



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

Printing date 13.01.2020

Version number 5

Revision: 19.12.2019

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

**- 1.1 Product identifier**

- Trade name: **Köratan WS 914 rot (alte Rezeptur)**

- Article number: R027931-00

**- 1.2 Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.

- 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  
Tel: +351 229 288 200

**- Informing department:**

Regulatory department  
EU-MSDS@hbfuller.com

**- 1.4 Emergency telephone number:**

NCEC emergency service  
+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**

Flam. Liq. 2	H225	Highly flammable liquid and vapour.
Skin Irrit. 2	H315	Causes skin irritation.
Skin Sens. 1	H317	May cause an allergic skin reaction.
Repr. 2	H361d	Suspected of damaging the unborn child.
STOT SE 3	H336	May cause drowsiness or dizziness.
STOT RE 2	H373	May cause damage to organs through prolonged or repeated exposure.
Aquatic Chronic 2	H411	Toxic to aquatic life with long lasting effects.

- **Additional information:** The classification resulted from the calculation method of CLP-regulation.

**- 2.2 Label elements**

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

The product is classified and labelled according to the CLP regulation.

**- Hazard pictograms**



GHS02 GHS07 GHS08 GHS09

**- Signal word** Danger

**- Hazard-determining components of labelling:**

rosin  
toluene  
hydrocarbons, C6-C7

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**- Hazard statements**

- H225 Highly flammable liquid and vapour.
- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H361d Suspected of damaging the unborn child.
- H336 May cause drowsiness or dizziness.
- H373 May cause damage to organs through prolonged or repeated exposure.
- H411 Toxic to aquatic life with long lasting effects.

**- Precautionary statements**

- P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- P243 Take action to prevent static discharges.
- P260 Do not breathe mist/vapours/spray.
- P262 Do not get in eyes, on skin, or on clothing.
- P271 Use only outdoors or in a well-ventilated area.
- P273 Avoid release to the environment.
- P280 Wear protective gloves / protective clothing.
- P403 Store in a well-ventilated place.

**- 2.3 Other hazards**

In the event of a large-scale use of the product, ignition sources in the immediate proximity and in low-lying areas, such as welding equipment, bells, heating elements, refrigerators, storage heaters etc. should be switched off! Erect warning signs warning of the hazardous risk of explosive atmosphere!

**- Results of PBT and vPvB assessment**

- **PBT:** Not applicable.
- **vPvB:** Not applicable.

### SECTION 3: Composition/information on ingredients

**- 3.2 Chemical characterisation: Mixtures**
**- Description:** Mixture of several substances

**- Dangerous components:**

CAS: 8050-09-7 EINECS: 232-475-7 Reg.nr.: 01-2119480418-32-xxxx	rosin Skin Sens. 1, H317	25-50%
EC number: 921-024-6 Reg.nr.: 01-2119475514-35-xxxx	hydrocarbons, C6-C7 Flam. Liq. 2, H225; Asp. Tox. 1, H304; Aquatic Chronic 2, H411; Skin Irrit. 2, H315; STOT SE 3, H336	20-30%
CAS: 108-88-3 EINECS: 203-625-9 Reg.nr.: 01-2119471310-51-xxxx	toluene Flam. Liq. 2, H225; Repr. 2, H361d; STOT RE 2, H373; Asp. Tox. 1, H304; Skin Irrit. 2, H315; STOT SE 3, H336; Aquatic Chronic 3, H412	<12.5%
CAS: 110-54-3 EINECS: 203-777-6 Reg.nr.: 01-2119480412-44-xxxx	n-hexane Flam. Liq. 2, H225; Repr. 2, H361f; STOT RE 2, H373; Asp. Tox. 1, H304; Aquatic Chronic 2, H411; Skin Irrit. 2, H315; STOT SE 3, H336	<1%
CAS: 1314-13-2 EINECS: 215-222-5 Reg.nr.: 01-2119463881-32-xxxx	zinc oxide Aquatic Acute 1, H400; Aquatic Chronic 1, H410	<1%

**- SVHC** Doesn't contain SVHC-substances.

**- Additional information**

EC number 921-024-6: Outside Europe, this substance is allocated CAS no. 64742-49-0 (naphtha [petroleum], treated slightly with hydrogen); mixture of n-alkanes, isoalkanes, cyclenes (benzene content [CAS no.: 71-43-2] < 0.1%)  
For the wording of the listed hazard phrases refer to section 16.

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### SECTION 4: First aid measures

#### - 4.1 Description of first aid measures

##### - After inhalation

Supply fresh air; consult doctor in case of complaints.

In case of unconsciousness bring patient into a stable side position for transport.

##### - After skin contact

Treat affected skin with cotton wool or cellulose. Then wash and rinse thoroughly with water and a mild cleaning agent.

- **After eye contact** Rinse opened eye for several minutes under running water. Then consult doctor.

- **After swallowing** Do not induce vomiting; call for medical help immediately.

#### - 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

Water spray

Alcohol-resistant foam

Fire-extinguishing powder

Carbon dioxide

- **For safety reasons unsuitable extinguishing agents** Water with full jet.

#### - 5.2 Special hazards arising from the substance or mixture

Formation of toxic gases is possible during heating or in case of fire.

#### - 5.3 Advice for firefighters

- **Protective equipment:** Wear self-contained respiratory protective device.

### SECTION 6: Accidental release measures

#### - 6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation

Keep away from ignition sources

Use respiratory protective device against the effects of fumes/dust/aerosol.

- **6.2 Environmental precautions:** Do not allow to enter sewers/ surface or ground water.

- **6.3 Methods and material for containment and cleaning up:** Pick up mechanically.

#### - 6.4 Reference to other sections

See Section 7 for information on safe handling

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

### SECTION 7: Handling and storage

- **7.1 Precautions for safe handling** Ensure good ventilation/exhaustion at the workplace.

#### - Information about protection against explosions and fires:

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

Fumes can combine with air to form an explosive mixture.

#### - 7.2 Conditions for safe storage, including any incompatibilities

##### - Storage

- **Requirements to be met by storerooms and receptacles:** Prevent any seepage into the ground.

- **Information about storage in one common storage facility:** Store away from foodstuffs.

##### - Further information about storage conditions:

Protect from frost.

Keep receptacle tightly sealed.

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Protect from heat and direct sunlight.  
Store receptacle in a well ventilated area.  
Store in dry conditions.

- **Storage class (according german VCI-concept): 3**
- **7.3 Specific end use(s)** No further relevant information available.

### SECTION 8: Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.

#### - 8.1 Control parameters

##### - Components with limit values that require monitoring at the workplace:

###### CAS: 8050-09-7 rosin

WEL (Great Britain)	Short-term value: 0.15 mg/m <sup>3</sup> Long-term value: 0.05 mg/m <sup>3</sup> Sen
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###### CAS: 108-88-3 toluene

WEL (Great Britain)	Short-term value: 384 mg/m <sup>3</sup> , 100 ppm Long-term value: 191 mg/m <sup>3</sup> , 50 ppm Sk
IOELV (European Union)	Short-term value: 384 mg/m <sup>3</sup> , 100 ppm Long-term value: 192 mg/m <sup>3</sup> , 50 ppm Skin

###### CAS: 110-54-3 n-hexane

WEL (Great Britain)	Long-term value: 72 mg/m <sup>3</sup> , 20 ppm
IOELV (European Union)	Long-term value: 72 mg/m <sup>3</sup> , 20 ppm

#### - DNELs

##### hydrocarbons, C6-C7

Inhalative	worker (long-term exposure/systemic)	2,035 mg/m <sup>3</sup>
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###### CAS: 108-88-3 toluene

Inhalative	worker (long-term exposure/systemic)	192 mg/m <sup>3</sup>
	worker (long-term exposure/local)	192 mg/m <sup>3</sup>

###### CAS: 110-54-3 n-hexane

Inhalative	worker (long-term exposure/systemic)	75 mg/m <sup>3</sup>
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#### - Additional information:

The homogenous mixing of this product is safeguarded by continual physical testing. Raw materials which formerly had dust-like properties are completely incorporated into the liquid / paste-like mass. Subsequently, possible TLVs for solid substances are not given, as there is no more danger of inhaling these substances (when dealing with this mixture)!

#### - 8.2 Exposure controls

##### - Personal protective equipment

##### - General protective and hygienic measures

The usual precautionary measures should be adhered to when handling chemicals.  
Keep away from foodstuffs, beverages and feed.  
Wash hands before breaks and at the end of the work.  
Immediately remove all soiled and contaminated clothing

##### - Breathing equipment:

Not required with good ventilation and/or adequate extractor facilities  
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.  
Short term filter device:  
Filter AX (DIN EN 371 [DIN EN 141])

##### - Protection of hands (DIN EN 420):

Direct contact with the chemical preparation must be avoided by organizational measures. Apply skin protectant before working with gloves to avoid skin swellings and use a skin cleansing and skincare

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product after the work.

Compliance with the stated penetration time (starts with the first product contact) must be ensured!

The gloves need to be disposed of after the penetration time and new gloves used!

**- For the permanent contact gloves made of the following materials are suitable:**

If longer exposure to the chemical preparation is necessary, a sturdy overglove against mechanical strain is recommended in combination with the "Barrier 02-100" underglove from Ansell (penetration time 480 min).

**- For the permanent contact of a maximum of 15 minutes gloves made of the following materials are suitable:**

Fluorinated rubber (Viton) [0.7mm - penetration time 15 min]

**- As protection from splashes gloves made of the following materials are suitable:**

Recommended for protection from splashes: disposable nitrile gloves (minimum thickness 0.12 mm) with long cuffs. After contact with the chemical preparation, take the disposable nitrile glove off immediately and put on a new disposable nitrile glove.

**- Eye protection:** Safety glasses

### SECTION 9: Physical and chemical properties

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

Form:	Fluid
Colour:	Red
- Odour:	Solvent-like
- Odour threshold:	Not determined.

**- Change in condition**

Initial boiling point and boiling range: 60 °C

- Flash point: -30 °C

- Ignition temperature: &gt; 200 °C

**- Explosion limits:**

Lower:	0.6 Vol %
Upper:	7.4 Vol %

- Vapour pressure at 20 °C: 246 hPa

- Specific gravity at 20 °C: 0.9 g/cm<sup>3</sup>

- Vapour density: Not determined.

- Evaporation rate: Not determined.

**- Solubility in / Miscibility with**

Water: Insoluble

- Partition coefficient: n-octanol/water: Not determined.

**- Viscosity:**

dynamic at 20 °C: 800 mPas (Brookfield)

**- Solvent content:**

Organic solvents:	40.0 %
VOC (EU):	360.2 g/l
VOC (EU):	40.03 %
VOC (CH):	40.03 %

**- 9.2 Other information** No further relevant information available.

### SECTION 10: Stability and reactivity

**- 10.1 Reactivity** No further relevant information available.

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- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:**  
No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** Reacts with oxidizing agents
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:**  
None, if used according to instructions and stored according to regulations

### SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity** Based on available data, the classification criteria are not met.

- **LD/LC50 values that are relevant for classification:**

**CAS: 108-88-3 toluene**

Oral	LD50	5,000 mg/kg (rat)
Dermal	LD50	12,124 mg/kg (rab)
Inhalative	LC50/4 h	5,320 mg/l (mus)

- **Primary irritant effect:**
- **Skin corrosion/irritation**  
Causes skin irritation.
- **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation**  
May cause an allergic skin reaction.
- **CMR effects (carcinogenicity, 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**  
Suspected of damaging the unborn child.
- **STOT-single exposure**  
May cause drowsiness or dizziness.
- **STOT-repeated exposure**  
May cause damage to organs through prolonged or repeated exposure.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

### SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:**  
Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- **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 product to reach ground water, water course or sewage system.
- **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** Disposal in accordance with official regulations
- **EWC-Code(s):**

To be treated as industrial waste: do not dispose of in or on soil, in watercourses or bodies, or

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through a sewage system. These EU refuse code numbers are recommendations for waste accruing through the use of adhesives and sealants. Any waste produced from organic solvents or other dangerous substances listed under item 3 of this safety datasheet is itself classified as dangerous (\*).

Waste accruing during application:

080409\* waste adhesives and sealants containing organic solvents or other dangerous substances

080410 waste adhesives and sealants other than those mentioned in 080409

Waste accruing during cleaning:

08 04 11\* adhesive and sealant sludges containing organic solvents or other dangerous substances

08 04 12 adhesive and sealant sludges other than those mentioned in 080411

Soiled waste packaging:

15 01 10\* packaging containing residues of or contaminated by dangerous substances.

Clean waste packaging:

15 01 01 paper and cardboard packaging




15 01 02 plastic packaging

15 01 04 metallic packaging

- **Uncleaned packagings:**

- **Recommendation:** Disposal must be made according to official regulations.

### SECTION 14: Transport information

- 14.1 UN-Number	
- ADR/RID/ADN, IMDG, IATA	UN1133
- 14.2 UN proper shipping name	
- ADR/RID/ADN	1133 ADHESIVES, ENVIRONMENTALLY HAZARDOUS
- IMDG	ADHESIVES (hydrocarbons, C6-C7), MARINE POLLUTANT
- IATA	ADHESIVES
- 14.3 Transport hazard class(es)	
- ADR/RID/ADN, IMDG	
	 
- Class	3 Flammable liquids.
- Label	3
- IATA	
	
- Class	3 Flammable liquids.
- Label	3
- 14.4 Packing group	
- ADR/RID/ADN, IMDG, IATA	II
- 14.5 Environmental hazards:	
- Marine pollutant:	Yes
	Symbol (fish and tree)
- Special marking (ADR/RID/ADN):	Symbol (fish and tree)

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- <b>14.6 Special precautions for user</b>	Warning: Flammable liquids.
- <b>Hazard identification number (Kemler code):</b>	33
- <b>EMS Number:</b>	F-E,S-D
- <b>Stowage Category</b>	B
<b>- 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code</b>	
	Not applicable.
<b>- Transport/Additional information:</b>	
<b>- ADR/RID/ADN</b>	
- <b>Limited quantities (LQ)</b>	5L
- <b>Excepted quantities (EQ)</b>	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
- <b>Transport category</b>	2
- <b>Tunnel restriction code</b>	D/E
- <b>Remarks:</b>	(Packing group III, if content of packaging ≤ 450l, according 2.2.3.1.4 ADR)
<b>- IMDG</b>	
- <b>Limited quantities (LQ)</b>	5L
- <b>Excepted quantities (EQ)</b>	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
- <b>Remarks:</b>	(Packing group III, if content of packaging ≤ 450l, according 2.3.2.2 IMDG)
<b>- IATA</b>	
- <b>Remarks:</b>	(Packing group III, if content of packaging ≤ 30l, according 3.3.3.1.1 IATA)
- <b>UN "Model Regulation":</b>	UN 1133 ADHESIVES, 3, II, ENVIRONMENTALLY HAZARDOUS

### SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3, 48
- **National regulations**
- **Information about limitation of use:**  
Employment restrictions concerning young persons must be observed.
- **Disturbance regulations:**  
Critical quantity values according to the regulations on accidents should be adhered to.
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

### SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

-----  
For industrial use only.

- **Legend of H- and R-phrases, concerning the in chapter 3 mentioned substances (marking of product please see chapter 2)**  
H225 Highly flammable liquid and vapour.

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- H304 May be fatal if swallowed and enters airways.
- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H336 May cause drowsiness or dizziness.
- H361d Suspected of damaging the unborn child.
- H361f Suspected of damaging fertility.
- 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.
- H411 Toxic to aquatic life with long lasting effects.
- H412 Harmful to aquatic life with long lasting effects.

**- Department issuing SDS:**

Regulatory department  
(e-mail: 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)

VOCV: Lenkungsabgabe auf flüchtigen organischen Verbindungen, Schweiz (Swiss Ordinance on volatile organic compounds)

VOC: Volatile Organic Compounds (USA, EU)

DNEL: Derived No-Effect Level (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

Flam. Liq. 2: Flammable liquids – Category 2

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Skin Sens. 1: Skin sensitisation – Category 1

Repr. 2: Reproductive toxicity – Category 2

Repr. 2: Reproductive toxicity – Category 2

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

Asp. Tox. 1: Aspiration hazard – Category 1

Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1

Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1

Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2

Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

**- \* Data compared to the previous version altered.**

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