

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



Article No.: T28      SERIE/SERIES  
Print date      29.08.2017  
Version      6.3      Revision date 16.10.2016

EN  
Page 1 / 7

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

**1.1. product identifiers**

Article No. (manufacturer/supplier): T28  
Identification of the substance or mixture 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  
Lorsbacher Str. 28  
D-65817 Eppstein  
Telephone: +49.61 98.30 40  
Telefax: +49.61 98.3 22 88

**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].

Flam. Liq. 3 / H226	Flammable liquids	Flammable liquid and vapour.
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.
STOT SE 3 / H336	Specific target organ toxicity (single exposure)	May cause drowsiness or dizziness.
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**

H226	Flammable liquid and vapour.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H317	May cause an allergic skin reaction.
H336	May cause drowsiness or dizziness.
H412	Harmful to aquatic life with long lasting effects.

**Precautionary statements**

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P280	Wear protective gloves and eye/face protection.
P370 + P378	In case of fire, use sand, extinguishing powder or alcohol resistant foam.
P403 + P233	Store in a well-ventilated place. Keep container tightly closed.

**contains:**

**Safety Data Sheet**  
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according to Regulation (EU) 2015/830



Article No.: T28  
Print date: 29.08.2017  
Version: 6.3

SERIE/SERIES  
Revision date 16.10.2016

EN  
Page 2 / 7

reaction product: bisphenol-A-(epichlorhydrin)  
2-ethoxy-1-methylethyl acetate

**Supplemental Hazard information (EU)**

EUH205 Contains epoxy constituents. May produce an allergic reaction.

2.3. Other hazards

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

3.2. Mixtures

**Product description / chemical characterization**

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

**Hazardous ingredients**

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

EC No. CAS No. INDEX No.	REACH No. Chemical name classification: // Remark	Wt %
259-370-9	01-2119475116-39-XXXX	
54839-24-6	2-ethoxy-1-methylethyl acetate	20 - 25
603-177-00-8	Flam. Liq. 3 H226 / STOT SE 3 H336	
203-603-9	01-2119475791-29-XXXX	
108-65-6	2-methoxy-1-methylethyl acetate	5 - 10
607-195-00-7	Flam. Liq. 3 H226	
500-033-5	01-2119456619-26-XXXX	
25068-38-6	reaction product: bisphenol-A-(epichlorhydrin)	5 - 10
603-074-00-8	Eye Irrit. 2 H319 / Skin Irrit. 2 H315 / Skin Sens. 1 H317 / Aquatic Chronic 2 H411	

**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

**SECTION 5: Firefighting measures**

5.1. Extinguishing media

**Suitable extinguishing media:**

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

**Extinguishing media which must not be used for safety reasons:**

strong water jet

Article No.: T28                      SERIE/SERIES  
Print date                      29.08.2017  
Version                      6.3                      Revision date 16.10.2016

EN  
Page 3 / 7

**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.

**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 chapter 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.

**Precautions against fire and explosion:**

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 (TRBS 2153)".

**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-methoxy-1-methylethyl acetate

INDEX No. 607-195-00-7 / EC No. 203-603-9 / CAS No. 108-65-6

WEL, TWA: 274 mg/m<sup>3</sup>; 50 ppm

WEL, STEL: 548 mg/m<sup>3</sup>; 100 ppm

Article No.: T28  
Print date: 29.08.2017  
Version: 6.3

SERIE/SERIES  
Revision date 16.10.2016

EN  
Page 4 / 7

#### **Additional information**

TWA : long-term occupational exposure limit value  
STEL : short-term occupational exposure limit value  
Ceiling : peak limitation

#### **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.

##### **Occupational exposure controls**

##### **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 DIN EN 374

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

##### **Eye protection**

Wear closely fitting protective glasses in case of splashes.

##### **Protective clothing**

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 chapter 7. No additional measures necessary.

## **SECTION 9: Physical and chemical properties**

### **9.1. Information on basic physical and chemical properties**

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#### **Appearance:**

<b>Physical state:</b>	liquid
<b>Colour:</b>	refer to label

<b>Odour:</b>	characteristic
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<b>Odour threshold:</b>	not determined
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<b>pH at 20 °C:</b>	not applicable
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<b>Melting point/freezing point:</b>	not determined
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<b>Initial boiling point and boiling range:</b>	145 °C
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<b>Flash point:</b>	43 °C
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<b>Evaporation rate:</b>	not determined
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<b>Flammability (solid, gas):</b>	
burning time (s):	not applicable

#### **Upper/lower flammability or explosive limits:**

Lower explosion limit:	1 Vol-%
Upper explosion limit:	10,8 Vol-%

<b>Vapour pressure at 20 °C:</b>	5 mbar
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<b>Vapour density:</b>	not determined
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#### **Relative density:**

Density at 20 °C:	1,23 g/cm³
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#### **Solubility(ies):**

Water solubility (g/L) at 20 °C:	insoluble
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<b>Partition coefficient: n-octanol/water:</b>	see section 12
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**Safety Data Sheet**  
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Article No.: T28  
Print date: 29.08.2017  
Version: 6.3

SERIE/SERIES  
Revision date: 16.10.2016

EN  
Page 5 / 7

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 (%):	69,04 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**  
Not applicable.
- 10.2. **Chemical stability**  
Stable when applying the recommended regulations for storage and handling. Further information on correct storage: refer to chapter 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.

#### SECTION 11: Toxicological information

Classification according to Regulation (EC) No 1272/2008 [CLP]  
No data on preparation itself available.

11.1. **Information on toxicological effects**

**Acute toxicity**

Toxicological data are not available.

**skin corrosion/irritation; Serious eye damage/eye irritation**

Toxicological data are not available.

**Respiratory or skin sensitisation**

Toxicological data are not available.

**Specific target organ toxicity**

Toxicological data are not available.

**Aspiration hazard**

Toxicological data are not available.

**Practical experience/human evidence**

Other observations:

Inhaling of solvent components above the MWC-value can lead to health damage, e.g. irritation of the mucous membrane and respiratory organs, as well as damage to the liver, kidneys and the central nerve system. Indications for this are: headache, dizziness, fatigue, amyosthenia, drowsiness, in serious cases: unconsciousness. Solvents may cause some of the aforementioned effects through skin resorption. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in non-allergic contact dermatitis and/or absorption through skin. Splashing may cause eye irritation and reversible damage.

**Overall Assessment on CMR properties**

The ingredients in this mixture do not meet the criteria for classification as CMR category 1A or 1B according to CLP.

Article No.: T28      SERIE/SERIES  
 Print date 29.08.2017  
 Version 6.3      Revision date 16.10.2016

EN  
 Page 6 / 7

## SECTION 12: Ecological information

### overall evaluation

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

There is no information available on the preparation itself.

Do not allow to enter into surface water or drains.

#### 12.1. Toxicity

Toxicological data are not available.

#### 12.2. Persistence and degradability

Toxicological data are not available.

#### 12.3. Bioaccumulative potential

Toxicological data are not available.

#### 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

## 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

##### packaging

##### Recommendation

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

## SECTION 14: Transport information

#### 14.1. UN number

UN 1210

#### 14.2. UN proper shipping name

Land transport (ADR/RID):

Printing ink

Sea transport (IMDG):

PRINTING INK

Air transport (ICAO-TI / IATA-DGR):

Printing ink

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

Land transport (ADR/RID):

KEINE GÜTER DER KLASSE 3

in containers > 450 l: class 3, item 31c

Sea transport (IMDG)

3

for packages < 30 litres:

Transport in accordance with the provisions of paragraph 2.3.2.5 of the IMDG Codex.

Air transport (ICAO-TI / IATA-DGR)

3

#### 14.4. Packing group

III

#### 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

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



Article No.: T28  
Print date 29.08.2017  
Version 6.3

SERIE/SERIES  
Revision date 16.10.2016

EN  
Page 7 / 7

**Land transport (ADR/RID)**

tunnel restriction code D/E

**Sea transport (IMDG)**

EmS-No. F-E, S-D

**Air transport (ICAO-TI / IATA-DGR)**

**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 legislation**

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

VOC-value (in g/L): 381,635

**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 preparation were not carried out.

**SECTION 16: Other information**

**Full text of classification in section 3:**

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.

Eye Irrit. 2 / H319

Serious eye damage/eye irritation

Causes serious eye irritation.

Skin Irrit. 2 / H315

skin corrosion/irritation

Causes skin 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.

**Remark**

n.a. = not applicable

**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 chapter 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