

**Safety Data Sheet**  
according to Regulation (EC) No. 1907/2006 (REACH)  
according to Regulation (EU) 2015/830



Article No.: T01 SERIE/SERIES  
Print date 24.04.2020 EN  
Version 6.7 Revision date 18.04.2020 Page 1 / 9

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

**1.1. Product identifier**

Article No. (manufacturer/supplier): T01  
Trade name/designation SERIE/SERIES

**1.2. Relevant identified uses of the substance or mixture and uses advised against**

**Relevant identified uses:**

Printing ink/-lacquer

**1.3. Details of the supplier of the safety data sheet**

**supplier (manufacturer/importer/downstream user/distributor)**

A. M. Ramp & Co. GmbH  
RUCO Druckfarben Telephone: +49.61 98.30 40  
Lorsbacher Str. 28 Telefax: +49.61 98.3 22 88  
D-65817 Eppstein

**Dept. responsible for information:**

E-mail info@ruco-inks.com

**1.4. Emergency telephone number**

Emergency telephone number +49.61 98.30 40  
Only available during office hours.

**SECTION 2: Hazards identification**

**2.1. Classification of the substance or mixture**

**Classification according to Regulation (EC) No 1272/2008 [CLP]**

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

Skin Irrit. 2 / H315	skin corrosion/irritation	Causes skin irritation.
Eye Irrit. 2 / H319	Serious eye damage/eye irritation	Causes serious eye irritation.
Skin Sens. 1 / H317	Respiratory or skin sensitisation	May cause an allergic skin reaction.
Aquatic Chronic 3 / H412	Hazardous to the aquatic environment	Harmful to aquatic life with long lasting effects.

**2.2. Label elements**

**Labelling according to Regulation (EC) No. 1272/2008 [CLP]**

**Hazard pictograms**



**Warning**

**Hazard statements**

H315 Causes skin irritation.  
H319 Causes serious eye irritation.  
H317 May cause an allergic skin reaction.  
H412 Harmful to aquatic life with long lasting effects.

**Precautionary statements**

P280 Wear protective gloves and eye/face protection.

**Hazard components for labelling**

Bis(4,4'-glycidylphenoxyphenyl)-propane  
Fatty acids, C14-18- and C16-18- unsaturated, maleated

**Supplemental Hazard information (EU)**

not applicable

**2.3. Other hazards**

No information available.

**SECTION 3: Composition / information on ingredients**

**3.2. Mixtures**

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**Description** Solvent containing pigment dispersion on resin basis

**Hazardous ingredients**

**Classification according to Regulation (EC) No 1272/2008 [CLP]**

EC No.	REACH No.	Wt %
CAS No.	Designation	
INDEX No.	classification: // Remark	
203-933-3	01-2119475112-47-XXXX	
112-07-2	2-butoxyethyl acetate	20 - 25
607-038-00-2	Acute Tox. 4 H332 / Acute Tox. 4 H312	
216-823-5	01-2119456619-26-XXXX	
1675-54-3	Bis(4,4'-glycidyloxyphenyl)-propane	20 - 25
603-073-00-2	Skin Irrit. 2 H315 / Eye Irrit. 2 H319 / Skin Sens. 1 H317 / Aquatic Chronic 2 H411	
259-370-9	01-2119475116-39-XXXX	
54839-24-6	2-ethoxy-1-methylethyl acetate	5 - 10
603-177-00-8	Flam. Liq. 3 H226 / STOT SE 3 H336	
288-306-2	01-2119976378-19-XXXX	
85711-46-2	Fatty acids, C14-18- and C16-18- unsaturated, maleated Skin Irrit. 2 H315 / Skin Sens. 1 H317	0,1 - 0,25

**Additional information**

Full text of classification: see section 16

**SECTION 4: First aid measures**

**4.1. Description of first aid measures**

**General information**

In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness give nothing by mouth, place in recovery position and seek medical advice.

**In case of inhalation**

Remove casualty to fresh air and keep warm and at rest. In case of irregular breathing or respiratory arrest provide artificial respiration.

**Following skin contact**

Take off immediately all contaminated clothing. After contact with skin, wash immediately with plenty of water and soap. Do not use solvents or thinners.

**After eye contact**

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical advice immediately.

**After ingestion**

If swallowed, rinse mouth with water (only if the person is conscious). Seek medical advice immediately. Keep victim calm. Do NOT induce vomiting.

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

In all cases of doubt, or when symptoms persist, seek medical advice.

**4.3. Indication of any immediate medical attention and special treatment needed**

First Aid, decontamination, treatment of symptoms.

**SECTION 5: Firefighting measures**

**5.1. Extinguishing media**

**Suitable extinguishing media**

alcohol resistant foam, carbon dioxide, Powder, spray mist, (water)

**Unsuitable extinguishing media**

strong water jet

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

Inhaling hazardous decomposing products can cause serious health damage.

**5.3. Advice for firefighters**

Provide a conveniently located respiratory protective device. Cool closed containers that are near the source of the fire. Do not allow water used to extinguish fire to enter drains, ground or waterways.

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## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

Keep away from sources of ignition. Ventilate affected area. Do not breathe vapours.

### 6.2. Environmental precautions

Do not allow to enter into surface water or drains. If the product contaminates lakes, rivers or sewages, inform competent authorities in accordance with local regulations.

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

Isolate leaked material using non-flammable absorption agent (e.g. sand, earth, vermiculit, diatomaceous earth) and collect it for disposal in appropriate containers in accordance with the local regulations (see section 13). Clean using cleansing agents. Do not use solvents.

### 6.4. Reference to other sections

Observe protective provisions (see section 7 and 8).

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

#### Advices on safe handling

Avoid formation of flammable and explosive vapour concentrations in the air and exceeding the exposure limit values. Only use the material in places where open light, fire and other flammable sources can be kept away. Electrical equipment must be protected meeting the accepted standard. Product may become electrostatically charged. Provide earthing of containers, equipment, pumps and ventilation facilities. Anti-static clothing including shoes are recommended. Floors must be electrically conductive. Keep away from heat sources, sparks and open flames. Use only spark proof tools. Avoid contact with skin, eyes and clothes. Do not inhale dusts, particulates and spray mist when using this preparation. When using do not eat, drink or smoke. Personal protection equipment: refer to section 8. Do not empty containers with pressure - no pressure vessel! Always keep in containers that correspond to the material of the original container. Follow the legal protection and safety regulations.

#### Further information

Vapours are heavier than air. Vapours form explosive mixtures with air.

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

#### Requirements for storage rooms and vessels

Storage in accordance with the Ordinance on Industrial Safety and Health (BetrSiVO). Keep container tightly closed. Do not empty containers with pressure - no pressure vessel! Smoking is forbidden. Access only for authorised persons. Store carefully closed containers upright to prevent any leaks. Soils have to conform to the "Guidelines for avoidance of ignition hazards due to electrostatic charges (TRGS 727)".

#### Hints on joint storage

Keep away from strongly acidic and alkaline materials as well as oxidizers.

#### Further information on storage conditions

Take care of instructions on label. Store in a well-ventilated and dry room at temperatures between 5 °C and 35 °C. Protect from heat and direct sunlight. Keep container tightly closed. Remove all sources of ignition. Smoking is forbidden. Access only for authorised persons. Store carefully closed containers upright to prevent any leaks.

### 7.3. Specific end use(s)

Observe technical data sheet. Observe instructions for use.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Occupational exposure limit values

2-butoxyethyl acetate

INDEX No. 607-038-00-2 / EC No. 203-933-3 / CAS No. 112-07-2

WEL, TWA: 133 mg/m<sup>3</sup>; 20 ppm

WEL, STEL: 332 mg/m<sup>3</sup>; 50 ppm

Remark: (may be absorbed through the skin)

#### Additional information

TWA : long-term occupational exposure limit value

STEL : short-term occupational exposure limit value

Ceiling : peak limitation

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**DNEL:**

2-butoxyethyl acetate

INDEX No. 607-038-00-2 / EC No. 203-933-3 / CAS No. 112-07-2

DNEL acute dermal, short-term (systemic), Workers: 102 mg/kg

DNEL long-term dermal (systemic), Workers: 102 mg/kg

DNEL acute inhalative (local), Workers: 333 mg/m<sup>3</sup>

DNEL acute inhalative (systemic), Workers: 775 mg/m<sup>3</sup>

DNEL long-term inhalative (systemic), Workers: 133 mg/m<sup>3</sup>

2-ethoxy-1-methylethyl acetate

INDEX No. 603-177-00-8 / EC No. 259-370-9 / CAS No. 54839-24-6

DNEL long-term dermal (systemic), Workers: 103 mg/kg

DNEL acute inhalative (systemic), Workers: 608 mg/m<sup>3</sup>

DNEL long-term inhalative (systemic), Workers: 302 mg/m<sup>3</sup>

**PNEC:**

2-butoxyethyl acetate

INDEX No. 607-038-00-2 / EC No. 203-933-3 / CAS No. 112-07-2

PNEC aquatic, freshwater: 0,304 mg/l

PNEC aquatic, marine water: 0,0304 mg/l

PNEC aquatic, intermittent release: 0,56 mg/l

PNEC sediment, freshwater: 2,03 mg/kg

PNEC sediment, marine water: 0,203 mg/kg

PNEC, soil: 0,68 mg/kg

PNEC sewage treatment plant (STP): 90 mg/l

PNEC Secondary Poisoning: 0,06 mg/kg

2-ethoxy-1-methylethyl acetate

INDEX No. 603-177-00-8 / EC No. 259-370-9 / CAS No. 54839-24-6

PNEC aquatic, freshwater: 1,3 mg/l

PNEC aquatic, marine water: 0,13 mg/l

PNEC sediment, freshwater: 6,4 mg/kg

PNEC sediment, marine water: 0,64 mg/kg

PNEC, soil: 1,34 mg/kg

PNEC sewage treatment plant (STP): 62,5 mg/l

**8.2. Exposure controls**

Provide good ventilation. This can be achieved with local or room suction. If this should not be sufficient to keep aerosol and solvent vapour concentration below the exposure limit values, a suitable respiratory protection must be used.

**Personal protection equipment**

**Respiratory protection**

If concentration of solvents is beyond the occupational exposure limit values, approved and suitable respiratory protection must be used. Observe the wear time limits according GefStoffV in combination with the rules for using respiratory protection apparatus (BGR 190). Use only respiratory protection equipment with CE-symbol including four digit test number.

**Hand protection**

For prolonged or repeated handling the following glove material must be used: Butyl caoutchouc (butyl rubber)

Thickness of the glove material > 0,4 mm ; Breakthrough time (maximum wearing time) > 480 min.

Observe the instructions and details for use, storage, maintenance and replacement provided by the protective glove manufacturer. Penetration time of glove material depending on intensity and duration of exposure to skin. Recommended glove articles EN ISO 374

Barrier creams can help protecting exposed skin areas. In no case should they be used after contact.

**Eye/face protection**

Wear closely fitting protective glasses in case of splashes.

**Body protection**

Wear antistatic clothing of natural fibers (cotton) or heat resistant synthetic fibers.

**Protective measures**

After contact clean skin thoroughly with water and soap or use appropriate cleanser.

**Environmental exposure controls**

Do not allow to enter into surface water or drains. See section 7. No additional measures necessary.

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## 9.1. Information on basic physical and chemical properties

### Appearance:

Physical state: Liquid  
Colour: refer to label

Odour: characteristic

Odour threshold: not determined

pH at 20 °C: not applicable

Melting point/freezing point: not determined

Initial boiling point and boiling range: 184 °C

Flash point: 70 °C  
Method: DIN 53213-1 (08/2002: replaced by EN ISO 1523)

Evaporation rate: not determined

### flammability

Burning time (s): not applicable

### Upper/lower flammability or explosive limits:

Lower explosion limit: 1 Vol-%

Upper explosion limit: 9,8 Vol-%

Vapour pressure at 20 °C: 2,3 mbar

Vapour density: not determined

### Relative density:

Density at 20 °C: 1,21 g/cm<sup>3</sup>

### Solubility(ies):

Water solubility (g/L) at 20 °C: insoluble

Partition coefficient: n-octanol/water: see section 12

Ignition temperature in °C: 315 °C

Decomposition temperature: not applicable

Viscosity at 20 °C: > 90 s 4 mm  
Method: DIN 53211

Explosive properties: not applicable

Oxidising properties: not applicable

## 9.2. Other information

Solid content (%): 69 Wt %

### solvent content:

Organic solvents: 31 Wt %

Water: 0 Wt %

Solvent separation test (%): < 3 Wt % (ADR/RID)

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No information available.

### 10.2. Chemical stability

Stable when applying the recommended regulations for storage and handling. Further information on correct storage: refer to section 7.

### 10.3. Possibility of hazardous reactions

Keep away from strong acids, strong bases and strong oxidizing agents to avoid exothermic reactions.

### 10.4. Conditions to avoid

Hazardous decomposition byproducts may form with exposure to high temperatures.

### 10.5. Incompatible materials

not applicable

### 10.6. Hazardous decomposition products

Hazardous decomposition byproducts may form with exposure to high temperatures, e.g.: carbon dioxide, carbon monoxide, smoke, nitrogen oxides.



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2-ethoxy-1-methylethyl acetate  
, OECD 301D: 100 % (28 d)

12.3. **Bioaccumulative potential**

2-butoxyethyl acetate  
Partition coefficient: n-octanol/water: 1,51

12.4. **Mobility in soil**

Toxicological data are not available.

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.

12.6. **Other adverse effects**

No information available.

**SECTION 13: Disposal considerations**

13.1. **Waste treatment methods**

**Appropriate disposal / Product Recommendation**

Do not allow to enter into surface water or drains. This material and its container must be disposed of in a safe way. Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.

**List of proposed waste codes/waste designations in accordance with EWC**

080312\* waste ink containing dangerous substances

\*Hazardous waste according to Directive 2008/98/EC (waste framework directive).

**Appropriate disposal / Package Recommendation**

Non-contaminated packages may be recycled. Vessels not properly emptied are special waste.

**SECTION 14: Transport information**

**No dangerous good in sense of this transport regulation.**

14.1. **UN number**

not applicable

14.2. **UN proper shipping name**

14.3. **Transport hazard class(es)**

not applicable

14.4. **Packing group**

not applicable

14.5. **Environmental hazards**

Land transport (ADR/RID) not applicable

Marine pollutant not applicable

14.6. **Special precautions for user**

Transport always in closed, upright and safe containers. Make sure that persons transporting the product know what to do in case of an accident or leakage.

Advices on safe handling: see parts 6 - 8

**Further information**

**Land transport (ADR/RID)**

tunnel restriction code -

**Sea transport (IMDG)**

EmS-No. not applicable

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**

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### EU legislation

#### Directive 2010/75/EU on industrial emissions

VOC-value (in g/L): 373,798

#### National regulations

#### Restrictions of occupation

Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.  
Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC).

#### Other regulations, restrictions and prohibition regulations

### 15.2. Chemical Safety Assessment

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

## SECTION 16: Other information

### Full text of classification in section 3:

Acute Tox. 4 / H332	Acute toxicity (inhalative)	Harmful if inhaled.
Acute Tox. 4 / H312	Acute toxicity (dermal)	Harmful in contact with skin.
Skin Irrit. 2 / H315	skin corrosion/irritation	Causes skin irritation.
Eye Irrit. 2 / H319	Serious eye damage/eye irritation	Causes serious eye irritation.
Skin Sens. 1 / H317	Respiratory or skin sensitisation	May cause an allergic skin reaction.
Aquatic Chronic 2 / H411	Hazardous to the aquatic environment	Toxic to aquatic life with long lasting effects.
Flam. Liq. 3 / H226	Flammable liquids	Flammable liquid and vapour.
STOT SE 3 / H336	Specific target organ toxicity (single exposure)	May cause drowsiness or dizziness.

### Classification procedure

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

Skin Irrit. 2	skin corrosion/irritation	Calculation method.
Eye Irrit. 2	Serious eye damage/eye irritation	Calculation method.
Skin Sens. 1	Respiratory or skin sensitisation	Calculation method.
Aquatic Chronic 3	Hazardous to the aquatic environment	Calculation method.

### Abbreviations and acronyms

ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
OEL	Occupational Exposure Limit Value
BLV	Biological Limit Value
CAS	Chemical Abstracts Service
CLP	Classification, Labelling and Packaging
CMR	Carcinogenic, Mutagenic and Reprotoxic
DIN	German Institute for Standardization / German industrial standard
DNEL	Derived No-Effect Level
EAKV	European Waste Catalogue Directive
EC	Effective Concentration
EC	European Community
EN	European Standard
IATA-DGR	International Air Transport Association – Dangerous Goods Regulations
IBC Code	International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
ICAO-TI	International Civil Aviation Organization Technical Instructions for the Safe Transport of Dangerous Goods by Air
IMDG Code	International Maritime Code for Dangerous Goods
ISO	International Organization for Standardization
LC	Lethal Concentration
LD	Lethal Dose
MARPOL	Maritime Pollution: The International Convention for the Prevention of Pollution from Ships
OECD	Organisation for Economic Cooperation and Development
PBT	persistent, bioaccumulative, toxic
PNEC	Predicted No Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
UN	United Nations
VOC	Volatile Organic Compounds
vPvB	very persistent and very bioaccumulative

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**Further information**

Classification according to Regulation (EC) No 1272/2008 [CLP]

The information supplied on this safety data sheet complies with our current level of knowledge as well as with national and EU regulations. Without written approval, the product must not be used for purposes different from those mentioned in section 1. It is always the user's duty to take any necessary measures for meeting the requirements laid down by local rules and regulations. The details in this safety data sheet describe the safety requirements of our product and are not to be regarded as guaranteed attributes of the product.

\* Data changed compared with the previous version