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

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

1.1. **Product identifier**

Article No. (manufacturer/supplier):	920UV
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
Lorsbacher Str. 28
D-65817 Eppstein

Telephone: +49.61 98.30 40
Telefax: +49.61 98.3 22 88

Department 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 Dam. 1 / H318	Serious eye damage/eye irritation	Causes serious eye damage.
Skin Sens. 1 / H317	Respiratory or skin sensitisation	May cause an allergic skin reaction.
Repr. 2 / H361	Reproductive toxicity	Suspected of damaging fertility.
STOT SE 3 / H335	Specific target organ toxicity (single exposure)	May cause respiratory irritation.
STOT RE 2 / H373	Specific target organ toxicity (repeated exposure)	May cause damage to organs through prolonged or repeated exposure.
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

Danger

Hazard statements

H315	Causes skin irritation.
H318	Causes serious eye damage.
H317	May cause an allergic skin reaction.
H361	Suspected of damaging fertility.
H335	May cause respiratory irritation.
H373	May cause damage to organs through prolonged or repeated exposure.
H412	Harmful to aquatic life with long lasting effects.

Precautionary Statements

P260	Do not breathe vapour.
P280	Wear protective gloves and eye/face protection.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER or doctor/ physician.

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

Hazard components for labelling

carbonic acid amide
Propylidynetrimethanol, ethoxylated, esters with acrylic acid
phosphinoxide
(1-methyl-1,2-ethanediyl)bis[oxy(methyl-2,1-ethanediyl)] diacrylate
mequinol
2,2-bis(acryloyloxymethyl)butyl acrylate
urethane acrylate
2-propene acid, reaction products with pentaerythrite
acrylate
Glycerol propoxy triacrylate

Supplemental hazard information

not applicable

2.3. **Other hazards**

No information available.

SECTION 3: Composition / information on ingredients

3.2. **Mixtures** *

Description Pigmentdispersion in reactive resins

Hazardous ingredients

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

EC No. CAS No. INDEX No.	REACH No. Designation classification: // Remark	weight-%
500-066-5 28961-43-5	01-2119489900-30-XXXX Propylidynetrimethanol, ethoxylated, esters with acrylic acid Eye Irrit. 2 H319 / Skin Sens. 1 H317	10 - 20
	carbonic acid amide Acute Tox. 4 H302 / Eye Dam. 1 H318 / Skin Sens. 1 H317 / STOT RE 2 H373	10 - 20
256-032-2 42978-66-5 607-249-00-X	01-2119484613-34-XXXX (1-methyl-1,2-ethanediyl)bis[oxy(methyl-2,1-ethanediyl)] diacrylate Eye Irrit. 2 H319 / STOT SE 3 H335 / Skin Irrit. 2 H315 / Skin Sens. 1 H317 / Aquatic Chronic 2 H411 Specific concentration limit (SCL): STOT SE 3 H335 >= 10	10 - 20
	urethane acrylate Eye Irrit. 2 H319 / Skin Sens. 1 H317	5 - 10
278-355-8 75980-60-8	01-2119972295-29-XXXX phosphinoxide Skin Sens. 1 H317 / Aquatic Chronic 2 H411 / Repr. 2 H361	3 - 5
629-850-6 1245638-61-2	01-2119490003-49-XXXX 2-propene acid, reaction products with pentaerythrite Acute Tox. 4 H302 / Skin Irrit. 2 H315 / Eye Dam. 1 H318 / Skin Sens. 1 H317 / Aquatic Chronic 2 H411	3 - 5
	acrylate Eye Irrit. 2 H319 / Skin Sens. 1 H317	1 - 2,5
231-272-0 7473-98-5	01-2119472306-39-XXXX phenylketone Acute Tox. 4 H302 / Aquatic Chronic 3 H412	1 - 2,5
500-114-5 52408-84-1	01-2119487948-12-XXXX Glycerol propoxy triacrylate Eye Irrit. 2 H319 / Skin Sens. 1 H317	1 - 2,5

239-701-3 15625-89-5 607-111-00-9	01-2119489896-11-XXXX 2,2-bis(acryloyloxymethyl)butyl acrylate Skin Irrit. 2 H315 / Eye Irrit. 2 H319 / Skin Sens. 1 H317 / Aquatic Acute 1 H400 / Aquatic Chronic 1 H410	0,1 - 0,25
204-881-4 128-37-0	01-2119555270-46-XXXX 2,6-di-tert-butyl-p-cresol Aquatic Acute 1 H400 / Aquatic Chronic 1 H410	0,1 - 0,25
205-769-8 150-76-5 604-044-00-7	01-2119541813-40-XXXX mequinol Acute Tox. 4 H302 / Eye Irrit. 2 H319 / 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. Following skin contact
Conditions to avoid UV-radiation/sunlight
Causes mild skin irritation.

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 fire blanket, 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.

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

Persons with a history of skin sensitisation problems should not be employed in any process in which this product is used.

7.1. **Precautions for safe handling**

Advices on safe handling

Use only in well-ventilated areas. Keep away from heat sources, sparks and open flames. 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.

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. Keep only in the original container.

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

2,6-di-tert-butyl-p-cresol
EC No. 204-881-4 / CAS No. 128-37-0
WEL, TWA: 10 mg/m3

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.

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: NBR (Nitrile 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:	
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:	**not applicable**
Flash point:	**> 100 °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:	**0,8 Vol-%**
Upper explosion limit:	**not applicable**
Vapour pressure at 20 °C:	**not applicable**
Vapour density:	**not determined**
Relative density:	
Density at 20 °C:	**1,16 g/cm³**
Solubility(ies):	
Water solubility (g/L) at 20 °C:	**insoluble**
Partition coefficient: n-octanol/water:	**see section 12**
Ignition temperature in °C	**not applicable**
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 (%):	**100 weight-%**
solvent content:	
Organic solvents:	**0 weight-%**
Water:	**0 weight-%**
Solvent separation test (%):	**< 3 weight-% (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**
This preparation contains material instable under the following conditions: Heat, strong ultraviolet radiation. An exotherm polymerization of the product may thereby be caused. Avoid unintended contact with it. 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]

11.1. **Information on toxicological effects**

Acute toxicity

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

Skin corrosion/irritation; Serious eye damage/eye irritation

Causes skin irritation.

Causes serious eye damage.

Respiratory or skin sensitisation

May cause an allergic skin reaction.

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Suspected of damaging fertility.

STOT-single exposure; STOT-repeated exposure

May cause respiratory irritation.

May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard

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

Practical experience/human evidence

The fractions of acrylic resin in the preparation have an irritant effect. Prolonged or repeated contact with the preparation can lead to irritations of mucous membranes and of skin such as redness, formation of blebs, dermatitis, etc.. Cases of allergic skin reactions have been observed. Liquid splashes can lead to irritations of the eyes. Inhaling of drolets in the air or aerosols may lead to irritations of the respiratory tract . Ingestion may cause nausea, weakness and affect the central nervous system.

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

Long-term Ecotoxicity

Harmful to aquatic life with long lasting effects.

12.2. **Persistence and degradability**
Toxicological data are not available.

12.3. **Bioaccumulative potential**
Toxicological data are not available.

Bioconcentration factor (BCF)

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**

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**

EU legislation

Directive 2010/75/EU on industrial emissions

VOC-value (in g/L): 1,349

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:

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.
Acute Tox. 4 / H302	Acute toxicity (oral)	Harmful if swallowed.
Eye Dam. 1 / H318	Serious eye damage/eye irritation	Causes serious eye damage.
STOT RE 2 / H373	Specific target organ toxicity (repeated exposure)	May cause damage to organs (or state all organs affected, if known) through prolonged or repeated exposure (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard).
STOT SE 3 / H335	Specific target organ toxicity (single exposure)	May cause respiratory irritation.
Skin Irrit. 2 / H315	skin corrosion/irritation	Causes skin irritation.
Aquatic Chronic 2 / H411	Hazardous to the aquatic environment	Toxic to aquatic life with long lasting effects.
Repr. 2 / H361	Reproductive toxicity	Suspected of damaging fertility.
Aquatic Chronic 3 / H412	Hazardous to the aquatic environment	Harmful to aquatic life with long lasting effects.
Aquatic Acute 1 / H400	Hazardous to the aquatic environment	Very toxic to aquatic organisms.
Aquatic Chronic 1 / H410	Hazardous to the aquatic environment	Very 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]

Skin Irrit. 2	skin corrosion/irritation	Calculation method.
Eye Dam. 1	Serious eye damage/eye irritation	Calculation method.
Skin Sens. 1	Respiratory or skin sensitisation	Calculation method.
Repr. 2	Reproductive toxicity	Calculation method.
STOT SE 3	Specific target organ toxicity (single exposure)	Calculation method.
STOT RE 2	Specific target organ toxicity (repeated 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
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