

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### MultiEx 3D-A9

Revision date: 04.06.2019

Product code: 091610-RM

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

### 1.1. Product identifier

MultiEx 3D-A9

### 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:

Serious eye damage/eye irritation: Eye Irrit. 2

Hazard Statements:

Causes serious eye irritation.

### 2.2. Label elements

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

Signal word: Warning

Pictograms:



#### Hazard statements

H319 Causes serious eye irritation.

#### Precautionary statements

P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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P337+P313

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

Cleaner on the basis of (according to EC Detergents Regulation 648/2004): phosphonic acide derivatives, glycols, alkalis

Sum formula:

MultiEx 3D-A9

##### Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	GHS Classification			
112-34-5	2-(2-butoxyethoxy)ethanol; diethylene glycol monobutyl ether			> 10 %
	203-961-6	603-096-00-8		
	Eye Irrit. 2; H319			
	Phosphonobutantricarbonsäure-amin Salz			< 10 %
	Eye Irrit. 2A; H319			
34590-94-8	Dipropylene glycol monomethyl ether, Isomerengem			1-5%
	252-104-2		01-2119450011-60	
111109-77-4	dipropylene			1 - < 5 %
			01-0000015420-83	

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

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

##### General information

Medical examination necessary even merely on suspicion of intoxication.

##### After inhalation

Provide fresh air.

##### After contact with skin

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

Rinse mouth immediately and drink plenty 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

Gastric perforation

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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. 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**

In case of fire: Wear self-contained breathing apparatus. Wear a self-contained breathing apparatus and chemical protective clothing.

##### **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**

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. 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**

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. 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  
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.

#### **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)**

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## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Exposure limits (EH40)

CAS No	Substance	ppm	mg/m <sup>3</sup>	fibres/ml	Category	Origin
34590-94-8	(2-methoxymethylethoxy) propanol	50	308		TWA (8 h)	WEL
112-34-5	2-(2-Butoxyethoxy)ethanol	10	67.5		TWA (8 h)	WEL
		15	101.2		STEL (15 min)	WEL

### 8.2. Exposure controls

#### 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. Personal protection 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

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#### 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:	transparent
Odour:	neutral
pH-Value (at 20 °C):	10,4

#### Changes in the physical state

Melting point:	not determined
Initial boiling point and boiling range:	> 100 °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 measurable	
Vapour pressure:	not determined
Density (at 20 °C):	1,02 g/cm <sup>3</sup>
Water solubility:	full soluble in water.
<b>Solubility in other solvents</b>	
not determined	
Partition coefficient:	not determined
Viscosity / dynamic: (at 20 °C)	28 mPa·s
Vapour density:	not determined
Evaporation rate:	not determined

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

Solid content:	not determined
not subject to the requirements of § 4 of the Hazardous Substances Ordinance (GefStoffV)	

### **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 toxicological effects**

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#### Acute toxicity

CAS No	Chemical name					
	Exposure route	Dose		Species	Source	Method
112-34-5	2-(2-butoxyethoxy)ethanol; diethylene glycol monobutyl ether					
	oral	LD50 mg/kg	5660	Rat		
	dermal	LD50 mg/kg	4120	Rabbit		
34590-94-8	Dipropylene glycol monomethyl ether, Isomerengem					
	oral	LD50 mg/kg	5130	Ratte		
	dermal	LD50 mg/kg	13000- 14000	Kanincheb		
111109-77-4	dipropylene					
	oral	LD50 mg/kg	3300	Ratte		
	dermal	LD50 mg/kg	>2000	kaninchen		

#### Additional information on tests

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.

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h]   [d]	Species	Source	Method
112-34-5	2-(2-butoxyethoxy)ethanol; diethylene glycol monobutyl ether					
	Acute algae toxicity	ErC50 mg/l	> 100		Scenedesmus sp.	
	Acute crustacea toxicity	EC50 mg/l	> 100	48 h	Daphnia magna	
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)	
111109-77-4	dipropylene					
	Acute fish toxicity	LC50 mg/l	>100	96 h		
	Acute crustacea toxicity	EC50 mg/l	>100	48 h		

#### 12.2. Persistence and degradability

The product has not been tested.

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CAS No	Chemical name	Method	Value	d	Source
		Evaluation			
34590-94-8	Dipropylene glycol monomethyl ether, Isomerengem	OECD 301E	>70%	28	
		biologisch abbaubar			
111109-77-4	dipropylene	Zahn-Wellens-Test (Methode C.9)	25%	28	
		schwer biologisch abbaubar			

#### 12.3. Bioaccumulative potential

The product has not been tested.

#### Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
112-34-5	2-(2-butoxyethoxy)ethanol; diethylene glycol monobutyl ether	0,56 (25°C)
34590-94-8	Dipropylene glycol monomethyl ether, Isomerengem	-0,6
111109-77-4	dipropylene	0,42

#### BCF

CAS No	Chemical name	BCF	Species	Source
111109-77-4	dipropylene	4		

#### 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.

#### 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.

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#### 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

Restrictions on use (REACH, annex XVII):

Entry 55: 2-(2-butoxyethoxy)ethanol; diethylene glycol monobutyl ether

2010/75/EU (VOC): 4,8 % (48,96 g/l)

2004/42/EC (VOC): 43,3 % (441,66 g/l)

##### Additional information

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

##### National regulatory information

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

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%

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

Classification	Classification procedure
Eye Irrit. 2; H319	Calculation method

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

H319 Causes serious eye 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.





CLEANING TECHNOLOGY  
Made in Germany

kolb Cleaning Technology GmbH

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