

Version	Revision Date:	SDS Number:	Date of last issue: 28.03.2022
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SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier Product name	:	Rakoll® Express SR
1.2 Relevant identified uses of th	ne s	ubstance or mixture and uses advised against
Use of the Sub- stance/Mixture	:	Water based adhesive
Recommended restrictions on use	:	For industrial use only.
1.3 Details of the supplier of the	saf	ety data sheet
Company	:	H.B. Fuller, Isar-Rakoll, S.A.
Address	:	Estrada Nacional 13 PT-4486-851 Mindelo - Vila do Conde +351 229 288 200
E-mail address of person responsible for the SDS	:	EU-MSDS@hbfuller.com
1.4 Emergency telephone number	ər	
		+44 1235 239 670 (24 hours)
		National Poisons Information Centre (NPIC): 01 809 2566 (2

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)

Eye irritation, Category 2 H319: Causes serious eye irritation.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008) Hazard pictograms :



Signal word

: Warning



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Hazaro	d statements	: H319	Causes se	erious eye irritation.
Precau	itionary statements	: Preve P264 P280		thoroughly after handling. protection/ face protection.
		ter for easy f	+ P351 + P3 several min o do. Contin + P313 If	IF IN EYES: Rinse cautiously with wa- utes. Remove contact lenses, if present and ue rinsing. eye irritation persists: Get medical advice/

Additional Labelling

EUH208

Contains 5-Chloro-2-methyl-3(2H)isothiazolone mixt. with 2-Methyl-3(2H)isothiazolone. May produce an allergic reaction.

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative tive 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. EC-No. Index-No.	Classification	Concentration (% w/w)
butyl glycollate	Registration number 7397-62-8 230-991-7	Eye Dam. 1; H318	>= 1 - < 3
bronopol	52-51-7 200-143-0 603-085-00-8 01-2119980938-15- 0000	Acute Tox. 4; H302 Acute Tox. 4; H312 Skin Irrit. 2; H315 Eye Dam. 1; H318 STOT SE 3; H335 (Respiratory system) Aquatic Acute 1; H400 Aquatic Chronic 1; H410 M-Factor (Acute aquatic toxicity): 10 M-Factor (Chronic	>= 0,0025 - < 0,025



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		aquatic toxicity): 1	
		Acute toxicity esti- mate	
		Acute oral toxicity: 500,0 mg/kg Acute dermal toxicity: 1.100 mg/kg	
5-Chloro-2-methyl- 3(2H)isothiazolone mixt. with 2- Methyl-3(2H)isothiazolone	55965-84-9 911-418-6 613-167-00-5 01-2120764691 0000	Acute Tox. 2; H330 Acute Tox. 2; H310	= 0,0002 - < 0,0015
		M-Factor (Acute aquatic toxicity): 100 M-Factor (Chronic aquatic toxicity): 100	
		specific concentration limit Skin Corr. 1C; H314 >= $0,6\%$ Skin Irrit. 2; H315 0,06 - < 0,6% Eye Irrit. 2; H319 0,06 - < 0,6% Skin Sens. 1A; H317 >= $0,0015\%$ Eye Dam. 1; H318 >= $0,6\%$	

For explanation of abbreviations see section 16.

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SECTION 4: First aid measures

4.1 Description of first aid measures

General advice

If on clothes, remove clothes. Show this safety data sheet to the doctor in attendance.



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lf inha	led	:	medical attention.	o fresh air. If signs/symptoms continue, get	
In case of skin contact		:		ately with plenty of water. rsists, call a physician.	
In cas	e of eye contact	:	•	ater at least 15 minutes. Get medical atten- n develops or persists.	
If swa	llowed	:	Do NOT induce v If conscious, drinl If symptoms pers	•	
4.2 Most ir	4.2 Most important symptoms and effects, both acute and delayed				

Risks Causes serious eye irritation.

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 Foam Dry powder Carbon dioxide (CO2)
5.2 Special hazards arising from	the	substance or mixture
Specific hazards during fire- fighting	:	No further relevant information available.
5.3 Advice for firefighters		
Special protective equipment for firefighters	:	No special protective measures against fire required.
Further information	:	This product is an aqueous mixture that will not burn. Dried product film will burn in a fire. 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.



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SECTION 6: Accidental release measures

	ve equipment and emergency procedures Use personal protective equipment. Ensure adequate ventilation.
6.2 Environmental precautions	
Environmental precautions :	If the product contaminates rivers and lakes or drains inform respective authorities. Dilute with much water. The product should not be allowed to enter drains, water courses or the soil.
6.3 Methods and material for conta	ainment 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 sec- tion 13.

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 aerosol. Use only with adequate ventilation. Handle with care. Keep eye wash bottle available on working place. Keep away from children. Avoid release to the environment.
Advice on protection against fire and explosion	:	In the event of fire and/or explosion do not breathe fumes. Wear self-contained breathing apparatus and protective suit. Have fire extinguishing equipment ready in case of nearby fire.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers	:	Keep dark, cool and dry. Do not freeze.
Further information on stor- age conditions	:	Keep container tightly sealed.



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7.3 Specific end use(s)

Specific use(s)

: No further relevant information available.

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 (TWA) (inhalable dust)	10 mg/m3	IE OEL

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

Substance name	End Use	Exposure routes	Potential health ef- fects	Value
2-(2- butoxyethoxy)ethyl acetate	Workers	Eye contact	Local effects	
	Workers	Dermal	Systemic, long-term	100 mg/kg
butyl glycollate	Workers	Inhalation	Systemic, long-term	7,05 mg/m3
	Workers	Eye contact	Local effects	
	Workers	Dermal	Systemic, long-term	10 mg/kg
5-Chloro-2-methyl- 3(2H)isothiazolone mixt. with 2-Methyl- 3(2H)isothiazolone	Workers	Eye contact	Local effects	
	Workers	Inhalation	Local, long-term	0,02 mg/m3
	Workers	Inhalation	Local, short-term	0,04 mg/m3

Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

Substance name	Environmental Compartment Value	
2-(2-butoxyethoxy)ethyl acetate	Soil	0,29 mg/kg
	Predator	70 mg/kg
	Marine sediment	0,08 mg/kg
	Marine water	0,011 mg/l
	Sewage treatment plant	100 mg/l
	Fresh water	0,108 mg/l
	Fresh water sediment	0,8 mg/kg
butyl glycollate	Soil	0,005 mg/kg
	Fresh water sediment	0,094 mg/kg
	Marine water	0,002 mg/l
	Marine sediment	0,009 mg/kg
	Fresh water	0,023 mg/l



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3(2	5-Chloro-2-methyl- 3(2H)isothiazolone mixt. with 2- Methyl-3(2H)isothiazolone		Sewage treat Sewage treat	•	3,71 mg/l 0,23 mg/l
	<u> </u>		Fresh water s	ediment	0,027 mg/kg
			Soil		0,01 mg/kg
			Marine sedim	ent	0,027 mg/kg
			Fresh water		3,39 µg/l
			Marine water		3,39 µg/l

8.2 Exposure controls

Engineering measures

Please take care on national and local requirements.

Personal protective equipment					
Eye protection	:	Tightly fitting safety goggles			
Hand protection Material	:	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.			
Skin and body protection	:	Protective clothing			
Respiratory protection	:	Use respiratory protection unless adequate risk management measures (exhaust/ ventilation) are provided or exposure assessment demonstrates that exposures are within recom- mended 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 appa- ratus 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.			

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	:	liquid
J = = = = = = = = = = = = = = = = = = =		

Colour



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	Odour		:	characteristic	
	Odour	Threshold	:	is not determined	t
	Melting	g point/freezing point	:	0 °C	
	Boiling	point/boiling range	:	100 °C	
	Flamm	ability	:	Not classified as	a flammability hazard
		explosion limit / Upper ability limit	:	Upper flammabili is not determined	
		explosion limit / Lower ability limit	:	Lower flammabili	
	Flash p	point	:	Not applicable	
	Auto-ig	nition temperature	:	not self-igniting	
	Decom	position temperature	:	Not applicable	
	рН		:	6 - 8	
	Viscos Viso	ity cosity, dynamic	:	13.000 mPa.s (2	0 °C)
	Solubil Wa	ity(ies) ter solubility	:	completely misci	ble
	Partitic octano	n coefficient: n- l/water	:	no data available	
	Vapou	r pressure	:	23 hPa (20 °C)	
	Density	y	:	1,07 g/l	
	Relativ	e vapour density	:	is not determined	ł
9.2	Other in	nformation			
	Explos	ives	:	Not explosive	
	Evapo	ration rate	:	is not determined	ł



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SECTION 10: Stability and reactivity

10.1	Reactivity	
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No further relevant information available.

10.2 Chemical stability

The product is chemically stable.

10.3 Possibility of hazardous reactions

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10.4 Conditions to avoid

Conditions to avoid	:	No further relevant information available.
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10.5 Incompatible materials

Materials to avoid	:	No further relevant information available.
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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

Acute toxicity

Based on available data, the classification criteria are not met.

Components:

butyl glycollate:

Acute oral toxicity	: LD50 Oral (Rat): 4.240 mg/kg
bronopol:	
Acute oral toxicity	: Acute toxicity estimate: 500,0 mg/kg Method: Converted acute toxicity point estimate
Acute inhalation toxicity	: LC50 (Rat): > 5 mg/l Exposure time: 4 Hours Test atmosphere: dust/mist
Acute dermal toxicity	: Acute toxicity estimate: 1.100 mg/kg Method: Converted acute toxicity point estimate

Skin corrosion/irritation

Based on available data, the classification criteria are not met.



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Serious eye damage/eye irritation

Causes serious eye irritation.

Respiratory or skin sensitisation

Skin sensitisation

Based on available data, the classification criteria are not met.

Respiratory sensitisation

Based on available data, the classification criteria are not met.

Germ cell mutagenicity

Based on available data, the classification criteria are not met.

Carcinogenicity

Based on available data, the classification criteria are not met.

Reproductive toxicity

Based on available data, the classification criteria are not met.

STOT - single exposure

Based on available data, the classification criteria are not met.

STOT - repeated exposure

Based on available data, the classification criteria are not met.

Aspiration toxicity

Based on available data, the classification criteria are not met.

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

Components:

bronopol:

M-Factor (Acute aquatic tox- : 10 icity)

M-Factor (Chronic aquatic : 1 toxicity)



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5-Chloro-2-methyl-3(2H)isothiazolone mixt. with 2-Methyl-3(2H)isothiazolone:

M-Factor (Acute aquatic tox- : 100 icity)

M-Factor (Chronic aquatic : 100 toxicity)

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

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Product:

Assessment

: 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 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.

12.7 Other adverse effects

No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Do not dispose of with domestic refuse. Do not dispose of waste into sewer. The generation of waste should be avoided or minimized wherever possible.



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			Hand over to disp Incineration unde cinerators suitabl	e made according to official regulations. bosers of hazardous waste. er approved, controlled conditions using in- e or designed for the disposal of hazardous is the preferred method for disposal.
Co	ontaminated packaging	:	Recommended c cleaning agent.	leaning agent: Water, if necessary with

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: Number on list 3
REACH - Candidate List of Substances of Very High Concern for Authorisation (SVHC, Article 59)	:	Not applicable
Regulation (EC) No 1005/2009 on substances that deplete the ozone layer	:	Not applicable
Regulation (EU) 2019/1021 on persistent organic pollu- tants (recast)	:	Not applicable
RoHS: 2011/65/EU, Restriction of Hazardous Substanc-	:	Not applicable



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es						
ment	llation (EU) No 649/201 and the Council conce ngerous chemicals				:	Not applicable
	CH - List of substances ex XIV)	subj	ect to authorisation		:	Not applicable
an Pa of ma	so III: Directive 2012/18 arliament and of the Co ajor-accident hazards in tances.	uncil	on the control		No	t applicable
Volat	ile organic compounds	:	emissions (integra	ated po	ollu	4 November 2010 on industrial ution prevention and control) Is (VOC) content: 1,98 %
The o	components of this pr ବ	rodu :	-			wing inventories: tive on the TSCA inventory
DSL		:	All components o	f this p	oroc	duct are on the Canadian DSL
ENC	S	:	On the inventory,	or in c	com	npliance with the inventory
KECI		:	On the inventory,	or in c	com	npliance with the inventory
IECS	SC	:	On the inventory,	or in c	com	npliance with the inventory
REA	СН	:	On the inventory,	or in c	com	npliance 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

H301 :	Toxic if swallowed.
H302 :	Harmful if swallowed.
H310 :	Fatal in contact with skin.
H312 :	Harmful in contact with skin.
H314 :	Causes severe skin burns and eye damage.



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H317:May cause an aH318:Causes seriousH330:Fatal if inhaledH335:May cause resH400:Very toxic to acH410:Very toxic to ac		Causes skin irritat May cause an alle Causes serious ey Fatal if inhaled. May cause respira Very toxic to aqua Very toxic to aqua Corrosive to the re	ergic skin reaction. ye damage. atory irritation. tic life. tic life with long lasting effects.	
Acute T Aquatic Aquatic Eye Da Skin Co Skin Irr Skin Se STOT S IE OEL	Fox. Acute Chronic m. prr. it. ens. SE		 Acute toxicity Short-term (acute) aquatic hazard Long-term (chronic) aquatic hazard Serious eye damage Skin corrosion Skin irritation Skin sensitisation Specific target organ toxicity - single exposure Ireland. List of Chemical Agents and Carcinogens with C pational Exposure Limit Values - Code of Practice, Sche and 2 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;



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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

Very Bloaceannalative		
Further information Other information		atasheet only contains information relating to bes not replace any product information or prod- ion.
		a compared to the previous version sections have been updated:
Contact Point	: Prepared by: EU-MSDS@	Global Regulatory Department
Classification of the n	nixture:	Classification procedure:
Eye Irrit. 2	H319	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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