

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

1.1. Product identifier

GR-13.2 model, GR-13.2 LCD model

UV curable resin

CAS No.:
EC No.:
INDEX No.:
REACH No.:

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

Relevant identified uses: Manufacture.
Uses advised against: Private households (= general public).

1.3. Details of the supplier of the safety data sheet

Manufacturer

pro3dure GmbH

Am Burgberg 13
D 58642 Iserlohn

Telephone +49 (0)2374 920050-10
Telefax: +49 (0)2374 920050-50

Supplier

pro3dure GmbH

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Telephone +49 (0)2374 920050-10
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Information contact

pro3dure GmbH

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E-mail (competent person) info@pro3dure.com
Website www.pro3dure.com

1.4. Emergency telephone number

Diese Nummer ist nur zu Bürozeiten erreichbar

Telephone +49 (0)2374 920050-10

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008:

Met. Corr. 1, H290; Skin Sens. 1/1A/1B, H317; Aquatic Chronic 4, H413

2.2. Label elements

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

Hazard pictograms



GHS07
Warning

Signal word:

Hazard statements:

H290 May be corrosive to metals.
H317 May cause an allergic skin reaction.
H413 May cause long lasting harmful effects to aquatic life.

Precautionary statements:

P280 Wear protective gloves/protective clothing/eye protection/face protection.
P303+361+353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305+351+338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P332+313 If skin irritation occurs: Get medical advice/attention.
P337+313 If eye irritation persists: Get medical advice/attention.
P501 Dispose of contents/container to .?.

Hazardous component(s) for labelling:

Esterification products of 4,4'-isopropylidenediphenol, ethoxylated and 2-methylprop-2-enoic acid; Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide; xxx

Special labelling of particular preparations:

Safety data sheet available for professional user on request.

2.3. Other hazards

See attached safety data sheets and/or usage instructions.

SECTION 3: Composition / information on ingredients

3.1. Substances

not applicable

3.2. Mixtures

Among others, the following ingredients.

Composition/information on ingredients

Substance:	EC-no.:	CAS-No.:	INDEX no.:	REACH-no.:	Concentration:	Classification: EC 1272/2008 (CLP):
Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	423-340-5	162881-26-7		01-2119489401-38-0000	≤ 2%	-
Esterification products of 4,4'-isopropylidenediphenol, ethoxylated and 2-methylprop-2-enoic acid	609-946-4	41637-38-1		01-2119980659-17-0000	≥ 95%	Skin Irrit. 2, H315; Skin Sens. 1/1A/1B, H317; Eye Irrit. 2, H319; STOT SE 3, H335

(Full text of H- and EUH-statements: see section 16.)

SECTION 4: First aid measures

4.1. Description of first aid measures

- General information:** In case of accident or if you feel unwell, seek medical advice immediately (show safety data sheet if possible). Take off immediately all contaminated clothing.
- In case of inhalation:** Move victim to fresh air. Put victim at rest and keep warm. In case of irregular breathing or respiratory arrest provide artificial respiration. Immediately get medical attention.
- Following skin contact:** Take off immediately all contaminated clothing. After contact with skin, wash immediately with plenty of water and soap. Immediately get medical attention.
- After eye contact:** In case of contact with eyes, rinse immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Subsequently consult an ophthalmologist.
- After ingestion:** Rinse mouth immediately and drink large quantities of water. No administration in cases of unconsciousness or cramps. Do not induce vomiting. Immediately get medical attention.

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

- Symptoms: No symptoms known up to now.
Danger: Causes skin irritation.

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

- Notes for the doctor: Provide fresh air. In case of breathing difficulties administer oxygen.
Treatment: First Aid, decontamination, treatment of symptoms. Ethanol.

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media** Dry extinguishing powder. Carbon dioxide (CO₂).
- Unsuitable extinguishing media** Water fog. High power water jet. Water. Water. High power water jet. Water fog. Foam.

5.2. Special hazards arising from the substance or mixture

- Can be released in case of fire: Carbon dioxide (CO₂). Carbon monoxide.

5.3. Advice for firefighters

- General information**
Move undamaged containers from immediate hazard area if it can be done safely. Use water spray/stream to protect personnel and to cool endangered containers.

- Special protective equipment for fire-fighters:**
In case of fire: Wear self-contained breathing apparatus. Wear chemical resistant suit.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- Guide people to safety. Remove all sources of ignition. Provide adequate ventilation. Wear personal protection equipment.

6.2. Environmental precautions

- Do not empty into drains or the aquatic environment. Do not allow to enter into soil/subsoil.

6.3. Methods and material for containment and cleaning up

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Treat the assimilated material according to the section on waste disposal.

6.4. Reference to other sections

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

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advices on safe handling

Avoid contact with skin and eyes. Do not breathe gas/fumes/vapour/spray. Keep away from sources of ignition - No smoking.

Closed devices. Provide for sufficient ventilation and punctiform suction at critical points. Ensure the grounding of containers, apparatus, pumps and suction equipment.

Precautions against fire and explosion:

Take precautionary measures against static discharges.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed in a cool, well-ventilated place.

Ensure adequate ventilation of the storage area. Keep in a cool, well-ventilated place. Keep away from sources of ignition - No smoking.

Keep/Store only in original container. Keep container tightly closed.

Protect against: heat. Air. moisture. Provide earthing of containers, equipment, pumps and ventilation facilities.

Hints on joint storage

Do not store together with: Oxidizing agents.

7.3. Specific end use(s)

Observe instructions for use.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

occupational exposure limit value

Substance:	CAS-No.:	Source:	Occupational exposure limit value:[ppm]	Occupational exposure limit value:[mg/m ³]	Limitation of exposure peaks:	Remark:

Substance with a common (EC) occupational exposure limit value.

Substance:	CAS-No.:	Source:	Occupational exposure limit value:[ppm]	Occupational exposure limit value:[mg/m ³]	Limitation of exposure peaks:	Remark:

DNEL-/PNEC-values

DNEL value

Substance:	CAS-No.:	DNEL/DMEL
Esterification products of 4,4'-isopropylidenediphenol, ethoxylated and 2-methylprop-2-enoic acid	41637-38-1	worker inhalative xxx(systemisch) 3,52 mg/m ³ worker dermal xxx(systemisch) 2 xxx(mg/m ³ /24h) xxx(Verbraucher) inhalative xxx(systemisch) 870 µg/m ³ xxx(Verbraucher) dermal xxx(systemisch) 1 xxx(mg/m ³ /24h) xxx(Verbraucher) xxx(systemisch) 500 xxx(µg/m ³ /24h)

PNEC Value

Substance:	CAS-No.:	PNEC
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Additional information

none

8.2. Exposure controls

Occupational exposure controls:

Provide for sufficient ventilation and punctiform suction at critical points. Technical measures and the application of adequate working methods take priority over the use of personal protection equipment.

General protection and hygiene measures:

Do not eat, drink, smoke or sneeze at the workplace. Wash hands before breaks and at the end of work. Apply skin care products after work. Wash contaminated clothing prior to re-use.

Personal protection equipment

Minimum standard for preventive measures while handling with working materials are specified in the TRGS 500.

Respiratory protection

With correct and proper use, and under normal conditions, breathing protection is not required. Respiratory protection required in case of: insufficient ventilation. Suitable respiratory protective equipment: Protective respiration apparatus not using surrounding air (breathing apparatus) (DIN EN 133).

Hand protection

Tested protective gloves are to be worn: German Industry Norms (DIN) / European Norms (EN): DIN EN 374 Suitable material: Butyl rubber.

Eye/face protection

Tightly sealed safety glasses.

Body protection:

For the protection against direct skin contact, body protective clothing is essential (in addition to the usual working clothes). Only wear fitting, comfortable and clean protective clothing. Barrier creams are not substitutes for body protection.

Environmental exposure controls

refer to chapter 7. No further action is necessary.

Consumer exposure controls

refer to chapter 7. No further action is necessary.

Exposure Scenario:

none

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Physical state:

Colour:

Odour:

Odour threshold:

Safety relevant basis data

parameter	Value	unit	Remark
pH:			No data available
Melting point/freezing point:			No data available
Initial boiling point and boiling range:			No data available
Flash point:			No data available
Evaporation rate:			No data available
Flammability (solid, gas):			No data available
Explosivity:			No data available
Upper flammability or explosive limits:			No data available
lower flammability or explosive limits:			No data available
Vapour pressure:			No data available
Vapour density:			No data available
Relative density:			No data available
Density:	1,1	g/cm ³	
Soluble (g/L) in:			No data available
Water solubility (g/L):			No data available
Fat solubility (g/L):			No data available
Partition coefficient: n-octanol/water:			No data available
Ignition temperature:			No data available
Decomposition temperature:			No data available
Viscosity:	0,4 - 1,5	(Pas)	
Oxidizing properties:			No data available

9.2. Other information

none

SECTION 10: Stability and reactivity

10.1. Reactivity

none

10.2. Chemical stability

stable

10.3. Possibility of hazardous reactions

none

10.4. Conditions to avoid

moisture. heat. Keep away from sources of ignition - No smoking.

10.5. Incompatible materials

none

10.6. Hazardous decomposition products

Can be released in case of fire: Carbon dioxide. Carbon monoxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

There are no data available on the mixture itself.

M-factor: - **Acute toxicity (dermal):** -
Acute toxicity (oral): - **Acute toxicity (inhalative):** -

Acute toxicity

Substance:	CAS-No.:	Toxicological information
Esterification products of 4,4'-isopropylidenediphenol, ethoxylated and 2-methylprop-2-enoic acid	41637-38-1	LD50 oral (rat) 2000 mg/kg XXX 2000 mg/kg

Skin corrosion/irritation:

not irritant.

Serious eye damage/irritation:

not irritant.

Respiratory or skin sensitisation:

May cause sensitization in susceptible people.

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Carcinogenicity:

No indications of human carcinogenicity exist.

Germ cell mutagenicity:

No indications of human germ cell mutagenicity exist.

Reproductive toxicity:

No indications of human reproductive toxicity exist.

STOT-single exposure:

No information available.

STOT-repeated exposure:

No information available.

Aspiration hazard:

not irritant.

SECTION 12: Ecological information

12.1. Toxicity

There are no data available on the mixture itself.

Ecotoxicity

Substance:	CAS-No.:	Ecotoxicity
Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	162881-26-7	LC50 (fish, 96 h) 0,09 mg/l LC50 (crustaceans, 48h) 1,175 mg/l EC50 (algae, 96 h) 0,26 mg/l
Esterification products of 4,4'-isopropylidenediphenol, ethoxylated and 2-methylprop-2-enoic acid	41637-38-1	LC50 (fish, 96 h) 100 mg/l LC50 (crustaceans, 48h) 6 mg/l XXX 100 mg/l

12.2. Persistence and degradability

There are no data available on the mixture itself.

12.3. Bioaccumulative potential

There are no data available on the mixture itself.

12.4. Mobility in soil

There are no data available on the mixture itself.

12.5. Results of PBT and vPvB assessment

There are no data available on the mixture itself.

12.6. Other adverse effects

There are no data available on the mixture itself.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Appropriate disposal/Product:

Waste disposal according to EC Directives 75/442/EEC and 91/689/EEC on waste and hazardous waste in their latest versions.

Appropriate disposal / Package

Cleaned containers may be recycled. Handle contaminated packaging in the same way as the substance itself.

List of proposed waste codes / waste designations according to EWC / AVV

According to EAKV, allocation of waste identity numbers/waste descriptions must be carried out in a specific way for every industry and process.

Waste key product: 08 04 09 - waste adhesives and sealants containing organic solvents or other dangerous substances

Waste key packaging: 15 01 10 - packaging containing residues of or contaminated by dangerous substances

SECTION 14: Transport information

14.1. UN number

UN No.: -

14.2. UN proper shipping name

Land transport (ADR/RID)

-

Sea transport (IMDG), Air transport (ICAO-TI / IATA-DGR)

-

14.3. Transport hazard class(es)

Hazard label(s) / Label: -

Classification code: / Classification Code: -

14.4. Packing group

Packing group/ Packing Group: -

14.5. Environmental hazards

ADR/RID / IMDG / ICAO-TI / IATA-DGR:

Yes

No

Marine pollutant:

14.6. Special precautions for user

Land transport (ADR/RID)

transport category: -

tunnel restriction code: -

Special provisions: -

Limited quantity (LQ): -

Sea transport (IMDG)

EmS-No: -

Special provisions: - Limited quantity (LQ): -

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

Remark none

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

EU legislation

Information on Regulation (EC) No 166/2006 establishing a European Pollutant Release and Transfer Register:

-

Regulation (EC) No. 1005/2009 on substances that lead to the depletion of the ozone layer:
none

Regulation (EC) No. 648/2004 (Detergents regulation)
none

Regulation (EC) No 850/2004 [POP-Regulation]:
-

Regulation (EU) No 649/2012 on the export and import of dangerous chemicals:
-

Use restriction according to REACH annex XVII, no.::
-

National regulations

Observe in addition any national regulations!

Restrictions of occupation
none

Other regulations, restrictions and prohibition regulations
none

15.2. Chemical Safety Assessment

For this preparation a chemical safety assessment has been carried out.

For this substance a chemical safety assessment has not been carried out.

SECTION 16: Other information

Relevant H- and EUH-phrases (Number and full text):

Hazard statements

H317 May cause an allergic skin reaction.
H413 May cause long lasting harmful effects to aquatic life.

Training advice

none

Recommended restrictions of use:

refer to chapter 1.

Further remarks:

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.

Documentation of changes:

none

Key literature references and sources for data

Data arise from reference works and literature.

Abbreviations and acronyms

none