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INTERNATIONAL STANDARD NORM ISO 11014-1

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Further information	Contains: resin According to EC directives or the corresponding national regulations there is no labelling obligation for this product.
4.) <u>FIRST AID MEASURES</u> 4.1) Description of first aid measures General information: After inhalation: After contact with skin: After contact with eyes: After ingestion: 4.2) Most important symptoms and effects, both acute and delayed 4.3) Indication of any immediate medical attention and special treatment needed	<p>In case of accident or if you feel unwell, seek medical advice immediately (show safety data sheet if possible).</p> <p>Provide fresh air. In case of accident or if you feel unwell, seek medical advice immediately (show safety data sheet if possible).</p> <p>Wash with generous amount of water. Change contaminated clothing.</p> <p>If product gets into the eyes, keep eyelid open and rinse immediately with large quantities of water, for at least 5 minutes. Subsequently consult an ophthalmologist.</p> <p>Rinse mouth immediately and drink large quantities of water.</p> <p>Rinse mouth immediately and drink large quantities of water.</p> <p>No symptoms known up to now.</p>
5.) <u>FIRE-FIGHTING MEASURES</u> 5.1) Extinguishing media Suitable extinguishing media: Extinguishing media which must not be used for safety reasons: 5.2) Special hazards arising from the substance or mixture 5.3) Advice for firefighters Additional information:	<p>Carbon dioxide (CO₂), foam, extinguishing powder.</p> <p>D powder, water</p> <p>Combustible. Vapours may form explosive mixtures with air. Carbon monoxide and carbon dioxide may result</p> <p>In case of fire: Wear self-contained breathing apparatus. Safety clothes and compressed air from tanks. Fire class: B</p> <p>Use water spray/stream to protect personnel and to cool endangered containers. Use a water spray jet to knock down vapours/gases/mists. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.</p>
6.) <u>ACCIDENTAL RELEASE MEASURES</u> 6.1) Personal precautions, protective equipment and emergency procedures	<p>Remove all sources of ignition. Provide adequate ventilation. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eye and clothing. Wear personal protection equipment.</p>

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<div>6.2) Environmental precautions:</div> <div>6.3) Methods and material for containment and cleaning up</div> <div>Reference to the other sections</div>	<div>Do not allow uncontrolled leakage of product into the environment. Explosion hazard.</div> <div>Treat the assimilated material according to the section on waste disposal.</div> <div>See protective measures under Point 7 and 8.</div>																																				
<div>7.) <u>HANDLING AND STORAGE</u></div> <div>7.1) Precautions for safe handling</div> <div>Advice on safe handling:</div> <div>Advice on protection against fire and explosion:</div> <div>Further information handling:</div> <div>7.2) Conditions for safe storage, including any incompatibles</div> <div>Requirements for storage rooms and vessels:</div> <div>Advice on storage compatibility:</div> <div>Further information on storage conditions:</div> <div>7.3) Specific end use(s)</div>	<div>In case of open handling equipment with built-in suction must be used. Do not breathe gas/fumes/vapours/spray.</div> <div>Keep away from sources of ignition. No smoking. Take precautionary measures against static discharges. Vapours may form explosive mixtures with air.</div> <div>Avoid contact with skin and eyes. Do not spray into flames or ignition sources.</div> <div>Keep container tightly closed. Keep in a cool, well-ventilated place. Keep away from sources of ignition - No smoking.</div> <div>Do not store together with: Material, rich in oxygen, oxidizing.</div> <div>Always close containers tightly after the removal of product. Keep container tightly closed. Protect from direct sunlight.</div> <div>Surface active agent. Further information: refer to Technical Data Sheet.</div>																																				
<div>8.) <u>EXPOSURE CONTROLS / PERSONAL PROTECTION</u></div> <div>8.1) Control parameters</div> <div>Substance:</div> <div>Substance:</div>	<div>Exposure limits (EH40)</div> <div>ETHANOL</div> <table><tr><td>CAS No.</td><td>ppm</td><td>mg/m³</td><td>fibres/ml</td><td>Category</td><td>Origin</td></tr><tr><td>64-17-5</td><td>1000</td><td>1920</td><td></td><td>TWA (8 h)</td><td>WEL</td></tr><tr><td></td><td>-</td><td>-</td><td></td><td>STEL (15 min)</td><td>WEL</td></tr></table> <div>Propan-2-ol</div> <table><tr><td>CAS No.</td><td>ppm</td><td>mg/m³</td><td>fibres/ml</td><td>Category</td><td>Origin</td></tr><tr><td>67-63-0</td><td>400</td><td>999</td><td></td><td>TWA (8 h)</td><td>WEL</td></tr><tr><td></td><td>500</td><td>1250</td><td></td><td>STEL (15 min)</td><td>WEL</td></tr></table>	CAS No.	ppm	mg/m³	fibres/ml	Category	Origin	64-17-5	1000	1920		TWA (8 h)	WEL		-	-		STEL (15 min)	WEL	CAS No.	ppm	mg/m³	fibres/ml	Category	Origin	67-63-0	400	999		TWA (8 h)	WEL		500	1250		STEL (15 min)	WEL
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<p>Additional advice on limit values:</p> <p>8.2) Exposure controls</p> <p>Occupational exposure controls:</p> <p>8.3) Personal protection equipment:</p> <p>Protective and hygiene measures:</p> <p>Respiratory protection:</p> <p>Hand protection:</p> <p>Eye protection:</p> <p>Skin protection:</p> <p>Environmental exposure controls:</p>	<p>Use appropriate respiratory protection.</p> <p>In case of opening handling equipment with built-in suction must be used. Do not breathe gas/fumes/vapours/spray.</p> <p>Take off immediately all contaminated clothing. Protect skin by using skin protective cream. After work, wash hands and face. When using do not eat or drink.</p> <p>Wear respiratory protection. Use appropriate respiratory protection. Only use breathing apparatus with CE-label including the four-digit identification number. The filter class must be suitable for the maximum contaminant concentration (gas/vapours/aerosol/particulates) that may arise when handling the product. If the concentration is exceeded, closed-circuit breathing apparatus must be used! Filter respirator (full mask or mouth-piece) with filter: A</p> <p>Additional protection measures for the hands. Hand protection: DIN EN 374. -CR (polychloroprenes, Chloroprene rubber). Thickness of glove material: 0.65mm Penetration time (maximum wearing period): >120min. -NBR (Nitrile rubber): Thickness of glove material: 0,4mm Penetration time (maximum wearing period): >480min. Breakthrough times and swelling characteristics of the material must be taken into consideration. Have periods of recovery for the regeneration of the skin. In case of reutilization, clean gloves before taking off and store in well-aired place. Gloves only to be worn once. When handling chemical substances, chemical protective gloves must be worn with CE label including a four digit code. Before using check leak tightness / impermeability.</p> <p>Tightly sealed safety glasses.</p> <p>For the protection against direct skin contact, body protective clothing is essential (in addition to the usual working clothes).</p> <p>No special measures are necessary.</p> <p>AGW: place of work marginal value, MAK: Maximum place of work concentration</p>
<p>9.) <u>PHYSICAL AND CHEMICAL PROPERTIES</u></p> <p>9.1) Information on basic physical and chemical properties</p> <p>Physical state:</p> <p>Colour:</p> <p>Odour:</p>	<p>liquid clear / orange-red (light red) alcohol</p>

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<div>9.2) Changes in the physical state</div> <div>Density: Water solubility: pH: Viscosity: Flashpoint: Boiling point: Ignition temperature: Vapour pressure (20° C): Vapour pressure (50° C): Solvent content: Lower explosion limits: Upper explosion limits: Explosiveness:</div>	<div>ca. 0,8 g/cm³ slightly soluble n. a. n. d. 12° C 80° C 425° C 48 hPa 236 hPa Ca. 97 % 2 12 not explosive, but dangerous fume / air-mixtures may result In contact with water do not emit flammable gases. Thermal decomposition at °C: >300</div> <div>n. a.: not applicable, n. d.: not determined, VOC: volatile components</div>															
<div>10. STABILITY AND REACTIVITY</div> <div>10.1) Reactivity</div> <div>10.2) Chemical stability</div> <div>10.3) Possibility of hazardous reactions</div> <div>10.4) Conditions to avoid</div> <div>10.5) Incompatible materials</div> <div>10.6) Materials to avoid</div> <div>10.7) Hazardous decomposition products</div> <div>Further information</div>	<div>No risks worthy of mention.</div> <div>Stability and reactivity: Yes. In contact with water do not emit flammable gases.</div> <div>Reacts violently with peroxides. Alkali metals.</div> <div>Keep away from heat. Ignition hazard.</div> <div>No data available.</div> <div>with strong oxidizing agents</div> <div>Thermal decomposition can lead to the escape of irritating gases and vapours.</div> <div>No special measures are necessary. In case of open handling equipment with built-in suction must be used.</div>															
<div>11.) TOXICOLOGICAL INFORMATION</div> <div>11.1) Information on toxicological effects</div> <div>Toxicity tests: Toxicocinetics, metabolism and distribution</div> <div>Acute toxicity:</div>	<div>No data available</div> <div>adipic acid</div> <table><tr><th>CAS No</th><th>Exposure routes</th><th>Method</th><th>Dose</th><th>Species</th></tr><tr><td>124-04-9</td><td>oral</td><td>LD50 mg/kg</td><td>ca.5700</td><td>Rat</td></tr><tr><td></td><td>inhalative (4 h) aerosol</td><td>LC50</td><td>>7,7mg/l</td><td>Rat</td></tr></table>	CAS No	Exposure routes	Method	Dose	Species	124-04-9	oral	LD50 mg/kg	ca.5700	Rat		inhalative (4 h) aerosol	LC50	>7,7mg/l	Rat
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<p>Irritating on the:</p> <p>eyes:</p> <p>skin:</p> <p>respiratory tract:</p> <p>Sensitisation:</p> <p>Additional information on tests</p>	<p>irritant</p> <p>irritant, degreasing effect on skin</p> <p>irritant, inhalation of concentrated vapours and swallowing might lead to headache, drowsiness and unconsciousness</p> <p>none</p> <p>The classification was undertaken in accordance with the calculation method governed by the Preparations Directive (1999/45/EC).</p>																														
<p>12.) <u>ECOLOGICAL INFORMATION</u></p> <p>12.1) Toxicity</p> <p>12.2) Persistence and degradability</p> <p>12.3) Bioaccumulative potential</p> <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>Further information</p>	<p><u>adipic acid</u> <u>CAS No 124-04-9</u></p> <table><tr><th>Aquatic toxicity</th><th>Methode</th><th>Dosis</th><th>h</th><th>Spezies</th><th>Quelle</th></tr><tr><td>Acute fish toxicity</td><td>LC50</td><td>230 mg/l</td><td>96</td><td>Leuciscus idus</td><td></td></tr><tr><td>Acute algae toxicity</td><td>ErC50</td><td>31 mg/l</td><td>72</td><td>Desmodesmus subspicatus</td><td>IUCLID</td></tr><tr><td>Acute crustacea toxicity</td><td>EC50</td><td>86 mg/l</td><td>48</td><td>Daphnia magna</td><td></td></tr></table> <p>The ecotoxicological properties of this mixture are determined by the ecotoxicological properties of the single components (see chapter 3).</p> <p>On the basis of existing data about disposal/decomposition and bio-accumulation potential, long term environmental damage is unlikely.</p> <p>Partition coefficient n-octanol/water</p> <table><tr><th>Chemical name</th><th>CAS-No</th><th>Log Pow</th></tr><tr><td>adipic acid</td><td>124-04-9</td><td>0,081</td></tr></table> <p>No data available.</p> <p>This substance does not meet the criteria for classification as PBT or vPvB.</p> <p>No data available.</p> <p>The classification was undertaken in accordance with the calculation method governed by the Preparations Directive (1999/45/EC).</p> <p>The ecotoxicological properties of this mixture are determined by the ecotoxicological properties of the single components (see chapter 3).</p>	Aquatic toxicity	Methode	Dosis	h	Spezies	Quelle	Acute fish toxicity	LC50	230 mg/l	96	Leuciscus idus		Acute algae toxicity	ErC50	31 mg/l	72	Desmodesmus subspicatus	IUCLID	Acute crustacea toxicity	EC50	86 mg/l	48	Daphnia magna		Chemical name	CAS-No	Log Pow	adipic acid	124-04-9	0,081
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<p>13.) <u>DISPOSAL CONSIDERATIONS</u></p> <p>13.1) Waste treatment methods</p> <p>Advice on disposal</p>	<p>Waste disposal according to official state regulations.</p>																														






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<p>Waste disposal number of waste from residues/unused and used products:</p> <p>Waste disposal number of contaminated packaging:</p> <p>Contaminated packaging</p>	<p>140603 WASTE ORGANIC SOLVENTS, REFRIGERANTS AND PROPELLANTS (except 07 and 08); waste organic solvents, refrigerants and foam/aerosol propellants; other solvents and solvent mixtures. Classified as hazardous waste.</p> <p>150102 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); plastic packaging.</p> <p>Water (with cleaning agent). Completely emptied packings can be re-cycled.</p>
<p>14.) <u>Transport information</u></p> <p>14.1) Land transport (ADR/RID) GGVSE:</p> <p>UN-number: UN proper shipping name: Transport hazard class(es): Packing group: Hazard label:</p> <p>Classification code: Special Provisions: Limited quantity: Transport category: Hazard No: Tunnel restriction code:</p> <p>Other applicable information (land transport):</p> <p>14.2) Inland waterways transport (ADN)</p> <p>UN-number: UN proper shipping name: Transport hazard class(es): Packing group: Hazard label:</p>	<p>UN1993 FLAMMABLE LIQUID, N.O.S. (propan-2-ol, isopropyl alcohol, isopropanol) 3 II 3</p> <p></p> <p>F1 274 601 640C 1 L 2 33 D/E</p> <p>E2</p> <p>UN1993 FLAMMABLE LIQUID, N.O.S. (propan-2-ol, isopropyl alcohol, isopropanol) 3 II 3</p> <p></p>

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Classification code: Special Provisions: Limited quantity: Other applicable information (inland waterways transport): Marine pollutant: EmS:	F1 274 601 640C 1 L E2 No F-E / S-E
14.3) Marine transport (IMDG) UN-number: UN proper shipping name: Transport hazard class(es): Packing group: Hazard label: Special Provisions: Limited quantity: EmS: Other applicable information (marine transport):	UN1993 FLAMMABLE LIQUID, N.O.S. (propan-2-ol, isopropyl alcohol, isopropanol) 3 II 3  274 1 L F-E, S-E E2
14.4) Air transport (IATA/DGR) (ICAO) UN/ID-number: UN proper shipping name: Transport hazard class(es): Packing group: Hazard label: Special Provisions: Limited quantity Passenger: IATA-packing instructions - Passenger: IATA-max. quantity - Passenger: IATA-packing instructions - Cargo: IATA-max. quantity - Cargo: Other applicable information (air transport)	UN1993 FLAMMABLE LIQUID, N.O.S. (propan-2-ol, isopropyl alcohol, isopropanol) 3 II 3  A3 1 L 353 5 L 364 60 L E2 Passenger-LQ: Y341
14.5) Environmental hazards Dangerous for the environment:	yes 

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<p>14.6) Special precautions for user</p> <p>14.7) Transport in bulk according to Annex II of MARPOL 73/78 and the IBC-Code</p> <p>Other applicable information</p>	<p>Do not allow uncontrolled leakage of product into the environment.</p> <p>Not applicable etc.:</p> <p>Dumping into the environment must be prevented.</p>
<p>15.) <u>REGULATORY INFORMATION / EU-REGULATIONS</u></p> <p>15.1) Safety, health and environment regulations/legislation specific for the substance or mixture</p> <p>EU regulatory information 1999/13/EC (VOC):</p> <p>Additional information</p> <p>National regulatory information Employment restrictions:</p> <p>Water contaminating class (D):</p> <p>15.2) Chemical safety assessment</p>	<p>97 %</p> <p>The receiver of our product is singularly responsible for adhering to existing laws and regulations.</p> <p>Observe employment restrictions for young people. Observe employment restrictions for child bearing mothers and nursing. Observe employment restrictions for women of child-bearing age.</p> <p>1 - Slightly water contaminating</p> <p>Chemical safety assessments for substances in this mixture were not out.</p>
<p>16.) <u>OTHER INFORMATION</u></p> <p>Full text of R phrases referred to under Sections 2 and 3</p> <p>Full text of H statements referred to under Sections 2 and 3</p> <p>Essential revisions – see chapter:</p> <p>Abbreviations:</p>	<p>11 Highly flammable 36 Irritating to eyes 67 Vapours may cause drowsiness and dizziness</p> <p>H225 Highly flammable liquid and vapour H319 Causes serious eye irritation H336 May cause drowsiness or dizziness</p> <p>none</p> <p>ACGIH: American Conference of Governmental Industrial Hygienists ADR: Accord Européen relatif au Transport international des Marchandises Dangereuses par Route CAS: Chemical Abstract Services EmS: Emergency Schedule GGVSE: Gefahrgutverordnung Straße und Eisenbahn GGVSee: dto. See IATA-DGR: Intern. Air Transport Association - Dangerous Goods Regulation IMDG-Code: Intern. Maritime Dangerous Goods Code LQ: (limited quantity)</p>

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Further information	<p>MFAG: Medical First Aid Guide N.O.S.: not otherwise specified TRGS: Techn. Regeln für Gefahrstoffe UN-Nr.: (United Nations Number): Von den Vereinten Nationen den gefährlichen Gütern zugeordnete Nummer VwVwS: Verwaltungsvorschrift wassergefährdende Stoffe</p> <p>The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.</p>
Revision date:	30.04.2013

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)