













12.04.2019

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)

Trade Name: SW 021	Desoldering wick DIN EN 29 453 NF EN 29 454.1															
<p>1.) <u>IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING</u></p> <p>1.1.) Product identifier</p> <p>Trade name: SW021</p> <p>Registration number (REACH): not relevant (mixture)</p> <p>CAS-number: not relevant (mixture)</p> <p>1.2.) Relevant identified uses of the substance or mixture and uses advised against</p> <p>Relevant identified uses: Desolder Adsorbing solder</p> <p>1.3.) Details of the supplier of the safety data sheet:</p> <p>EDSYN GMBH EUROPA Finkenweg 2 D 97892 Kreuzwertheim</p> <p>1.4.) Emergency telephone number</p>	<p>Tel. +49 (0) 9342 - 6413 Fax: +49 (0) 9342 – 6417 E-Mail: Edsyn-europa@t-online.de Website: www.edsyn-europa.de</p> <p>As above or next toxicological information center.</p>															
<p>2.) <u>HAZARDS IDENTIFICATION</u></p> <p>2.1.) Classification of the substance or mixture</p> <p>Classification according to Regulation (EC) No 1272/2008 (CLP)</p> <table border="1" data-bbox="316 1470 1409 1654"> <thead> <tr> <th colspan="5">Classification acc. to GHS</th> </tr> <tr> <th>Section</th> <th>Hazard class</th> <th>Category</th> <th>Hazard class and category</th> <th>Hazard statement</th> </tr> </thead> <tbody> <tr> <td>3.4S</td> <td>skin sensitisation</td> <td>1</td> <td>Skin Sens. 1</td> <td>H317</td> </tr> </tbody> </table> <p>for full text of abbreviations: see SECTION 16</p> <p>2.2.) Label elements</p> <p>Labelling according to Regulation (EC) No 1272/2008 [CLP]</p> <p>Signal word: warning</p>		Classification acc. to GHS					Section	Hazard class	Category	Hazard class and category	Hazard statement	3.4S	skin sensitisation	1	Skin Sens. 1	H317
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<p>Pictograms:</p> <p>Hazard statements:</p> <p>Precautionary statements:</p> <p>Hazardous ingredients for labelling:</p> <p>2.3.) Other hazards</p>	 <p>GHS07</p> <p>H317 May cause an allergic skin reaction.</p> <p>P280 Wear protective gloves/protective clothing/eye protection/face protection.</p> <p>P333+P313 If skin irritation or rash occurs: Get medical advice/attention.</p> <p>P362+P364 Take off contaminated clothing and wash it before reuse.</p> <p>Rosin</p> <p>There is no additional information.</p>																														
<p>3.) <u>COMPOSITION/ INFORMATION ON INGREDIENTS</u></p> <p>3.1.) Substances</p> <p>3.2.) Mixtures</p> <p>Description of the mixture</p>	<p>not relevant (mixture)</p> <table border="1" data-bbox="315 1117 1409 1659"> <thead> <tr> <th colspan="5">Hazardous ingredients acc. to GHS</th> </tr> <tr> <th>Name of substance</th> <th>Identifier</th> <th>Wt %</th> <th>Classification acc. to GHS</th> <th>Pictograms</th> </tr> </thead> <tbody> <tr> <td>Rosin</td> <td>CAS No 8050-09-7 EC No 232-475-7 Index No 650-015-00-7</td> <td>5-<10</td> <td>Skin Sens. 1 / H317</td> <td></td> </tr> <tr> <td>Tin</td> <td>CAS No 7440-31-5 EC No 231-141-8</td> <td>5-<10</td> <td></td> <td></td> </tr> <tr> <td>Adipic acid</td> <td>CAS No 124-04-9 EC No 204-673-3 Index No 607-144-00-9</td> <td>1-<5</td> <td>Eye Irrit. 2 / H319</td> <td></td> </tr> <tr> <td>Azelaic acid</td> <td>CAS No 123-99-9 EC No 204-669-1</td> <td>1-<5</td> <td>Skin Irrit. 2 / H315 Eye Irrit. 2 / H319</td> <td></td> </tr> </tbody> </table>	Hazardous ingredients acc. to GHS					Name of substance	Identifier	Wt %	Classification acc. to GHS	Pictograms	Rosin	CAS No 8050-09-7 EC No 232-475-7 Index No 650-015-00-7	5-<10	Skin Sens. 1 / H317		Tin	CAS No 7440-31-5 EC No 231-141-8	5-<10			Adipic acid	CAS No 124-04-9 EC No 204-673-3 Index No 607-144-00-9	1-<5	Eye Irrit. 2 / H319		Azelaic acid	CAS No 123-99-9 EC No 204-669-1	1-<5	Skin Irrit. 2 / H315 Eye Irrit. 2 / H319	
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<p>4.) <u>FIRST AID MEASURES</u></p> <p>4.1.) Description of first aid measures</p> <p>General notes:</p>	<p>Take off immediately all contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical advice.</p>																														



<p>Following inhalation:</p> <p>Following skin contact:</p> <p>Following eye contact:</p> <p>Following ingestion:</p> <p>Notes for the doctor</p> <p>4.2.) Most important symptoms and effects, both acute and delayed</p> <p>4.3.) Indication of any immediate medical attention and special treatment needed</p>	<p>Provide fresh air. If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions.</p> <p>After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water and soap. If skin irritation or rash occurs: Get medical advice/attention.</p> <p>Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>Rinse mouth immediately and drink plenty of water. Induce vomiting when the affected person is not unconscious. Get medical advice/attention if you feel unwell.</p> <p>none</p> <p>May cause an allergic skin reaction.</p> <p>none</p>
<p>5.) <u>FIREFIGHTING MEASURES</u></p> <p>5.1.) Extinguishing media</p> <p>5.2.) Special hazards arising from the substance or mixture</p> <p>Hazardous combustion products:</p> <p>5.3.) Advice for firefighters</p> <p>Special protective equipment for firefighters:</p>	<p>Non-combustible. Use metal fire powder to extinguish – never use water.</p> <p>Hazardous decomposition products: Section 10.</p> <p>Metal oxide smoke, toxic.</p> <p>In case of fire and/or explosion do not breathe fumes. Co-ordinate firefighting measures to the fire surroundings. Do not allow firefighting water to enter drains or water courses. Collect contaminated firefighting water separately. Fight fire with normal precautions from a reasonable distance.</p> <p>Self-contained breathing apparatus (EN 133).</p>
<p>6.) <u>ACCIDENTAL RELEASE MEASURES</u></p> <p>6.1.) Personal precautions, protective equipment and emergency procedures</p> <p>For non-emergency personal:</p> <p>For emergency responders:</p>	<p>Remove persons to safety. Ventilate affected area. Prevent skin contact. Control of dust. Wearing of suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing.</p> <p>Wear breathing apparatus if exposed to vapours/dust/spray/gases.</p>



<p>6.2.) Environmental precautions</p> <p>6.3.) Methods and material for containment and cleaning up</p> <p>Advices on how to contain a spill:</p> <p>Advices on how to clean up a spill:</p> <p>Other information relating to spills and releases:</p> <p>6.4.) Reference to other sections</p>	<p>Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it.</p> <p>Take up mechanically.</p> <p>Collect spillage.</p> <p>Place in appropriate containers for disposal. Ventilate affected area.</p> <p>Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.</p>
<p>7.) HANDLING AND STORAGE</p> <p>7.1.) Precautions for safe handling</p> <p>Measures to prevent fire as well as aerosol and dust generation:</p> <p>Specific notes/details:</p> <p>Handling of incompatible substances or mixtures</p> <p>Keep away from:</p> <p>Measures to protect the environment:</p> <p>Advice on general occupational hygiene:</p> <p>7.2.) Conditions for safe storage, including any incompatibilities</p> <p>Explosive atmospheres:</p> <p>Flammability hazards:</p> <p>Incompatible substances or mixtures:</p> <p>Protect against external exposure, such as:</p> <p>Consideration of other advice:</p> <p>Ventilation requirements:</p>	<p>Use local and general ventilation. Removal of dust deposits.</p> <p>Dust deposits may accumulate on all deposition surfaces in a technical room.</p> <p>Oxidisers, chlorates, bromates.</p> <p>Avoid release to the environment.</p> <p>Do not eat, drink and smoke in work areas. Wash hands after use. Preventive skin protection (barrier creams/ointments) is recommended. Remove contaminated clothing and protective equipment before entering eating areas.</p> <p>Removal of dust deposits.</p> <p>None</p> <p>Incompatible materials: see section 10. Observe hints for combined storage.</p> <p>Heat</p> <p>Keep away from food, drink and animal feeding stuffs.</p> <p>Provision of sufficient ventilation.</p>



Packaging compatibilities:	Keep only in original container.						
7.3.) Specific end use(s)	No information available.						
8.) <u>EXPOSURE CONTROLS/PERSONAL PROTECTION</u>							
8.1.) Control parameters							
Occupational exposure limit values (Workplace Exposure Limits)							
Country	Name of agent	CAS No	Notation	Identifier	TWA [mg/m ³]	STEL [mg/m ³]	Source
EU	tin	7440-31-5		IOELV	2		91/322/EEC
GB	dust		i	WEL	10		EH40/2005
GB	dust		r	WEL	4		EH40/2005
GB	copper	7440-50-8	dm	WEL	1	2	EH40/2005
GB	copper	7440-50-8	fume	WEL	0.2		EH40/2005
GB	rosin-based solder flux fume	8050-09-7		WEL	0.05	0.15	EH40/2005
Notation							
dm	as dusts and mists						
fume	as fume						
i	inhalable fraction						
r	respirable fraction						
STEL	short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute period unless otherwise specified.						
TWA	time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours time-weighted average.						
Relevant DNELs of components of the mixture							
Name of substance	CAS No	End-point	Threshold level	Protection goal, route of exposure	Used in	Exposure time	
Rosin	8050-09-7	DNEL	117 mg/m ³	human, inhalatory	worker (industry)	chronic – systemic effects	
Rosin	8050-09-7	DNEL	17 mg/kg bw/day	human, dermal	worker (industry)	chronic – systemic effects	
Tin	7440-31-5	DNEL	71 mg/m ³	human, inhalatory	worker (industry)	chronic – systemic effects	
Tin	7440-31-5	DNEL	10 mg/kg bw/day	human, dermal	worker (industry)	chronic – systemic effects	
Adipic acid	124-04-9	DNEL	5 mg/m ³	human, inhalatory	worker (industry)	chronic – local - temic effects	
Adipic acid	124-04-9	DNEL	38 mg/kg	human, dermal	worker (industry)	chronic – systemic effects	
Adipic acid	124-04-9	DNEL	264 mg/m ³	human, inhalatory	worker (industry)	chronic – systemic effects	
Azelaic acid	123-99-9	DNEL	17.63 mg/m ³	human, inhalatory	worker (industry)	chronic – systemic effects	
Azelaic acid	123-99-9	DNEL	10 mg/kg bw/day	human, dermal	worker (industry)	chronic – systemic effects	



Relevant PNECs of components of the mixture				
Name of substance	CAS No	Endpoint	Threshold level	Environmental compartment
Rosin	8050-09-7	PNEC	0.016 mg/l	water
Rosin	8050-09-7	PNEC	0.002 mg/l	freshwater
Rosin	8050-09-7	PNEC	0 mg/l	marine water
Rosin	8050-09-7	PNEC	1.000 mg/l	sewage treatment plant (STP)
Rosin	8050-09-7	PNEC	0.007 mg/kg	freshwater sediment
Rosin	8050-09-7	PNEC	0.001 mg/kg	marine sediment
Rosin	8050-09-7	PNEC	0 mg/kg	soil
Adipic acid	124-04-9	PNEC	0.126 mg/l	freshwater
Adipic acid	124-04-9	PNEC	0.0126 mg/l	marine water
Adipic acid	124-04-9	PNEC	59.1 mg/l	sewage treatment plant (STP)
Adipic acid	124-04-9	PNEC	0.484 mg/kg	freshwater sediment
Adipic acid	124-04-9	PNEC	0.0484 mg/kg	marine sediment
Adipic acid	124-04-9	PNEC	0.0228 mg/kg	soil
Adipic acid	124-04-9	PNEC	0.46 mg/l	water
Azelaic acid	123-99-9	PNEC	0.16 mg/l	water
Azelaic acid	123-99-9	PNEC	0.02 mg/l	freshwater
Azelaic acid	123-99-9	PNEC	0.002 mg/l	marine water
Azelaic acid	123-99-9	PNEC	912 mg/l	sewage treatment plant (STP)
Azelaic acid	123-99-9	PNEC	0.093 mg/kg	freshwater sediment
Azelaic acid	123-99-9	PNEC	0.009 mg/kg	marine sediment
Azelaic acid	123-99-9	PNEC	0.007 mg/kg	soil

8.2.) EXPOSURE CONTROLS

Appropriate engineering controls:

General ventilation.

Individual protection measures (personal protective equipment):

Eye/face protection:

Wear eye/face protection.



Hand protection:							
<table border="1"> <thead> <tr> <th>Material</th> <th>Material thickness</th> <th>Breakthrough times of the glove material</th> </tr> </thead> <tbody> <tr> <td>these information are not available</td> <td>these information are not available</td> <td>these information are not available</td> </tr> </tbody> </table>	Material	Material thickness	Breakthrough times of the glove material	these information are not available	these information are not available	these information are not available	
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Respiratory protection:	Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. Check leak-tightness/impermeability prior to use. In the case of wanting to use the gloves again, clean them before taking off and air them well. In case of inadequate ventilation wear respiratory protection. Particulate filter device (EN 143).						
Environmental exposure controls:	Use appropriate container to avoid environmental contamination. Keep away from drains, surface and ground water.						
<p>9.) <u>PHYSICAL AND CHEMICAL PROPERTIES</u></p> <p>9.1.) Information and basic physical and chemical properties</p> <p><u>Appearance</u></p> <p>Physical state: Form: Colour: Odour: Odour threshold:</p> <p><u>Other safety parameters</u></p> <p>pH (value): Melting point/freezing point: Initial boiling point and boiling range: Flashpoint: Evaporation rate: Flammability (solid, gas): Explosion limits of dust clouds: Vapour pressure: Density: Vapour density: Relative density:</p> <p><u>Solubility(ies)</u></p> <p>Water solubility:</p>	<p>solid solid matter tin odourless these information are not available</p> <p>these information are not available these information are not available 2.500 °C not applicable these information are not available non-combustible not determined these information are not available 8,930 g/cm³ these information are not available these information are not available</p> <p>these information are not available</p>						



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<p><u>Partition coefficient</u></p> <p>n-octanol/water (log KOW):</p> <p>Auto-Ignition temperature:</p> <p>Relative self-ignition temperature for solids:</p> <p>Decomposition temperature:</p> <p><u>Viscosity</u></p> <p>Kinematic viscosity:</p> <p>Dynamic viscosity:</p> <p>Explosive properties:</p> <p>Oxidising properties:</p> <p>9.2.) Other information</p>	<p>these information are not available</p> <p>not relevant (solid matter)</p> <p>these information are not available.</p> <p>1.083 °C</p> <p>not relevant (solid matter)</p> <p>not relevant (solid matter)</p> <p>not explosive</p> <p>shall not be classified as oxidising</p> <p>None</p>
<p>10.) <u>STABILITY AND REACTIVITY</u></p> <p>10.1.) Reactivity</p> <p>10.2.) Chemical stability</p> <p>10.3.) Possibility of hazardous reactions</p> <p>10.4.) Conditions to avoid</p> <p>10.5.) Incompatible materials</p> <p>10.6.) Hazardous decomposition products</p>	<p>This material is not reactive under normal ambient conditions.</p> <p>The material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.</p> <p>No known hazardous reactions.</p> <p>Prevent from heating up above 230 °C. The product in the delivered form is not dust explosion capable; the enrichment of fine dust however leads to the danger of dust explosion.</p> <p>acids, bases, oxidisers, acetylene, nitrate, peroxides</p> <p>Reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known.</p> <p>Hazardous combustion products: see section 5.</p>
<p>11.) <u>TOXICOLOGICAL INFORMATION</u></p> <p>11.1.) Information on toxicological effects</p> <p>Classification procedure:</p>	<p>If not otherwise specified the classification is based on: Ingredients of the mixture (additivity formula).</p>



Classification according to GHS (1272/2008/EG, CLP)

Acute toxicity

Acute toxicity of components of the mixture								
Name of substance	CAS No	Exposure route	End-point	Value	Species	Method	Source	Notes
Rosin	8050-09-7	oral	LD50	2.800 mg/kg	rat		ECHA	
Rosin	8050-09-7	dermal	LD50	>2.000 mg/kg	rat		ECHA	
Tin	7440-31-5	oral	LD50	>2.000 mg/kg	rat, female	OECD 423	ECHA	
Tin	7440-31-5	inhalation: dust/mist	LC50	>4.75 mg/l/ 4h	rat	OECD 403	ECHA	
Tin	7440-31-5	dermal	LD50	2.000 mg/kg	rat	OECD 402	ECHA	
Adipic acid	124-04-9	oral	LD50	5.700 mg/kg	rat			
Adipic acid	124-04-9	dermal	LD50	>7.940 mg/kg	rabbit		ECHA	
Adipic acid	124-04-9	inhalation: dust/mist	LC50	>7.7 mg/l/ 4h	rat		ECHA	
Azelaic acid	123-99-9	oral	LD50	>5.000 mg/kg	rat	OECD Guideline 401	ECHA	*
Azelaic acid	123-99-9	inhalation: vapour	LC50	>0.162 mg/l/ 4h	rat		ECHA	*
Azelaic acid	123-99-9	dermal	LD50	>2.000 mg/kg	rabbit		ECHA	*

* data on similar substances were used

Skin corrosion/irritation:

Classification could not be established because:
Data are lacking, inconclusive, or conclusive but not sufficient for classification.

Serious eye damage/eye irritation:

Classification could not be established because:
Data are lacking, inconclusive, or conclusive but not sufficient for classification.

Respiratory or skin sensitisation

Skin sensitisation:

May cause an allergic skin reaction.

Respiratory sensitisation:

Classification could not be established because:
Data are lacking, inconclusive, or conclusive but not sufficient for classification.

Germ cell mutagenicity:

Classification could not be established because:
Data are lacking, inconclusive, or conclusive but not sufficient for classification.



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<p>Carcinogenicity:</p> <p>Reproductive toxicity:</p> <p>Specific target organ toxicity – single exposure:</p> <p>Specific target organ toxicity – repeated exposure</p> <p>Aspiration hazard:</p>	<p>Classification could not be established because: Data are lacking, inconclusive, or conclusive but not sufficient for classification.</p> <p>Classification could not be established because: Data are lacking, inconclusive, or conclusive but not sufficient for classification.</p> <p>Classification could not be established because: Data are lacking, inconclusive, or conclusive but not sufficient for classification.</p> <p>Classification could not be established because: Data are lacking, inconclusive, or conclusive but not sufficient for classification.</p> <p>Shall not be classified as presenting an aspiration hazard.</p>																																																																																	
<p>12.) <u>ECOLOGICAL INFORMATION</u></p> <p>12.1.) Toxicity</p> <p>Aquatic toxicity (acute):</p> <p>Test data are not available for the complete mixture.</p> <p>Aquatic Toxicity (acute) of components of the mixture</p> <table border="1"> <thead> <tr> <th>Name of substance</th> <th>CAS No</th> <th>End-point</th> <th>Value</th> <th>Species</th> <th>Method</th> <th>Source</th> <th>Notes</th> <th>Exposure time</th> </tr> </thead> <tbody> <tr> <td>Rosin</td> <td>8050-09-7</td> <td>LL50</td> <td><10 mg/l</td> <td>zebra fish (danio rerio)</td> <td>OECD Guideline 203</td> <td>ECHA</td> <td></td> <td>96 h</td> </tr> <tr> <td>Rosin</td> <td>8050-09-7</td> <td>LC50</td> <td>1.7 mg/l</td> <td>fathead minnow (primephales promelas)</td> <td>OECD Guideline 203</td> <td>ECHA</td> <td></td> <td>96 h</td> </tr> <tr> <td>Rosin</td> <td>8050-09-7</td> <td>EL50</td> <td>>1.000 mg/l</td> <td>orfe (Leuciscus idus)</td> <td>OECD Guideline 203</td> <td>ECHA</td> <td></td> <td>96 h</td> </tr> <tr> <td>Rosin</td> <td>8050-09-7</td> <td>ErC50</td> <td>39.6 mg/l</td> <td>algae (pseudokirchneriella subcapitata)</td> <td>OECD Guideline 201</td> <td>ECHA</td> <td></td> <td>72 h</td> </tr> <tr> <td>Rosin</td> <td>8050-09-7</td> <td>EC50</td> <td>16.6 mg/l</td> <td>algae (pseudokirchneriella subcapitata)</td> <td>OECD Guideline 201</td> <td>ECHA</td> <td></td> <td>72 h</td> </tr> <tr> <td>Adipic acid</td> <td>124-04-9</td> <td>LC50</td> <td>46 mg/l</td> <td>daphnia magna</td> <td>OECD Guideline 202</td> <td>ECHA</td> <td></td> <td>48 h</td> </tr> <tr> <td>Adipic acid</td> <td>124-04-9</td> <td>ErC50</td> <td>59 mg/l</td> <td>algae (pseudokirchneriella subcapitata)</td> <td>OECD Guideline 201</td> <td>ECHA</td> <td></td> <td>72 h</td> </tr> <tr> <td>Azelaic acid</td> <td>123-99-9</td> <td>LC50</td> <td>>16 mg/l</td> <td>japanese rice-fish/medaka (Oryzias latipes)</td> <td>OECD Guideline 203</td> <td>ECHA</td> <td>*</td> <td>96 h</td> </tr> </tbody> </table>		Name of substance	CAS No	End-point	Value	Species	Method	Source	Notes	Exposure time	Rosin	8050-09-7	LL50	<10 mg/l	zebra fish (danio rerio)	OECD Guideline 203	ECHA		96 h	Rosin	8050-09-7	LC50	1.7 mg/l	fathead minnow (primephales promelas)	OECD Guideline 203	ECHA		96 h	Rosin	8050-09-7	EL50	>1.000 mg/l	orfe (Leuciscus idus)	OECD Guideline 203	ECHA		96 h	Rosin	8050-09-7	ErC50	39.6 mg/l	algae (pseudokirchneriella subcapitata)	OECD Guideline 201	ECHA		72 h	Rosin	8050-09-7	EC50	16.6 mg/l	algae (pseudokirchneriella subcapitata)	OECD Guideline 201	ECHA		72 h	Adipic acid	124-04-9	LC50	46 mg/l	daphnia magna	OECD Guideline 202	ECHA		48 h	Adipic acid	124-04-9	ErC50	59 mg/l	algae (pseudokirchneriella subcapitata)	OECD Guideline 201	ECHA		72 h	Azelaic acid	123-99-9	LC50	>16 mg/l	japanese rice-fish/medaka (Oryzias latipes)	OECD Guideline 203	ECHA	*	96 h
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Adipic acid	124-04-9	ErC50	59 mg/l	algae (pseudokirchneriella subcapitata)	OECD Guideline 201	ECHA		72 h																																																																										
Azelaic acid	123-99-9	LC50	>16 mg/l	japanese rice-fish/medaka (Oryzias latipes)	OECD Guideline 203	ECHA	*	96 h																																																																										



Name of substance	CAS No	End-point	Value	Species	Method	Source	Notes-	Exposure time
Azelaic acid	123-99-9	EC50	>20 mg/l	daphnia magna	OECD Guideline 202	ECHA	*	48 h
Azelaic acid	123-99-9	ErC50	>100 mg/l	algae (pseudokirchneriella subcapitata)	OECD Guideline 201	ECHA		72 h

* data on similar substances were used

Aquatic toxicity (chronic): | Test data are not available for the complete mixture.

Aquatic toxicity (chronic) of components of the mixture

Name of substance	CAS No	End-point	Value	Species	Method	Source	Notes-	Exposure time
Azelaic acid	123-99-9	LC50	9.8 mg/l	zebra fish (Danio rerio)	OECD Guideline 305	ECHA	*	28 d
Azelaic acid	123-99-9	EC50	0.51 mg/l	daphnia magna	OECD Guideline 211	ECHA	*	21 d
Azelaic acid	123-99-9	NOEC	6.4 mg/l	zebra fish (Danio rerio)	OECD Guideline 305	ECHA	*	28 d
Azelaic acid	123-99-9	LOEC	0.64 mg/l	daphnia magna	OECD Guideline 211	ECHA	*	21 d

* data on similar substances were used

12.2.) Persistence and degradability

Degradability of components of the mixture

Name of substance	CAS No	Process	Degradation rate	Time	Method	Source	Notes
Rosin	8050-09-7	oxygen depletion	71 %	28 d		ECHA	
Rosin	8050-09-7	carbon dioxide generation	80 %	28 d		ECHA	
Azelaic acid	123-99-9	oxygen depletion	86 %	30 d	OECD Guideline 301	ECHA	*

* data on similar substances were used

Biodegradation: | Data are not available.

Persistence: | Data are not available.



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<p>12.3.) Bioaccumulative potential</p> <p>Bioaccumulative potential of components of the mixture</p> <table border="1" data-bbox="313 499 1430 730"> <thead> <tr> <th>Name of substance</th> <th>CAS No</th> <th>BCF</th> <th>Log KOW</th> </tr> </thead> <tbody> <tr> <td>Rosin</td> <td>8050-09-7</td> <td></td> <td>3.01 (20 °C)</td> </tr> <tr> <td>Adipic acid</td> <td>124-04-9</td> <td></td> <td>0.093 (pH value: 3.3, 25 °C)</td> </tr> <tr> <td>Azelaic acid</td> <td>123-99-9</td> <td>234 - 249</td> <td>1.57 (25 °C)</td> </tr> </tbody> </table> <p>12.4.) Mobility in soil</p> <p>12.5.) Results of PBT and vPvB assessment</p> <p>12.6.) Other adverse effects</p> <p>Endocrine disrupting potential:</p> <p>Remarks:</p>	Name of substance	CAS No	BCF	Log KOW	Rosin	8050-09-7		3.01 (20 °C)	Adipic acid	124-04-9		0.093 (pH value: 3.3, 25 °C)	Azelaic acid	123-99-9	234 - 249	1.57 (25 °C)	<p>Data are not available.</p> <p>This mixture does not contain any substances that are assessed to be a PBT or a vPvB.</p> <p>Data are not available.</p> <p>None of the ingredients are listed.</p> <p>Water hazard class – WHC (Wassergefährdungsklasse): 1 (Slightly hazardous to water).</p>
Name of substance	CAS No	BCF	Log KOW														
Rosin	8050-09-7		3.01 (20 °C)														
Adipic acid	124-04-9		0.093 (pH value: 3.3, 25 °C)														
Azelaic acid	123-99-9	234 - 249	1.57 (25 °C)														
<p>13.) <u>DISPOSAL CONSIDERATIONS</u></p> <p>13.1.) Waste treatment methods</p> <p>Sewage disposal-relevant information:</p> <p>Waste treatment of containers/ packagings:</p> <p>Remarks:</p>	<p>This material and its container must be disposed of as hazardous waste.</p> <p>Do not empty into drains.</p> <p>Handle contaminated packages in the same way as the substance itself.</p> <p>Please consider the relevant national or regional provisions.</p>																
<p>14.) <u>TRANSPORT INFORMATION</u></p> <p>14.1.) UN number</p> <p>14.2.) UN proper shipping name</p> <p>14.3.) Transport hazard class(es)</p> <p>Class:</p> <p>14.4.) Packing group</p> <p>14.5.) Environmental hazards</p> <p>14.6.) Special precautions for user</p> <p>14.7.) Transport in bulk according to Annex II of MARPOL and the IBC Code</p>	<p>Not subject to transport regulations.</p> <p>-</p> <p>-</p> <p>-</p> <p>-</p> <p>-</p> <p>There is no additional information.</p> <p>The cargo is not intended to be carried in bulk.</p>																



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<p>14.8.) Information for each of the UN MODEL Regulations</p> <p>Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN):</p> <p>International Maritime Dangerous Goods Code (IMDG):</p> <p>International Civil Aviation Organization (ICAO-IATA/DGR):</p>	<p>Not subject to ADR, RID and ADN.</p> <p>Not subject to IMDG.</p> <p>Not subject to ICAO-IATA.</p>										
<p>15.) REGULATORY INFORMATION</p> <p>15.1.) Safety, health and environmental regulations/legislation specific for the substance or mixture</p> <p><u>Relevant provisions of the European Union (EU):</u></p> <p>Restrictions according to REACH, Annex XVII:</p> <p>List of substances subject to authorisation (REACH, Annex XIV):</p> <p>Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS) – Annex II:</p> <p>Directive 2000/60/EC establishing a framework for Community action in the field of water policy (WFD):</p> <p>Regulation 98/2013/EU on the marketing and use of explosives precursors:</p>	<p>None of the ingredients are listed.</p> <p>None of the ingredients are listed.</p> <p>None of the ingredients are listed.</p> <p>None of the ingredients are listed.</p> <p>None of the ingredients are listed.</p>										
<p>16.) OTHER INFORMATION</p> <p>Abbreviations and acronyms</p> <table border="1" data-bbox="316 1528 1409 1892"> <thead> <tr> <th>Abbr.</th> <th>Descriptions of used abbreviations</th> </tr> </thead> <tbody> <tr> <td>91/322/EEC</td> <td>Commission Directive on establishing indicative limit values by implementing Council Directive 80/1107/EEC</td> </tr> <tr> <td>ADN</td> <td>Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures (European Agreement concerning the international Carriage of Dangerous Goods by Inland Waterways)</td> </tr> <tr> <td>ADR</td> <td>Accord européen relatif au transport international des marchandises dangereuses par route (European Agreement concerning the international Carriage of Dangerous Goods by Road)</td> </tr> <tr> <td>BCF</td> <td>Bioconcentration factor</td> </tr> </tbody> </table>		Abbr.	Descriptions of used abbreviations	91/322/EEC	Commission Directive on establishing indicative limit values by implementing Council Directive 80/1107/EEC	ADN	Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures (European Agreement concerning the international Carriage of Dangerous Goods by Inland Waterways)	ADR	Accord européen relatif au transport international des marchandises dangereuses par route (European Agreement concerning the international Carriage of Dangerous Goods by Road)	BCF	Bioconcentration factor
Abbr.	Descriptions of used abbreviations										
91/322/EEC	Commission Directive on establishing indicative limit values by implementing Council Directive 80/1107/EEC										
ADN	Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures (European Agreement concerning the international Carriage of Dangerous Goods by Inland Waterways)										
ADR	Accord européen relatif au transport international des marchandises dangereuses par route (European Agreement concerning the international Carriage of Dangerous Goods by Road)										
BCF	Bioconcentration factor										



Abbr.	Descriptions of used abbreviations
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures
DGR	Dangerous Goods Regulations (see IATA/DGR)
DNEL	Derived No-Effect Level
EC No.	The EC Inventory (EINECS, ELINCS and the NLP-list) is the source for the seven-digit EC number, an identifier of substances commercially available within the EU (European Union)
EH40/2005	EH40/2005 Workplace exposure limits (http://www.nationalarchives.gov.uk/doc/open-government-licence/)
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
Eye Dam.	Seriously damaging to the eye
Eye Irrit.	Irritant to the eye
GHS	„Globally Harmonized System of Classification and Labelling of Chemicals“ developed by the United Nations
IATA	International Air Transport Association
IATA/DGR	Dangerous Goods Regulations (DGR) for the air transport (IATA)
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods Code
Index No	The index number is the identification code given to the substances in Part 3 of Annex VI to Regulation (EC) No 1272/2008
IOELV	Indicative occupational exposure limit value
Log KOW	n-Octanol/water
MARPOL	International Convention for the Prevention of Pollution from Ships (abbr. of “Marine Pollutant”)
NLP	No-Longer Polymer
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted No-Effect Concentration



Abbr.	Descriptions of used abbreviations
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regulations concerning the international carriage of Dangerous goods by Rail)
Skin Corr.	Corrosive to skin
Skin Irrit.	Irritant to skin
Skin Sens.	Skin sensitisation
STEL	Short-term exposure limit
TWA	Time-weighted average
vPvB	Very Persistent and very Bioaccumulative
WEL	Workplace exposure limit

Key literature references and sources for data

Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures.

Regulation (EC) No 1907/2006 (REACH), amended by 2015/830/EU.

Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN).

International Maritime Dangerous Goods Code (IMDG).

Dangerous Goods Regulations (DGR) for the air transport (IATA)

Physical and chemical properties.

Health hazards.

Environmental hazards.

The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

Classification procedure

List of relevant phrases (code and full text as stated in chapter 2 and 3)

Code	Text
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.

EDSYN GMBH EUROPA

Zentrum für Löt- und Entlötsysteme



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12.04.2019

Date of revision	23.01.2017 / 18.04.2017
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Disclaimer

This information is based upon the present state of our knowledge.
This SDS has been compiled and is solely intended for this product.