

Safety Data Sheet

according to Regulation (EC) No 1907/2006

MultiEx 3D-E14 HPA-2

Revision date: 03.04.2018

Product code: 090663-RM2

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

1.1. Product identifier

MultiEx 3D-E14 HPA-2

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: 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

more Distribution Partner see 15.1

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:

Causes skin irritation.

Causes serious eye irritation.

2.2. Label elements

Regulation (EC) No. 1272/2008

Signal word: Warning

Pictograms:



Hazard statements

H315

Causes skin irritation.

H319

Causes serious eye irritation.

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Precautionary statements

| | |
|----------------|--|
| P280 | Wear protective gloves/protective clothing/eye protection/face protection. |
| P302+P352 | IF ON SKIN: Wash with plenty of water. |
| P332+P313 | If skin irritation occurs: Get medical advice/attention. |
| P362+P364 | Take off contaminated clothing and wash it 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. |
| 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): glycols, alcohols, alkalis, phosphonic acid derivatives.

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 | | | 10 - < 15 % |
| | 252-104-2 | | | |
| 111-76-2 | 2-butoxyethanol, butyl cellosolve, ethylene glycol monobutyl ether | | | < 10 % |
| | 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 | | | |
| 67-63-0 | propan-2-ol; isopropyl alcohol; isopropanol | | | < 5 % |
| | 200-661-7 | 603-117-00-0 | | |
| | Flam. Liq. 2, Eye Irrit. 2, STOT SE 3; H225 H319 H336 | | | |
| 78-96-6 | 1-aminopropan-2-ol, isopropanolamine | | | 1 - < 5 % |
| | 201-162-7 | 603-082-00-1 | | |
| | Skin Corr. 1B; H314 | | | |

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. When in doubt or if symptoms are observed, get medical advice.

After contact with skin

After contact with skin, wash immediately with polyethylene glycol, followed by plenty of water. Take off immediately all contaminated clothing and wash it before reuse. Medical treatment necessary.

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.

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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.

5.2. Special hazards arising from the substance or mixture

Non-flammable. Vapours can form explosive mixtures with air.

5.3. Advice for firefighters

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

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

Avoid contact with skin, eyes and clothes. 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. Unsuitable container/equipment material: Metal.

Advice on storage compatibility

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 ³ | fibres/ml | Category | Origin |
|------------|----------------------------------|-----|-------------------|-----------|---------------|--------|
| 34590-94-8 | (2-methoxymethylethoxy) propanol | 50 | 308 | | TWA (8 h) | WEL |
| | | - | - | | STEL (15 min) | WEL |
| 111-76-2 | 2-Butoxyethanol | 25 | 123 | | TWA (8 h) | WEL |
| | | 50 | 246 | | STEL (15 min) | WEL |
| 67-63-0 | Propan-2-ol | 400 | 999 | | TWA (8 h) | WEL |
| | | 500 | 1250 | | 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 |

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

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.

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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: | colourless |
| Odour: | Amines |
| 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: | siehe unten |

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): | 0,965 g/cm ³ |
| Water solubility: | full soluble in water. |

Solubility in other solvents

| | |
|------------------------------------|----------------|
| not determined | |
| Partition coefficient: | not determined |
| Viscosity / dynamic: (at 20 °C) | 40 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) | |

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SECTION 10: Stability and reactivity

10.1. Reactivity

Corrosive to metals.

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

Keep away from: Metal.

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, butyl cellosolve, ethylene glycol monobutyl ether | | | | |
| | oral | LD50 470 mg/kg | Rat | | |
| | dermal | ATE 1100 mg/kg | | | |
| | inhalative vapour | ATE 11 mg/l | | | |
| | inhalative aerosol | ATE 1,5 mg/l | | | |
| 78-96-6 | 1-aminopropan-2-ol, isopropanolamine | | | | |
| | oral | LD50 2700 mg/kg | Rat | | |
| | dermal | LD50 1600 mg/kg | Rabbit | | |

Irritation and corrosivity

Causes skin irritation.

Causes serious eye irritation.

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.

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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 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 |
| 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) | | |
| 111-76-2 | 2-butoxyethanol, butyl cellosolve, ethylene glycol monobutyl ether | | | | | |
| | Acute fish toxicity | LC50 1490 mg/l | 96 h | Lepomis macrochirus | | |
| 78-96-6 | 1-aminopropan-2-ol, isopropanolamine | | | | | |
| | Acute fish toxicity | LC50 220 - 460 mg/l | 96 h | Leuciscus idus | IUCLID | |
| | Acute algae toxicity | ErC50 23 mg/l | 72 h | Desmodesmus subspicatus | IUCLID | |
| | Acute crustacea toxicity | EC50 108,8 mg/l | 48 h | Daphnia | IUCLID | |

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 |
| 111-76-2 | 2-butoxyethanol, butyl cellosolve, ethylene glycol monobutyl ether | 0,81 (25°C) |
| 78-96-6 | 1-aminopropan-2-ol, isopropanolamine | -0,96 |

12.4. Mobility in soil

The product has not been tested.

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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

070104 WASTES FROM ORGANIC CHEMICAL PROCESSES; wastes from the manufacture, formulation, supply and use (MFSU) of basic organic chemicals; other organic solvents, washing liquids and mother liquors; hazardous waste

Waste disposal number of used product

070104 WASTES FROM ORGANIC CHEMICAL PROCESSES; wastes from the manufacture, formulation, supply and use (MFSU) of basic organic chemicals; other organic solvents, washing liquids and mother liquors; hazardous waste

Waste disposal number of contaminated packaging

200139 MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS; separately collected fractions (except 15 01); Plastics

Contaminated packaging

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

SECTION 14: Transport information

Land transport (ADR/RID)

| | |
|---|--|
| <u>14.1. UN number:</u> | No dangerous good in sense of this transport regulation. |
| <u>14.2. UN proper shipping name:</u> | No dangerous good in sense of this transport regulation. |
| <u>14.3. Transport hazard class(es):</u> | No dangerous good in sense of this transport regulation. |
| <u>14.4. Packing group:</u> | No dangerous good in sense of this transport regulation. |

Inland waterways transport (ADN)

| | |
|---|--|
| <u>14.1. UN number:</u> | No dangerous good in sense of this transport regulation. |
| <u>14.2. UN proper shipping name:</u> | No dangerous good in sense of this transport regulation. |
| <u>14.3. Transport hazard class(es):</u> | No dangerous good in sense of this transport regulation. |
| <u>14.4. Packing group:</u> | No dangerous good in sense of this transport regulation. |

Marine transport (IMDG)

| | |
|---|--|
| <u>14.1. UN number:</u> | No dangerous good in sense of this transport regulation. |
| <u>14.2. UN proper shipping name:</u> | No dangerous good in sense of this transport regulation. |
| <u>14.3. Transport hazard class(es):</u> | No dangerous good in sense of this transport regulation. |
| <u>14.4. Packing group:</u> | No dangerous good in sense of this transport regulation. |

Air transport (ICAO-TI/IATA-DGR)

| | |
|---|--|
| <u>14.1. UN number:</u> | No dangerous good in sense of this transport regulation. |
| <u>14.2. UN proper shipping name:</u> | No dangerous good in sense of this transport regulation. |
| <u>14.3. Transport hazard class(es):</u> | No dangerous good in sense of this transport regulation. |
| <u>14.4. Packing group:</u> | No dangerous good in sense of this transport regulation. |

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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

2010/75/EU (VOC): 20,7 % (199,755 g/l)

2004/42/EC (VOC): 20,7 % (199,755 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

Skin resorption/Sensitization: Causes allergic hypersensitivity reactions.

Additional information

Importeur Schweiz:
Neutec electronic AG
Gheidstr. 5
5507 Mellingen
Kontakt: Gianni Affinito
Tel.: +41 - 449481711
Fax: +41 - 44 9481737
E-mail: affinito@neutec.ch
www.neutec.ch

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)

H225 Highly flammable liquid and vapour.
H302 Harmful if swallowed.
H312 Harmful in contact with skin.
H314 Causes severe skin burns and eye damage.



CLEANING TECHNOLOGY
Made in Germany

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| | |
|------|------------------------------------|
| H315 | Causes skin irritation. |
| H319 | Causes serious eye irritation. |
| H332 | Harmful if inhaled. |
| H336 | May cause drowsiness or dizziness. |

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.)