

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



Article No.: T28 SERIE/SERIES
Print date 18.05.2020 EN
Version 8.8 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): T28
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
RUCCO 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].

Flam. Liq. 3 / H226	Flammable liquids	Flammable liquid and vapour.
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.
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.

Hazard components for labelling

Bis(4,4'-glycidylphenoxy)propane
2-ethoxy-1-methylethyl acetate

Supplemental Hazard information (EU)

not applicable

2.3. Other hazards

Article No.: T28
Print date 18.05.2020
Version 8.8

SERIE/SERIES
Revision date 18.04.2020

EN
Page 2 / 9

No information available.

SECTION 3: Composition / information on ingredients

3.2. Mixtures

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. Designation 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	STOT SE 3 H336 / Flam. Liq. 3 H226	
216-823-5	01-2119456619-26-XXXX	
1675-54-3	Bis(4,4'-glycidylphenoxy)-propane	3 - 5
603-073-00-2	Skin Irrit. 2 H315 / Eye Irrit. 2 H319 / 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

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

Article No.: T28
Print date 18.05.2020
Version 8.8

SERIE/SERIES
Revision date 18.04.2020

EN
Page 3 / 9

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 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-methoxy-1-methylethyl acetate

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

WEL, TWA: 274 mg/m³; 50 ppm

WEL, STEL: 548 mg/m³; 100 ppm

Remark: (may be absorbed through the skin)

Additional information

TWA : long-term occupational exposure limit value

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



Article No.: T28 SERIE/SERIES
Print date 18.05.2020
Version 8.8 Revision date 18.04.2020

EN
Page 4 / 9

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

DNEL:

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/m³
DNEL long-term inhalative (systemic), Workers: 302 mg/m³

2-methoxy-1-methylethyl acetate
INDEX No. 607-195-00-7 / EC No. 203-603-9 / CAS No. 108-65-6
DNEL long-term dermal (systemic), Workers: 796 mg/kg
DNEL long-term inhalative (systemic), Workers: 275 mg/m³

PNEC:

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

2-methoxy-1-methylethyl acetate
INDEX No. 607-195-00-7 / EC No. 203-603-9 / CAS No. 108-65-6
PNEC aquatic, freshwater: 0,635 mg/l
PNEC aquatic, marine water: 0,064 mg/l
PNEC sediment, freshwater: 3,29 mg/kg
PNEC sediment, marine water: 0,329 mg/kg
PNEC, soil: 0,29 mg/kg
PNEC sewage treatment plant (STP): 100 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.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance:

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



Article No.: T28
Print date 18.05.2020
Version 8.8

SERIE/SERIES
Revision date 18.04.2020

EN
Page 5 / 9

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:	145 °C
Flash point:	43 °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:	10,8 Vol-%
Vapour pressure at 20 °C:	5 mbar
Vapour density:	not determined
Relative density:	
Density at 20 °C:	1,23 g/cm³
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.

SECTION 11: Toxicological information

Article No.: T28 SERIE/SERIES
Print date 18.05.2020
Version 8.8 Revision date 18.04.2020

EN
Page 6 / 9

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

11.1. Information on toxicological effects *

Acute toxicity

2-ethoxy-1-methylethyl acetate
oral, LD50, Rat: 5000 mg/kg
dermal, LD50, Rabbit: 13,42 mg/kg
inhalative (vapours), LC50, Rat: 6,99 mg/l (4 h)

2-methoxy-1-methylethyl acetate
oral, LD50, Rat: > 5000 mg/kg
dermal, LD50, Rabbit: > 5000 mg/kg
inhalative (vapours), LC50, Rat: 23,5 mg/l (4 h)

Skin corrosion/irritation; Serious eye damage/eye irritation

Based on available data, the classification criteria are not met.

Respiratory or skin sensitisation

May cause an allergic skin reaction.

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Based on available data, the classification criteria are not met.

STOT-single exposure; STOT-repeated exposure

May cause drowsiness or dizziness.

Aspiration hazard

Based on available data, the classification criteria are not met.

Practical experience/human evidence

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.

SECTION 12: Ecological information

Classification according to Regulation (EC) No 1272/2008 [CLP]
Do not allow to enter into surface water or drains.

12.1. Toxicity *

2-ethoxy-1-methylethyl acetate
Fish toxicity, LC50, Oncorhynchus mykiss (Rainbow trout): 140 mg/l (96 h)
Daphnia toxicity, EC50, Daphnia magna: 110 mg/l (48 h)
Algae toxicity, ErC50, green alga: > 100 mg/l (72 h)
Bacterial toxicity:, EC10, Pseudomonas putida: 560 mg/l (16 h)

2-methoxy-1-methylethyl acetate
Fish toxicity, LC50, Oncorhynchus mykiss (Rainbow trout): 134 mg/l (96 h)
Daphnia toxicity, EC50, Daphnia magna: > 500 mg/l (48 h)
Algae toxicity, ErC50, Selenastrum capricornutum: > 1000 mg/l (72 h)
Bacterial toxicity:, EC10, Activated sludge: > 1000 (1 h)

Long-term Ecotoxicity

Harmful to aquatic life with long lasting effects.

2-methoxy-1-methylethyl acetate
Fish toxicity, NOEC, Oryzias latipes: 47,5 mg/l (14 d)
Aquatic organisms:, NOEC, Daphnia magna: 100 (21 d)

12.2. Persistence and degradability *

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

Article No.: T28 SERIE/SERIES
Print date 18.05.2020
Version 8.8 Revision date 18.04.2020

EN
Page 7 / 9

2-methoxy-1-methylethyl acetate
aerobic, OECD 301 F: 76,4 mg/l (28 d)

12.3. Bioaccumulative potential

*

2-methoxy-1-methylethyl acetate
Partition coefficient: n-octanol/water: 1,2

Bioconcentration factor (BCF)

2-methoxy-1-methylethyl acetate
Bioconcentration factor (BCF): < 100

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

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 Code.

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

Land transport (ADR/RID)

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



Article No.: T28
Print date 18.05.2020
Version 8.8

SERIE/SERIES
Revision date 18.04.2020

EN
Page 8 / 9

tunnel restriction code D/E

Sea transport (IMDG)

EmS-No. F-E, S-D

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 mixture 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.
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.

Classification procedure

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

Flam. Liq. 3	Flammable liquids	On basis of test data.
Skin Sens. 1	Respiratory or skin sensitisation	Calculation method.
STOT SE 3	Specific target organ toxicity (single exposure)	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

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



Article No.:	T28	SERIE/SERIES	
Print date	18.05.2020		EN
Version	8.8	Revision date 18.04.2020	Page 9 / 9

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

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