visc	ity cosity, dynamic	:	2.000 Pa.s (23 °(C)		
	Solubil Wa	ity(ies) ter solubility	:	not miscible or di	fficult to mix		
		on coefficient: n- I/water	:	no data available			
	Vapou	r pressure	:	is not determined	1		
	Densit	y	:	1,77 g/cm³ (23 °0	C)		
	Relativ	e vapour density	:	is not determined			
9.2	Other in	nformation					
	Explos	ives	:	Not explosive			
	Evapo	ration rate	:	is not determined	1		

SECTION 10: Stability and reactivity

10.1 Reactivity

No further relevant information available.

10.2 Chemical stability

No decomposition if used according to the specifications.

10.3 Possibility of hazardous reactions



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Hazaı	dous reactions	:	None known.		
10.4 Conditions to avoid Conditions to avoid		:	: No further relevant information available.		
10.5 Incompatible materials Materials to avoid			No further relevant information available.		
10 6 Hoza	10.6 Hazardous decomposition products				

10.6 Hazardous decomposition products

No hazardous decomposition products are known.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

11.2 Information on other hazards

Endocrine disrupting properties

Product:

Assessment

: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 12: Ecological information

12.1 Toxicity

No data available

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

Product:

Mobility

: Medium: Soil Remarks: Do not allow product to reach ground water, water bodies or sewage system.

12.5 Results of PBT and vPvB assessment

Product:



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Asse	ssment	to be either pers	mixture contains no components considered sistent, bioaccumulative and toxic (PBT), or and very bioaccumulative (vPvB) at levels of			
12.6 Endo	ocrine disrupting prop	erties				
Prod	uct:					
Asse	ssment	mixture does not contain components consid- docrine disrupting properties according to 57(f) or Commission Delegated regulation or Commission Regulation (EU) 2018/605 at or higher.				
	12.7 Other adverse effects No data available					
SECTION	13: Disposal consi	derations				
13.1 Wast	e treatment methods					
Produ		Do not dispose Hand over to dis Can be deposite following consu facility and the p the necessary to The generation wherever possil Incinerate unde local and nation	of with domestic refuse. of waste into sewer. sposers of hazardous waste. ed with household garbage after solidification ltation with the operator of the waste disposal pertinent authorities and under adherence to echnical regulations. of waste should be avoided or minimized ole. r controlled conditions in accordance with all al laws and regulations. of made according to official regulations.			
		waste accruing Any waste prod substances (acc	e code numbers are recommendations for through the use of adhesives and sealants. uced from organic solvents or other dangerous cording GHS) listed under section 3 of this et is itself classified as dangerous (*).			
			g during application:			

08 04 09*waste adhesives and sealants containing organic solvents or other dangerous substances08 04 10waste adhesives and sealants other thanthose mentioned in 08 04 09

Waste accruing during cleaning:

08 04 11*adhesive and sealant sludges containing organic solvents or other dangerous substances08 04 12adhesive and sealant sludges other than



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		those mentior	ned in 08 04 11
		Waste packa 15 01 01 15 01 02 15 01 04 15 01 10* nated by dang	iging: paper and cardboard packaging plastic packaging metallic packaging packaging containing residues of or contami- gerous substances.
Conta	aminated packaging	: Disposal mus	t be made according to official regulations.

SECTION 14: Transport information

14.1 UN number or ID number

Not regulated as a dangerous good

14.2 UN proper shipping name

Not regulated as a dangerous good

14.3 Transport hazard class(es)

Not regulated as a dangerous good

14.4 Packing group

Not regulated as a dangerous good

14.5 Environmental hazards

Not regulated as a dangerous good

14.6 Special precautions for user

Not applicable

14.7 Maritime transport in bulk according to IMO instruments

Not applicable for product as supplied.

SECTION 15: Regulatory information

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

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII)	:	Conditions of restriction for the fol- lowing entries should be considered: methanol (Number on list 69) acetic acid acetic anhydride
Regulation (EC) No 649/2012 of the European Parlia- ment and the Council concerning the export and import of dangerous chemicals	:	Not applicable
REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59).	:	Not applicable



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	•	tion (EC) No 1005/2009 e ozone layer	9 on	substances that de	e-	:	Not applicable
	Regulat tants (re	tion (EU) 2019/1021 or ecast)	n pe	rsistent organic pol	llu-	:	Not applicable
	RoHS: : es	2011/65/EU, Restrictio	n of	Hazardous Substa	anc-	:	Not applicable
	REACH (Annex	I - List of substances s XIV)	ubje	ect to authorisation		:	Not applicable
	an Parli	III: Directive 2012/18/ iament and of the Cour r-accident hazards invo nces.	ncil d	on the control		Not	applicable
	Volatile	organic compounds	:				November 2010 on industrial tion prevention and control)
	The co	mponents of this pro	duc	t are reported in t	he fol	low	ving inventories:
	TSCA		:	-			ive on the TSCA inventory
	AIIC		:	On the inventory, o	or in c	om	pliance with the inventory
	DSL		:	All components of	this p	orod	luct are on the Canadian DSL
	ENCS		:	On the inventory, o	or in c	om	pliance with the inventory
	KECI		:	On the inventory, o	or in c	om	pliance with the inventory
	PICCS		:	On the inventory, o	or in c	om	pliance with the inventory
	IECSC		:	On the inventory, o	or in c	om	pliance with the inventory
	REACH	I	:	On the inventory, o	or in c	om	pliance with the inventory

15.2 Chemical safety assessment

No Chemical Safety Assessment has been carried out for this mixture.



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SECTION 16: Other information

Full text of H-Statements		
H412	:	Harmful to aquatic life with long lasting effects.
Full text of other abbreviation	ons	
Aquatic Chronic	:	Long-term (chronic) aquatic hazard
IE OEL	:	Ireland. List of Chemical Agents and Occupational Exposure Limit Values - Schedule 1
IE OEL / OELV - 8 hrs (TWA)	:	Occupational exposure limit value (8-hour reference period)

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA -European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TECI -Thailand Existing Chemicals Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Further information

Other information

This safety datasheet only contains information relating to safety and does not replace any product information or product specification. Penetrometer test according to ADR 2.3.4.3 Test result: solid (penetration after 5 s < 15 mm)



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Cont	act Point	: Prepared by: G EU-MSDS@hb	lobal Regulatory Department fuller.com
Clas	sification of the mixt	ure:	Classification procedure:
Aqua	tic Chronic 3	H412	Calculation method

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

IE / EN



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2.1	25.04.2023	10000020694	Date of first issue: 04.10.2022

SECTION 1: Identification of the substance/mixture and of the company/undertaking

-	oduct identifier oduct name	:	GD 116 Comp.B65						
1.2 Rel	1.2 Relevant identified uses of the substance or mixture and uses advised against								
	se of the Sub- ance/Mixture	:	Hardener / Curing agent						
	ecommended restrictions	:	Reserved for industrial and professional use.						
1.3 Det	ails of the supplier of the	safe	ety data sheet						
Co	ompany	:	H.B. Fuller, Isar-Rakoll, S.A.						
Ad	ldress	:	Estrada Nacional 13 PT-4486-851 Mindelo - Vila do Conde +351 229 288 200						
	mail address of person sponsible for the SDS	:	EU-MSDS@hbfuller.com						
1.4 Em	ergency telephone numbe	er							
En	nergency telephone number	:	In case of poisoning: GBK-EMTEL International Tel.(24h): +49(0)6132/84463 (all languages)						
			In case of transport accidents: Tel.(24h): (001) 352 323 3500 (Infotrac - Contract ID: 90373 / GBK)						
			National Poisons Information Centre (NPIC): 01 809 2566 (24 hours)						

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Acute toxicity, Category 4	H302: Harmful if swallowed.
Skin sensitisation, Category 1	H317: May cause an allergic skin reaction.
Long-term (chronic) aquatic hazard, Cat- egory 3	H412: Harmful to aquatic life with long lasting effects.



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2.2 Label o	.2 Label elements								
	ling (REGULATION (I rd pictograms	E C) :	No 1272	2/2008)					
Signa	l word	:	Warnir	ıg					
Hazar	d statements	:	H302 H317 H412		swallowed. an allergic skin reaction. aquatic life with long lasting effects.				
Preca	utionary statements	:	Prever P261 P264 P273 P280	Avoid brea Wash skin Avoid relea	thing dust. thoroughly after handling. ase to the environment. ective gloves.				
			P362 + before	- P313 If s / attention. - P364 Ta	skin irritation or rash occurs: Get medical ke off contaminated clothing and wash it				

Hazardous components which must be listed on the label:

Manganese dioxide Disulfiram Zinc bis(diethyldithiocarbamate)

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Components			
Chemical name	CAS-No.	Classification	Concentration
	EC-No.		(% w/w)
	Index-No.		
	Registration number		
Manganese dioxide	1313-13-9	Acute Tox. 4; H302	>= 20 - < 30
	215-202-6	Acute Tox. 4; H332	
	025-001-00-3		
	01-2119452801-43-		



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Disulf	firam	0000 97-77-8 202-607-8 006-079-00-8 01-2119555278-30- 0000	H400 Aquatic Chronic 1; H410 M-Factor (Acute aquatic toxicity): 1 M-Factor (Chronic aquatic toxicity): 1	>= 1 - < 2,5
Zinc	ois(diethyldithiocarbamate) 14324-55-1 238-270-9 006-082-00-4 01-2119683928-16 0000	Acute toxicity esti- mate Acute oral toxicity: 500 mg/kg Acute Tox. 4; H302 Skin Irrit. 2; H315 Eye Irrit. 2; H319 Skin Sens. 1; H317 STOT SE 3; H335 (Respiratory system) Aquatic Acute 1; H400 Aquatic Chronic 1; H410	>= 0,25 - < 1

For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of first aid mea	asure	S
General advice	:	Show this safety data sheet to the doctor in attendance. Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
If inhaled	:	Remove person to fresh air. If signs/symptoms continue, get medical attention. In case of unconsciousness bring patient into stable side posi- tion for transport.
In case of skin contact	:	If skin irritation persists, call a physician.
In case of eye contact	:	Flush eyes with water at least 15 minutes. Get medical atten- tion if eye irritation develops or persists.



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If swallowed		 If accidentally swallowed obtain immediate medical attention Rinse mouth with water. If conscious, drink plenty of water. Do NOT induce vomiting. If symptoms persist, call a physician. 				
	mportant symptoms ar known.	nd e	ffects, both ac	ute and delayed		
4.3 Indica	tion of any immediate i	med	lical attention a	and special treatment needed		
Treat	ment	:	No further relev	vant information available.		
SECTION	N 5: Firefighting meas	sur	es			
5.1 Exting	uishing media					
Suitable extinguishing media			Use extinguishing measures that are appropriate to local cir- cumstances and the surrounding environment. Water mist Dry powder Carbon dioxide (CO2) Alcohol-resistant foam Sand			
5.2 Specia	al hazards arising from	the	substance or	mixture		
Speci fightir	ific hazards during fire- ng	:		xic, irritating and/or corrosive gases. the following substance(s) may occur: (SOx)		
5.3 Advice	e for firefighters					
	ial protective equipment efighters	:	No special prot	tective measures against fire required.		
Furth	er information	:	Fire residues a	fire, wear self-contained breathing apparatus. nd contaminated fire extinguishing water must in accordance with local regulations.		
SECTION	N 6: Accidental releas	se r	neasures			
6.1 Perso	nal precautions, protec	tive	e equipment an	d emergency procedures		
	onal precautions			protective equipment.		

6.2 Environmental precautions

Environmental precautions : The product should not be allowed to enter drains, water



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		courses or the so If the product con respective author	taminates rivers and lakes or drains inform
6.3 Method	s and material for co	ntainment and cleani	ng up
Method	ds for cleaning up	Soak up with iner acid binder, unive	ventilation. y or disposal in suitable containers. t absorbent material (e.g. sand, silica gel, ersal binder, sawdust). minated material as waste according to sec-

6.4 Reference to other sections

Refer to protective measures listed in sections 7 and 8., For disposal considerations see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling :	Avoid formation of dust and aerosols. Use only with adequate ventilation. Handle with care. Keep eye wash bottle available on working place. Avoid release to the environment. Keep away from children.
Advice on protection against : fire and explosion	In the event of fire and/or explosion do not breathe fumes. Keep breathing equipment ready. Have fire extinguishing equipment ready in case of nearby fire.
Conditions for safe storage, inc	luding any incompatibilities

Requirements for storage areas and containers	:	Keep dark, cool and dry. Do not freeze.
Further information on stor- age conditions	:	Keep containers tightly closed in a dry, cool and well- ventilated place.
7.3 Specific end use(s)		No further relevant information quallela
Specific use(s)		No further relevant information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

7.2

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
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Versio 2.1	on Revision Da 25.04.2023			Date of last issue: 20.12.2022 Date of first issue: 04.10.2022			
	/langanese diox- de	1313-13-9	OELV - 8 hrs (TWA)	0,2 mg/m3 (Manganese)	IE OEL		
				pecific short-term exposure limes exposure limes and the exposure limit value should be			
			OELV - 8 hrs (TWA)	0,2 mg/m3 (Manganese)	IE OEL		
		Further information: Where no specific short-term exposure limit is listed, a figure three times the long-term exposure limit value should be used					
C	arbon black	1333-86-4	OELV - 8 hrs (TWA)	3,5 mg/m3	IE OEL		
			OELV - 15 min (STEL)	7 mg/m3	IE OEL		
			OELV - 8 hrs (TWA) (inhalable fraction)	3 mg/m3	IE OEL		
D	Disulfiram	97-77-8	OELV - 8 hrs (TWA)	2 mg/m3	IE OEL		

8.2 Exposure controls

Engineering measures

Please take care on national and local requirements. Personal protective equipment Eye protection Tightly fitting safety goggles 2 Hand protection Material Nitrile rubber 5 Remarks The glove material has to be impermeable and resistant to 2 the product/the substance/the preparation. The exact break through time can be obtained from the protective glove producer and this has to be observed. Skin and body protection Protective clothing : Use respiratory protection unless adequate risk management Respiratory protection : measures (exhaust/ventilation) are provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines. In case of brief exposure or low pollution (exceeding of TLV) use breathing filter apparatus. In case of intensive or longer exposure use breathing apparatus that is independent of circulating air. Protective measures Keep away from food, drink and animal feedingstuffs. Instantly remove any soiled and impregnated garments. Wash hands before breaks and immediately after handling the product. Avoid contact with the eyes and skin. Store protective clothing separately.



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Environmental exposure controls

Air : Suppress (knock down) gases/vapours/mists with a water spray jet.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	:	solid
Colour	:	black
Odour	:	characteristic
Odour Threshold	:	is not determined
Melting point/freezing point	:	is not determined
Boiling point/boiling range	:	is not determined
Flammability	:	Not classified as a flammability hazard
Upper explosion limit / Upper flammability limit	:	Upper flammability limit is not determined
Lower explosion limit / Lower flammability limit	:	Lower flammability limit is not determined
Flash point	:	Not applicable
Auto-ignition temperature	:	not self-igniting
Decomposition temperature	:	Not applicable
Viscosity Viscosity, dynamic	:	1.100 Pa.s (23 °C)
Solubility(ies) Water solubility	:	insoluble
Solubility in other solvents	:	insoluble
Partition coefficient: n- octanol/water	:	no data available
Vapour pressure	:	is not determined
Density	:	1,58 g/cm³ (23 °C)



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Relative vapour density		: is not determin	ed
9.2 Other	information		
Explo	osives	: Not explosive	
Evap	oration rate	: is not determin	ed
SECTION	N 10: Stability and I	eactivity	
10.1 Read	ctivity		
No fu	irther relevant informat	ion available.	
10.2 Cher	nical stability		
No de	ecomposition if used a	ccording to the specific	ations.
10.3 Poss	sibility of hazardous	eactions	
Hazardous reactions : None known.			
10.4 Cond	ditions to avoid		
Conditions to avoid		: No further relev	vant information available.
10.5 Inco	mpatible materials		
Mate	rials to avoid	: No further relev	vant information available.
10.6 Haza	rdous decompositio	n products	
No ha	azardous decompositio	on products are known.	
SECTION	N 11: Toxicological	information	
11.1 Infor	mation on hazard cla	sses as defined in Re	egulation (EC) No 1272/2008
Acut	e toxicity		
Prod	uct:		
	and to visit .		

Acute oral toxicity	:	Acute toxicity estimate: 1.716 mg/kg Method: Calculation method
Acute inhalation toxicity	:	The homogeneous mixing of this product is guaranteed through continuous physical tests. What were formerly dusty raw materials are completely integrated into the liquid/pasty mass. The possible risk "Hazardous on inhalation", caused through formerly dusty raw materials, is therefore excluded in this mixture. Acute toxicity estimate: > 5 mg/l Exposure time: 4 Hours Test atmosphere: dust/mist



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			Method: Calculat	ion method			
Components:							
Dis	sulfiram:						
Acı	ute oral toxicity	:	LD50 Oral (Rat):	500 mg/kg			
			Acute toxicity est Method: Calculat	imate: 500 mg/kg ion method			
Acute dermal toxicity :		:	LD50 Dermal (Rabbit): > 2.000 mg/kg				
11.2 Inf	11.2 Information on other hazards						
En	docrine disrupting prop	ertie	es				
Pro	oduct:						
Assessment :		ered to have end REACH Article 5	ixture does not contain components consid- ocrine disrupting properties according to 7(f) or Commission Delegated regulation or Commission Regulation (EU) 2018/605 at higher.				

SECTION 12: Ecological information

12.1 Toxicity

Components:		
Disulfiram: Toxicity to fish	:	LC50 (Poecilia reticulata (guppy)): 0,187 mg/l Exposure time: 96 Hours Test Type: semi-static test
M-Factor (Acute aquatic tox- icity)	:	1
M-Factor (Chronic aquatic toxicity)	:	1
12.2 Persistence and degradabil No data available	ity	
12.3 Bioaccumulative potential No data available		
12.4 Mobility in soil		

Product:



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Mobility			Medium: Soil Remarks: Do not allow product to reach ground water, water bodies or sewage system.				
12.5 Resu	Ilts of PBT and vPvB	assessment					
Prod	uct:						
Assessment		to be either per very persistent	This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.				
12.6 Endo	ocrine disrupting pro	perties					
Prod	uct:						
Assessment		ered to have er REACH Article (EU) 2017/210	The substance/mixture does not contain components consid- ered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.				
	N 13: Disposal cons						
Produ		-	of with domestic refuse.				
		Do not dispose Hand over to d Can be deposit following consu- facility and the the necessary to The generation wherever possi Incinerate under local and nation	of waste into sewer. isposers of hazardous waste. ed with household garbage after solidification litation with the operator of the waste disposal pertinent authorities and under adherence to echnical regulations. of waste should be avoided or minimized				
		waste accruing Any waste proc substances (ac	te code numbers are recommendations for through the use of adhesives and sealants. duced from organic solvents or other dangerou cording GHS) listed under section 3 of this et is itself classified as dangerous (*).				
		08 04 09*	g during application: waste adhesives and sealants containing or- or other dangerous substances				



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		08 04 10 those mentior	waste adhesives and sealants other than ned in 08 04 09
		Waste accrui	ing during cleaning:
		-	s or other dangerous substances
		08 04 12 those mentior	adhesive and sealant sludges other than ned in 08 04 11
		Waste packa	aina:
		15 01 01	paper and cardboard packaging
		15 01 02	plastic packaging
		15 01 04	metallic packaging
		15 01 10*	packaging containing residues of or contami-
		nated by dang	gerous substances.
C	Contaminated packaging	: Disposal mus	t be made according to official regulations.

SECTION 14: Transport information

14.1 UN number or ID number

Not regulated as a dangerous good

14.2 UN proper shipping name

Not regulated as a dangerous good

14.3 Transport hazard class(es)

Not regulated as a dangerous good

14.4 Packing group

Not regulated as a dangerous good

14.5 Environmental hazards

Not regulated as a dangerous good

14.6 Special precautions for user

Not applicable

14.7 Maritime transport in bulk according to IMO instruments

Not applicable for product as supplied.

SECTION 15: Regulatory information

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

REACH - Restrictions on the manufacture, placing on	:	Conditions of restriction for the fol-
the market and use of certain dangerous substances,		lowing entries should be considered:
mixtures and articles (Annex XVII)		Number on list 75Disulfiram
		Zinc bis(diethyldithiocarbamate)



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	REACH - Candidate List of Substances of Very High : Not applicable Concern for Authorisation (Article 59)						
		tion (EC) No 1005/200 e ozone layer	9 or	n substances that d	e-	:	Not applicable
	Regula tants (re	tion (EU) 2019/1021 or ecast)	n pe	rsistent organic po	llu-	:	Not applicable
	RoHS: es	2011/65/EU, Restrictio	n of	Hazardous Substa	anc-	:	Not applicable
	for the	l Regulation (EC) No 1 monitoring of trade bet untries in drug precurs	wee			:	Neither banned nor restricted
	ment a	tion (EC) No 649/2012 nd the Council concern Jerous chemicals				:	Not applicable
	REACH - List of substances subject to authorisation : Not applicable (Annex XIV)						
	an Parl	III: Directive 2012/18/ iament and of the Cou r-accident hazards inve nces.	ncil	on the control		No	t applicable
	Volatile	organic compounds	:				4 November 2010 on industrial tion prevention and control)
	Take no	regulations: ote of Directive 94/33/E ons, where applicable.		on the protection of	youn	ıg pı	eople at work or stricter national
	The co TCSI	mponents of this pro	duc :	-			wing inventories: npliance with the inventory
	TSCA		:	All substances list	ed as	s ac	tive on the TSCA inventory
	DSL		:	All components of	this	proc	duct are on the Canadian DSL
	ENCS		:	On the inventory,	or in	con	npliance with the inventory



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KECI		:	On the inventory,	or in compliance with the inventory
PICCS	PICCS		On the inventory,	or in compliance with the inventory
IECSC	IECSC		On the inventory,	or in compliance with the inventory
REAC	Н	:	On the inventory,	or in compliance with the inventory

15.2 Chemical safety assessment

No Chemical Safety Assessment has been carried out for this mixture.

SECTION 16: Other information

Full text of H-Statements	
H302	Harmful if swallowed.
H315	Causes skin irritation.
H317 :	May cause an allergic skin reaction.
H319 :	Causes serious eye irritation.
H332 :	Harmful if inhaled.
H335 :	May cause respiratory irritation.
H373 :	May cause damage to organs through prolonged or repeated
	exposure.
H400 :	Very toxic to aquatic life.
H410 :	Very toxic to aquatic life with long lasting effects.
Full text of other abbreviation	s
Acute Tox.	Acute toxicity
Aquatic Acute	Short-term (acute) aquatic hazard
Aquatic Chronic	Long-term (chronic) aquatic hazard
Eye Irrit.	Eye irritation
Skin Irrit.	Skin irritation
Skin Sens.	Skin sensitisation
STOT RE	Specific target organ toxicity - repeated exposure
STOT SE	Specific target organ toxicity - single exposure
IE OEL	Ireland. List of Chemical Agents and Occupational Exposure Limit Values - Schedule 1
IE OEL / OELV - 8 hrs (TWA)	Occupational exposure limit value (8-hour reference period)
IE OEL / OELV - 15 min í :	Occupational exposure limit value (15-minute reference peri-
(STEL)	od)

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard



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of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA -European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration: NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIOC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TECI -Thailand Existing Chemicals Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Further information

Other information	safety and do uct specificat Penetromete	atasheet only contains information relating to bes not replace any product information or prod- ion. r test according to ADR 2.3.4.3 olid (penetration after 5 s < 15 mm)
Contact Point	: Prepared by: EU-MSDS@	Global Regulatory Department
Classification of the mix	cture:	Classification procedure:
Acute Tox. 4	H302	Calculation method
Skin Sens. 1	H317	Calculation method
Aquatic Chronic 3	H412	Calculation method

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.



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