

Safety Data Sheet

according to 29 CFR 1910.1200(g)

BM ID-CARTR. BK, Art.-Nr. 1044345

Revision date: 22.03.2018

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1. Identification

Product identifier

UV-Fluid zum Austausch, BM ID-CARTR. BK, Art.-Nr. 1044345

Recommended use of the chemical and restrictions on use

Use of the substance/mixture

Ink and toners

Details of the supplier of the safety data sheet

Company name:	PHOENIX CONTACT GmbH & Co. KG	
Street:	Flachsmarktstr. 8	
Place:	D-32825 Blomberg	
Telephone:	+49 (0) 5235/300	Telefax: +495235 341200
e-mail:	info@phoenixcontact.com	
Responsible Department:	sdb@nuc.eu	

Emergency phone number: +49 (0) 228 19240 (Informationszentrale gegen Vergiftungen Bonn, 24 h); +49 (0) 700 24112 112 (PCC)

2. Hazard(s) identification

Classification of the chemical

29 CFR Part 1910.1200

Flammable liquids: Flam. Liq. 4
 Skin corrosion/irritation: Skin Irrit. 2
 Serious eye damage/eye irritation: Eye Dam. 1
 Respiratory or skin sensitization: Skin Sens. 1
 Reproductive toxicity: Repr. 2
 Specific target organ toxicity repeated or prolonged exposure: STOT RE 1

Label elements

29 CFR Part 1910.1200

Signal word: Danger

Pictograms:



Hazard statements

Combustible liquid
 Causes skin irritation
 May cause an allergic skin reaction
 Causes serious eye damage
 Suspected of damaging fertility or the unborn child
 Causes damage to organs through prolonged or repeated exposure

Precautionary statements

Obtain special instructions before use.
 Do not handle until all safety precautions have been read and understood.
 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

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Do not breathe dust/fume/gas/mist/vapors/spray.
 Wash thoroughly after handling.
 Do not eat, drink or smoke when using this product.
 Contaminated work clothing must not be allowed out of the workplace.
 Wear protective gloves/protective clothing/eye protection/face protection.
 If on skin: Wash with plenty of water.
 Take off contaminated clothing and wash it before reuse.
 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
 Continue rinsing.
 Immediately call a poison center/doctor.
 If exposed or concerned: Get medical advice/attention.
 Store in a well-ventilated place.
 Store locked up.
 Dispose of waste according to applicable legislation.

Hazards not otherwise classified

No information available.

3. Composition/information on ingredients

Mixtures

Hazardous components

CAS No	Components	Quantity
15625-89-5	2,2-bis(acryloyloxymethyl)butyl acrylate, trimethylolpropane triacrylate	35 %
13048-33-4	Hexamethylene diacrylate	35 %
2235-00-9	1-vinylhexahydro-2H-azepin-2-one	9.9 %
57472-68-1	Oxybis(methyl-2,1-ethanediy) diacrylate	5 %
111497-86-0	2-Propenoic acid, (1-methyl-1,2-ethanediy) bis[oxy(methyl-2,1-ethanediy)] ester, reaction products with diethylamine	5 %
119344-86-4	2-(dimethylamino)-2-[(4-methylphenyl)methyl]-1-[4-(morpholin-4-yl)phenyl]butan-1-one	5 %
162881-26-7	phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	0.9 %
75980-60-8	Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	0.9 %
52408-84-1	Glycerol, propoxylated, esters with acrylic acid	0.9 %
	Vinylester resin NNB	0.9 %

4. First-aid measures

Description of first aid measures

General information

Remove contaminated, saturated clothing immediately. Do not leave affected person unattended. When in doubt or if symptoms are observed, get medical advice.

After inhalation

Consult a doctor immediately in the case of inhaling spray mist and show him packing or label.

After contact with skin

Wash immediately with: Water and soap

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After contact with eyes

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately. Remove contact lenses, if present and easy to do. Continue rinsing. In case of eye irritation consult an ophthalmologist.

After ingestion

If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention. Let water be drunk in little sips (dilution effect).

Most important symptoms and effects, both acute and delayed

No known symptoms to date.

Indication of any immediate medical attention and special treatment needed

First Aid, decontamination, treatment of symptoms.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media

alcohol resistant foam
Carbon dioxide (CO₂)
Dry extinguishing powder
Water spray

Unsuitable extinguishing media

High power water jet

Specific hazards arising from the chemical

Carbon dioxide (CO₂)
Carbon monoxide

Special protective equipment and precautions for fire-fighters

Wear a self-contained breathing apparatus and chemical protective clothing.

Additional information

Use water spray jet to protect personnel and to cool endangered containers.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Use personal protection equipment. Wear breathing apparatus if exposed to vapours/dusts/aerosols. Remove persons to safety.

Environmental precautions

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.

Methods and material for containment and cleaning up

Universal binder
Absorbing material, organic

Reference to other sections

Safe handling: see section 7
Personal protection equipment: see section 8
SECTION 13: Disposal considerations

7. Handling and storage

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Precautions for safe handling

Advice on safe handling

All work processes must always be designed so that the following is excluded:

Inhalation of vapours or spray/mists

Skin contact

Eye contact

If handled uncovered, arrangements with local exhaust ventilation have to be used.

Always close containers tightly after the removal of product.

Advice on protection against fire and explosion

Usual measures for fire prevention.

Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep only in original container.

Keep container tightly closed.

storage temperature: 4°C - 25°C

Advice on storage compatibility

Do not store together with: Alkali metals, Oxidising agent, strong, Reducing agent, strong

8. Exposure controls/personal protection

Control parameters

Additional advice on limit values

To date, no national critical limit values exist.

Exposure controls

Appropriate engineering controls

If handled uncovered, arrangements with local exhaust ventilation have to be used.

Protective and hygiene measures

General health and safety measures:

Wash hands before breaks and after work.

Keep away from food, drink and animal feedingstuffs.

Eye/face protection

Suitable eye protection: goggles

Hand protection

Suitable gloves type: Gloves with long cuffs

Suitable material: NBR (Nitrile rubber)

For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Observe the wear time limits as specified by the manufacturer.

Skin protection

Suitable protective clothing: lab coat

Respiratory protection

Respiratory protection necessary at: aerosol or mist formation

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9. Physical and chemical properties

Information on basic physical and chemical properties

Physical state:	liquid	
Color:	black	
Odor:	characteristic	
pH-Value:		not determined

Changes in the physical state

Melting point/freezing point:		not determined
Initial boiling point and boiling range:		not determined
Sublimation point:		not determined
Softening point:		not determined
Pour point:		not determined
Flash point:		> 60 °C

Flammability

Solid:	not determined
Gas:	not determined

Explosive properties

No information available.

Lower explosion limits:	not determined
Upper explosion limits:	not determined
Ignition temperature:	not determined

Auto-ignition temperature

Solid:	not determined
Gas:	not determined

Decomposition temperature:	not determined
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Oxidizing properties

Not oxidising.

Vapor pressure:	not determined
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Density (at 20 °C):	1,076 g/cm ³
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Bulk density:	not determined
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Water solubility:	not determined
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Solubility in other solvents

No information available.

Partition coefficient:	not determined
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Viscosity / dynamic: (at 25 °C)	24,8 mPa·s
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Viscosity / kinematic:	not determined
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Flow time:	not determined
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Vapor density:	not determined
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Evaporation rate:	not determined
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Other information

Odour threshold: not determined

10. Stability and reactivity

Reactivity

The mixture is chemically stable under recommended conditions of storage, use and temperature.

Chemical stability

Stability: Stable

The product is stable under storage at normal ambient temperatures.

In case of light influence: Danger of polymerisation

Possibility of hazardous reactions

Hazardous reactions: May occur

No hazardous reaction when handled and stored according to provisions.

Violent reaction with: Alkali metals, Oxidising agent, strong, Reducing agent, strong

Conditions to avoid

Protect against: Light. (Danger of polymerisation)

Incompatible materials

Alkali metals, Oxidising agent, strong, Reducing agent, strong

Hazardous decomposition products

Does not decompose when used for intended uses.

11. Toxicological information

Information on toxicological effects

Route(s) of Entry

Skin, eyes, inhalation.

Acute toxicity

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

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CAS No	Components				
	Exposure route	Dose	Species	Source	Method
15625-89-5	2,2-bis(acryloyloxymethyl)butyl acrylate, trimethylolpropane triacrylate				
	oral	LD50 > 5000 mg/kg	Rat	Study report (1972)	An acute oral toxicity study was perform
	dermal	LD50 > 2000 mg/kg	Rabbit	Other company data (1981)	
13048-33-4	Hexamethylene diacrylate				
	oral	LD50 >5000 mg/kg	Rat		
	dermal	LD50 >3000 mg/kg	Rabbit		
2235-00-9	1-vinylhexahydro-2H-azepin-2-one				
	oral	LD50 1114 mg/kg	Rat	Study report	OECD Guideline 401
	dermal	LD50 1700 mg/kg	Rabbit	Study report (1993)	OECD Guideline 402
57472-68-1	Oxybis(methyl-2,1-ethanediyl) diacrylate				
	oral	LD50 3530 mg/kg	Rat	Study report (1987)	OECD Guideline 401
	dermal	LD50 > 2000 mg/kg	Rabbit	Publication (1984)	OECD Guideline 402
111497-86-0	2-Propenoic acid, (1-methyl-1,2-ethanediyl) bis[oxy(methyl-2,1-ethanediyl)] ester, reaction products with diethylamine				
	oral	LD50 > 2000 mg/kg	Rat	Study report	OECD Guideline 423
	dermal	LD50 > 2000 mg/kg	Rat	Study report (2010)	OECD Guideline 402
119344-86-4	2-(dimethylamino)-2-[(4-methylphenyl)methyl]-1-[4-(morpholin-4-yl)phenyl]butan-1-one				
	oral	LD50 > 2000 mg/kg	Rat	Study report (2001)	OECD Guideline 423
	dermal	LD50 > 2000 mg/kg	Rat	Study report (2001)	OECD Guideline 402
162881-26-7	phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide				
	oral	LD50 > 5000 mg/kg	Rat		OECD Guideline 401
	dermal	LD50 >= 2000 mg/kg	Rat		OECD Guideline 402
75980-60-8	Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide				
	oral	LD50 >5000 mg/kg	Rat		
	dermal	LD50 >5000 mg/kg	Rat		
52408-84-1	Glycerol, propoxylated, esters with acrylic acid				
	oral	LD50 > 2000 mg/kg	Rat	Study report (1993)	OECD Guideline 401

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	dermal	LD50 mg/kg	> 2000	Rabbit	Study report (1983)	OECD Guideline 402
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Irritation and corrosivity

Causes skin irritation
Causes serious eye damage

Sensitizing effects

May cause an allergic skin reaction (2,2-bis(acryloyloxymethyl)butyl acrylate, trimethylolpropane triacrylate; Hexamethylene diacrylate; 1-vinylhexahydro-2H-azepin-2-one; Oxybis(methyl-2,1-ethanediyl) diacrylate; 2-Propenoic acid, (1-methyl-1,2-ethanediyl) bis[oxy(methyl-2,1-ethanediyl)] ester, reaction products with diethylamine; phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide; Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide; Glycerol, propoxylated, esters with acrylic acid; Vinylester resin NNB)

Carcinogenic/mutagenic/toxic effects for reproduction

Suspected of damaging fertility or the unborn child (2-(dimethylamino)-2-[(4-methylphenyl)methyl]-1-[4-(morpholin-4-yl)phenyl]butan-1-one; Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide)
Germ cell mutagenicity: Based on available data, the classification criteria are not met.
Carcinogenicity: Based on available data, the classification criteria are not met.

Specific target organ toxicity (STOT) - single exposure

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

Specific target organ toxicity (STOT) - repeated exposure

Causes damage to organs through prolonged or repeated exposure

Aspiration hazard

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

12. Ecological information

Ecotoxicity

Harmful to aquatic life with long lasting effects.

Persistence and degradability

The product has not been tested.

Bioaccumulative potential

The product has not been tested.

Mobility in soil

The product has not been tested.

Other adverse effects

No data available

13. Disposal considerations

Waste treatment methods

Advice on disposal

Dispose of waste according to applicable legislation.

Contaminated packaging

Dispose of waste according to applicable legislation.
Completely emptied packages can be recycled.

14. Transport information

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US DOT 49 CFR 172.101

UN/ID number: NA1993
Proper shipping name: Combustible liquids, n.o.s. (2,2-bis(acryloyloxymethyl)butyl acrylate, trimethylolpropane triacrylate; Hexamethylene diacrylate)
Transport hazard class(es): Comb liq
Packing group: III
 Hazard label: None

Marine transport (IMDG)

UN number: No dangerous good in sense of this transport regulation.
UN proper shipping name: No dangerous good in sense of this transport regulation.
Transport hazard class(es): No dangerous good in sense of this transport regulation.
Packing group: No dangerous good in sense of this transport regulation.

Air transport (ICAO-TI/IATA-DGR)

UN number: No dangerous good in sense of this transport regulation.
UN proper shipping name: No dangerous good in sense of this transport regulation.
Transport hazard class(es): No dangerous good in sense of this transport regulation.
Packing group: No dangerous good in sense of this transport regulation.

Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

Special precautions for user

No dangerous good in sense of this transport regulation.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

No dangerous good in sense of this transport regulation.

15. Regulatory information

U.S. Regulations

National Inventory TSCA

CAS No. 15625-89-5: Yes.
 CAS No. 13048-33-4: Yes.
 CAS No. 2235-00-9: Yes.
 CAS No. 119344-86-4: Yes.
 CAS No. 57472-68-1: Yes.
 CAS No. 111497-86-0: Yes.
 CAS No. 75980-60-8: Yes.
 CAS No. 52408-84-1: Yes.
 CAS No. 162881-26-7: Yes.

National regulatory information

SARA Section 311/312 Hazards:

2,2-bis(acryloyloxymethyl)butyl acrylate, trimethylolpropane triacrylate (15625-89-5): Immediate (acute) health hazard

Hexamethylene diacrylate (13048-33-4): Immediate (acute) health hazard

1-vinylhexahydro-2H-azepin-2-one (2235-00-9): Immediate (acute) health hazard, Delayed (chronic) health hazard

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Oxybis(methyl-2,1-ethanediyl) diacrylate (57472-68-1): Immediate (acute) health hazard
 2-Propenoic acid, (1-methyl-1,2-ethanediyl) bis[oxy(methyl-2,1-ethanediyl)] ester, reaction products with diethylamine (111497-86-0): Immediate (acute) health hazard
 phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide (162881-26-7): Immediate (acute) health hazard
 Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide (75980-60-8): Immediate (acute) health hazard
 Glycerol, propoxylated, esters with acrylic acid (52408-84-1): Immediate (acute) health hazard
 Vinylster resin NNB (-): Immediate (acute) health hazard

State Regulations

Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65, State of California)

This product contains no chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

16. Other information

Hazardous Materials Information Label (HMIS)

Health:	4
Flammability:	2
Physical Hazard:	1

NFPA Hazard Ratings

Health:	4
Flammability:	2
Reactivity:	1
Unique Hazard:	



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Abbreviations and acronyms

ACGIH: American Conference of Governmental Industrial Hygienists
 ADR: Accord européen sur le transport des marchandises dangereuses par Route
 (European Agreement concerning the International Carriage of Dangerous Goods by Road)
 AOEL: Acceptable Operator Exposure Level
 AOX: Adsorbable organic halogen compounds
 ATE: Acute Toxicity Estimate
 Acute Tox.: Acute Toxicity
 AGW: Arbeitsplatzgrenzwert
 Aquatic Chronic: Long-term hazardous to the aquatic environment
 BAM: Bundesanstalt für Materialforschung und -prüfung
 BAuA: Bundesanstalt für Arbeitsschutz und Arbeitsmedizin
 BCF: Bioconcentration factor
 BOD: Biochemical oxygen demand
 BSEF: Bromine Science and Environmental Forum
 bw: body weight
 CAS: Chemical Abstracts Service
 CEC: Coordinating European Council of the Development of Performance Tests for Fuels, Lubricants and Other Fluids
 CESIO: Comité Européen des Agents de Surface et de leurs Intermédiaires Organiques
 CIPAC: Collaborative International Pesticides Analytical Council
 CLP: Classification, Labelling & Packaging
 CMR: Cancerogen Mutagen Reprotoxic

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COD: Chemical oxygen demand
CTFA: Cosmetic, Toiletry, and Fragrance Association
DIN: Deutsches Institut für Normung
DMEL: Derived Minimum Effect Level
DNEL: Derived No Effect Level
DOC: Dissolved organic carbon
DT50: Dwell Time - 50% reduction of start concentration
dw: dry weight
EC 20: Effective Concentration where 20 % of an effect is observed
EC 50: Half-maximal Effective Concentration
ECHA: European Chemicals Agency
EG: Europäische Gemeinschaft
Eye Dam.: Serious eye damage
Eye Irr.: Serious eye irritation
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
EPA: United States Environmental Protection Agency
ERC: Environmental Release Categories
Flam. Liq.: Flammable Liquids
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
GWP: Global warming potential
HET-CAM: Hen's Egg Test - Chorionallantoic Membrane
HGWP: Halocarbon Global Warming Potential
IARC: International Agency for Research on Cancer
IATA: International Air Transport Association
IBC: Intermediate Bulk Container
IBC (Code): International Bulk Chemical (Code)
IMDG: International Maritime Code for Dangerous Goods
IUCLID: International Uniform Chemical Information Database
ICAO-TI: International Civil Aviation Organization - Technical Instructions
ISO: Internationale Organisation für Normung
LC50: Lethal concentration, 50%
LD50: Lethal dose, 50%
LQ: Limited Quantities
n.a.: Not Applicable
NIOSH: National Institute of Occupational Safety and Health (United States of America)
NOEC: No Observed Effect Level or Concentration
ODP: Ozone Depletion Potential
OECD: Organisation for Economic Co-operation and Development
PAH: Polycyclic Aromatic Hydrocarbon
PBT: Persistent, Bioaccumulative and Toxic
PC: Chemical product category
PNEC: Predicted No Effect Concentration
PROC: Process category
PTFE: Polytetrafluoretilén
REACH: Registration, Evaluation, Authorisation of Chemicals
Repr.: Reproductive toxicity
RID: Règlement concernant le transport international ferroviaire des marchandises dangereuses
SADT: Self-Accelerating Decomposition Temperature

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Skin Irr.: Skin irritation
Skin Sens.: Sensitisation of the skin
STOT RE: Specific target organ toxicity (repeated exposure)
STOT SE: Specific target organ toxicity (single exposure)
SU: Sector of use
SVHC: Substances of very High Concern
TA-Luft: Technische Anleitung zur Reinhaltung der Luft
Tel.: Telefon
ThOD: Theoretical oxygen demand
TOC: Total organic carbon
UN RTDG: United Nations Recommendation on the Transport of Dangerous Goods
VOC: Volatile Organic Compound
VbF: Verordnung über brennbare Flüssigkeiten
vPvB: Very Persistent and very Bioaccumulative

Other data

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)