#### Printing date 01/22/2014

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1 Identification			
· Product identifier			
Trade name:	Impregnation Re	emover	
<ul> <li>Article number:</li> <li>Relevant identified uses of the substance or mixture and uses advised against</li> <li>Application of the substance / the mixture</li> </ul>	12003, 12004 No further relevar Cleaning agent/ 0	nt information available. Cleaner	
• Details of the supplier of the saf			
Manufacturer/Supplier:		technische Spezialfabrik GmbH g	Tel. +49(0)911-642960 Fax. +49(0)911-644456 e-mail info@akemi.de
<ul> <li>Information department:</li> <li>Emergency telephone number:</li> </ul>	Tel. +49(0)911-64 Reachable during Monday – Thursc	epartment AKEMI chemisch technis 4296-59 9 the following office hours: ay from 07:30 a.m. to 16:30 p.m. 9 a.m. to 13:30 p.m.	sche Spezialfabrik GmbH
2 Hazard(s) identification			
Classification of the substance	or mixture		
GHS05 Corrosion Skin Corr. 1A H314 Causes seve	re skin burns and e	eve damage	
· Classification according to Directiv			
Corrosive Causes severe burns. • Information concerning particular hazards for human and environment:	The product has	to be labelled due to the calculatio	
Classification system:	The classificatio	deline for preparations of the EU" ir n was made according to the late and expanded upon from company	est editions of international
<ul> <li><u>Label elements</u></li> <li><u>GHS label elements</u></li> </ul>	The product is c System (GHS).	lassified and labeled according t	o the Globally Harmonized
<ul> <li><u>Hazard pictograms</u></li> </ul>	GHS05		
<ul> <li>Signal word</li> </ul>	Danger		
Hazard-determining components			
of labeling:	sodium hydroxide		
Hazard statements     Precautionary statements	H314 Causes sev P101	vere skin burns and eye damage. If medical advice is needed, hav at hand.	e product container or label
	P102	Keep out of reach of children.	
	P103 P280	Read label before use. Wear protective gloves/protective	e clothing/eye protection/face
		protection.	
			(Contd. on page 2)

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	P260 Do not breathe mist/vapours/spray P303+P361+P353 IF ON SKIN (or hair): Remove contaminated clothing. Rinse skin P304+P312 IF INHALED: Call a POISON CEI	
	contaminated clothing. Rinse skin	Tales of insurant's tales.
	you feel unwell.	NTER or doctor/physiciar
	P305+P351+P338 IF IN EYES: Rinse cautiously with Remove contact lenses, if preser rinsing.	
	P301+P312 IF SWALLOWED: Call a POIS physician if you feel unwell.	ON CENTER or docto
	P405 Store locked up.	
	P501 Dispose of contents/container regional/national/international regi	
Classification system: NFPA ratings (scale 0 - 4)	Health = 4 Fire = 0	
	4 0 Reactivity = 0	
HMIS-ratings (scale 0 - 4)	HEALTH 4 Health = 4	
	FIREImage: DescriptionFire = 0ReactivityReactivity = 0	
Other hazards		
Results of PBT and vPvB a	ssessment	
PBT:	Not applicable.	
vPvB:	Not applicable.	
Composition/information		
Chemical characterization	on ingredients	
Chemical characterization	on ingredients n: Mixtures	
Chemical characterization Description: Dangerous components:	on ingredients n: Mixtures	<12.5%
Chemical characterization Description: Dangerous components: CAS: 1310-73-2 EINECS: 215-185-5	on ingredients <u> n: Mixtures</u> Mixture: consisting of the following components.  sodium hydroxide C R35	<12.5%
Chemical characterization Description: Dangerous components: CAS: 1310-73-2 EINECS: 215-185-5 Index number: 011-002-00-	on ingredients <u>n: Mixtures</u> Mixture: consisting of the following components. sodium hydroxide C R35 6 ≪ Met. Corr.1, H290; Skin Corr. 1A, H314	
Chemical characterization Description: Dangerous components: CAS: 1310-73-2 EINECS: 215-185-5 Index number: 011-002-00- CAS: 3332-27-2	on ingredients <u>n: Mixtures</u> Mixture: consisting of the following components. sodium hydroxide C R35 Met. Corr.1, H290; Skin Corr. 1A, H314 Tetradecyldimethylaminoxid	<12.5%
Chemical characterization Description: Dangerous components: CAS: 1310-73-2 EINECS: 215-185-5 Index number: 011-002-00- CAS: 3332-27-2	on ingredients <u>mixtures</u> Mixture: consisting of the following components. Sodium hydroxide C R35 C R35 Met. Corr.1, H290; Skin Corr. 1A, H314 Tetradecyldimethylaminoxid Xi R38-41; N R50	
Chemical characterization Description: Dangerous components: CAS: 1310-73-2 EINECS: 215-185-5 Index number: 011-002-00- CAS: 3332-27-2 EINECS: 222-059-3	on ingredients <u>n: Mixtures</u> Mixture: consisting of the following components. sodium hydroxide C R35 6 ≪ Met. Corr.1, H290; Skin Corr. 1A, H314 Tetradecyldimethylaminoxid Xi R38-41; № N R50 ≪ Eye Dam. 1, H318;	1-5%
Chemical characterization Description: Dangerous components: CAS: 1310-73-2 EINECS: 215-185-5 Index number: 011-002-00- CAS: 3332-27-2 EINECS: 222-059-3	on ingredients <u>mixtures</u> Mixture: consisting of the following components. Sodium hydroxide C R35 C R35 Met. Corr.1, H290; Skin Corr. 1A, H314 Tetradecyldimethylaminoxid Xi R38-41; N R50	
Composition/information Chemical characterization Description: Dangerous components: CAS: 1310-73-2 EINECS: 215-185-5 Index number: 011-002-00- CAS: 3332-27-2 EINECS: 222-059-3 CAS: 110615-47-9 Additional information:	on ingredients <u>n: Mixtures</u> Mixture: consisting of the following components. sodium hydroxide C R35 6	1-5% 1-5%

Drink copious amounts of water and provide fresh air. Immediately call a doctor. (Contd. on page 3) <u>After swallowing:</u>

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Trade name: Impregnation Remover	
	(Contd. of page 2)
<ul> <li>Information for doctor:</li> <li>Most important symptoms and effects, both acute and delayed</li> <li>Indication of any immediate medical attention and special</li> </ul>	No further relevant information available.
treatment needed	No further relevant information available.
5 Fire-fighting measures	
<ul> <li>Extinguishing media</li> <li>Suitable extinguishing agents:</li> </ul>	CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
Special hazards arising from the substance or mixture     Advice for firefighters	No further relevant information available.
Protective equipment:	No special measures required.
6 Accidental release measures	
Personal precautions, protective equipment and emergency	-
procedures · Environmental precautions:	Wear protective equipment. Keep unprotected persons away. Do not allow product to reach sewage system or any water course. Inform respective authorities in case of seepage into water course or sewage system. Dilute with plenty of water.
	Do not allow to enter sewers/ surface or ground water.
<ul> <li>Methods and material for containment and cleaning up:</li> </ul>	Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Use neutralizing agent. Dispose contaminated material as waste according to item 13.
· Reference to other sections	Ensure adequate ventilation. See Section 7 for information on safe handling. See Section 8 for information on personal protection equipment. See Section 13 for disposal information.
7 Handling and storage	
<ul> <li>Handling:</li> <li>Precautions for safe handling</li> </ul>	Ensure good ventilation/exhaustion at the workplace. Prevent formation of aerosols.
<ul> <li>Information about protection against explosions and fires:</li> </ul>	No special measures required.
· Conditions for safe storage, incl	uding any incompatibilities
<ul> <li>Storage:</li> <li>Requirements to be met by storerooms and receptacles:</li> </ul>	No special requirements.
<ul> <li>Information about storage in one common storage facility:</li> </ul>	Not required.
Further information about storage conditions:	Protect from frost.
· Storage class:	Keep receptacle tightly sealed. 8 A
<ul> <li>Specific end use(s)</li> </ul>	No further relevant information available. (Contd. on page 4)

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Trade name: Impregnation Remover	
	(Contd. of page 3)
8 Exposure controls/personal prot	ection
· Additional information about	
design of technical systems:	No further data; see item 7.
<u>Control parameters</u>	
<u>Components with limit values that r</u> 1310-73-2 sodium hydroxide	equire monitoring at the workplace:
PEL Long-term value: 2 mg/m <sup>3</sup>	
REL Ceiling limit value: 2 mg/m <sup>3</sup>	
TLV Ceiling limit value: 2 mg/m <sup>3</sup>	
Additional information:	The lists that were valid during the creation were used as basis.
· Exposure controls	
<ul> <li>Personal protective equipment:</li> </ul>	
General protective and hygienic	Keen away from foodstuffe, herverages and food
measures:	Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing.
	Wash hands before breaks and at the end of work.
	Do not inhale gases / fumes / aerosols. Avoid contact with the eyes and skin.
Breathing equipment:	Not necessary if room is well-ventilated.
Protection of hands:	and the second sec
	Protective gloves
	The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
	Selection of the glove material on consideration of the penetration
	times, rates of diffusion and the degradation
	The protection gloves to be used have to comply with the specifications of the directive 89/686/EC and the directive derived
	decree EN374, respectively, e.g. the above listed protection glove
	type. The mentioned permeation times' data were generated and
	verified with material samples of the recommended protection glove type in the scope of laboratory anylyses of the company KCL GmbH in
	compliance with EN374.
	This recommendation refers exclusively to the material safety data
	sheet referenced product delivered by Akemi and the indicated field of application. In case of product dilution or in case of mixture with
	different substances or chemicals, and in condition of EN374 deviation
	the producer of CE-approved protection gloves must be contacted for
	detailed information (e.g., KCL GmbH, Germany, 36124 Eichenzell, internet: http://www.kcl.de).
Material of gloves	The selection of the suitable gloves does not only depend on the material, but
	also on further marks of quality and varies from manufacturer to manufacturer.
	As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked
	prior to the application.
Penetration time of glove material	The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.
<ul> <li>For the permanent contact gloves</li> </ul>	protective gioves and has to be observed.
made of the following materials are	
suitable: • As protection from splashes gloves	Butyl rubber, BR
made of the following materials are	
suitable:	Butoject (KCL, Art No. 897, 898)
	(Contd. on page 5) USA

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Trade name: Impregnation Remove		
	Butyl rubber, BR	(Contd. of page 4
<ul> <li>Not suitable are gloves made of the following materials:</li> <li>Eye protection:</li> </ul>	Nitrile rubber, NBR	
	Tightly sealed goggles	
Body protection:	Impervious protective clothing	
9 Physical and chemical propertie	es	
· Information on basic physical a	nd chemical properties	
General Information		
· <u>Appearance:</u>	<b>F</b> h.: J	
Form: Color:	Fluid Cloudy	
• Odor:	Mild	
· Odour threshold:	Not determined.	
· pH-value at 20 °C (68 °F):	14	
Change in condition		
Melting point/Melting range:	Undetermined.	
Boiling point/Boiling range:	Undetermined.	
Flash point:	Not applicable.	
· Flammability (solid, gaseous):	Not applicable.	
Ignition temperature:		
Decomposition temperature:	Not determined.	
Auto igniting:	Product is not selfigniting.	
Danger of explosion:	Product does not present an explosion hazard.	
· Explosion limits:	· ·	
Lower:	Not determined.	
Upper:	Not determined.	
· Vapor pressure at 20 °C (68 °F):	23 hPa (17 mm Hg)	
• Density at 20 °C (68 °F):	1.12 g/cm <sup>3</sup> (9.346 lbs/gal)	
	<b>3</b> ( <b>3</b> )	
Specific gravity at 20 °C (68 °F):	1.12 g/cm³ (9.346 lbs/gal)	
<u>Relative density</u> Vapour density	Not determined. Not determined.	
· Evaporation rate	Not determined.	
Solubility in / Miscibility with Water:	Fully miscible.	
Partition coefficient (n-octanol/wat	er): Not determined.	
· Viscosity:		
Dynamic:	Not determined.	
Kinematic:	Not determined.	
Solvent content:		
Organic solvents:	0.0 %	
Water:	86.4 %	
Other information	No further relevant information available.	
		(Contd. on page

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rade name: Impregnation Remov	ver
	(Contd. of page
0 Stability and reactivity	
·Reactivity	
Chemical stability	
<ul> <li>Thermal decomposition /</li> </ul>	
conditions to be avoided:	No decomposition if used according to specifications.
Possibility of hazardous	Ne deverage reactions knows
reactions · Conditions to avoid	No dangerous reactions known. No further relevant information available.
· Incompatible materials:	No further relevant information available.
· Hazardous decomposition	
products:	No dangerous decomposition products known.
1 Toxicological information	
-	
Information on toxicological e	ffects
<u>Acute toxicity:</u>	
LD/LC50 values that are relevant	t for classification:
1310-73-2 sodium hydroxide	
Oral LD50 2000 mg/kg (rat)	
Primary irritant effect:	
• on the skin:	Strong caustic effect on skin and mucous membranes.
• on the eye:	Strong caustic effect.
<u>Sensitization:</u> Additional toxicological	No sensitizing effects known.
information:	The product shows the following dangers according to internally approve
	calculation methods for preparations:
	Corrosive
	Swallowing will lead to a strong caustic effect on mouth and throat and to t
	danger of perforation of esophagus and stomach.
<u>Carcinogenic categories</u> IARC (International Agency for F	Passarch on Canaar)
<b>v</b>	
None of the ingredients is listed.	
<u>NTP (National Toxicology Progra</u>	
None of the ingredients is listed.	
0 Esslaviaslinformation	
2 Ecological information	
· <u>Toxicity</u>	
<b>A 1 1 1 1 1</b>	
Aquatic toxicity:	
1310-73-2 sodium hydroxide	
1310-73-2 sodium hydroxideEC50/15min22 mg/l (Photobac	
1310-73-2 sodium hydroxide	

Behavior in environmental systems:

- <u>Bioaccumulative potential</u>
   No further relevant information available.
  - No further relevant information available.
- · Additional ecological information:

· General notes:

· Mobility in soil

(Contd. on page 7)

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Trade name: Impregnation Remove	r	
· Results of PBT and vPvB asses	(Contd. of page 6) Rinse off of bigger amounts into drains or the aquatic environment may lead to increased pH-values. A high pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably reduced, so that after the use of the product the aqueous waste, emptied into drains, is only low water-dangerous. Water hazard class 1 (Self-assessment): slightly hazardous for water sment	
• PBT:	Not applicable.	
· vPvB:	Not applicable.	
· Other adverse effects	No further relevant information available.	
13 Disposal considerations		
· Waste treatment methods		
Recommendation:	Must not be disposed of together with household garbage. Do not allow produte to reach sewage system.	
<ul> <li>Uncleaned packagings:</li> </ul>		
Recommendation:     Recommended cleansing agent:	Disposal must be made according to official regulations. Water, if necessary with cleansing agents.	
14 Transport information		
· <u>UN-Number</u> · DOT, ADR, IMDG, IATA	UN1719	
· UN proper shipping name		
· DOT	Caustic alkali liquids, n.o.s. (Sodium hydroxide)	
· <u>ADR</u> · IMDG, IATA	1719 Caustic alkali liquids, n.o.s. (Sodium hydroxide) CAUSTIC ALKALI LIQUID, N.O.S. (SODIUM HYDROXIDE)	
• Transport hazard class(es)		
· DOT		
CORROSIVE		
· <u>Class</u> · <u>Label</u>	8 Corrosive substances. 8	
· <u>ADR</u>		
A CONTRACTOR OF		
· <u>Class</u> · Label	8 (C5) Corrosive substances	
· IMDG, IATA		
Ster Ster		
· <u>Class</u> · <u>Label</u>	8 Corrosive substances. 8	
· <u>Packing group</u> · DOT, ADR, IMDG, IATA	П	
	(Contd. on page 8)	

<sup>(</sup>Contd. on page 8) -USA -

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Trade name: Impregnation Remover	
	(Contd. of page 7)
Environmental hazards:     Marine pollutant:	No
<ul> <li>Special precautions for user</li> <li>Danger code (Kemler):</li> <li>EMS Number:</li> <li>Segregation groups</li> </ul>	Warning: Corrosive substances 80 F-A,S-B Alkalis
Transport in bulk according to Annex MARPOL73/78 and the IBC Code	II of Not applicable.
· Transport/Additional information:	to handle similar to packing group II
· <u>DOT</u> · <u>Remarks:</u>	to handle similar to packing group II
· <u>ADR</u> · <u>Remarks:</u>	to handle similar to packing group II
· IMDG · Remarks:	to handle similar to packing group II
· IATA · Remarks:	to handle similar to packing group II
· UN "Model Regulation":	UN1719, Caustic alkali liquids, n.o.s. (Sodium hydroxide), 8, II

#### 15 Regulatory information

· Safety, health and environmental regulations/legislation specific for the substance or mixture
· <u>Sara</u>
Section 355 (extremely hazardous substances):
None of the ingredient is listed.
Section 313 (Specific toxic chemical listings):
None of the ingredients is listed.
<u>TSCA (Toxic Substances Control Act):</u>
All ingredients are listed.
· Proposition 65
<u>Chemicals known to cause cancer:</u>
None of the ingredients is listed.
Chemicals known to cause reproductive toxicity for females:
None of the ingredients is listed.
Chemicals known to cause reproductive toxicity for males:
None of the ingredients is listed.
Chemicals known to cause developmental toxicity:
None of the ingredients is listed.
· Cancerogenity categories
· EPA (Environmental Protection Agency)
None of the ingredients is listed.
· TLV (Threshold Limit Value established by ACGIH)
None of the ingredients is listed.
· MAK (German Maximum Workplace Concentration)
None of the ingredients is listed.
(Contd. on page 9)

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NIOSH-Ca (National Institute for Od	ounational Safat	(Contd. of page
None of the ingredients is listed.		
		·
OSHA-Ca (Occupational Safety & H	lealth Administrat	lon)
None of the ingredients is listed. GHS label elements	The product is a	lessified and labeled apparding to the Clabelly Harmonize
GHS label elements	System (GHS).	classified and labeled according to the Globally Harmonize
Hazard pictograms		
	GHS05	
Signal word	Danger	
<ul> <li><u>Hazard-determining components</u> of labeling:</li> <li><u>Hazard statements</u></li> <li><u>Precautionary statements</u></li> </ul>	P101 P102 P103 P280 P260 P303+P361+P35 P304+P312	<ul> <li>vere skin burns and eye damage.</li> <li>If medical advice is needed, have product container or lab at hand.</li> <li>Keep out of reach of children.</li> <li>Read label before use.</li> <li>Wear protective gloves/protective clothing/eye protection/fac protection.</li> <li>Do not breathe mist/vapours/spray.</li> <li>IF ON SKIN (or hair): Remove/Take off immediately a contaminated clothing. Rinse skin with water/shower.</li> <li>IF INHALED: Call a POISON CENTER or doctor/physician you feel unwell.</li> <li>IF IN EYES: Rinse cautiously with water for several minute Remove contact lenses, if present and easy to do. Continurinsing.</li> <li>IF SWALLOWED: Call a POISON CENTER or doctor physician if you feel unwell.</li> <li>Store locked up.</li> <li>Dispose of contents/container in accordance with loca regional/national/international regulations.</li> </ul>
• National regulations:		
Information about limitation of use:	Employment rest	rictions concerning young persons must be observed.
Water hazard class:	Water hazard cla	ss 1 (Self-assessment): slightly hazardous for water.
VOC USA Chemical safety assessment:	0.0 g/l	ty Assessment has not been carried out.
<b>Other information</b> This information is based on our pr product features and shall not estab		. However, this shall not constitute a guarantee for any specil d contractual relationship.
• <u>Department issuing MSDS:</u> • <u>Contact:</u>	Laboratory Dieter Zimmerma Elke Hake Fon ++49 (0)911 @mail E.Hake@s	64296-59
Date of preparation / last revision     Abbreviations and acronyms:	01/22/2014 / - ADR: Accord europe Agreement concernin	éen sur le transport des marchandises dangereuses par Route (Europe g the International Carriage of Dangerous Goods by Road) /aritime Code for Dangerous Goods



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