

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006, as amended

Rakoll® ECO 4

Version	Revision Date:	SDS Number:	Date of last issue: 06.07.2023
2.0	29.06.2024	100000006122	Date of first issue: 18.03.2022
	Print Date:		
	22.07.2025		

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1 Product identifier****Product name** : Rakoll® ECO 4**1.2 Relevant identified uses of the substance or mixture and uses advised against**Use of the Sub-
stance/Mixture : Water based adhesiveRecommended restrictions
on use : For industrial use only.**1.3 Details of the supplier of the safety data sheet**

Company : H.B. Fuller, Isar-Rakoll, S.A.

Address : Estrada Nacional 13
PT-4486-851 Mindelo - Vila do Conde
+351 229 288 200E-mail address of person
responsible for the SDS : EU-MSDS@hbfuller.com**1.4 Emergency telephone number**Emergency 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)

SECTION 2: Hazards identification**2.1 Classification of the substance or mixture****Classification (REGULATION (EC) No 1272/2008)**

Not a hazardous substance or mixture.

2.2 Label elements**Labelling (REGULATION (EC) No 1272/2008)**

No hazard pictogram, no signal word, no hazard statement(s), no precautionary statement(s) required.

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006, as amended

Rakoll® ECO 4

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2.0	29.06.2024	100000006122	Date of first issue: 18.03.2022
	Print Date:		
	22.07.2025		

Additional Labelling

EUH210	Safety data sheet available on request.
EUH208	Contains 2-methyl-2H-isothiazol-3-one, formaldehyde, 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 and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Ecological information: 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.

Toxicological information: 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 3: Composition/information on ingredients**3.2 Mixtures****Components**

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)
propan-2-ol	67-63-0 200-661-7 603-117-00-0 01-2119457558-25-0000	Flam. Liq. 2; H225 Eye Irrit. 2; H319 STOT SE 3; H336 (Central nervous system)	>= 1 - < 10
formaldehyde	50-00-0 200-001-8 605-001-00-5 01-2119488953-20-0000	Acute Tox. 3; H301 Acute Tox. 3; H331 Acute Tox. 3; H311 Skin Corr. 1B; H314 Eye Dam. 1; H318 Skin Sens. 1; H317 Muta. 2; H341 Carc. 1B; H350 Aquatic Chronic 3; H412	>= 0,025 - < 0,1
		specific concentration	

SAFETY DATA SHEET

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Rakoll® ECO 4

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2.0	29.06.2024	100000006122	Date of first issue: 18.03.2022
	Print Date:		
	22.07.2025		

		limit Skin Corr. 1B; H314 >= 25 % Skin Irrit. 2; H315 5 - < 25 % Eye Irrit. 2; H319 5 - < 25 % STOT SE 3; H335 >= 5 % Skin Sens. 1; H317 >= 0,2 %	
5-Chloro-2-methyl- 3(2H)isothiazolone mixt. with 2- Methyl-3(2H)isothiazolone	55965-84-9 613-167-00-5 01-2120764691-48- 0000	Acute Tox. 3; H301 Acute Tox. 2; H330 Acute Tox. 2; H310 Skin Corr. 1C; H314 Eye Dam. 1; H318 Skin Sens. 1A; H317 Aquatic Acute 1; H400 Aquatic Chronic 1; H410 EUH071 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 %	>= 0,0002 - < 0,0015
2-methyl-2H-isothiazol-3-one	2682-20-4 220-239-6 613-326-00-9 01-2120764690-50- 0000	Acute Tox. 3; H301 Acute Tox. 2; H330 Acute Tox. 3; H311 Skin Corr. 1B; H314 Eye Dam. 1; H318	>= 0,0002 - < 0,0015

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006, as amended

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2.0	29.06.2024	100000006122	Date of first issue: 18.03.2022
	Print Date:		
	22.07.2025		

		Skin Sens. 1A; H317 Aquatic Acute 1; H400 Aquatic Chronic 1; H410 EUH071
		M-Factor (Acute aquatic toxicity): 10 M-Factor (Chronic aquatic toxicity): 1
		specific concentration limit Skin Sens. 1A; H317 >= 0,0015 %

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.
- If inhaled : Remove person to fresh air. If signs/symptoms continue, get medical attention.
- In case of skin contact : Wash off immediately with plenty of water.
- In case of eye contact : Flush eyes with water at least 15 minutes. Get medical attention if eye irritation develops or persists.
- If swallowed : Do NOT induce vomiting.
If accidentally swallowed obtain immediate medical attention.
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.

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006, as amended

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SECTION 5: Firefighting measures**5.1 Extinguishing media**

Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances 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.

SECTION 6: Accidental release measures**6.1 Personal precautions, protective equipment and emergency procedures**

Personal precautions : 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 containment and cleaning up

Methods for cleaning up : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).
Send for recovery or disposal in suitable containers.

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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
7.1 Precautions for safe handling

Advice on safe handling : Avoid release to the environment.
Keep out of reach of children.

Advice on protection against fire and explosion : In the event of fire and/or explosion do not breathe fumes.
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 storage conditions : Keep container tightly sealed.

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
propan-2-ol	67-63-0	OELV - 8 hrs (TWA)	200 ppm	IE OEL
	Further information: Substances which have the capacity to penetrate intact skin when they come in contact with it, and be absorbed into the body			
		OELV - 15 min (STEL)	400 ppm	IE OEL
	Further information: Substances which have the capacity to penetrate intact skin when they come in contact with it, and be absorbed into the body			
formaldehyde	50-00-0	OELV - 15 min (STEL)	0,6 ppm 0,738 mg/m3	IE OEL
	Further information: Chemical agents which following exposure may cause sensitisation of the respiratory tract and lead to asthma, rhinitis or extrinsic allergic alveolitis, Carc 1B - Substances presumed to have carcinogenic potential for humans			
		OELV - 8 hrs	0,3 ppm	IE OEL

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according to Regulation (EC) No. 1907/2006, as amended

Rakoll® ECO 4

Version	Revision Date:	SDS Number:	Date of last issue: 06.07.2023
2.0	29.06.2024	100000006122	Date of first issue: 18.03.2022
	Print Date:		
	22.07.2025		

	(TWA)	0,37 mg/m ³	
	Further information: Chemical agents which following exposure may cause sensitisation of the respiratory tract and lead to asthma, rhinitis or extrinsic allergic alveolitis, Carc 1B - Substances presumed to have carcinogenic potential for humans		
	STEL	0,6 ppm 0,74 mg/m ³	2004/37/EC
	Further information: Dermal sensitisation, Carcinogens or mutagens		
	TWA	0,3 ppm 0,37 mg/m ³	2004/37/EC
	Further information: Dermal sensitisation, Carcinogens or mutagens		

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

Substance name	End Use	Exposure routes	Potential health effects	Value
propan-2-ol	Workers	Inhalation	Systemic, long-term	500 mg/m ³
	Workers	Dermal	Systemic, long-term	888 mg/kg
2-methyl-2H-isothiazol-3-one	Workers	Inhalation	Local, long-term	0,021 mg/m ³
	Workers	Inhalation	Local, short-term	0,043 mg/m ³
	Workers	Eye contact	Local effects	
	Workers	Inhalation	Systemic, long-term	9 mg/m ³
formaldehyde	Workers	Inhalation	Local, long-term	0,375 mg/m ³
	Workers	Dermal	Local, long-term	37 µg/cm ²
	Workers	Inhalation	Local, short-term	0,75 mg/m ³
	Workers	Eye contact	Local effects	
	Workers	Dermal	Systemic, long-term	240 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/m ³
	Workers	Inhalation	Local, short-term	0,04 mg/m ³

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

Substance name	Environmental Compartment	Value
propan-2-ol	Soil	28 mg/kg
	Predator	160 mg/kg
	Sewage treatment plant	2251 mg/l
	Marine water	140,9 mg/l
	Fresh water sediment	552 mg/kg
	Marine sediment	552 mg/kg
	Fresh water	140,9 mg/l
2-methyl-2H-isothiazol-3-one	Soil	0,047 mg/kg
	Fresh water	3,39 µg/l
	Marine water	3,39 µg/l
	Sewage treatment plant	0,23 mg/l
formaldehyde	Soil	0,2 mg/kg

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006, as amended

Rakoll® ECO 4

Version	Revision Date:	SDS Number:	Date of last issue: 06.07.2023
2.0	29.06.2024	100000006122	Date of first issue: 18.03.2022
	Print Date:		
	22.07.2025		

	Fresh water	0,44 mg/l
	Marine water	0,44 mg/l
	Marine sediment	2,3 mg/kg
	Sewage treatment plant	0,19 mg/l
	Fresh water sediment	2,3 mg/kg
5-Chloro-2-methyl-3(2H)isothiazolone mixt. with 2-Methyl-3(2H)isothiazolone	Sewage treatment plant	0,23 mg/l
	Fresh water sediment	0,027 mg/kg
	Soil	0,01 mg/kg
	Marine sediment	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 : Safety glasses

 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 producer and this has to be observed.

Skin and body protection : Protective clothing

Respiratory protection : Not necessary if room is well-ventilated.

 Protective measures : Avoid contact with the eyes and skin.
 Wash hands before breaks and immediately after handling the product.

SECTION 9: Physical and chemical properties
9.1 Information on basic physical and chemical properties

Physical state	: liquid
Colour	: white
Odour	: sweet
Odour Threshold	: is not determined

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according to Regulation (EC) No. 1907/2006, as amended

Rakoll® ECO 4

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2.0	29.06.2024	100000006122	Date of first issue: 18.03.2022
	Print Date:		
	22.07.2025		

Melting point/freezing point	:	0 °C
Boiling point/boiling range	:	100 °C
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
pH	:	3,5
Viscosity		
Viscosity, dynamic	:	5.500 mPa.s (20 °C)
Solubility(ies)		
Water solubility	:	completely miscible
Partition coefficient: n-octanol/water	:	no data available
Vapour pressure	:	23 hPa (20 °C)
Density	:	1,09 g/cm ³
Relative vapour density	:	is not determined

9.2 Other information

Explosives	:	Not explosive
Evaporation rate	:	is not determined

SECTION 10: Stability and reactivity**10.1 Reactivity**

No further relevant information available.

SAFETY DATA SHEET

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2.0	29.06.2024	100000006122	Date of first issue: 18.03.2022
	Print Date:		
	22.07.2025		

10.2 Chemical stability

The product is chemically stable.

10.3 Possibility of hazardous reactions

Hazardous 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 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.

Product:Acute oral toxicity : Acute toxicity estimate: > 2.000 mg/kg
Method: Calculation methodAcute inhalation toxicity : Acute toxicity estimate: > 20 mg/l
Exposure time: 4 Hours
Test atmosphere: vapour
Method: Calculation methodAcute dermal toxicity : Acute toxicity estimate: > 2.000 mg/kg
Method: Calculation method**Components:****propan-2-ol:**

Acute oral toxicity : LD50 Oral (Rat): 4.396 mg/kg

Skin corrosion/irritation

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

Serious eye damage/eye irritation

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

SAFETY DATA SHEET

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Rakoll® ECO 4

Version	Revision Date:	SDS Number:	Date of last issue: 06.07.2023
2.0	29.06.2024	100000006122	Date of first issue: 18.03.2022
	Print Date:		
	22.07.2025		

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:****formaldehyde:**

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 22,6 - 25,7 mg/l
Exposure time: 96 Hours
Test Type: flow-through test

Toxicity to daphnia and other : EC50 (Daphnia magna (Water flea)): 2 mg/l

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006, as amended

Rakoll® ECO 4

Version	Revision Date:	SDS Number:	Date of last issue: 06.07.2023
2.0	29.06.2024	100000006122	Date of first issue: 18.03.2022
	Print Date:		
	22.07.2025		

aquatic invertebrates Exposure time: 48 Hours
Test Type: static test

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)

2-methyl-2H-isothiazol-3-one:

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

M-Factor (Chronic aquatic : 1
toxicity)

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential**Components:****propan-2-ol:**

Partition coefficient: n- : log Pow: 0,05
octanol/water

formaldehyde:

Partition coefficient: n- : log Pow: 0,35
octanol/water

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:**

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.

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006, as amended

Rakoll® ECO 4

Version	Revision Date:	SDS Number:	Date of last issue: 06.07.2023
2.0	29.06.2024	100000006122	Date of first issue: 18.03.2022
	Print Date:		
	22.07.2025		

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.
Incinerate under controlled conditions in accordance with all local and national laws and regulations.
Disposal must be made according to official regulations.

Contaminated packaging : Recommended cleaning agent: Water, if necessary with cleaning agent.

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

SAFETY DATA SHEET

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Rakoll® ECO 4

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	22.07.2025		

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 following entries should be considered: Number on list 77hydroquinonetert-butyl hydroperoxidepropan-2-ol acrylamide (Number on list 29, 28)vinyl acetate N-(hydroxymethyl)acrylamide (Number on list 29, 28) formaldehyde (Number on list 28) Distillates (petroleum), hydrotreated heavy naphthenic (Number on list 28) Distillates (petroleum), hydrotreated light naphthenic (With a content of \geq 3,0 % DMSO-extract (measured by IP 346)) (Number on list 28)phenol Distillates (petroleum), hydrotreated heavy naphthenic (Number on list 28)bronopolmethyl acetate acetaldehyde (Number on list 28)methyl methacrylate formaldehyde (Number on list 28) formaldehyde (Number on list 28)
REACH - Candidate List of Substances of Very High Concern for Authorisation (SVHC, Article 59)	:	Compliant
Regulation (EC) 2024/590 on substances that deplete the ozone layer	:	Compliant
Regulation (EU) 2019/1021 on persistent organic pollutants (recast)	:	Compliant
RoHS: 2011/65/EU, Restriction of Hazardous Substances	:	Compliant

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Council Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors : Neither banned nor restricted

Regulation (EU) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals : Not applicable

REACH - List of substances subject to authorisation (Annex XIV) : Compliant

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances. : Not applicable

Volatile organic compounds : Directive 2010/75/EU of 24 November 2010 on industrial emissions (integrated pollution prevention and control)
Volatile organic compounds (VOC) content: 1,57 %, 17,1 g/l

Other regulations:

Take note of Directive 92/85/EEC regarding maternity protection or stricter national regulations, where applicable.

The components of this product are reported in the following inventories:

TSCA : All substances listed as active on the TSCA inventory

AIC : On the inventory, or in compliance with the inventory

DSL : All components of this product are on the Canadian DSL

ENCS : On the inventory, or in compliance with the inventory

KECI : On the inventory, or in compliance with the inventory

PICCS : On the inventory, or in compliance with the inventory

IECSC : On the inventory, or in compliance with the inventory

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2.0	29.06.2024	100000006122	Date of first issue: 18.03.2022
	Print Date:		
	22.07.2025		

REACH : 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**

H225	: Highly flammable liquid and vapour.
H301	: Toxic if swallowed.
H310	: Fatal in contact with skin.
H311	: Toxic in contact with skin.
H314	: Causes severe skin burns and eye damage.
H317	: May cause an allergic skin reaction.
H318	: Causes serious eye damage.
H319	: Causes serious eye irritation.
H330	: Fatal if inhaled.
H331	: Toxic if inhaled.
H336	: May cause drowsiness or dizziness.
H341	: Suspected of causing genetic defects.
H350	: May cause cancer.
H400	: Very toxic to aquatic life.
H410	: Very toxic to aquatic life with long lasting effects.
H412	: Harmful to aquatic life with long lasting effects.
EUH071	: Corrosive to the respiratory tract.

Full text of other abbreviations

Acute Tox.	: Acute toxicity
Aquatic Acute	: Short-term (acute) aquatic hazard
Aquatic Chronic	: Long-term (chronic) aquatic hazard
Carc.	: Carcinogenicity
Eye Dam.	: Serious eye damage
Eye Irrit.	: Eye irritation
Flam. Liq.	: Flammable liquids
Muta.	: Germ cell mutagenicity
Skin Corr.	: Skin corrosion
Skin Sens.	: Skin sensitisation
STOT SE	: Specific target organ toxicity - single exposure
2004/37/EC	: Europe. Directive 2004/37/EC on the protection of workers from the risks related to exposure to carcinogens or mutagens at work
IE OEL	: Ireland. List of Chemical Agents and Carcinogens with Occupational Exposure Limit Values - Code of Practice, Schedule 1 and 2
2004/37/EC / STEL	: Short term exposure limit
2004/37/EC / TWA	: Long term exposure limit

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006, as amended

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Version	Revision Date:	SDS Number:	Date of last issue: 06.07.2023
2.0	29.06.2024	100000006122	Date of first issue: 18.03.2022
	Print Date:		
	22.07.2025		

IE OEL / OELV - 8 hrs (TWA) : Occupational exposure limit value (8-hour reference period)
IE OEL / OELV - 15 min : Occupational exposure limit value (15-minute reference period)
(STEL) (STEL)

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.

Modified data compared to the previous version

The following sections have been updated:

- Section 1
- Section 2
- Section 3
- Section 8

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006, as amended

Rakoll® ECO 4

Version	Revision Date:	SDS Number:	Date of last issue: 06.07.2023
2.0	29.06.2024	100000006122	Date of first issue: 18.03.2022
	Print Date:		
	22.07.2025		

- Section 11
- Section 15
- Section 16

Contact Point : Prepared by: Global Regulatory Department
EU-MSDS@hbfuller.com

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



Safety data sheet according to 1907/2006/EC, Article 31

Printing date 08.07.2020

Version number 3

Revision: 08.07.2020

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

- **1.1 Product identifier**
- **Trade name RAKOLL ECO 3**
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
- **Product category** PC1 Adhesives, sealants
- **Application of the substance / the mixture** Adhesives
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
H.B. Fuller, Isar-Rakoll, S.A.
Estrada Nacional 13
PT-4486-851 Mindelo - Vila do Conde
+351 229 288 200
EU-MSDS@hbfuller.com
- **Informing department:** Regulatory department
- **1.4 Emergency telephone number:** +44 (0) 1235 239 670 (24 hours)

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**
The product is not classified, according to the CLP regulation.
- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008** Void
- **Hazard pictograms** Void
- **Signal word** Void
- **Hazard statements** Void
- **Additional information:**
Contains Mixture of 5-chloro-2-methyl-4-isothiazolin-3-one [EC No 247-500-7] and 2-methyl-4-isothiazolin-3-one [EC No 220-239-6] (3:1). May produce an allergic reaction.
Safety data sheet available on request.
- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

- **3.2 Chemical characterisation: Mixtures**
- **Description:** Aqueous, modified adhesive based on polyvinyl acetate
- **Dangerous components:** Void
- **Additional information** For the wording of the listed hazard phrases refer to section 16.

GB

(Contd. on page 2)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 08.07.2020

Version number 3

Revision: 08.07.2020

Trade name RAKOLL ECO 3

(Contd. of page 1)

SECTION 4: First aid measures

- **4.1 Description of first aid measures**
- **After inhalation** Supply fresh air; consult doctor in case of symptoms.
- **After skin contact** Instantly rinse with water.
- **After eye contact** Rinse opened eye for several minutes under running water.
- **After swallowing**
Do not induce vomiting; instantly call for medical help.
In case of persistent symptoms consult doctor.
- **4.2 Most important symptoms and effects, both acute and delayed**
No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents**
Use fire fighting measures that suit the environment.
Water haze
Foam
Fire-extinguishing powder
Carbon dioxide
- **5.2 Special hazards arising from the substance or mixture** No further relevant information available.
- **5.3 Advice for firefighters**
- **Protective equipment:** Do not inhale explosion gases or combustion gases.
- **Additional information**
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures** Not required.
- **6.2 Environmental precautions:** Dilute with much water.
- **6.3 Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders)
- **6.4 Reference to other sections**
No dangerous materials are released.
See Section 7 for information on safe handling
See Section 8 for information on personal protection equipment.
See Section 13 for information on disposal.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling** Keep away from children
- **Information about protection against explosions and fires:** No special measures required.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and containers:**
Keep dark, cool and dry.
Protect from Freezing

(Contd. on page 3)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 08.07.2020

Version number 3

Revision: 08.07.2020

Trade name RAKOLL ECO 3

(Contd. of page 2)

- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Protect from frost.
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- **Additional information about design of technical systems:**
Please take care on national and local requirements.
- **8.1 Control parameters**
- **Components with critical values that require monitoring at the workplace:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Additional information:** Based on information valid at the time of writing.
- **8.2 Exposure controls**
- **Personal protective equipment**
- **General protective and hygienic measures**
Wash hands during breaks and at the end of the work.
Avoid close or long term contact with the skin.
- **Breathing equipment:** Not necessary if room is well-ventilated.
- **Protection of hands:**
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
- **Material of gloves** Nitrile rubber, NBR
- **Penetration time of glove material**
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:** Safety glasses
- **Body protection:** Protective work clothing.

SECTION 9: Physical and chemical properties

- **9.1 Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**

Form:	Fluid
Colour:	According to product specification
Smell:	Characteristic
- **pH-value at 20 °C:** 3
- **Change in condition**
Initial boiling point and boiling range: 100 °C
- **Flash point:** Not applicable
Aqueous, modified adhesive based on polyvinyl acetate
- **Self-inflammability:** Product is not selfigniting.
- **Explosive properties:** Product is not explosive.
- **Vapour pressure at 20 °C:** 23 hPa
- **Density at 20 °C** 1 g/cm³

(Contd. on page 4)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 08.07.2020

Version number 3

Revision: 08.07.2020

Trade name RAKOLL ECO 3

(Contd. of page 3)

· Solubility in / Miscibility with Water:	Fully miscible
· Viscosity:	
dynamic at 20 °C:	11500 mPas
kinematic:	Not determined.
· Solvent content:	
Organic solvents:	1.9 %
Solids content:	45.5 %
· 9.2 Other information	No further relevant information available.

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity** Based on available data, the classification criteria are not met.
- **Primary irritant effect:**
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)**
- **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 hazard** Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system.

(Contd. on page 5)

GB

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 08.07.2020

Version number 3

Revision: 08.07.2020

Trade name RAKOLL ECO 3

(Contd. of page 4)

- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
Hand over to disposers of hazardous waste.
Incineration under approved, controlled conditions using incinerators suitable or designed for the disposal of hazardous chemical wastes, is the preferred method for disposal.

- **European waste catalogue**

08 00 00	WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS
08 04 00	wastes from MFSU of adhesives and sealants (including waterproofing products)
08 04 16	aqueous liquid waste containing adhesives or sealants other than those mentioned in 08 04 15

- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleaning agent:** Water, if necessary with cleaning agent.

SECTION 14: Transport information

· 14.1 UN-Number	
· ADR, ADN, IMDG, IATA	Void
· 14.2 UN proper shipping name	
· ADR, ADN, IMDG, IATA	Void
· 14.3 Transport hazard class(es)	
· ADR, IMDG, IATA	
· Class	Void Not regulated.
· ADN/R Class:	Void
· 14.4 Packing group	
· ADR, IMDG, IATA	Void
· 14.5 Environmental hazards:	
· Marine pollutant:	No
· 14.6 Special precautions for user	Not applicable.
· 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.

(Contd. on page 6)

GB

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 08.07.2020

Version number 3

Revision: 08.07.2020

Trade name RAKOLL ECO 3

(Contd. of page 5)

· UN "Model Regulation":	Void
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SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **National regulations**
- **Other regulations, limitations and prohibitive regulations**
- **VOC (EU) in %:** 0.34 %
- **VOC (EU) in g/l:** 3.4 g/l
- **VOC (US) in g/l:** 7.4 g/l
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

The information provided about the product on this Safety Sheet has been compiled from knowledge of the individual constituent.

The data given here only applies when product used for proper application(s). The product is not sold as suitable for other applications - usage in such may cause risks not mentioned in this sheet. Do not use for other application(s) without seeking advice from manufacturer.

- **Classification according to Regulation (EC) No 1272/2008**

The classification of the mixture is generally based on the calculation method using substance data according to Regulation (EC) No 1272/2008.

- **Department issuing data sheet:** Regulatory department

- **Contact:** EU-MSDS@hbfuller.com

- **Abbreviations and acronyms:**

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organisation

ADR: Accord européen sur le transport 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

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

PBT: Persistent, Bioaccumulative and Toxic

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative