

Safety Data Sheet

1. Product and Company Identification

Product name:

imageCure, PRF35-ST

Manufacturer:

Roland DG Corporation

Address:

1-6-4 Shinmiyakoda, Kita-ku, Hamamatsu-shi,
Shizuoka-ken, 431-2103
JAPAN

Phone:

+ 81-53-484-1224

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+ 81-53-484-1226

Distributor:

Roland DGA Corporation

Address:

15363 Barranca Parkway Irvine, CA 92618-2201
U.S.A.

Phone:

949-727-2100

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949 727 2112

Emergency telephone:

949-727-2100

Use of the product:

Stereolithography Resin

Date of issue:

10 May, 2018

2. Hazard Identification

2.1 Emergency Overview:

Appearance and odor:

Clear liquid and characteristic odor

This product is classified as dangerous according to GHS.

Skin corrosion/irritation

Category 2

Eye damage/irritation

Category 2A

Hazardous to the aquatic

Category 3

environment - long-term hazard

GHS label elements, including precautionary statements

Pictogram



Signal word(s)

Warning

Hazard statement(s)

Causes skin irritation.

Causes serious eye irritation.

Harmful to aquatic life with long lasting effects.

Precautionary statement(s)
Prevention

Avoid release to the environment.
 Wear protective gloves/protective clothing/eye protection/face protection.

Response

IF ON SKIN: Wash with plenty of soap and water.
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 If skin irritation occurs / If eye irritation persists: Get medical advice/attention.

Percentage of the mixture consisting of ingredient(s) of unknown acute toxicity: 0 %

2.2. OSHA regulatory status

This product is considered hazardous material by the OSHA Communication Standard (29 CFR 1910.1200)

2.3. Other hazards
Potential Health Effects:
Eyes:

Contact with eye will be irritating.

Skin:

Contact with skin may cause irritation, swelling or redness, allergic sensitization.

Inhalation:

Exposure to vapors (mist) will cause respiratory irritation and anesthesia.

Ingestion:

May cause injury of mouth, throat, and stomach.

Chronic Health Hazards:

Repeated skin contact may cause a persistent irritation or dermatitis.

Carcinogenicity:

None of the ingredients in this resin is listed by IARC as a carcinogen. (1,2A and 2B)

See section 11 for more information.

2.4. Potential environmental effects

See section 12 for Ecological information.

3. Composition/Information on Ingredients

Composition	CAS No.	% By Weight	Classification HCS
Poly(oxy-1,2-ethanediyl), .alpha.-(1-oxo-2-propen-1-yl)-.omega.-phenoxy-	56641-05-5	50-60	Skin Irrit. 2: H315 Eye Irrit. 2: H319
Unsaturated aliphatic urethane triacrylate oligomer	-	35-45	Skin Irrit. 2: H315 Eye Irrit. 2: H319
1-Propanone, 2-methyl-1-[4-(methylthio)phenyl]-2-(4-morpholinyl)-	71868-10-5	<10	Acute Tox. 4: H302

4. First Aid Measures

4.1. First aid procedures

- Eyes: In case of contact, immediately flush eyes with plenty of water for several minutes. Hold eyelids open during flushing. Call a physician.
- Skin: In case of contact, immediately flush with plenty of water while removing contaminated clothing and shoes. Wash contaminated clothing before reuse. If swelling or redness occurs, call a physician.
- Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.
- Ingestion: If swallowed, DO NOT induce vomiting. Seek immediate medical advice.

4.2. Note to physicians

May cause skin and eye irritation. Excessive inhalation of mist will cause respiratory irritation.

5. Fire Fighting Measures

5.1. Flammable properties:

Flash Point: > 199 °F

5.2. Extinguishing media

Suitable extinguishing media:

Dry chemical, Foam, Carbon dioxide, Dry sand, Loaded stream in spray.

Unsuitable extinguishing media:

Water, High-pressure water jet

5.3. Protection of fire fighters

Special hazards arising from the substance or mixture

Hazardous decomposition products: Carbon monoxide, carbon dioxide, oxides of nitrogen, toxic gases/vapors.

Flash Point: > 199 °F

Protective equipment and precautions for firefighters

Wear special chemical protective clothing and positive pressure self-contained breathing apparatus(SCBA).

Approach fire from upwind to avoid hazardous vapors and toxic decomposition products. Decontaminate or discard any clothing that may contain chemical residues. Applying direct water may be dangerous because fire may expand to surroundings.

6. Accidental Release Measures

6.1. Personal precautions

Evacuate personnel, thoroughly ventilate area, use self-contained breathing apparatus and wear appropriate personal protective equipment.

6.2. Environmental precautions

Wipe off spillage. Prevent liquid from entering sewers, waterways or low areas.

6.3. Methods for containment

Dike spilled product.

6.4. Methods for Clean-up

Sweep up material and dispose as waste following local regulations.

6.5. Other information

No information

6.6. Spill or leak statements by type of chemical

Eliminate all ignition sources. Use appropriate personal protective equipment (PPE). Absorb and/or contain spill with inert sand, then place in suitable container. For large spills; use water spray to disperse vapors and dilute spill to a nonflammable mixture. Do not flush to sewer. Prevent run-off from entering drains, sewers or waterways.

7. Handling And Storage

7.1. Handling

Avoid contact with eyes, skin and clothing. Use proper ventilation and no fire in work place. Put protection wear that has electrical conductivity in case of work. Keep out of reach of children and do not drink.

7.2. Storage

Keep containers tightly closed. Do not store the product in high or freezing temperatures. Keep the product out of direct sunlight. Do not store the product with metals, amines, free radical initiators, oxidising agents.

8. Exposure Controls/Personal Protection

8.1. Exposure Guidelines

Occupational Exposure Limits: Not specified.

8.2 Exposure controls:

Provide general and/or local exhaust ventilation.

8.3. Personal protective equipment (PPE)

Eye/face protection: When handling the resin, wear safety glasses or chemical splash goggles.

Skin protection: When handling the resin, wear protective clothing.

Hand protection: When handling the resin or washing the multiple job, use protective gloves. Recommended Chemical Protective Gloves are ethylene vinyl alcohol (EVA) Gloves and Laminate gloves. Laminate gloves are made by cutting and then heat-sealing patterns of various hand sizes from laminated sheets of EVA sealed between layers of polyethylene.

Respiratory protection: In case ventilation is insufficient, employee must use NIOSH approved air purifying respiratory protection equipment. Use a half facepiece respirator (with goggles) or full face-piece respirator (without goggles) filtered with organic vapor cartridge. For emergency and other conditions where the exposure guideline may be exceeded, use an approved positive-pressure self-contained breathing apparatus or positive-pressure airline with auxiliary self contained air supply. **WARNING:** Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.

General hygiene measures: Wash hands after handling. In case contact with clothing, wash before reuse. Do not eat, drink or smoke in handling or storage area.

9. Physical and Chemical Properties

appearance:	Clear Liquid
odor:	Characteristic odor
odor threshold:	No data available
pH:	Not applicable
melting/freezing point:	No data available
initial boiling point and boiling range:	No data available
flash point:	> 199 °F or higher
evaporation rate:	No data available
flammability:	No data available
vapor pressure:	No data available
vapor density:	No data available
specific gravity or relative density:	No data available
solubility in water:	Insoluble
partition coefficient: n-octanol/water:	No data available
auto-ignition temperature:	No data available
decomposition temperature:	No data available
volatile organic compounds (VOC) content:	No data available

10. Stability and Reactivity

- 10.1. Reactivity: No reactivity under normal temperature
- 10.2. Possibility of hazardous reactions: Not expected
- 10.3. Chemical stability: Stable under normal temperature.
- 10.4. Conditions to avoid: Elevated temperatures/heat, UV light, when not in use.
- 10.5. Incompatible materials: Avoid contact with acids, amines, free radical initiators, oxidizing agents.
- 10.6. Hazardous decomposition products: Carbon monoxide, carbon dioxide, oxides of nitrogen, toxic gases/vapors.

11. Toxicological Information

Acute toxicity:

1-Propanone, 2-methyl-1-[4-(methylthio)phenyl]-2-(4-morpholinyl)-
LD50 (Oral-rat) 1984 mg/kg

Serious eye damage/eye irritation: No data available
Causes serious eye irritation.(Poly(oxy-1,2-ethanediyl), .alpha.-(1-oxo-2-propen-1-yl)-.omega.-phenoxy-, Unsaturated aliphatic urethane triacrylate oligomer)

Skin corrosion/irritation: No data available
Causes skin irritation.(Poly(oxy-1,2-ethanediyl), .alpha.-(1-oxo-2-propen-1-yl)-.omega.-phenoxy-, Unsaturated aliphatic urethane triacrylate oligomer)

Respiratory or skin sensitisation: No data available

Germ cell mutagenicity: No data available

Reproductive toxicity: No data available

Carcinogenicity: None of the ingredients in this product is listed by IARC as a carcinogen. (1,2A and 2B)

STOT-single exposure: No data available

STOT-repeated exposure: No data available

Aspiration hazard: No data available

12. Ecological Information

Ecotoxicity:

The followings are according to the data on Bisphenol A, ethoxylated, dimethacrylate.

May cause long lasting harmful effects to aquatic life.

Persistence/Degradability: No data available

Bioaccumulation/Accumulation: No data available

Mobility in environment media: No data available

Other adverse effects: No data available

13. Disposal Considerations

Treatment, storage, transportation, and disposal must be in accordance with applicable Federal, State/Provincial and Local regulations. Do not flush to surface water or sanitary sewer system.

14. Transport Information

- 14.1. UN Class/UN Number:
ADR/ADG/DOT, IMDG, or IATA : Not regulated
- 14.2. UN proper shipping name:
ADR/ADG/DOT, IMDG, or IATA : Not regulated
- 14.3. Transport hazard class(es):
ADR/ADG/DOT, IMDG, or IATA : Not regulated
- 14.4. Packing group:
ADR/ADG/DOT, IMDG, or IATA : Not regulated
- 14.5. Environmental hazards:
ADR/ADG/DOT, IMDG, or IATA : Not regulated
- 14.6. Special precautions for user: Transport and storage of the product in accordance with general precautions and instructions mentioned in this SDS.
- 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and IBC code: Not regulated

15. Regulatory Information

US information:

Toxic Substances Control Act (TSCA):

All components of this product are listed on the TSCA Inventory.
This product contains an ingredient that is regulated under the TSCA Significant New Use Rule (SNUR) prescribed 40 CFR 721.9664.
This product is subject to TSCA export notification requirements prescribed 40 CFR 707.60.

SARA Title III:

Section 313:

Poly(oxy-1,2-ethanediyl), .alpha.-(1-oxo-2-propen-1-yl)-.omega.-phenoxy- (Chemical Category N230)

California; Proposition 65: Not regulated

16. Other Information

NFPA 704: Hazard Rating System

Health - 1 , Flammable - 1 , Reactivity - 1

0 = minimal hazard, 1 = slight hazard, 2 = moderate hazard, 3 = severe hazard, 4 = extreme hazard

The information in this Safety Data Sheet (SDS) is believed to be correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. It is subject to revision as additional knowledge and experience is gained. Roland DG does not warrant the completeness or accuracy of the information contained herein.