

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### MultiEx B11 CN

Revision date: 29.11.2018

Product code: 090637-CN

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## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1. Product identifier

MultiEx B11 CN

### 1.2. Relevant identified uses of the substance or mixture and uses advised against

#### Use of the substance/mixture

Electronics cleaner for spray and immersion plants

### 1.3. Details of the supplier of the safety data sheet

Company name:	kolb Cleaning Technology GmbH	
Street:	Karl-Arnold-Str. 12	
Place:	D-47877 Willich	
Telephone:	+49-2154-947938	Telefax: +49-2154-947947
e-mail:	info@kolb-ct.com	
Contact person:	Herr Linker	Telephone: +49-2324-97980
e-mail:	christian.linker@kolb-ct.com	
Internet:	www.kolb-ct.com	
Responsible Department:	Labor/ QS	

### 1.4. Emergency telephone number:

+49/ (0) 23 24/ 979817 (EU)  
+61 4 19 809 805 (Australia)  
+1 970 443 9233 (USA)  
Schweiz: 145

### Further Information

Australia:	USA:
kolb Cleaning Technology AP PTY LTD	kolb USA LLC
6/150 Canterbury Road	410 Sunset, Unit C
NSW 2200 Bankstown	80501 Longmont – CO
Phone: +61 2 97900273	Phone 001- 970-532-5100
Mobile +61 4 19 809 805	Mobile: 001- 970-443-9233

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

#### Regulation (EC) No. 1272/2008

Hazard categories:

Skin corrosion/irritation: Skin Irrit. 2

Serious eye damage/eye irritation: Eye Irrit. 2

Hazard Statements:

May cause respiratory irritation.

Causes skin and eye irritation.

### 2.2. Label elements

#### Regulation (EC) No. 1272/2008

#### Hazard components for labelling

2-aminoethanol; ethanolamine

Signal word: Warning

Pictograms:



#### Hazard statements

H335 May cause respiratory irritation.

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H315+H320 Causes skin and eye irritation.

#### Precautionary statements

P260 Do not breathe dust/fume/gas/mist/vapours/spray.  
 P271 Use only outdoors or in a well-ventilated area.  
 P280 Wear protective gloves/protective clothing/eye protection/face protection.  
 P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
 P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.  
 P363 Wash contaminated clothing before reuse.  
 P305+P351+P338 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.

#### Additional advice on labelling

UFI: FMC0-G0XX-700T-4KUE

#### 2.3. Other hazards

No information available.

### SECTION 3: Composition/information on ingredients

#### 3.2. Mixtures

##### Chemical characterization

Cleaner for the electronics industry on the basis of (EG 648/2004 VO detergents): polyhydric alcohols, glycols, alkalis, pH regulators

Sum formula: MultiEx B11 CN

##### Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	GHS Classification			
141-43-5	2-aminoethanol; ethanolamine			9-< 10 %
	205-483-3	603-030-00-8		
	Acute Tox. 4, Acute Tox. 4, Acute Tox. 4, Skin Corr. 1B; H332 H312 H302 H314			
111-76-2	2-butoxyethanol; ethyleneglycol monobutyl ether; butyl cellosolve			5-< 6 %
	203-905-0	603-014-00-0		
	Acute Tox. 4, Acute Tox. 4, Acute Tox. 4, Eye Irrit. 2, Skin Irrit. 2; H332 H312 H302 H319 H315			

Full text of H and EUH statements: see section 16.

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

##### After inhalation

Provide fresh air.

##### After contact with skin

Wash with plenty of water. Take off contaminated clothing and wash it before reuse.

##### After contact with eyes

Rinse immediately carefully and thoroughly with eye-bath or water.

##### After ingestion

Observe risk of aspiration if vomiting occurs. Rinse mouth immediately and drink plenty of water.

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

No information available.

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

Treat symptomatically.

### **SECTION 5: Firefighting measures**

#### **5.1. Extinguishing media**

##### **Suitable extinguishing media**

Co-ordinate fire-fighting measures to the fire surroundings.

#### **5.2. Special hazards arising from the substance or mixture**

Non-flammable.

#### **5.3. Advice for firefighters**

In case of fire: Wear self-contained breathing apparatus.

#### **Additional information**

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

### **SECTION 6: Accidental release measures**

#### **6.1. Personal precautions, protective equipment and emergency procedures**

Use personal protection equipment.

#### **6.2. Environmental precautions**

Do not allow to enter into surface water or drains.

#### **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.

#### **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**

No special measures are necessary.

##### **Advice on protection against fire and explosion**

No special fire protection measures are necessary.

#### **7.2. Conditions for safe storage, including any incompatibilities**

##### **Requirements for storage rooms and vessels**

Keep container tightly closed.

##### **Hints on joint storage**

No special measures are necessary.

#### **7.3. Specific end use(s)**

Electronics cleaner for spray and immersion plants

### **SECTION 8: Exposure controls/personal protection**

#### **8.1. Control parameters**

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#### Exposure limits (EH40)

CAS No	Substance	ppm	mg/m <sup>3</sup>	fibres/ml	Category	Origin
141-43-5	2-Aminoethanol	1	2.5		TWA (8 h)	WEL
		3	7.6		STEL (15 min)	WEL
111-76-2	2-Butoxyethanol	25	123		TWA (8 h)	WEL
		50	246		STEL (15 min)	WEL

#### Biological Monitoring Guidance Values (EH40)

CAS No	Substance	Parameter	Value	Test material	Sampling time
111-76-2	2-Butoxyethanol	butoxyacetic acid (creatinine)	240 mmol/mol	urine	Post shift

#### 8.2. Exposure controls

##### Protective and hygiene measures

Take off contaminated clothing. Wash hands before breaks and after work. When using do not eat or drink.

##### Eye/face protection

Wear eye protection/face protection.

##### Hand protection

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

##### Skin protection

Wear suitable protective clothing.

##### Respiratory protection

In case of inadequate ventilation wear respiratory protection.

### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

Physical state:	Liquid
Colour:	yellowish
Odour:	specific
pH-Value (at 20 °C):	11,1

##### Changes in the physical state

Melting point:	not determined
Initial boiling point and boiling range:	180-243 °C
Flash point:	[see also 9.2 ] °C

##### Flammability

Solid:	not applicable
Gas:	not applicable
Lower explosion limits:	not determined
Upper explosion limits:	not determined

##### Auto-ignition temperature

Solid:	not applicable
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Gas:	not applicable
Decomposition temperature:	not determined
<b>Oxidizing properties</b>	
Not oxidising.	
Vapour pressure:	not determined
Density (at 20 °C):	0,955 g/cm <sup>3</sup>
Water solubility:	easily soluble
<b>Solubility in other solvents</b>	
not determined	
Partition coefficient:	not determined
Viscosity / kinematic: (at 40 °C)	22 mm <sup>2</sup> /s
Vapour density:	not determined
Evaporation rate:	not determined

#### **9.2. Other information**

Solid content:	not determined
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### SECTION 10: Stability and reactivity

#### **10.1. Reactivity**

No hazardous reaction when handled and stored according to provisions.

#### **10.2. Chemical stability**

The product is stable under storage at normal ambient temperatures.

#### **10.3. Possibility of hazardous reactions**

No known hazardous reactions.

#### **10.4. Conditions to avoid**

none

#### **10.5. Incompatible materials**

No information available.

#### **10.6. Hazardous decomposition products**

No known hazardous decomposition products.

### SECTION 11: Toxicological information

#### **11.1. Information on toxicological effects**

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#### Acute toxicity

CAS No	Chemical name					
	Exposure route	Dose		Species	Source	Method
141-43-5	2-aminoethanol; ethanolamine					
	oral	LD50 mg/kg	1515	Rat		
	dermal	LD50 mg/kg	1025	Rabbit	IUCLID	
	inhalation vapour	ATE	11 mg/l			
	inhalation aerosol	ATE	1,5 mg/l			
111-76-2	2-butoxyethanol; ethyleneglycol monobutyl ether; butyl cellosolve					
	oral	LD50 mg/kg	470	Rat		
	dermal	ATE mg/kg	1100			
	inhalation vapour	ATE	11 mg/l			
	inhalation aerosol	ATE	1,5 mg/l			

#### Additional information on tests

The mixture is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].

### SECTION 12: Ecological information

#### 12.1. Toxicity

The product is not: Ecotoxic.

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h]   [d]	Species	Source	Method
141-43-5	2-aminoethanol; ethanolamine					
	Acute fish toxicity	LC50	150 mg/l	96 h	Onchorhynchus mykiss	IUCLID
	Acute algae toxicity	ErC50	22 mg/l	72 h	Desmodesmus subspicatus	
	Acute crustacea toxicity	EC50	65 mg/l	48 h	Daphnia magna	
111-76-2	2-butoxyethanol; ethyleneglycol monobutyl ether; butyl cellosolve					
	Acute fish toxicity	LC50 mg/l	1490	96 h	Lepomis macrochirus	

#### 12.2. Persistence and degradability

The product has not been tested.

#### 12.3. Bioaccumulative potential

The product has not been tested.

#### Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
141-43-5	2-aminoethanol; ethanolamine	-1,91 (25°C)
111-76-2	2-butoxyethanol; ethyleneglycol monobutyl ether; butyl cellosolve	0,81 (25°C)

#### 12.4. Mobility in soil

The product has not been tested.

#### 12.5. Results of PBT and vPvB assessment

The product has not been tested.

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#### 12.6. Other adverse effects

No information available.

#### **Further information**

Avoid release to the environment.

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

##### **Advice on disposal**

Do not allow to enter into surface water or drains. Dispose of waste according to applicable legislation.

##### **Waste disposal number of waste from residues/unused products**

070604 WASTES FROM ORGANIC CHEMICAL PROCESSES; wastes from the MFSU of fats, grease, soaps, detergents, disinfectants and cosmetics; other organic solvents, washing liquids and mother liquors; hazardous waste

##### **Contaminated packaging**

Wash with plenty of water. Completely emptied packages can be recycled.

### SECTION 14: Transport information

#### **Land transport (ADR/RID)**

**14.2. UN proper shipping name:** No dangerous good in sense of these transport regulations.

#### **Inland waterways transport (ADN)**

**14.2. UN proper shipping name:** No dangerous good in sense of these transport regulations.

#### **Air transport (ICAO-TI/IATA-DGR)**

**14.2. UN proper shipping name:** No dangerous good in sense of these transport regulations.

#### 14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

#### 14.6. Special precautions for user

No information available.

#### 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

not applicable

### SECTION 15: Regulatory information

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

##### **EU regulatory information**

2010/75/EU (VOC): 12,688 % (121,172 g/l)

2004/42/EC (VOC): 12,688 % (121,172 g/l)

##### **Additional information**

To follow: 850/2004/EC, 79/117/EEC, 689/2008/EC

##### **National regulatory information**

Water contaminating class (D): 1 - slightly water contaminating

#### 15.2. Chemical safety assessment

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

### SECTION 16: Other information

#### **Abbreviations and acronyms**

ADR: Accord européen sur le transport des marchandises dangereuses par Route

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(European Agreement concerning the International Carriage of Dangerous Goods by Road )

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service

LC50: Lethal concentration, 50%

LD50: Lethal dose, 50%

#### Relevant H and EUH statements (number and full text)

H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H315+H320	Causes skin and eye irritation.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.

#### Further Information

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.)*