



















12. April 2019

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

Trade name: PUK 10	Soldering Tip Cleaner															
<p>1.) <u>IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING</u></p> <p>1.1.) Product identifier</p> <p>Trade name:</p> <p>Registration number (REACH):</p> <p>CAS number:</p> <p>1.2.) Relevant identified uses of the substance or mixture and uses advised against</p> <p>Relevant identified uses:</p> <p>1.3.) Details of the supplier of the safety data sheet</p> <p>Manufacturer/Supplier: Address:</p> <p>1.4.) Emergency telephone number</p>	<p>Soldering Tip Cleaner</p> <p>not relevant (mixture)</p> <p>not relevant (mixture)</p> <p>Cleaner agent / Cleaner</p> <p>EDSYN GMBH EUROPA Finkenweg 2 D 97892 Kreuzwertheim</p> <p>Tel. 09342 - 6413 Fax: 09342 – 6417 e-Mail: Edsyn-europa@t-online.de Website: www.edsyn-europa.de</p> <p>As above or next toxicological information centre.</p>															
<p>2.) <u>HAZARD 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="313 1457 1429 1627"> <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>3.3</td> <td>serious eye damage/eye irritation</td> <td>2</td> <td>Eye Irrit.2</td> <td>H319</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	3.3	serious eye damage/eye irritation	2	Eye Irrit.2	H319
Classification acc. to GHS																
Section	Hazard class	Category	Hazard class and category	Hazard statement												
3.3	serious eye damage/eye irritation	2	Eye Irrit.2	H319												



12. April 2019

<p>Pictograms:</p> <p>Hazard statements:</p> <p>Precautionary statements:</p> <p>2.3.) Other hazard</p> <p>Results of PBT and vPvB assessment:</p>	 <p>GHS07</p> <p>H319 Causes serious eye irritation.</p> <p>P280 Wear protective gloves/protective clothing/eye protection/face protection.</p> <p>P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>P337+P313 If eye irritation persists: Get medical advice/attention.</p> <p>There is no additional information.</p> <p>This mixture does not contain any substances that are assessed to be a PBT or a vPvB. .</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>																														
<p>Hazardous ingredients acc. to GHS</p>																															
<table border="1"> <thead> <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>adipic acid</td> <td>CAS-No. 124-04-9 EC-No. 204-673-3 Index-No. 607-144-00-9 REACH Reg.No. 01-2116457561-38 xxxx</td> <td>10-<25</td> <td>Eye Irrit. 2 / H319</td> <td></td> </tr> <tr> <td>glutaric acid</td> <td>CAS-No. 110-94-1 EC-No. 203-817-2</td> <td>10-<25</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>10-<25</td> <td>Eye Irrit. 2 / H319</td> <td></td> </tr> <tr> <td>Itaconic acid</td> <td>CAS-No. 97-65-4 EG-No. 202-599-6</td> <td>5-<10</td> <td>Skin Irrit. 2 / H315 Eye Irrit. 2 / H319 STOT SE 3 / H335</td> <td></td> </tr> <tr> <td>1,2,3-Benzotriazole</td> <td>CAS-No. 95-14-7 EC-No. 202-394-1</td> <td>1-<5</td> <td>Acute Tox. 4 / H302</td> <td></td> </tr> </tbody> </table>		Name of substance	Identifier	Wt%	Classification acc. to GHS	Pictograms	adipic acid	CAS-No. 124-04-9 EC-No. 204-673-3 Index-No. 607-144-00-9 REACH Reg.No. 01-2116457561-38 xxxx	10-<25	Eye Irrit. 2 / H319		glutaric acid	CAS-No. 110-94-1 EC-No. 203-817-2	10-<25	Eye Irrit. 2 / H319		azelaic acid	CAS-No. 123-99-9 EC-No. 204-669-1	10-<25	Eye Irrit. 2 / H319		Itaconic acid	CAS-No. 97-65-4 EG-No. 202-599-6	5-<10	Skin Irrit. 2 / H315 Eye Irrit. 2 / H319 STOT SE 3 / H335		1,2,3-Benzotriazole	CAS-No. 95-14-7 EC-No. 202-394-1	1-<5	Acute Tox. 4 / H302	
Name of substance	Identifier	Wt%	Classification acc. to GHS	Pictograms																											
adipic acid	CAS-No. 124-04-9 EC-No. 204-673-3 Index-No. 607-144-00-9 REACH Reg.No. 01-2116457561-38 xxxx	10-<25	Eye Irrit. 2 / H319																												
glutaric acid	CAS-No. 110-94-1 EC-No. 203-817-2	10-<25	Eye Irrit. 2 / H319																												
azelaic acid	CAS-No. 123-99-9 EC-No. 204-669-1	10-<25	Eye Irrit. 2 / H319																												
Itaconic acid	CAS-No. 97-65-4 EG-No. 202-599-6	5-<10	Skin Irrit. 2 / H315 Eye Irrit. 2 / H319 STOT SE 3 / H335																												
1,2,3-Benzotriazole	CAS-No. 95-14-7 EC-No. 202-394-1	1-<5	Acute Tox. 4 / H302																												



12. April 2019

<p>4.) <u>FIRST AID MEASURES</u></p> <p>4.1.) Description of first aid measures</p> <p>General notes</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>Take off immediately all contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical advice.</p> <p>Provide fresh air. If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions.</p> <p>Wash with plenty of soap and water. After contact with the molten product, cool rapidly with cold water. Do not pull solidified product away from the skin.</p> <p>Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.</p> <p>Rinse mouth. Do not induce vomiting. Get medical advice/attention if you feel unwell.</p> <p>none.</p> <p>Causes eye irritation.</p> <p>none.</p>
<p>5.) <u>FIREFIGHTING MEASURES</u></p> <p>5.1.) Extinguishing media</p> <p>Suitable extinguishing media:</p> <p>Unsuitable 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>: Section 10.</p> <p>water, foam, alcohol resistant foam, fire extinguishing powder.</p> <p>water jet</p> <p>Hazardous decomposition products: Section 10. Deposited combustible dust has considerable explosion potential.</p> <p>nitrogen oxides (NO_x), carbon monoxide (CO), carbon dioxide (CO₂), pyrolysis products, 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>



12. April 2019

<p>6.) ACCIDENTAL RELEASE MEASURES</p> <p>6.1.) Personal precautions, protective equipment and emergency procedures</p> <p>For non-emergency personnel:</p> <p>For emergency responders:</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>Remove persons to safety. Ventilate affected area. Avoid breathing dust. Control of dust. Avoid contact with skin and eyes. Keep away from sources of ignition – No smoking. 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>Knock down dust with water spray. 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>Measures to protect the environment:</p> <p>Advice on general occupational hygiene:</p>	<p>Keep container tightly closed and in a well-ventilated place.</p> <p>Use local and general ventilation. Keep away from sources of ignition – No smoking. Removal of dust deposits.</p> <p>Dust deposits may accumulate on all deposition surfaces in a technical room.</p> <p>Do not mix with alkali. Do not mix with Oxidiser.</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>



12. April 2019

<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>Packaging compatibilities:</p> <p>7.3.) Specific end use(s)</p>	<p>Removal of dust deposits.</p> <p>None.</p> <p>Incompatible materials: see section 10.</p> <p>heat, humidity, UV-radiation/sunlight.</p> <p>Keep away from food, drink and animal feedingstuffs.</p> <p>Provision of sufficient ventilation.</p> <p>Keep only in original container.</p> <p>No information available.</p>																												
<p>8.) EXPOSURE CONTROLS/PERSONAL PROTECTION</p> <p>8.1.) Control parameters</p> <table border="1"> <thead> <tr> <th>Country</th> <th>Name of agent</th> <th>Notation</th> <th>Identifier</th> <th>TWA (mg/m³)</th> <th></th> <th>Source</th> </tr> </thead> <tbody> <tr> <td>GB</td> <td>dust</td> <td>i</td> <td>WEL</td> <td>10</td> <td></td> <td>EH40/2005</td> </tr> <tr> <td>GB</td> <td>dust</td> <td>r</td> <td>WEL</td> <td>4</td> <td></td> <td>EH40/2005</td> </tr> </tbody> </table> <p>Notation</p> <p>i inhalable fraction</p> <p>r respirable fraction</p> <p>TWA time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours time-weighted average</p>	Country	Name of agent	Notation	Identifier	TWA (mg/m ³)		Source	GB	dust	i	WEL	10		EH40/2005	GB	dust	r	WEL	4		EH40/2005								
Country	Name of agent	Notation	Identifier	TWA (mg/m ³)		Source																							
GB	dust	i	WEL	10		EH40/2005																							
GB	dust	r	WEL	4		EH40/2005																							
<p>Relevant DNELs of components of the mixture</p> <table border="1"> <thead> <tr> <th>Name of substance</th> <th>CAS-No.</th> <th>Endpoint</th> <th>Threshold level</th> <th>Protection goal, route of exposure</th> <th>Used in</th> <th>Exposure time</th> </tr> </thead> <tbody> <tr> <td>adipic acid</td> <td>124-04-9</td> <td>DNEL</td> <td>5 mg/m³</td> <td>human, inhalatory</td> <td>worker (industry)</td> <td>chronic – local effects</td> </tr> <tr> <td>adipic acid</td> <td>124-04-9</td> <td>DNEL</td> <td>264 mg/m³</td> <td>human, inhalatory</td> <td>worker (industry)</td> <td>chronic – systemic effects</td> </tr> <tr> <td>adipic acid</td> <td>124-04-9</td> <td>DNEL</td> <td>38 mg/kg</td> <td>human, dermal</td> <td>worker (industry)</td> <td>chronic – systemic effects</td> </tr> </tbody> </table>		Name of substance	CAS-No.	Endpoint	Threshold level	Protection goal, route of exposure	Used in	Exposure time	adipic acid	124-04-9	DNEL	5 mg/m ³	human, inhalatory	worker (industry)	chronic – local effects	adipic acid	124-04-9	DNEL	264 mg/m ³	human, inhalatory	worker (industry)	chronic – systemic effects	adipic acid	124-04-9	DNEL	38 mg/kg	human, dermal	worker (industry)	chronic – systemic effects
Name of substance	CAS-No.	Endpoint	Threshold level	Protection goal, route of exposure	Used in	Exposure time																							
adipic acid	124-04-9	DNEL	5 mg/m ³	human, inhalatory	worker (industry)	chronic – local effects																							
adipic acid	124-04-9	DNEL	264 mg/m ³	human, inhalatory	worker (industry)	chronic – systemic effects																							
adipic acid	124-04-9	DNEL	38 mg/kg	human, dermal	worker (industry)	chronic – systemic effects																							



12. April 2019

Relevant PNECs of components of the mixture				
Name of substance	CAS-No.	Endpoint	Threshold level	Environmental compartment
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	0,46 mg/l	water
adipic acid	124-04-9	PNEC	0,0228 mg/kg	soil

<p>8.2.) Exposure controls</p> <p>Appropriate engineering controls:</p> <p>Individual protection measures (personal protective equipment)</p> <p>Eye/face protection</p> <p>Hand protection:</p>	<p>General ventilation.</p> <p>Wear eye/face protection.</p>
---	---

Material	Material thickness	Breakthrough times of the glove material
these information are not available	these information are not available	these information are not available

<p>Respiratory protection:</p> <p>Thermal hazards:</p> <p>Environmental exposure controls:</p>	<p>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.</p> <p>In case of inadequate ventilation wear respiratory protection. Particulate filter device (EN 143).</p> <p>Wear protective clothing for protection against heat and flame.</p> <p>Use appropriate container to avoid environmental contamination. Keep away from drains, surface and ground water.</p>
--	--

<p>9.) <u>PHYSICAL AND CHEMICAL PROPERTIES</u></p> <p>9.1.) Information on basic physical and chemical properties</p> <p><u>Appearance</u></p>	<p>solid</p>
---	--------------



12. April 2019

<p>Physical state Form: Colour Odour: Odour threshold</p> <p><u>Other safety parameters</u></p> <p>pH-(value):</p> <p>Melting point/ freezing point: Initial boiling point and boiling range: Flash point Evaporation rate: Flammability (solid, gas):</p> <p>Explosion limitis of dust clouds</p> <p>Vapour pressure: Density: Vapour density: Relative density:</p> <p><u>Solubility(ies)</u></p> <p>Water solubility:</p> <p><u>Partition coefficient</u></p> <p>n-octanol/water (log KOW): Auto-ignition temperature:</p> <p>Relative self-ignition temperature for solids</p> <p>Decomposition temperature:</p> <p><u>Viscosity</u></p> <p>Kinematic viscosity: Dynamic viscosity: Explosive properties: Oxidising properties:</p> <p>9.2.) Other information</p>	<p>solid matter green characteristic these information are not available</p> <p>these information are not available</p> <p>-50 °C these information are not available not applicable these information are not available this material is combustible, but will not ignite readily</p> <p>not determined</p> <p>these information are not available these information are not available these information are not available these information are not available</p> <p>these information are not available</p> <p>these information are not available not relevant (solid matter)</p> <p>these information are not available</p> <p>these information are not available</p> <p>not relevant (solid matter) not relevant (solid matter) not explosive 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>These information are not available.</p> <p>The material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.</p> <p>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>Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. UV-radiation/ sunlight. Protect from moisture</p>



12. April 2019

<p>10.5.) Incompatible materials</p> <p>10.6.) Hazardous decomposition products</p>	<p>bases, oxidisers, reducing agents</p> <p>Reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heading are not known. Hazardous combustion products: see section 5.</p>																																																								
<p>11.) TOXICOLOGICAL INFORMATION</p> <p>11.1.) Information on toxicological effects</p> <p>Classification procedure:</p> <p>Classification according to GHS (1272/2008/EC, CLP):</p> <p>Acute toxicity</p>	<p>If not otherwise specified the classification is based on: Ingredients of the mixture (additivity formula).</p> <table border="1" data-bbox="316 913 1409 1050"> <thead> <tr> <th colspan="4">Acute toxicity estimate (ATE) of components of the mixture</th> </tr> <tr> <th>Name of substance</th> <th>CAS-No.</th> <th>Exposure route</th> <th>ATE</th> </tr> </thead> <tbody> <tr> <td>1,2,3-Benzotriazole</td> <td>95-14-7</td> <td>oral</td> <td>560 mg/kg</td> </tr> </tbody> </table>	Acute toxicity estimate (ATE) of components of the mixture				Name of substance	CAS-No.	Exposure route	ATE	1,2,3-Benzotriazole	95-14-7	oral	560 mg/kg																																												
Acute toxicity estimate (ATE) of components of the mixture																																																									
Name of substance	CAS-No.	Exposure route	ATE																																																						
1,2,3-Benzotriazole	95-14-7	oral	560 mg/kg																																																						
<table border="1" data-bbox="316 1239 1429 1648"> <thead> <tr> <th colspan="7">Acute toxicity of components of the mixture</th> </tr> <tr> <th>Name of substance</th> <th>CAS-No.</th> <th>Exposure route</th> <th>Endpoint</th> <th>Value</th> <th>Species</th> <th>Source</th> </tr> </thead> <tbody> <tr> <td>adipic acid</td> <td>124-04-9</td> <td>oral</td> <td>LD50</td> <td>5.560 mg/kg</td> <td>rat</td> <td>ECHA</td> </tr> <tr> <td>adipic acid</td> <td>124-04-9</td> <td>inhalation: dust/mist</td> <td>LC50</td> <td>>7,7 mg/l/4h</td> <td>rat</td> <td>ECHA</td> </tr> <tr> <td>azelaic acid</td> <td>123-99-9</td> <td>oral</td> <td>LD50</td> <td>>4.000 mg/kg</td> <td>rat</td> <td>Hersteller</td> </tr> <tr> <td>azelaic acid</td> <td>123-99-9</td> <td>dermal</td> <td>LD50</td> <td>>10.000 mg/kg</td> <td>rat</td> <td>Hersteller</td> </tr> <tr> <td>1,2,3-Benzotriazole</td> <td>95-14-7</td> <td>oral</td> <td>LD50</td> <td>560 mg/kg</td> <td>rat</td> <td>Hersteller</td> </tr> <tr> <td>1,2,3-Benzotriazole</td> <td>95-14-7</td> <td>dermal</td> <td>LD50</td> <td>>2.000 mg/kg</td> <td>rabbit</td> <td>Hersteller</td> </tr> </tbody> </table> <p>Skin corrosion/ irritation</p> <p>Serious eye damage/ eye irritation</p> <p>Respiratory or skin sensitisation</p> <p>Classification could not be established because: Data are lacking, inconclusive, or conclusive but not sufficient for classification.</p> <p>Causes serious eye irritation.</p>		Acute toxicity of components of the mixture							Name of substance	CAS-No.	Exposure route	Endpoint	Value	Species	Source	adipic acid	124-04-9	oral	LD50	5.560 mg/kg	rat	ECHA	adipic acid	124-04-9	inhalation: dust/mist	LC50	>7,7 mg/l/4h	rat	ECHA	azelaic acid	123-99-9	oral	LD50	>4.000 mg/kg	rat	Hersteller	azelaic acid	123-99-9	dermal	LD50	>10.000 mg/kg	rat	Hersteller	1,2,3-Benzotriazole	95-14-7	oral	LD50	560 mg/kg	rat	Hersteller	1,2,3-Benzotriazole	95-14-7	dermal	LD50	>2.000 mg/kg	rabbit	Hersteller
Acute toxicity of components of the mixture																																																									
Name of substance	CAS-No.	Exposure route	Endpoint	Value	Species	Source																																																			
adipic acid	124-04-9	oral	LD50	5.560 mg/kg	rat	ECHA																																																			
adipic acid	124-04-9	inhalation: dust/mist	LC50	>7,7 mg/l/4h	rat	ECHA																																																			
azelaic acid	123-99-9	oral	LD50	>4.000 mg/kg	rat	Hersteller																																																			
azelaic acid	123-99-9	dermal	LD50	>10.000 mg/kg	rat	Hersteller																																																			
1,2,3-Benzotriazole	95-14-7	oral	LD50	560 mg/kg	rat	Hersteller																																																			
1,2,3-Benzotriazole	95-14-7	dermal	LD50	>2.000 mg/kg	rabbit	Hersteller																																																			



12. April 2019

<p>Skin sensitisation</p> <p>Respiratory sensitisation</p> <p>Germ cell mutagenicity:</p> <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>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.) ECOLOGICAL INFORMATION</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>Endpoint</th> <th>Value</th> <th>Species</th> <th>Method</th> <th>Source</th> <th>Exposure time</th> </tr> </thead> <tbody> <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>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>72 h</td> </tr> <tr> <td>azelaic acid</td> <td>123-99-9</td> <td>EC50</td> <td>>85,5 mg/l</td> <td>daphnia</td> <td></td> <td>Hersteller</td> <td>48 h</td> </tr> <tr> <td>1,2,3-Benzotriazole</td> <td>95-14-7</td> <td>EC50</td> <td>91 mg/l</td> <td>daphnia magna</td> <td></td> <td>Hersteller</td> <td>48 h</td> </tr> <tr> <td>1,2,3-Benzotriazole</td> <td>95-14-7</td> <td>LC50</td> <td>>100 mg/l</td> <td>zebra fish (Danio rerio)</td> <td></td> <td>Hersteller</td> <td>96 h</td> </tr> </tbody> </table> <p>Aquatic toxicity (chronic)</p> <p>Test data are not available for the complete mixture.</p>		Name of substance	CAS-No.	Endpoint	Value	Species	Method	Source	Exposure time	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	EC50	>85,5 mg/l	daphnia		Hersteller	48 h	1,2,3-Benzotriazole	95-14-7	EC50	91 mg/l	daphnia magna		Hersteller	48 h	1,2,3-Benzotriazole	95-14-7	LC50	>100 mg/l	zebra fish (Danio rerio)		Hersteller	96 h
Name of substance	CAS-No.	Endpoint	Value	Species	Method	Source	Exposure time																																										
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	EC50	>85,5 mg/l	daphnia		Hersteller	48 h																																										
1,2,3-Benzotriazole	95-14-7	EC50	91 mg/l	daphnia magna		Hersteller	48 h																																										
1,2,3-Benzotriazole	95-14-7	LC50	>100 mg/l	zebra fish (Danio rerio)		Hersteller	96 h																																										



12. April 2019

Aquatic toxicity (chronic) of components of the mixture

Name of substance	CAS-No.	Endpoint	Value	Species	Method	Source	Exposure-time
adipic acid	124-04-9	NOEC	6,3 mg/l	daphnia magna	OECD Guideline 211	ECHA	21 d
1,2,3-Benzotriazole	95-14-7	NOEC	25,09 mg/l	daphnia		Hersteller	21 d

12.2.) Persistence and degradability

Degradability of components of the mixture

Name of substance	CAS-No.	Process	Degradation rate	Time	Method	Source
adipic acid	124-04-9	DOC removal	>90 %	5 d	EU method C.9	ECHA
adipic acid	124-04-9	oxygen depletion	83 %	30 d	OECD Guideline 301 D	ECHA

Biodegradation

Data are not available.

Persistence:

Data are not available.

12.3.) Bioaccumulative potential

Data are not available.

Bioaccumulative potential of components of the mixture

Name of substance	CAS-No.	BCF	Log KOW
adipic acid	124-04-9	3,162	0,093 (pH value: 3,3, 25 °C)
glutaric acid	110-94-1		-0,256

12.4.) Mobility in soil

Data are not available.

12.5.) Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

12.6.) Other adverse effects

Data are not available.

Endocrine disrupting potential

None of the ingredients are listed.

Remarks

None

13.) DISPOSAL CONSIDERATIONS



12. April 2019

<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>14.8.) <u>Information for each of the UN Model Regulations</u></p> <p>Transport of dangerous goods by road, rail and inland waterway (ADR/RID/AND)</p> <p>International Maritime Dangerous Goods Code (IMDG)</p> <p>International Civil Aviation Organization (ICAO-IATA/DGR)</p>	<p>not subject to transport regulations.</p> <p>-</p> <p>-</p> <p>-</p> <p>non-environmentally hazardous acc. to the dangerous goods regulations</p> <p>There is no additional information.</p> <p>The cargo is not intended to be carried in bulk.</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.) <u>REGULATORY INFORMATION</u></p> <p>15.1.) Safety, health and environmental regulations/legislation specific for the substance or mixture</p> <p>Relevant provisions of the European Union (EU)</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>none of the ingredients are listed</p> <p>none of the ingredients are listed</p>



12. April 2019

<p>Regulation 166/2006/EC concerning the establishment of a European Pollutant Release and Transfer Register (PRTR):</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>16.) <u>OTHER INFORMATION</u></p> <p>Abbreviations and acronyms</p> <table border="1" style="width: 100%;"> <thead> <tr> <th>Abbr.</th> <th>Descriptions of used abbreviations</th> </tr> </thead> <tbody> <tr> <td>Acute Tox.</td> <td>Acute toxicity</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>ATE</td> <td>Acute Toxicity Estimate</td> </tr> </tbody> </table>		Abbr.	Descriptions of used abbreviations	Acute Tox.	Acute toxicity	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)	ATE	Acute Toxicity Estimate				
Abbr.	Descriptions of used abbreviations														
Acute Tox.	Acute toxicity														
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)														
ATE	Acute Toxicity Estimate														
<p>Abbreviations and acronyms</p> <table border="1" style="width: 100%;"> <thead> <tr> <th>Abbr.</th> <th>Descriptions of used abbreviations</th> </tr> </thead> <tbody> <tr> <td>BCF</td> <td>Bioconcentration factor</td> </tr> <tr> <td>CAS</td> <td>Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)</td> </tr> <tr> <td>CLP</td> <td>Regulation (EC) No 1272/2008 on classification labelling and packaging of substances and mixtures</td> </tr> <tr> <td>DGR</td> <td>Dangerous Goods Regulations (see IATA/DGR)</td> </tr> <tr> <td>DNEL</td> <td>Derived No-Effect Level</td> </tr> <tr> <td>EC No.</td> <td>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)</td> </tr> </tbody> </table>		Abbr.	Descriptions of used abbreviations	BCF	Bioconcentration factor	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)
Abbr.	Descriptions of used abbreviations														
BCF	Bioconcentration factor														
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 substance in Part 3 of Annex VI to Regulation (EC) No. 1272/2008
log KOW	n-Octanol/water
MARPOL	International Convention for the Prevention of Pollution from Ships (abbr. of „Marine Pollutant“)

Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
NLP	No-Longer Polymer
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted No-Effect Concentration
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



12. April 2019

STOT SE	Specific target organ toxicity – single exposure
TWA	Time-weighted average
vPvB	Very Persistent and very Bioaccumulative
WEL	Workplace exposure limit
Key literature references and sources for data	<p>Regulation (EC) No. 1272/2008 on classification, labelling and packaging of substances and mixtures.</p> <p>Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU.</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>Dangerous Goods Regulations (DGR) for the air transport (IATA)</p>
Classification procedure	<p>Physical and chemical properties.</p> <p>Health hazards.</p> <p>Environmental hazards.</p> <p>The method for classification of the mixture is based on ingredients of the mixture (additivity formula).</p>
List of relevant phrases (code and full text as stated in chapter 2 and 3)	
Code	Text
H302	Harmful if swallowed.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
Revision date:	27.04.2017 / 09.05.2017
Revisions-No.:	1.0

Disclaimer

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