	according to Regulation (EC) No 1907/20	106		
CONVOClean forte, cleaner				
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SECTION 1: Identification	of the substance/mixture and of the company/ur	idertaking		
1.1. Product identifier				
	forte, cleaner			
	of the substance or mixture and uses advised agains	<u>t</u>		
Use of the substance/mix				
	cleaning products (including solvent based products) professional users.			
1.3. Details of the supplier of				
Company name:	Convotherm Elektrogeräte GmbH			
Street:	Talstr. 35			
Place: Telephone:	D-82436 Eglfing +49 8847 67 0	Telefax: +49 8847 414		
Contact person:	Kundendienst - after sales			
1.4. Emergency telephone	+49 89 19240 Giftnotruf Rechts der Isar 24h	Mo-So		
number:				
SECTION 2: Hazards ident	ification			
2.1. Classification of the sub	stance or mixture			
Classification according t	o Directive 67/548/EEC or 1999/45/EC			
	danger: C - Corrosive			
R phrases: Causes burns				
-	o Regulation (EC) No. 1272/2008 [CLP]			
Hazard catego	pries: mixture corrosive to metals: Met. Corr. 1			
	n/irritation: Skin Corr. 1B			
	amage/eye irritation: Eye Dam. 1			
Hazard Stater				
May be corros Causes sever	e skin burns and eye damage.			
2.2. Label elements				
Hazardous components w	which must be listed on the label			
Signal word:	n, potassium hydroxide Danger			
Pictograms:	GHS05			
P				
<u> </u>	•			
Hazard statements				
H290	May be corrosive to metals.			
H314	Causes severe skin burns and eye damage.			
Precautionary statements P260	Do not breathe dust/fume/gas/mist/vapours/spray.			
P280	Wear protective gloves/protective clothing/eye protection	on/face protection.		
P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiti	ing.		
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contamin	ated clothing. Rinse skin with		

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P305+P351+P338	water/shower. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.	
P310	Immediately call a POISON CENTER/doctor.	

The preparation is dangerous in the sense of Directive 1999/45/EC. This preparation is hazardous in the sense of regulation (EC) No 1272/2008 [GHS].

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Hazardous components

EC No	Chemical name	Quantity
CAS No	Classification according to Directive 67/548/EEC	
Index No	Classification according to Regulation (EC) No. 1272/2008 [CLP]	
REACH No		
215-181-3	caustic potash, potassium hydroxide	< 5 %
1310-58-3	C - Corrosive, Xn - Harmful R22-35	
019-002-00-8	Acute Tox. 4, Skin Corr. 1A; H302 H314	
203-961-6	2-(2-butoxyethoxy)ethanol	< 5 %
112-34-5	Xi - Irritant R36	
603-096-00-8	Eye Irrit. 2; H319	

Full text of R-, H- and EUH-phrases: see section 16.

Labelling for contents according to Regulation (EC) No 648/2004

< 5 % phosphates, < 5 % non-ionic surfactants, < 5 % amphoteric surfactants.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Remove contaminated, saturated clothing immediately. First aider: Pay attention to self-protection! Provide fresh air.

After inhalation

In case of inhaling spray mist, consult a doctor immediately and show him packing or label.

After contact with skin

After contact with skin, wash immediately with: Water. Subsequently wash off with: Polyethylene glykol 400. Do not wash off with soap or other alcaline cleaning agents. In case of skin irritation, seek medical treatment.

After contact with eyes

In case of contact with eyes, rinse immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Subsequently consult an ophthalmologist. Protect uninjured eye.

After ingestion

Rinse mouth thoroughly with water. Let water be drunken in little sips (dilution effect). Do NOT induce vomiting. Call a physician immediately.

4.2. Most important symptoms and effects, both acute and delayed

Causes burns. If swallowed danger of perforation of the esophagus and the stomach (strong corrosive effects).

Caution if victim vomits: Risk of aspiration!

4.3. Indication of any immediate medical attention and special treatment needed

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First Aid, decontamination, treatment of symptoms.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Use water spray jet to protect personnel and to cool endangered containers. Co-ordinate fire-fighting measures to the fire surroundings.

Water, Foam, Dry extinguishing powder, ABC-powder, Carbon dioxide (CO2), Water spray.

5.2. Special hazards arising from the substance or mixture

In case of fire may be liberated: Nitrogen oxides (NOx), Carbon dioxide (CO2), Carbon monoxide.

5.3. Advice for firefighters

The product itself does not burn. In case of fire: Wear self-contained breathing apparatus.

Additional information

Contaminated fire-fighting water must be collected separately. In case of fire and/or explosion do not breathe fumes.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Avoid contact with skin and eyes. Provide adequate ventilation. Wear personal protection equipment. High slip hazard because of leaking or spilled product.

6.2. Environmental precautions

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

6.3. Methods and material for containment and cleaning up

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal. Clear contaminated areas thoroughly. Dilute with plenty of water. The contaminated area should be cleaned up immediately with: Water.

6.4. Reference to other sections

Safe handling: see section 7 Personal protection equipment: see section 8 Disposal: see section 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

If handled uncovered, arrangements with local exhaust ventilation should be used if possible. If local exhaust ventilation is not possible or not sufficient, the entire working area should be ventilated by technical means.

Conditions to avoid: Formation of aerosol. All work processes must always be designed so that the following is as low as possible: inhalation. skin contact.

Advice on protection against fire and explosion

The product itself does not burn.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Suitable floor material: Leachate-proof.

Handle and open container with care. Keep container tightly closed.

Suitable material for Container: polyethylene. Unsuitable materials for Container: metal.

Advice on storage compatibility

Do not store together with: Acid. Keep away from food, drink and animal feedingstuffs.

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Further information on storage conditions

Do not store at temperatures under: 5°C. Protect against direct sunlight. Keep only in the original container in a cool, well-ventilated place.

7.3. Specific end use(s)

Observe instructions for use.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits (EH40)

CAS No	Substance	ppm	mg/m³	fibres/ml	Category	Origin
112-34-5	2-(2-Butoxyethoxy)ethanol	10	67.5		TWA (8 h)	WEL
		15	101.2		STEL (15 min)	WEL
1310-58-3	Potassium hydroxide	-	-		TWA (8 h)	WEL
		-	2		STEL (15 min)	WEL

8.2. Exposure controls

Appropriate engineering controls

refer to chapter 7. Additional information about structure of technical plants: Work in well-ventilated zones or use proper respiratory protection. Do not breathe gas/fumes/vapour/spray.

Protective and hygiene measures

Avoid contact with skin and eyes. Remove contaminated, saturated clothing immediately. Wash hands before breaks and after work. When using do not eat, drink or smoke. Protect skin by using skin protective cream.

Eye/face protection

Tightly sealed safety glasses.

Hand protection

Tested protective gloves are to be worn: Suitable material: Butyl caoutchouc (butyl rubber) (0,5mm); NBR (Nitrile rubber) (0,35mm); penetration time (maximum wearing period): >480 Min. Recommended protective gloves brand: Camatril Velour, Manufacturer: KCL; Or comparable articles from other companies.

Skin protection

Suitable protective clothing: Protective apron.

Respiratory protection

Respiratory protection necessary at: insufficient ventilation. aerosol or mist generation. Suitable respiratory protective equipment: particulates filter device (DIN EN 143). P 2

Environmental exposure controls

No information available.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	liquid
Colour:	red
Odour:	characteristic

Test method

14

Changes in the physical state

pH-Value (at 20 °C):

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Melting point:	not determined	
Initial boiling point and boiling range:	98 °C	
Flash point:	not applicable	
Explosive properties not applicable		
Lower explosion limits:	not applicable	
Upper explosion limits:	not applicable	
Ignition temperature:	not applicable	
Vapour pressure: (at 20 °C)	23 hPa	
Vapour pressure: (at 50 °C)	123 hPa	
Density (at 20 °C):	1,10 g/cm³	
Bulk density:	not applicable	
Water solubility: (at 20 °C)	miscible	
Solubility in other solvents Ethanol. Acetone		
Viscosity / dynamic:	not determined	
Vapour density:	not determined	
Evaporation rate:	not determined	
9.2. Other information		
Solid content:	not determined	

Corrosion rate on steel or aluminum surfaces is >= 55mm per year at a test temperature of 6,25 °C

SECTION 10: Stability and reactivity

10.1. Reactivity

Reacts with : Acid, Carbon dioxide.

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

Exothermic reactions with: acid. Violent reaction with: Acid. Possibly extensive generation of hydrogen on contact with amphoteric metals (e.g. aluminium, lead, zinc) (explosive hazard!).

10.4. Conditions to avoid

Protect against direct sunlight.

10.5. Incompatible materials

Light metals, Acid, Oxidising agent, strong, Peroxide, Zinc, Copper, Copper alloys.

10.6. Hazardous decomposition products

Carbon dioxide.

Further information

Corrosive to metals. Slowly corrodes aluminium and zink under hydrogen evolution.

SECTION 11: Toxicological information

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11.1. Information on toxicological effects

Toxicocinetics, metabolism and distribution

No data available

Acute toxicity

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

CAS No	Chemical name				
	Exposure routes	Method	Dose	Species	Source
1310-58-3	caustic potash, potassium hydroxide				
	oral	LD50	273 mg/kg	Rat	RTECS

Irritation and corrosivity

Causes severe skin burns and eye damage.

Sensitising effects

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

STOT-single exposure

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

Severe effects after repeated or prolonged exposure

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

Carcinogenic/mutagenic/toxic effects for reproduction

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

Aspiration hazard

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

Specific effects in experiment on an animal

No data available

SECTION 12: Ecological information

12.1. Toxicity

There are no data available on the mixture itself.

CAS No	Chemical name					
	Aquatic toxicity	Method	Dose	[h] [d]	Species	Source
1310-58-3	caustic potash, potassium hydroxide					
	Acute fish toxicity	LC50	80 mg/l	96 h	Gambusia affinis	IUCLID

12.2. Persistence and degradability

The product is an alkali. Before discharge into sewage plants the product normally needs to be neutralised.

The surfactants contained in the product are biodegradable according to the requirements of the Detergent Directive 648/2004/EC.

12.3. Bioaccumulative potential

No indication of bioaccumulation potential.

12.4. Mobility in soil

If product enters soil, it will be mobile and may contaminate groundwater.

12.5. Results of PBT and vPvB assessment

The components in this formulation do not meet the criteria for classification as PBT or vPvB.

12.6. Other adverse effects

not relevant

according to Regulation (EC) No 1907/2006

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SECTION 13: Disposal considerations

13.1. Waste treatment methods

Advice on disposal

Dispose of waste according to applicable legislation.

Waste disposal number of waste from residues/unused products

060204 WASTES FROM INORGANIC CHEMICAL PROCESSES; wastes from the MFSU of bases; sodium and potassium hydroxide

Classified as hazardous waste.

Waste disposal number of used product

060204 WASTES FROM INORGANIC CHEMICAL PROCESSES; wastes from the MFSU of bases; sodium and potassium hydroxide

Classified as hazardous waste.

Waste disposal number of contaminated packaging

150110 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by dangerous substances Classified as hazardous waste.

Contaminated packaging

Water. Contaminated packing must be completely emptied and can be re-used following appropriate cleaning.

Cleaned containers may be recycled.

SECTION 14: Transport information

Land transport (ADR/RID)

<u>14.1. UN number:</u>	UN 1814
14.2. UN proper shipping name:	POTASSIUM HYDROXIDE SOLUTION
14.3. Transport hazard class(es):	8
14.4. Packing group:	II
Hazard label:	8
Classification code:	C5
Limited quantity:	1 L
Transport category:	2
Hazard No:	80
Tunnel restriction code:	E
Other applicable information (land trans E2 Transport category: 2	port)
Inland waterways transport (ADN)	
<u>14.1. UN number:</u>	UN 1814
14.2. UN proper shipping name:	POTASSIUM HYDROXIDE SOLUTION
14.3. Transport hazard class(es):	8
14.4. Packing group:	II
Hazard label:	8

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Classification code:	C5	
Limited quantity:	1 L	
Other applicable information (inland wa E2	tterways transport)	
Marine transport (IMDG)		
<u>14.1. UN number:</u>	UN 1814	
14.2. UN proper shipping name:	POTASSIUM HYDROXIDE SOLUTION	
14.3. Transport hazard class(es):	8	
14.4. Packing group:	II	
Hazard label:	8	
	8	
Marine pollutant:	-	
Special Provisions:	-	
Limited quantity: EmS:	1 L F-A, S-B	
Other applicable information (marine tr Special provisions: - E2		
Air transport (ICAO)		
<u>14.1. UN number:</u>	UN 1814	
14.2. UN proper shipping name:	POTASSIUM HYDROXIDE SOLUTION	
14.3. Transport hazard class(es):	8	
14.4. Packing group:	II	
Hazard label:	8	
Special Provisions: Limited quantity Passenger:	A3 A803 0.5 L	
IATA-packing instructions - Passenger: IATA-max. quantity - Passenger: IATA-packing instructions - Cargo: IATA-max. quantity - Cargo:	851 1 L 855 30 L	
Other applicable information (air transp : Y840 E2	port)	
14.5. Environmental hazards		
ENVIRONMENTALLY HAZARDOUS:	no	
14.6. Special precautions for user		

Warning Corrosive. May be corrosive to metals.

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14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

not relevant

SECTION 15: Regulatory information

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

EU regulatory information

Additional information

The surfactants contained in the product are biodegradable according to the requirements of the Detergent Directive 648/2004/EC. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them, at their direct request or at the request of a detergent manufacturer.

National regulatory information

Employment restrictions:	Observe employment restrictions for young people.
Water contaminating class (D):	1 - slightly water contaminating
Additional information	

15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

Relevant R-phrases (Number and full text)

- 22 Harmful if swallowed.
- 35 Causes severe burns.
- 36 Irritating to eyes.

Relevant H- and EUH-phrases (Number and full text)

H290	May be corrosive to metals.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H319	Causes serious eye irritation.

Further Information

The product should only be handled by persons over the age of 18, who were informed sufficiently about the dangerous nature or the product and about the necessary safety precautions.

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.

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