SAFETY DATA SHEET



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

1.1. Product identifier

Name of the substance Rosin Ester

Trade name of the

SYLVATAC™ RE 103

substance

Identification number 232-479-9 (EC number) 01-2119486685-21-0000 Registration number

Synonyms None SDS number 8364

Product code 200000000001 Issue date 13-January-2017

Version number 3.0

11-August-2022 Revision date 19-September-2017 Supersedes date

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses Industrial uses: Uses of substances as such or in preparations at industrial sites. Formulation

[mixing] of preparations and/or re-packaging (excluding alloys).

Uses advised against None known.

1.3. Details of the supplier of the safety data sheet Company name Kraton Chemical B.V.

Address Transistorstraat 16, 1322 CE Almere, The Netherlands

Phone +31 36 546 2800

Email address regulatory.eu@kraton.com 1.4. Emergency telephone EU NCEC +44 1865 407 333

number

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

The substance has been assessed and/or tested for its physical, health and environmental hazards and the following classification applies.

Classification according to Regulation (EC) No 1272/2008 as amended

This substance does not meet the criteria for classification according to Regulation (EC) 1272/2008 as amended.

May form explosible dust-air mixture if dispersed. Hazard summary

2.2. Label elements

Label according to Regulation (EC) No. 1272/2008 as amended

Resin acids and Rosin acids, esters with pentaerythritol Contains:

Hazard pictograms None Signal word None.

Hazard statements The substance does not meet the criteria for classification.

Precautionary statements

Prevention Observe good industrial hygiene practices.

Response Wash hands after handling.

Storage Store away from incompatible materials.

Dispose of waste and residues in accordance with local authority requirements. **Disposal**

Supplemental label information None.

May form explosible dust-air mixture if dispersed. This mixture does not contain substances 2.3. Other hazards

assessed to be vPvB / PBT according to Regulation (EC) No 1907/2006, Annex XIII. The product does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at

levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.1. Substances

General information

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	Index No.	Notes
Resin acids and Rosin acids, esters with pentaerythritol	100	8050-26-8	01-2119486685-21-0013 01-2119486685-21-0000 01-2119486685-21-0001	-	
Classification: -					

List of abbreviations and symbols that may be used above

#: This substance has been assigned Union workplace exposure limit(s).

M: M-factor

PBT: persistent, bioaccumulative and toxic substance. vPvB: very persistent and very bioaccumulative substance.

SECTION 4: First aid measures

General information Ensure that medical personnel are aware of the material(s) involved, and take precautions to

protect themselves.

4.1. Description of first aid measures

Inhalation Move to fresh air. Call a physician if symptoms develop or persist.

Skin contact Wash off with soap and water. Get medical attention if irritation develops and persists. Do not rub eyes. Rinse with water. Get medical attention if irritation develops and persists. **Eve contact**

Ingestion Rinse mouth. Get medical attention if symptoms occur. 4.2. Most important symptoms Dusts may irritate the respiratory tract, skin and eyes.

and effects, both acute and

delaved

4.3. Indication of any

Treat symptomatically.

immediate medical attention and special treatment needed

SECTION 5: Firefighting measures

General fire hazards May form combustible dust concentrations in air.

5.1. Extinguishing media

Suitable extinguishing

media

Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2), Apply extinguishing media

carefully to avoid creating airborne dust.

Unsuitable extinguishing

media

Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

High concentration of airborne dust may form explosive mixture with air. Static charges generated by emptying package in or near flammable vapour may cause flash fire. During fire, gases hazardous to health may be formed. Upon decomposition, this product emits carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons.

5.3. Advice for firefighters

Special protective equipment for firefighters Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Special fire fighting procedures

In case of fire and/or explosion do not breathe fumes. Wear suitable protective equipment. Move containers from fire area if you can do so without risk.

Use standard firefighting procedures and consider the hazards of other involved materials. Specific methods

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Wear appropriate personal protective equipment.

For emergency responders

Keep unnecessary personnel away. Use personal protection recommended in Section 8 of the SDS.

6.2. Environmental precautions

Avoid discharge into drains, water courses or onto the ground.

6.3. Methods and material for containment and cleaning up Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Take precautionary measures against static discharge. Use only non-sparking tools. Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). Stop the flow of material, if this is without risk.

Large Spills: Wet down with water and dike for later disposal. Shovel the material into waste container. Following product recovery, flush area with water.

Small Spills: Sweep up or vacuum up spillage and collect in suitable container for disposal.

Never return spills to original containers for re-use.

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For personal protection, see section 8 of the SDS. For waste disposal, see section 13 of the SDS.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Minimise dust generation and accumulation. Avoid significant deposits of material, especially on horizontal surfaces, which may become airborne and form combustible dust clouds and may contribute to secondary explosions. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Explosion-proof general and local exhaust ventilation. Wear appropriate personal protective equipment. Avoid release to the environment. Observe good industrial hygiene practices. Follow all SDS/label precautions even after container is emptied because they may retain product residues.

7.2. Conditions for safe storage, including any incompatibilities

Keep containers tightly closed in a dry, cool and well-ventilated place. Store at ambient temperature and atmospheric pressure. Store away from incompatible materials (see Section 10 of the SDS).

7.3. Specific end use(s)

Not available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

Additional components	Туре	Value	Form	
Dust	MAK	5 mg/m3	Respirable fraction.	
		10 mg/m3	Inhalable fraction.	
	STEL	20 mg/m3	Inhalable fraction.	
		10 mg/m3	Respirable fraction.	
Belgium. Exposure Limit Values				
Additional components	Туре	Value	Form	
Dust	TWA	3 mg/m3	Respirable fraction.	
		10 mg/m3	Inhalable fraction.	
Finland				
Additional components	Туре	Value		
Dust	TWA	5 mg/m3		
		10 mg/m3		
•	/LEP) for Occupational Exposure to Che	micals in France, IN		
Additional components	Туре	Value	Form	
Dust	VME	5 mg/m3	Respirable fraction.	
Regulatory status: Regulate	ory binding (VRC)			
		10 mg/m3	Inhalable fraction.	
Regulatory status: Regulator	ory binding (VRC)	-		
Regulatory status: Regulatory Status: Regulatory Status: Regulatory Status (advisory Status		-		
Regulatory status: Regulatory Germany. DFG MAK List (advisor) In the Work Area (DFG)	ory binding (VRC)	-		
Regulatory status: Regulator	ory binding (VRC) y OELs). Commission for the Investigation	on of Health Hazard	ls of Chemical Compoເ	
Regulatory status: Regulatory St	ory binding (VRC) y OELs). Commission for the Investigation Type TWA	on of Health Hazard Value	ls of Chemical Compou Form	
Regulatory status: Regulatory Regulatory Status: Regulatory Regulatory Status: Regulatory Regulatory Regulat	ory binding (VRC) y OELs). Commission for the Investigation Type	on of Health Hazard Value	ls of Chemical Compou Form	
Regulatory status: Regulatory St	ory binding (VRC) y OELs). Commission for the Investigation Type TWA s in the Ambient Air at the Workplace	on of Health Hazard Value 4 mg/m3	Is of Chemical Compou Form Inhalable dust.	
Regulatory status: Regulatory St	ory binding (VRC) y OELs). Commission for the Investigation Type TWA s in the Ambient Air at the Workplace Type	on of Health Hazard Value 4 mg/m3 Value	Is of Chemical Compou Form Inhalable dust. Form	
Regulatory status: Regulatory St	Type TWA s in the Ambient Air at the Workplace Type AGW	Value 4 mg/m3 Value 10 mg/m3	Form Inhalable dust. Form Inhalable fraction.	
Regulatory status: Regulatory St	ory binding (VRC) y OELs). Commission for the Investigation Type TWA s in the Ambient Air at the Workplace Type	Value 4 mg/m3 Value 10 mg/m3	Form Inhalable dust. Form Inhalable fraction.	
Regulatory status: Regulatory Status: Regulatory Status: Regulatory of the Work Area (DFG) Additional components Dust Germany. TRGS 900, Limit Values Additional components Dust	Type TWA s in the Ambient Air at the Workplace Type AGW 99 on occupational exposure limits	Value 4 mg/m3 Value 10 mg/m3 1,25 mg/m3	Form Inhalable dust. Form Inhalable fraction. Respirable fraction.	
Regulatory status: Regulatory Status: Regulatory Status: Regulatory Status: Regulatory Status: Regulator In the Work Area (DFG) Additional components Dust Dust Dust Dust Dust Celand. OELs. Regulation 154/19 Additional components	ory binding (VRC) y OELs). Commission for the Investigation Type TWA s in the Ambient Air at the Workplace Type AGW 99 on occupational exposure limits Type	Value 4 mg/m3 Value 10 mg/m3 1,25 mg/m3 Value	Form Inhalable dust. Form Inhalable fraction. Respirable fraction. Form	
Regulatory status: Regulatory Status: Regulatory Status: Regulatory Status: Regulatory Status: Regulator In the Work Area (DFG) Additional components Dust Dust Dust Dust Dust Celand. OELs. Regulation 154/19 Additional components	Type TWA s in the Ambient Air at the Workplace Type AGW 99 on occupational exposure limits Type TWA	Value 4 mg/m3 Value 10 mg/m3 1,25 mg/m3 Value 5 mg/m3	Form Inhalable dust. Form Inhalable fraction. Respirable fraction. Form Respirable dust.	
Regulatory status: Regulation St	Type TWA s in the Ambient Air at the Workplace Type AGW 99 on occupational exposure limits Type TWA	Value 4 mg/m3 Value 10 mg/m3 1,25 mg/m3 Value 5 mg/m3	Form Inhalable dust. Form Inhalable fraction. Respirable fraction. Form Respirable dust.	

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SDS EU

Additional components	Туре	Value	Form
		10 mg/m3	Total inhalable dust.
Latvia. OELs. Occupational exposure lim Additional components	it values of chemical subst Type	ances in work environn Value	nent Form
Dust	TWA	5 mg/m3	Dust.
Lithuania. OELs. Limit Values for Chemi Additional components	cal Substances, General Re Type	quirements Value	Form
Dust	TWA	5 mg/m3	Respirable fraction.
		10 mg/m3	Inhalable fraction.
Netherlands Additional components	Type Value		Form
Dust	TWA (MAC)	5 mg/m3	Respirable dust.
	, ,	10 mg/m3	Total dust.
Slovakia. OELs. Regulation No. 300/2007 Additional components	concerning protection of h	ealth in work with chen Value	nical agents Form
Dust	TWA	10 mg/m3	Dust.
Slovenia. OELs. Regulations concerning	protection of workers again	· ·	re to chemicals while wor
(Official Gazette of the Republic of Slove	nia)	·	
Additional components	Туре	Value	Form
Dust	TWA	10 mg/m3	Inhalable fraction.
		1,25 mg/m3	Respirable fraction.
Spain. Occupational Exposure Limits Additional components	Type Value		Form
Dust	TWA	3 mg/m3	Respirable fraction.
		10 mg/m3	Inhalable fraction.
Switzerland. SUVA Grenzwerte am Arbeit Additional components	tsplatz Type	Value	Form
Dust	TWA	3 mg/m3	Respirable dust.
		10 mg/m3	Inhalable dust.
UK. EH40 Workplace Exposure Limits (W Additional components	/ELs) Type	Value	Form
Dust	TWA	4 mg/m3	Respirable dust.
		10 mg/m3	Inhalable dust.
•	al exposure limits noted for the dard monitoring procedures.	e ingredient(s).	
Ormanal Bancula (1)			
	Value	Accessment factor	Notes
Components	Value	Assessment factor	Notes
Components			Notes Repeated dose toxicity Repeated dose toxicity
Components Resin acids and Rosin acids, esters with pe Long-term, Systemic, Dermal Long-term, Systemic, Oral	ntaerythritol (CAS 8050-26-8 2,5 mg/kg bw/day	200	Repeated dose toxicity
Components Resin acids and Rosin acids, esters with pe Long-term, Systemic, Dermal Long-term, Systemic, Oral Workers Components	ntaerythritol (CAS 8050-26-8 2,5 mg/kg bw/day 2,5 mg/kg bw/day Value	200 200 200 Assessment factor	Repeated dose toxicity
Components Resin acids and Rosin acids, esters with pe Long-term, Systemic, Dermal Long-term, Systemic, Oral Workers Components Resin acids and Rosin acids, esters with pe	entaerythritol (CAS 8050-26-8 2,5 mg/kg bw/day 2,5 mg/kg bw/day Value	200 200 200 Assessment factor	Repeated dose toxicity Repeated dose toxicity
Components Resin acids and Rosin acids, esters with pe Long-term, Systemic, Dermal Long-term, Systemic, Oral Workers Components	ntaerythritol (CAS 8050-26-8 2,5 mg/kg bw/day 2,5 mg/kg bw/day Value	200 200 200 Assessment factor	Repeated dose toxicity Repeated dose toxicity
Components Resin acids and Rosin acids, esters with pe Long-term, Systemic, Dermal Long-term, Systemic, Oral Workers Components Resin acids and Rosin acids, esters with pe Long-term, Local, Inhalation Long-term, Systemic, Dermal	ntaerythritol (CAS 8050-26-8 2,5 mg/kg bw/day 2,5 mg/kg bw/day Value ntaerythritol (CAS 8050-26-8 10 mg/m3	200 200 Assessment factor	Repeated dose toxicity Repeated dose toxicity Notes
Long-term, Systemic, Oral Workers Components Resin acids and Rosin acids, esters with pe Long-term, Local, Inhalation	ntaerythritol (CAS 8050-26-8 2,5 mg/kg bw/day 2,5 mg/kg bw/day Value ntaerythritol (CAS 8050-26-8 10 mg/m3	200 200 Assessment factor	Repeated dose toxicity Repeated dose toxicity Notes
Components Resin acids and Rosin acids, esters with pe Long-term, Systemic, Dermal Long-term, Systemic, Oral Workers Components Resin acids and Rosin acids, esters with pe Long-term, Local, Inhalation Long-term, Systemic, Dermal dicted no effect concentrations (PNECs) Components Resin acids and Rosin acids, esters with pe	entaerythritol (CAS 8050-26-8 2,5 mg/kg bw/day 2,5 mg/kg bw/day Value entaerythritol (CAS 8050-26-8 10 mg/m3 5 mg/kg bw/day Value entaerythritol (CAS 8050-26-8	200 200 Assessment factor 100 Assessment factor	Repeated dose toxicity Repeated dose toxicity Notes Repeated dose toxicity
Components Resin acids and Rosin acids, esters with pe Long-term, Systemic, Dermal Long-term, Systemic, Oral Workers Components Resin acids and Rosin acids, esters with pe Long-term, Local, Inhalation Long-term, Systemic, Dermal dicted no effect concentrations (PNECs) Components Resin acids and Rosin acids, esters with pe Freshwater	entaerythritol (CAS 8050-26-8 2,5 mg/kg bw/day 2,5 mg/kg bw/day Value entaerythritol (CAS 8050-26-8 10 mg/m3 5 mg/kg bw/day Value entaerythritol (CAS 8050-26-8 0,1 mg/l	200 200 Assessment factor 100 Assessment factor 1000	Repeated dose toxicity Repeated dose toxicity Notes Repeated dose toxicity
Components Resin acids and Rosin acids, esters with pe Long-term, Systemic, Dermal Long-term, Systemic, Oral Workers Components Resin acids and Rosin acids, esters with pe Long-term, Local, Inhalation Long-term, Systemic, Dermal dicted no effect concentrations (PNECs) Components Resin acids and Rosin acids, esters with pe	entaerythritol (CAS 8050-26-8 2,5 mg/kg bw/day 2,5 mg/kg bw/day Value entaerythritol (CAS 8050-26-8 10 mg/m3 5 mg/kg bw/day Value entaerythritol (CAS 8050-26-8	200 200 Assessment factor 100 Assessment factor	Repeated dose toxicity Repeated dose toxicity Notes Repeated dose toxicity

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462,06 mg/kg Soil STP 2,525 mg/l

8.2. Exposure controls

Appropriate engineering

controls

Explosion-proof general and local exhaust ventilation. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

10

Individual protection measures, such as personal protective equipment

General information Use personal protective equipment as required. Personal protection equipment should be chosen

according to the CEN standards and in discussion with the supplier of the personal protective

equipment.

Wear safety glasses with side shields (or goggles). Eve/face protection

Skin protection

Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove - Hand protection

supplier.

- Other Wear suitable protective clothing.

Respiratory protection If engineering controls do not maintain airborne concentrations below recommended exposure

limits (where applicable) or to an acceptable level (in countries where exposure limits have not

been established), an approved respirator must be worn.

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

Hygiene measures When using, do not eat, drink or smoke. Always observe good personal hygiene measures, such

as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Eye wash fountain and

emergency showers are recommended.

Environmental exposure

controls

Environmental manager must be informed of all major releases. Emissions from ventilation or work

process equipment should be checked to ensure they comply with the requirements of

environmental protection legislation. Fume scrubbers, filters or engineering modifications to the process equipment may be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Solid Physical state

Pastilles or Pellets, or Flakes. **Form**

Light yellow Colour Odour Mild

Melting point/freezing point Not available. Boiling point or initial boiling

point and boiling range

Not available.

Flammability (solid, gas) Not available. Upper/lower flammability or explosive limits

Flammability limit - lower

Not available.

(%)

Flammability limit - upper

Not available.

(%)

> 200,0 °C (> 392,0 °F) Setaflash Closed Cup Flash point

Not available. Auto-ignition temperature **Decomposition temperature** Not available. Not available. pН

Solubility(ies)

< 0,1 % at 25°C; Data is for similar product. Solubility (water)

Partition coefficient (n-octanol/water)

Not available.

< 0.001 mm Hg at 20°C Vapour pressure

Not available. Vapour density 1,07 at 25°C/25°C Relative density Particle characteristics Not available.

Other safety characteristics

Chemical family Rosin Ester

1070,00 kg/m3 at 20°C Density 0 (n-BuAc=1) estimated **Evaporation rate**

Percent volatile > 0,1 %

Softening point 100 - 106 °C (212 - 222,8 °F) Ring & Ball

Weighted solids 100 %

SECTION 10: Stability and reactivity

10.1. ReactivityThe product is stable and non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stabilityMaterial is stable under normal conditions.

10.3. Possibility of hazardous

reactions

No dangerous reaction known under conditions of normal use.

10.4. Conditions to avoid Strong oxidising agents. Keep away from heat, sparks and open flame. Contact with incompatible

materials. Minimise dust generation and accumulation.

10.5. Incompatible materials Strong oxidising agents.

10.6. Hazardous

decomposition products

Upon decomposition this product emits acrid dense smoke with carbon dioxide, carbon monoxide,

water and other products of combustion.

SECTION 11: Toxicological information

General information Not available.

Information on likely routes of exposure

Inhalation Dust may irritate respiratory system.

Skin contact

No adverse effects due to skin contact are expected.

Eye contact

Direct contact with eyes may cause temporary irritation.

Resin acids and Rosin acids, esters with pentaerythritol Irritation Corrosion - Eye, No eye irritation.

Result: Negative

Species: New Zealand white rabbit

Organ: Eye

Test Duration: 72 hr Observation Period: 7 days

Notes: OECD 405

Ingestion May cause discomfort if swallowed. However, ingestion is not likely to be a primary route of

occupational exposure.

Symptoms Dusts may irritate the respiratory tract, skin and eyes.

11.1. Information on toxicological effects

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

Components Species Test Results

Resin acids and Rosin acids, esters with pentaerythritol (CAS 8050-26-8)

Acute Dermal

LD50 New Zealand white rabbit > 2000 mg/kg, 14 days At this dose no

death occurred.; OECD 402.

Rabbit > 2000 mg/kg, 24 Hours

Oral

LD50 Rat > 2000 mg/kg

Sprague-Dawley rat > 2000 mg/kg, 14 days At this dose no

death occurred.; OECD 425

Skin corrosion/irritation Prolonged skin contact may cause temporary irritation.

Corrosivity

Resin acids and Rosin acids, esters with Irritation Corrosion - Skin, No skin irritation.

pentaerythritol Result: Negative

Species: New Zealand white rabbit

Organ: Skin

Test Duration: 4 hr Observation Period: 72 hr

Notes: OECD 404

Serious eye damage/eye

irritation

Direct contact with eyes may cause temporary irritation.

Material name: SYLVATAC™ RE 103

^{*} Estimates for product may be based on additional component data not shown.

Eve contact

Resin acids and Rosin acids, esters with

pentaerythritol

Irritation Corrosion - Eye, No eye irritation.

Result: Negative

Species: New Zealand white rabbit

Organ: Eye Test Duration: 72 hr Observation Period: 7 days

Notes: OECD 405

Respiratory sensitisation

Not available.

Skin sensitisation

This product is not expected to cause skin sensitisation.

Skin Sensitisation

Resin acids and Rosin acids, esters with

pentaerythritol

Local Lymph Node Assay - Lowest Concentration Producing

Reaction. Not a skin sensitiser.

Result: Negative Species: Mouse Organ: Skin Notes: OECD 429

Maximisation assay (Magnusson and Kligman), Not a skin

sensitiser. Result: Negative Species: Guinea pig Organ: Skin Notes: OECD 406

Germ cell mutagenicity

No data available to indicate product or any components present at greater than 0.1% are

carcinogenic.

Mutagenicity

Resin acids and Rosin acids, esters with

pentaerythritol

Germ Cell Mutagenicity: Ames. No data available to indicate product or any components present at greater than 0.1% are

mutagenic or genotoxic.

Result: Negative

Species: Salmonella typhimurium

Notes: OECD 471

Germ Cell Mutagenicity: Chromosome Abberation, This material is considered to be non-clastogenic to human

lymphocytes in vitro. Result: Negative Species: Human Notes: OECD 473

In vitro gene mutation study in mammalian cells

Result: Negative Species: Mouse Notes: OECD 476

Carcinogenicity

This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

Hungary. 26/2000 EüM Ordinance on protection against and preventing risk relating to exposure to carcinogens at work (as amended)

Not listed

Reproductive toxicity

This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity -

single exposure

Not available.

Specific target organ toxicity -

repeated exposure

Not available.

Aspiration hazard

Not available.

Mixture versus substance

information

No information available.

11.2. Information on other hazards

Endocrine disrupting

properties

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

Other information

Resin acids and Rosin acids, esters with pentaerythritol

Cytotoxicity - in Vitro, Not cytotoxic

Result: Negative Species: Human Organ: Fibroblasts cells Notes: BS 30993-5

Cytotoxicity - in Vitro, Not cytotoxic

Result: Negative Species: Human Organ: Lung cell tissue Notes: BS 5736

Other information

Resin acids and Rosin acids, esters with pentaerythritol Cytotoxicity - in Vitro, Not cytotoxic

Result: Negative Species: Mouse

Organ: Fibroblasts cells Test Duration: 72 hr Observation Period: 24 hr

Notes: BS 5736

SECTION 12: Ecological information

12.1. Toxicity The product is not classified as environmentally hazardous. However, this does not exclude the

possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Components Species Test Results

Resin acids and Rosin acids, esters with pentaerythritol (CAS 8050-26-8)

Aquatic			
Algae	EL50	Green algae (Selenastrum capricornutum)	> 1000 mg/l, 72 hr OECD 201
	NOEL	Green algae (Selenastrum capricornutum)	1000 mg/l, 72 hr OECD 201
Crustacea	EL50	Water flea (Daphnia magna)	> 1000 mg/l, 48 hr OECD 202
	NOEC	Water flea (Daphnia magna)	1000 mg/l, 48 hr OECD 202
Fish	LL50	Fathead minnow (Pimephales promelas)	> 1000 mg/l, 96 hr OECD 203
	NOEL	Fathead minnow (Pimephales promelas)	1000 mg/l, 96 hr OECD 203

^{*} Estimates for product may be based on additional component data not shown.

12.2. Persistence and

degradability

The product is not readily biodegradable.

Biodegradability Percent Degradation (Aerobic Biodegradation)

Resin acids and Rosin acids, esters with pentaerythritol

0 % OECD 301B

Result: Not readily biodegradable. Species: Activated sewage sludge

Test Duration: 28 days

12.3. Bioaccumulative potential

12.4. Mobility in soil No data available.

12.5. Results of PBT and vPvB

assessment

This mixture does not contain substances assessed to be vPvB / PBT according to Regulation

(EC) No 1907/2006, Annex XIII.

12.6. Endocrine disrupting

properties

The product does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or regulation (EU) 2017/2100 or Commission Regulation (EU)

2018/605 at levels of 0.1% or higher.

12.7. Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation

potential, endocrine disruption, global warming potential) are expected from this component.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Residual waste Dispose of in accordance with local regulations. Empty containers or liners may retain some

product residues. This material and its container must be disposed of in a safe manner (see:

Disposal instructions).

Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container is

emptied. Empty containers should be taken to an approved waste handling site for recycling or

disposal.

EU waste code The Waste code should be assigned in discussion between the user, the producer and the waste

disposal company.

Disposal methods/information Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of

contents/container in accordance with local/regional/national/international regulations.

Special precautionsDispose in accordance with all applicable regulations.

SECTION 14: Transport information

ADR

14.1. UN number Not available. **14.2. UN proper shipping** Not available.

name

14.3. Transport hazard class(es)

Class Not available.

Subsidiary risk

Hazard No. (ADR) Not available.

Tunnel restriction code Not available. Not available. 14.4. Packing group 14.5. Environmental hazards No. 14.6. Special precautions Not available. for user 14.1. UN number Not available. Not available. 14.2. UN proper shipping name 14.3. Transport hazard class(es) Not available. Class Subsidiary risk

Not available. 14.4. Packing group

14.5. Environmental hazards No.

14.6. Special precautions Not available.

for user

ADN

RID

Not available. 14.1. UN number 14.2. UN proper shipping Not available.

name

14.3. Transport hazard class(es)

Class Not available.

Subsidiary risk

14.4. Packing group Not available.

14.5. Environmental hazards No.

14.6. Special precautions Not available.

for user

IATA

14.1. UN number Not available. 14.2. UN proper shipping Not available.

14.3. Transport hazard class(es)

Class Not available.

Subsidiary risk

Not available. 14.4. Packing group

14.5. Environmental hazards No.

14.6. Special precautions Not available.

for user

IMDG

Not available. 14.1. UN number 14.2. UN proper shipping Not available.

name

14.3. Transport hazard class(es)

Not available. Class

Subsidiary risk

Not available. 14.4. Packing group

14.5. Environmental hazards Marine pollutant No.

Not available. **EmS** 14.6. Special precautions Not available.

for user

14.7. Transport in bulk Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

according to Annex II of MARPOL 73/78 and the IBC

SECTION 15: Regulatory information

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

EU regulations

Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I and II, as amended

Not listed.

Regulation (EU) 2019/1021 On persistent organic pollutants (recast), as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 1 as amended

Not listed.

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SDS EU

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 2 as amended Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 3 as amended

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex V as amended Not listed.

Regulation (EC) No. 166/2006 Annex II Pollutant Release and Transfer Registry, as amended

Not listed.

Regulation (EC) No. 1907/2006, REACH Article 59(10) Candidate List as currently published by ECHA Not listed.

Authorisations

Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorization, as amended Not listed.

Restrictions on use

Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use as amended

Directive 2004/37/EC: on the protection of workers from the risks related to exposure to carcinogens and mutagens at work, as amended.

Not listed.

Other EU regulations

Directive 2012/18/EU on major accident hazards involving dangerous substances, as amended

Not listed.

Other regulations The product is classified and labelled in accordance with Regulation (EC) 1272/2008 (CLP

Regulation) as amended. This Safety Data Sheet complies with the requirements of Regulation

(EC) No 1907/2006, as amended.

Follow national regulation for work with chemical agents. National regulations

15.2. Chemical safety

Water hazard class

assessment

Chemical Safety Assessment has been carried out.

AwSV WGK1

SECTION 16: Other information

List of abbreviations Not available. Not available. References Information on evaluation Not applicable.

method leading to the classification of mixture

Full text of any H-statements

not written out in full under

Sections 2 to 15

None.

SECTION 2: Hazards identification: 2.3. Other hazards Revision information

SECTION 8: Exposure controls/personal protection: Environmental exposure controls

SECTION 11: Toxicological information: Endocrine disrupting properties SECTION 12: Ecological information: 12,6. Endocrine disrupting properties

SECTION 12: Ecological information: 12,5. Results of PBT and vPvB assessment

SECTION 16: Other information: Disclaimer

Training information Follow training instructions when handling this material.

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Disclaimer

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