

## Safety Data Sheet

according to Regulation (EC) No 1907/2006 (Revision 2020/878)

### MultiEx Rapid

Revision date: 03.01.2024

Product code: 090632-CN

Page 1 of 11

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

### 1.1. Product identifier

MultiEx Rapid

UFI: ACU2-000U-2007-HST3

### 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: Christian 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: kolb Cleaning Technology AP PTY LTD  
6/150 Canterbury Road  
NSW 2200 Bankstown  
Phone: +61 2 97900273  
Mobile +61 4 19 809 805

USA: kolb USA LLC  
410 Sunset, Unit C  
80501 Longmont – CO  
Phone 001- 970-532-5100  
Mobile: 001- 970-443-9233

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

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

Skin Irrit. 2; H315  
Eye Irrit. 2; H319

Full text of hazard statements: see SECTION 16.

### 2.2. Label elements

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

Signal word: Warning

Pictograms:



#### Hazard statements

H315 Causes skin irritation.  
H319 Causes serious eye irritation.

#### Precautionary statements

P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006 (Revision 2020/878)

**MultiEx Rapid**

Revision date: 03.01.2024

Product code: 090632-CN

Page 2 of 11

P302+P352	protection.
P332+P313	IF ON SKIN: Wash with plenty of water.
P362+P364	If skin irritation occurs: Get medical advice/attention.
P305+P351+P338	Take off contaminated clothing and wash it before reuse.
P337+P313	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
	If eye irritation persists: Get medical advice/attention.

**2.3. Other hazards**

No information available.

**SECTION 3: Composition/information on ingredients****3.2. Mixtures****Chemical characterization**

@000000000027 @000000000030 (corrosion inhibitor); @000000000033, alkalis, defoamers

**Hazardous components**

CAS No	Chemical name	Quantity
	EC No	Index No
		REACH No
	Classification (Regulation (EC) No 1272/2008)	
34590-94-8	Dipropylene glycol monomethyl ether, Isomerengem	5 - < 15 %
	252-104-2	01-2119450011-60
112-34-5	2-(2-butoxyethoxy)ethanol; diethylene glycol monobutyl ether	1 - < 5 %
	203-961-6	603-096-00-8
	Eye Irrit. 2; H319	
141-43-5	2-aminoethanol; ethanolamine	1 - < 5 %
	205-483-3	603-030-00-8
	Acute Tox. 4, Acute Tox. 4, Acute Tox. 4, Skin Corr. 1B, Eye Dam. 1, Skin Sens. 1, STOT SE 3; H332 H312 H302 H314 H318 H317 H335	

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

**Specific Conc. Limits, M-factors and ATE**

CAS No	EC No	Chemical name	Quantity
		Specific Conc. Limits, M-factors and ATE	
34590-94-8	252-104-2	Dipropylene glycol monomethyl ether, Isomerengem	5 - < 15 %
		dermal: LD50 = 19020 mg/kg; oral: LD50 = 5130 mg/kg	
112-34-5	203-961-6	2-(2-butoxyethoxy)ethanol; diethylene glycol monobutyl ether	1 - < 5 %
		dermal: LD50 = 2746 mg/kg; oral: LD50 = 5660 mg/kg	
141-43-5	205-483-3	2-aminoethanol; ethanolamine	1 - < 5 %
		inhalation: ATE = 11 mg/l (vapours); inhalation: ATE = 1,5 mg/l (dusts or mists); dermal: LD50 = 2504 mg/kg; oral: LD50 = 1089 mg/kg STOT SE 3; H335: >= 5 - 100	

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

preservation agents.

**SECTION 4: First aid measures****4.1. Description of first aid measures****After inhalation**

Provide fresh air.

## Safety Data Sheet

according to Regulation (EC) No 1907/2006 (Revision 2020/878)

### MultiEx Rapid

Revision date: 03.01.2024

Product code: 090632-CN

Page 3 of 11

#### After contact with skin

Take off immediately all contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical advice/attention. Remove contaminated, saturated clothing immediately. Wash thoroughly the body (shower or bath). After contact with skin, wash immediately with plenty of water and soap. In case of skin irritation, consult a physician.

#### After contact with eyes

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately. After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

#### After ingestion

Rinse mouth immediately and drink 1 glass of water. Rinse mouth thoroughly with water. Let water be drunk in little sips (dilution effect). Do NOT induce vomiting. Call a physician in any case!

#### **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

Co-ordinate fire-fighting measures to the fire surroundings. Dry extinguishing powder, Foam, Carbon dioxide (CO<sub>2</sub>), Extinguishing powder

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

Non-flammable. Carbon dioxide (CO<sub>2</sub>), Burning produces heavy smoke., Carbon monoxide

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

Wear a self-contained breathing apparatus and chemical protective clothing. Full protection suit.

#### **Additional information**

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**

##### General advice

Provide adequate ventilation. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Use personal protection equipment. Special danger of slipping by leaking/spilling product. Use personal protection equipment.

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

Do not allow to enter into surface water or drains. Do not allow to enter into surface water or drains. Prevent spread over a wide area (e.g. by containment or oil barriers). Cover drains.

#### **6.3. Methods and material for containment and cleaning up**

##### For cleaning up

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

##### Other information

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal. Prevent spread over a wide area (e.g. by containment or oil barriers). Retain contaminated washing water and dispose it.

#### **6.4. Reference to other sections**

Safe handling: see section 7

## Safety Data Sheet

according to Regulation (EC) No 1907/2006 (Revision 2020/878)

### MultiEx Rapid

Revision date: 03.01.2024

Product code: 090632-CN

Page 4 of 11

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

Handle and open container with care. Wear personal protection equipment (refer to section 8).

#### Advice on protection against fire and explosion

No special fire protection measures are necessary.

#### Advice on general occupational hygiene

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, drink, smoke, sniff. 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. Personal protection equipment

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

#### Requirements for storage rooms and vessels

Keep container tightly closed. Keep/Store only in original container.

#### 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

#### Occupational exposure limits

CAS No	Substance	ppm	mg/m <sup>3</sup>	fib/cm <sup>3</sup>	Category	Origin
34590-94-8	(2-Methoxymethylethoxy)-I-propanol	50	308		TWA (8 h)	
112-34-5	2-(2-Butoxyethoxy)ethanol	10	67.5		TWA (8 h)	
		15	101.2		STEL (15 min)	
141-43-5	2-Aminoethanol	1	2.5		TWA (8 h)	
		3	7.6		STEL (15 min)	
102-71-6	Triethanolamine	-	5		TWA (8 h)	

#### DNEL/DMEL values

CAS No	Substance	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 <sup>3</sup>
Worker DNEL, long-term		inhalation	local	5 mg/m <sup>3</sup>
Consumer DNEL, long-term		dermal	systemic	3,1 mg/kg bw/day
Consumer DNEL, long-term		inhalation	systemic	1,25 mg/m <sup>3</sup>
Consumer DNEL, long-term		inhalation	local	1,25 mg/m <sup>3</sup>
Consumer DNEL, long-term		oral	systemic	13 mg/kg bw/day

## Safety Data Sheet

according to Regulation (EC) No 1907/2006 (Revision 2020/878)

### MultiEx Rapid

Revision date: 03.01.2024

Product code: 090632-CN

Page 5 of 11

#### PNEC values

CAS No	Substance	Value
Environmental compartment		
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

##### Individual protection measures, such as personal protective equipment

##### Eye/face protection

Suitable eye protection: goggles.

##### 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. wear hand gloves material: nitril or pvc

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

Use of 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:	transparent
Odour:	neutral
Melting point/freezing point:	not determined
Boiling point or initial boiling point and boiling range:	100 °C
Flammability:	not determined
Lower explosion limits:	not determined
Upper explosion limits:	not determined
Flash point:	> 100 °C
Auto-ignition temperature:	not determined
Decomposition temperature:	not determined
pH-Value (at 20 °C):	11
Viscosity / kinematic: (at 40 °C)	21 mm <sup>2</sup> /s
Water solubility:	easily soluble
Solubility in other solvents	
not determined	

## Safety Data Sheet

according to Regulation (EC) No 1907/2006 (Revision 2020/878)

### MultiEx Rapid

Revision date: 03.01.2024

Product code: 090632-CN

Page 6 of 11

Partition coefficient n-octanol/water:	not determined
Vapour pressure:	not determined
Density (at 20 °C):	1,016 g/cm <sup>3</sup>
Relative vapour density:	not determined

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

##### **Information with regard to physical hazard classes**

###### Explosive properties

The product is not: Explosive.

###### Oxidizing properties

The product is not: oxidising.

##### **Other safety characteristics**

Evaporation rate: not determined

Solid content: not determined

## SECTION 10: Stability and reactivity

### **10.1. Reactivity**

No hazardous reaction when handled and stored according to provisions.

### **10.2. Chemical stability**

Chemical stability

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

May cause strong formation of hydrogen by contact with amphoteric metals (e.g. alumina, lead, zinc) - danger of explosion.

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

none

### **10.5. Incompatible materials**

No information available.

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

not known

## SECTION 11: Toxicological information

### **11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008**

#### **Acute toxicity**

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

#### **ATEmix calculated**

ATE (oral) 49075 mg/kg; ATE (dermal) 49571 mg/kg; ATE (inhalation vapour) 495,7 mg/l; ATE (inhalation dust/mist) 67,60 mg/l

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006 (Revision 2020/878)

**MultiEx Rapid**

Revision date: 03.01.2024

Product code: 090632-CN

Page 7 of 11

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
34590-94-8	Dipropylene glycol monomethyl ether, Isomerengem				
	oral	LD50 mg/kg 5130	Ratte	AMA	
	dermal	LD50 mg/kg 19020	Ratte		
112-34-5	2-(2-butoxyethoxy)ethanol; diethylene glycol monobutyl ether				
	oral	LD50 mg/kg 5660			
	dermal	LD50 mg/kg 2746			
141-43-5	2-aminoethanol; ethanolamine				
	oral	LD50 mg/kg 1089	Rat		
	dermal	LD50 mg/kg 2504	Rabbit		
	inhalation vapour	ATE 11 mg/l			
	inhalation dust/mist	ATE 1,5 mg/l			

**Irritation and corrosivity**

Skin corrosion/irritation: Causes skin irritation.

Serious eye damage/eye irritation: Causes serious eye irritation.

**Sensitising effects**

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

**Carcinogenic/mutagenic/toxic effects for reproduction**

Germ cell mutagenicity: Based on available data, the classification criteria are not met.

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

Reproductive toxicity: 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.

**11.2. Information on other hazards****Other information**

There are no other hazards that require special attention.

**Further information**

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

**SECTION 12: Ecological information****12.1. Toxicity**

The product is not: Ecotoxic.



## Safety Data Sheet

according to Regulation (EC) No 1907/2006 (Revision 2020/878)

## MultiEx Rapid

Revision date: 03.01.2024

Product code: 090632-CN

Page 8 of 11

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h]   [d]	Species	Source	Method
34590-94-8	Dipropylene glycol monomethyl ether, Isomerengem					
	Acute fish toxicity	LC50 >10000 mg/l	96 h	Pimephales promelas (Amerikan. Elritze)		
	Acute algae toxicity	ErC50 >969 mg/l	96 h	Alge		
	Acute crustacea toxicity	EC50 1919 mg/l	48 h	Daphnia magna (Wasserfloh)		
	Crustacea toxicity	NOEC 12 mg/l		Daphnia magna (Wasserfloh)		
112-34-5	2-(2-butoxyethoxy)ethanol; diethylene glycol monobutyl ether					
	Acute fish toxicity	LC50 1300 mg/l	96 h			
	Acute algae toxicity	ErC50 100 mg/l				
	Acute crustacea toxicity	EC50 100 mg/l	48 h			
141-43-5	2-aminoethanol; ethanolamine					
	Acute fish toxicity	LC50 349 mg/l	96 h			
	Acute algae toxicity	ErC50 2,8 mg/l	72 h			
	Acute crustacea toxicity	EC50 65 mg/l	48 h			

**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 substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

The product has not been tested.

**12.6. Endocrine disrupting properties**

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

**12.7. Other adverse effects**

No information available.

**Further information**

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

**SECTION 13: Disposal considerations**



## Safety Data Sheet

according to Regulation (EC) No 1907/2006 (Revision 2020/878)

### MultiEx Rapid

Revision date: 03.01.2024

Product code: 090632-CN

Page 9 of 11

#### 13.1. Waste treatment methods

##### Disposal recommendations

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

##### List of Wastes Code - 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

Non-contaminated packages may be recycled. Handle contaminated packages in the same way as the substance itself.

### 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. Maritime transport in bulk according to IMO instruments

not applicable

### SECTION 15: Regulatory information

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

##### EU regulatory information

Restrictions on use (REACH, annex XVII):

Entry 3, Entry 55, Entry 75

Directive 2010/75/EU on industrial emissions: 14,462 % (146,93 g/l)

Directive 2004/42/EC on VOC in paints and varnishes: 17,662 % (179,442 g/l)

Information according to Directive 2012/18/EU (SEVESO III): Not subject to 2012/18/EU (SEVESO III)

##### Additional information

Regulation (EC) No. 648/2004 [Detergents regulation]. To follow: 850/2004/EC, 79/117/EEC, 689/2008/EC

##### National regulatory information

Employment restrictions: Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC).

Water hazard class (D): 2 - obviously hazardous to water

#### 15.2. Chemical safety assessment

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

### SECTION 16: Other information

## Safety Data Sheet

according to Regulation (EC) No 1907/2006 (Revision 2020/878)

### MultiEx Rapid

Revision date: 03.01.2024

Product code: 090632-CN

Page 10 of 11

#### 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%

CLP: Classification, labelling and Packaging

REACH: Registration, Evaluation and Authorization of Chemicals

GHS: Globally Harmonised System of Classification, Labelling and Packaging of Chemicals

UN: United Nations

DNEL: Derived No Effect Level

DMEL: Derived Minimal Effect Level

PNEC: Predicted No Effect Concentration

ATE: Acute toxicity estimate

LL50: Lethal loading, 50%

EL50: Effect loading, 50%

EC50: Effective Concentration 50%

ErC50: Effective Concentration 50%, growth rate

NOEC: No Observed Effect Concentration

BCF: Bio-concentration factor

PBT: persistent, bioaccumulative, toxic

vPvB: very persistent, very bioaccumulative

RID: Regulations concerning the international carriage of dangerous goods by rail

ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways  
(Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures)

ICAO: International Civil Aviation Organization

MARPOL: International Convention for the Prevention of Marine Pollution from Ships

IBC: Intermediate Bulk Container

VOC: Volatile Organic Compounds

SVHC: Substance of Very High Concern

For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).

#### Classification for mixtures and used evaluation method according to Regulation (EC) No 1272/2008 [CLP]

Classification	Classification procedure
Skin Irrit. 2; H315	Calculation method
Eye Irrit. 2; H319	Calculation method

#### 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.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.



CLEANING TECHNOLOGY  
Made in Germany

kolb Cleaning Technology GmbH

## Safety Data Sheet

according to Regulation (EC) No 1907/2006 (Revision 2020/878)

### MultiEx Rapid

Revision date: 03.01.2024

Product code: 090632-CN

Page 11 of 11

#### Further Information

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights. The receiver of our product is singularly responsible for adhering to existing laws and regulations.

---

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