

Safety Data Sheet

According to 1907/2006/EC, Article 31



Activator ready for use for Water Transfer Printing

1. Identification of the substance/preparation and of the company/undertaking

- Product details/Trade name:** *Activator ready for use for Water Transfer Printing*
- Application of the substance / the preparation:** Industrial solvent for Water transfer printing
- Manufacturer/Supplier:** WT - Direct GmbH
3-D Wassertransferdrucksysteme & Zubehör
Boschstraße 16
D-73655 Plüderhausen
- Further information obtainable from:**
- Information in case of emergency:**
Telephone: +49-7181-9854840
Telefax number: +49-7181-98559822
E-Mail: info@wt-direct.de

2. Hazards identification

GHS Classification

- | | |
|--------------------------------------|--|
| H332: Harmful if inhaled. | Acute toxicity, Category 4, Inhalation |
| H312: Harmful in contact with skin. | Acute toxicity, Category 4, Dermal |
| H302: Harmful if swallowed. | Acute toxicity, Category 4, Oral |
| H315: Causes skin irritation. | Skin irritation, Category 2 |
| H319: Causes serious eye irritation. | Eye irritation, Category 2 |

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)



Signal word
Warning

Hazard statements

- H302 Harmful if swallowed.
H312 Harmful in contact with skin.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.

Precautionary statements

Response

- P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
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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EC Classification

Labelling (67/548/EEC or 1999/45/EC)

| | | |
|-------------|--|---|
| Symbol(s) |  Xn | Harmful |
| R-phrase(s) | 20/21/22-36/38 | Harmful by inhalation, in contact with skin and if swallowed. Irritating to eyes and skin. |
| S-phrase(s) | 36/37-46 | Wear suitable protective clothing and gloves. If swallowed, seek medical advice immediately and show this container or label. |
| EC-No. | 203-905-0 EC | Label For the full text of the R-phrases mentioned in this Section, see Section 16. |

3. Composition/information of ingredients

Hazardous ingredients:

| Chemical characterization:* | CAS-Nr. | % | EG-number | Classification |
|-----------------------------|----------|---------|-----------|---|
| 2-Butoxyethanole | 111-76-2 | 25 - 70 | 203-905-0 | Xi, R36 R 66 - 67 |
| 2-Butoxyethanole | 111-76-2 | 25 - 70 | 203-905-0 | GHS-classification: H332: Harmful if inhaled H312: Harmful in contact with skin. H302: Harmful if swallowed. H315: Causes skin irritation. H319: Causes serious eye irritation. |

4. First Aid Measures

| | |
|---------------------|---|
| After inhalation: | fresh air. If breathing stops: mouth-to-mouth respiration or mechanical ventilation. Oxygen mask if necessary! Immediately call in physician. |
| After skin contact: | wash off with plenty of water. Remove contaminated clothing. Consult a physician. |
| After eye contact: | rinse out with plenty of water. Call in ophthalmologist. |
| After swallowing: | immediately make victim drink water (two glasses at the most). Get medical attention. |

5. Fire-fighting measures

Suitable extinguishing media
Carbon dioxide (CO₂), Foam, Dry powder

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Specific hazards during fire fighting

Combustible material, Vapours are heavier than air and may spread along floors.
Forms explosive mixtures with air at elevated temperatures.

Development of hazardous combustion gases or vapours possible in the event of fire.

Special protective equipment for fire-fighters

Do not stay in dangerous zone without self-contained breathing apparatus. In order to avoid contact with skin, keep a safety distance and wear suitable protective clothing.

Further information

Remove container from danger zone and cool with water. Prevent fire extinguishing water from contaminating surface water or the ground water system.

6. Accidental release measures

Personal precautions

Avoid substance contact. Do not breathe vapours, aerosols. Ensure supply of fresh air in enclosed rooms. Ensure adequate ventilation.

Environmental precautions

Do not empty into drains.

Methods for cleaning up

Take up with liquid-absorbent material (e.g. Chemizorb®).
Forward for disposal. Clean up affected area.

7. Handling and storage

Handling

Advice on safe handling

No further requirements.

Storage

Further information on storage conditions

Tightly closed. Dry. Protected from light.

Requirements for storage areas and containers

Do not use light-weight-metal containers.

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8. Exposure controls/personal protection

Components with workplace control parameters

Components

| Basis | Value | Control parameters | Ceiling Limit Value, Remarks |
|----------------------------|----------|---------------------------------|-----------------------------------|
| 2-butoxyethanol (111-76-2) | | | |
| ECTLV | STEL | 50 ppm 246 mg/m ³ | |
| | SKIN_DES | | Can be absorbed through the skin. |
| | TWA | 20 ppm 98 mg/m ³ | |
| EH40 WEL | SKIN_DES | | Can be absorbed through the skin. |
| | STEL | 50 ppm | |
| | TWA | 25 ppm | |

Personal protective equipment

Protective clothing should be selected specifically for the working place, depending on concentration and quantity of the hazardous substances handled. The resistance of the protective clothing to chemicals should be ascertained with the respective supplier.

Respiratory protection

required when vapours/aerosols are generated.

Recommended Filter type: Filter A (acc. to DIN 3181) for vapours of organic compounds

Hand protection

full contact:

| | |
|---------------------|--------------|
| Glove material: | butyl-rubber |
| Glove thickness: | 0,7 mm |
| Break through time: | > 480 min |

splash contact:

| | |
|---------------------|----------------|
| Glove material: | Nitrile rubber |
| Glove thickness: | 0,40 mm |
| Break through time: | > 120 min |

The protective gloves to be used must comply with the specifications of EC directive 89/686/EEC and the resultant standard EN374, for example. KCL 898 Butoject® (full contact), KCL 730 Camatril® -Velours (splash contact).

This recommendation applies only to the product stated in the safety data sheet and supplied by us as well as to the purpose specified by us. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

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Eye protection
required

Protective measures
Protective suit

Hygiene measures
Immediately change contaminated clothing. Apply skin- protective barrier cream. Wash hands
and face after working with substance.

9. Physical and chemical properties

| | |
|---|---|
| Form | liquid |
| Colour | colourless |
| Odour | ether-like |
| pH | 7 at 20 °C (as aqueous solution) |
| Viscosity, dynamic | 5,31 mPa.s at 20 °C |
| Melting point | < -70 °C |
| Boiling point/boiling range | 168 - 170 °C |
| Ignition temperature | 230 °C Methode: (DIN 51794) |
| Flash point | 63 - 64 °C |
| Oxidizing properties | no data available |
| Flammability | no data available |
| Lower explosion limit | 1,1 %(V) |
| Upper explosion limit | 10,6 %(V) |
| Vapour pressure | 0,8 hPa at 20 °C 7,6 hPa at 50 °C |
| Relative vapour density | 4,07 |
| Density | 0,90 g/cm ³ at 20 °C |
| Solubility/qualitative | no data available |
| Water solubility | at 20 °C soluble |
| Partition coefficient: n-octanol/water | log Pow: 0,81 at 25 °C (experimental), (Lit.) No bioaccumulation is to be expected (log Pow <1). |
| Evaporation rate | no data available |

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10. Stability and reactivity

Conditions to be avoided: no information available

Substances to be avoided: oxidizing agent, strong alkalis.

Hazardous decomposition products: no information available

Further information: light-sensitive.

11. Toxicological information

Acute toxicity

LC₅₀ (inhalation, rat): 72.5 mg/l /4 h.

LD₅₀ (dermal, rabbit): 5640 mg/kg.

LD₅₀ (oral, rat): 6500 mg/kg.

Specific symptoms in animal studies:

Eye irritation test (rabbit): Slight irritations.

Skin irritation test (rabbit): Slight irritations.

Subacute to chronic toxicity

Bacterial mutagenicity: Ames test: negative.

Further toxicological information

After skin contact: Slight irritations.

After eye contact: Slight irritations.

Further data

The product should be handled with the care usual when dealing with chemicals. Result: Eye irritation

12. Ecological information

Biodegradation: 100 % /28 d.

Readily biodegradable.

Behaviour in environmental compartments:

Distribution: log p(o/w): 1.77 (calculated).

No appreciable bioaccumulation potential is to be expected (log P(o/w) 1-3).

Ecotoxic effects:

Biological effects:

Fish toxicity: Br.rerio LC50: 50-70 mg/l /96 h.

Daphnia toxicity: Daphnia magna EC50: 665 mg/l /48 h.

Bacterial toxicity: bacteria EC50: >5000 mg/l /16 h.

Further ecologic data:

BOD₅: 383 mg/g.

COD: 1.87 g/g.

No ecological problems are to be expected when the product is handled and used with due care and attention.

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13. Disposal considerations

Product

Chemicals must be disposed of in compliance with the respective national regulations.

Packaging

The product packaging must be disposed of in compliance with the country-specific regulations or must be passed to a packaging return system..

14. Transport Information

Not classified as dangerous in the meaning of transport regulations

15. Regulatory information

GHS-Labeling:

Hazard pictograms:



signal word:
Warning

Hazard statements

H302 + H312 + H332: Harmful if swallowed, in contact with skin or if inhaled.

H319: Causes serious eye irritation.

H315: Causes skin irritation.

Precautionary statements

P302 + P352: IF ON SKIN: Wash with plenty of soap and water.

P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Index-No. 603-014-00-0

Labelling according to EC Directives

Symbol(s): Xn Harmful

R-phrase(s): 20/21/22-36/38 Harmful by inhalation, in contact with skin and if swallowed. Irritating to eyes and skin.

S-phrase(s): 36/37-46 Wear suitable protective clothing and gloves. If swallowed, seek medical advice immediately and show this container or label.

EC-No. 203-905-0 EC Label

Reduced labelling (≤ 125 ml)

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National legislation

| | | |
|------------------------|----|--|
| Storage class VCI: | 10 | Combustible liquids not in Storage Class 3 |
| Major Accident Hazard: | | 96/82/EC Update: 2003 |
| Legislation | | Directive 96/82/EC does not apply |

Other regulations: Take note of Dir 94/33/EC on the protection of young people at work. Take note of Dir 92/85/EEC on the safety and health at work of pregnant workers.

16. Other information

Full text of R-phrases referred to under sections 2 and 3

R20/21/22 Harmful by inhalation, in contact with skin and if swallowed.

R36/38 Irritating to eyes and skin.

The information contained herein is based on the present state of our knowledge. It characterizes the product with regard to the appropriate safety precautions. It does not represent a guarantee of the properties of the product.