

Safety Data Sheet

according to Regulation (EC) No 1907/2006

MultiEx A12

Revision date: 25.01.2018

Product code: 090607-RM

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

1.1. Product identifier

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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

This mixture is not classified as hazardous in accordance with Regulation (EC) No. 1272/2008.

2.2. Label elements

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): Alkyle propylene glycole, glycols, alkalis, polyhydric alcohols, defoamers

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Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification according to Regulation (EC) No. 1272/2008 [CLP]			
34590-94-8	Dipropylene glycol monomethyl ether, Isomerengem			15 - 20 %
	252-104-2		01-2119450011-60	
111-76-2	2-Butoxyethanol			< 10 %
	203-905-0		01-2119475108-36	
	Acute Tox. 4, Acute Tox. 4, Acute Tox. 4, Skin Irrit. 2, Eye Irrit. 2; H332 H312 H302 H315 H319			
141-43-5	2-Aminoethanol (vgl.Ethanolamin)			1 - <5 %
	205-483-3		01-2119486455-28	
	Acute Tox. 4, Acute Tox. 4, Acute Tox. 4, Skin Corr. 1B, STOT SE 3, Aquatic Chronic 3; H332 H312 H302 H314 H335 H412			

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 ingestion

Rinse mouth immediately and drink plenty of water.

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

No information available.

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

Water spray jet, Carbon dioxide (CO₂), Foam, Extinguishing powder.

5.3. Advice for firefighters

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

Additional information

Use water spray jet to protect personnel and to cool endangered containers. Suppress gases/vapours/mists with water spray jet. 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. Avoid contact with skin, eyes and clothes.

6.2. Environmental precautions

Do not allow uncontrolled discharge of product into the environment.

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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

Do not breathe gas/fumes/vapour/spray.

Advice on protection against fire and explosion

Water-based surface treatment agents, solvent content up to 15%

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed.

Advice on storage compatibility

Do not store together with: Oxidising agent. Pyrophoric or self-heating substances.

7.3. Specific end use(s)

Electronics cleaner for spray and immersion plants

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits (EH40)

CAS No	Substance	ppm	mg/m ³	fibres/ml	Category	Origin
34590-94-8	(2-methoxymethylethoxy) propanol	50	308		TWA (8 h)	WEL
		-	-		STEL (15 min)	WEL
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	240 mmol/mol	urine	Post shift

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DNEL/DMEL values

CAS No	Substance		
DNEL type	Exposure route	Effect	Value
102-71-6	2,2',2''-Nitrilotriethanol		
Worker DNEL, long-term	dermal	systemic	6,3 mg/kg bw/day
Worker DNEL, long-term	inhalation	systemic	5 mg/m ³
Worker DNEL, long-term	inhalation	local	5 mg/m ³
Consumer DNEL, long-term	dermal	systemic	3,1 mg/kg bw/day
Consumer DNEL, long-term	inhalation	systemic	1,25 mg/m ³
Consumer DNEL, long-term	inhalation	local	1,25 mg/m ³
Consumer DNEL, long-term	oral	systemic	13 mg/kg bw/day

PNEC values

CAS No	Substance	
Environmental compartment	Value	
102-71-6	2,2',2''-Nitrilotriethanol	
Freshwater	0,32 mg/l	
Marine water	0,032 mg/l	
Freshwater sediment	1,7 mg/kg	
Marine sediment	0,17 mg/kg	
Micro-organisms in sewage treatment plants (STP)	10 mg/l	
Soil	0,151 mg/kg	
Air	5,12 mg/l	

8.2. Exposure controls

Appropriate engineering controls

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray.

Protective and hygiene measures

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme.

Wash hands and face before breaks and after work and take a shower if necessary. 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.

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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	Liquid	
Colour:	colourless	
Odour:	specific	
pH-Value (at 20 °C):		10,8

Changes in the physical state

Melting point:		not determined
Initial boiling point and boiling range:		not determined
Flash point:		100 °C

Flammability

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

Auto-ignition temperature

Solid:		not applicable
Gas:		not applicable
Decomposition temperature:		not determined

Oxidizing properties

Not oxidising.		
Vapour pressure: (at 20 °C)		not determined
Density (at 20 °C):		0,990 g/cm ³
Water solubility:		easily soluble

Solubility in other solvents

not determined		
Partition coefficient:		not determined
Viscosity / dynamic: (at 20 °C)		30 mPa·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

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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

Acute toxicity

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

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
34590-94-8	Dipropylene glycol monomethyl ether, Isomerengem				
	oral	LD50 5130 mg/kg	Ratte		
	dermal	LD50 13000-14000 mg/kg	Kanincheb		
111-76-2	2-Butoxyethanol				
	oral	ATE 500 mg/kg			
	dermal	ATE 1100 mg/kg			
	inhalative vapour	ATE 11 mg/l			
	inhalative aerosol	ATE 1,5 mg/l			
141-43-5	2-Aminoethanol (vgl.Ethanolamin)				
	oral	ATE 500 mg/kg			
	dermal	ATE 1100 mg/kg			
	inhalative vapour	ATE 11 mg/l			
	inhalative aerosol	ATE 1,5 mg/l			

Irritation and corrosivity

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

Sensitising effects

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.

STOT-single exposure

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

STOT-repeated exposure

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

Aspiration hazard

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

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.

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CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
34590-94-8	Dipropylene glycol monomethyl ether, Isomerengem					
	Acute fish toxicity	LC50 mg/l	>10000	96 h	Pimephales promelas (Amerikan. Elritze)	
	Acute algae toxicity	ErC50 mg/l	>969	96 h	Alge	
	Acute crustacea toxicity	EC50 mg/l	1919	48 h	Daphnia magna (Wasserfloh)	
	Crustacea toxicity	NOEC	12 mg/l		Daphnia magna (Wasserfloh)	

12.2. Persistence and degradability

The product has not been tested.

CAS No	Chemical name				
	Method	Value	d	Source	
	Evaluation				
34590-94-8	Dipropylene glycol monomethyl ether, Isomerengem				
	OECD 301E	>70%	28		
	biologisch abbaubar				

12.3. Bioaccumulative potential

The product has not been tested.

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
34590-94-8	Dipropylene glycol monomethyl ether, Isomerengem	-0,6

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.

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

070699 WASTES FROM ORGANIC CHEMICAL PROCESSES; wastes from the MFSU of fats, grease, soaps, detergents, disinfectants and cosmetics; wastes not otherwise specified

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.

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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): 14,207 % (140,649 g/l)

2004/42/EC (VOC): 14,207 % (140,649 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 (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.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.
H412 Harmful to aquatic life with long lasting effects.

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



CLEANING TECHNOLOGY
Made in Germany

kolb Cleaning Technology GmbH

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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.)