

**SAFETY DATA SHEET**

according to Regulation (EC) No. 1907/2006

**Rakoll® DUPLIT AL NEW**

Version	Revision Date:	SDS Number:	Date of last issue: -
1.0	18.10.2022	100000018678	Date of first issue: 18.10.2022

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**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1 Product identifier****Product name** : Rakoll® DUPLIT AL NEW**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 : +44 1235 239 670 (24 hours)

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**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)**

Not a hazardous substance or mixture.

**Hazardous components which must be listed on the label:**formaldehyde  
2-methyl-2H-isothiazol-3-one**Additional Labelling**EUH210 Contains 5-Chloro-2-methyl-3(2H)isothiazolone mixt. with 2-Methyl-  
EUH208 3(2H)isothiazolone. Safety data sheet available on request.  
May produce an allergic reaction.

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**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. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)
2-(2-butoxyethoxy)ethyl acetate	124-17-4 204-685-9 01-2119475110-51-0000		>= 2,5 - < 10
formaldehyde	50-00-0 200-001-8 605-001-00-5 01-2119488953-20-0000	Acute Tox. 3; H301 Acute Tox. 3; H301 Acute Tox. 3; H331 Acute Tox. 3; H331 Acute Tox. 3; H311 Acute Tox. 3; H311 Skin Corr. 1B; H314 Skin Corr. 1B; H314 Eye Dam. 1; H318 Eye Dam. 1; H318 Skin Sens. 1; H317 Skin Sens. 1; H317 Muta. 2; H341 Muta. 2; H341 Carc. 1B; H350 Carc. 1B; H350 Aquatic Chronic 3; H412  specific concentration 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	>= 0,025 - < 0,1

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		>= 0,2 %	
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 Skin Sens. 1A; H317 Aquatic Acute 1; H400 Aquatic Chronic 1; H410 EUH071	>= 0,0025 - < 0,025
		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.

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

Treatment : No further relevant information available.

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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 (CO<sub>2</sub>)**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 : In the event of fire, wear self-contained breathing apparatus. This product is an aqueous mixture that will not burn. Dried product film will burn in a fire.

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**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 away from 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
formaldehyde	50-00-0	OELV - 15 min (STEL)	0,6 ppm 0,738 mg/m <sup>3</sup>	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 (TWA)	0,3 ppm 0,37 mg/m <sup>3</sup>	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			
		STEL	0,6 ppm 0,74 mg/m <sup>3</sup>	2004/37/EC
	Further information: Dermal sensitisation, Carcinogens or mutagens			
		TWA	0,3 ppm 0,37 mg/m <sup>3</sup>	2004/37/EC

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Further information: Dermal sensitisation, Carcinogens or mutagens
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**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

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

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Auto-ignition temperature : not self-igniting

Decomposition temperature : Not applicable

pH : 4,8 - 5,8

Viscosity  
Viscosity, dynamic : 8.500 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<sup>3</sup>

Relative vapour density : is not determined

**9.2 Other information**

Explosives : Not explosive

Evaporation rate : is not determined

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

No further relevant information available.

**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.

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**SECTION 11: Toxicological information****11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008****Acute toxicity****Product:**

Acute oral toxicity : Based on available data, the classification criteria are not met.

Acute inhalation toxicity : Based on available data, the classification criteria are not met.

Acute dermal toxicity : Based on available data, the classification criteria are not met.

**Skin corrosion/irritation****Product:**

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

**Serious eye damage/eye irritation****Product:**

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

**Respiratory or skin sensitisation****Product:**

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

**Germ cell mutagenicity****Product:**

Genotoxicity in vitro : Based on available data, the classification criteria are not met.

**Carcinogenicity****Product:**

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

**STOT - single exposure****Product:**

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



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**STOT - repeated exposure****Product:**

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

**11.2 Information on other hazards**

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**SECTION 12: Ecological information****12.1 Toxicity****Components:****2-(2-butoxyethoxy)ethyl acetate:**Toxicity to fish : LC50 (Brachydanio rerio (zebrafish)): 50 - 70 mg/l  
Exposure time: 96 h  
Test Type: static test**formaldehyde:**Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 22,6 - 25,7 mg/l  
Exposure time: 96 h  
Test Type: flow-through testToxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 2 mg/l  
Exposure time: 48 h  
Test Type: static test**2-methyl-2H-isothiazol-3-one:**

M-Factor (Acute aquatic toxicity) : 10

M-Factor (Chronic aquatic toxicity) : 1

**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.

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**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.

**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

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**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.

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**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

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**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.

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**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 3

methanol (Number on list 69)  
formaldehyde (Number on list 72, 28)  
acetic acid

REACH - Candidate List of Substances of Very High Concern for Authorisation (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 pollutants (recast) : Not applicable

RoHS: 2011/65/EU, Restriction of Hazardous Substances : Not applicable

Regulation (EC) 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) : Not applicable

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: 0,36 %, 4,0 g/l

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**Other regulations:**

Take note of Directive 94/33/EC on the protection of young people at work or stricter national regulations, where applicable.

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

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.

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**SECTION 16: Other information****Full text of H-Statements**

H301	: Toxic if swallowed.
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.
H330	: Fatal if inhaled.
H331	: Toxic if inhaled.
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
Muta.	: Germ cell mutagenicity
Skin Corr.	: Skin corrosion
Skin Sens.	: Skin sensitisation
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 Occupational Exposure Limit Values - Schedule 1
2004/37/EC / STEL	: Short term exposure limit
2004/37/EC / TWA	: Long term exposure limit
IE OEL / OELV - 8 hrs (TWA)	: Occupational exposure limit value (8-hour reference period)
IE OEL / OELV - 15 min (STEL)	: Occupational exposure limit value (15-minute reference period)

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ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIIC - 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; TECl - 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.

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

**Classification of the mixture:****Classification procedure:**

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

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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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