Safety Data Sheet

In compliance with OSHA Hazard Communication Standard (29 CFR 1910.1200)

SECTION 1: IDENTIFICATION

SDS Number: 524, version 8/7/2018

(a) Product identifier

Gans Item ID: UV14447, UV14448, UV14449, UV14450

Gans Description: Smartcure G52 Lam

(b) Other means of identification

General description: Lithographic printing ink, UV cure

(c) Recommended use

Product Use: Industrial use only

Restrictions on use: Not for residential use.

(d) Supplier's details

Manufacturer: Gans Ink and Supply Co, Inc.
Address: 1441 Boyd Street
Los Angeles, CA 90033
Contact Person: Marco Ramos
Telephone: 323- 264-2200 x139
Email: MSDS@gansink.com

(e) Emergency telephone numbers:

Chemical spill or physical hazard: Contact the Local Emergency Response Agency 9-1-1, or the Local Fire Department

Ingestion or health hazard: Contact the National Capital Poison Center, Poison Control: 800 222-1222; Poison.org

SECTION 2: HAZARD(S) IDENTIFICATION

(a) Classification

This mixture is hazardous according to OSHA Hazard Communication Standard (29 CFR 1910.1200).

Physical hazards: Not classified as hazardous

Health hazards:

- Eye Damage/Irritation – Category 1
- Sensitization, Skin – Category 1A
- Toxic to Reproduction – Category 1B

(b) Label elements

Signal Word: Danger

Hazard Statements: Causes serious eye damage; May cause an allergic skin reaction; May damage fertility or the unborn child

Precautionary Statements:
Prevention: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.
Wear protective gloves/protective clothing/eye protection/face protection.

Avoid breathing fume/mist/ vapors/spray. Contaminated work clothing must not be allowed out of the workplace.

Response:
If exposed or concerned: Get medical advice/attention.
IF ON SKIN OR HAIR: Wash with plenty of water and mild soap. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing 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.

Storage: Store locked up.

Disposal: Dispose of contents/container to disposal recycling center. Waste management should be in full compliance with federal, state and local laws.

Hazard Pictograms:

(c) Hazards not otherwise classified
None known

(d) Ingredients of unknown acute toxicity
None known

SECTION 3: COMPOSITION/ INFORMATION ON INGREDIENTS

Substance / Mixture: Mixture
TS = Trade Secret (as specified by substance manufacturer)

Substance	CAS # (TS = trade secret)	Conc. min. (wt. %)	Conc. max. (wt. %)
2-(2-hydroxyethoxy)ethan-1-ol 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethylcyclohexane oxepan-2-one 2-hydroxyethyl prop-2-enoate	72162-39-1	18.3%	36.5%
Glycerol, propoxylated, esters with acrylic acid	52408-84-1	0.0%	31.0%
Esterfification product of poly[oxy(methyl-1,2-ethanediyl)], .alpha.,.alpha.'-(2,2-dimethyl-1,3-propanediyl)bis[.omega.-hydroxy- and prop-2-enoic acid	84170-74-1	2.3%	9.0%
Monomer	TS	5.4%	8.3%
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, esters with acrylic acid	55818-57-0	0.0%	6.7%

Substance	CAS # (TS = trade secret)	Conc. min. (wt. %)	Conc. max. (wt. %)
Gans photoinitiator UVP-2002	TS	2.3%	4.7%
Polyester acrylate	TS	2.7%	4.2%
Polyester acrylate Gans UVO-1077	TS	0.0%	3.5%
2-[[2,2-bis[[(1-oxoallyl)oxy]methyl]butoxy]methyl]-2-ethyl-1,3-propanediyl diacrylate	94108-97-1	0.0%	3.5%
Rosin	8050-09-7	0.9%	2.7%
Epoxy acrylate oligomer	TS	0.0%	0.8%
2-ethylhexanoic acid	149-57-5	0.4%	0.6%
2-hydroxyethyl acrylate	818-61-1	0.2%	0.4%
Tris(N-hydroxy-N-nitrosophenylaminato-O,O')aluminium	15305-07-4	0.0%	0.1%
Hexamethylene diacrylate	13048-33-4	0.0%	0.1%

SECTION 4: FIRST AID MEASURES

(a) Description of first aid measures:
Ingestion: If swallowed, call a physician immediately. Only induce vomiting at the instruction of a physician.
Inhalation: If breathing is difficult, remove person to fresh air and keep at rest in a position comfortable for breathing.
Skin contact: Wash with plenty of water and mild soap. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.
Eye contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor.

(b) Most important symptoms and effects, both acute and delayed:
Ingestion: May damage fertility or the unborn child
Inhalation: Data not available. Not classified as hazardous
Skin contact: May cause an allergic skin reaction;
Eye contact: Causes serious eye damage;

(c) Indication of any immediate medical attention and special treatment needed:
Symptoms such as burning, pain, or irritation to eyes, or skin may indicate exposure and the need for first aid.

SECTION 5: FIRE – FIGHTING MEASURES

(a) Extinguishing Media:
Suitable extinguishing media: Use CO2, dry chemical, fire-fighting foam, or water fog extinguishing media
Unsuitable extinguishing media: Do not use water stream. Water stream or spray is OK to cool unopened containers only.

(b) Special hazards arising from the substance or mixture: Thermal decomposition or combustion products may include COx, and NOx. High pressure my build up in heated containers.

(c) Special protective equipment and precautions for fire-fighters: Wear NIOSH approved self-contained respiratory protective device, and fully protective fire-fighting suit.

SECTION 6: ACCIDENTAL RELEASE MEASURES

(a.i) Personal precautions:
Ensure adequate ventilation. Use personal protective equipment. Avoid breathing vapor. Avoid contact with skin, eye or clothing.

(a.ii) Protective equipment: See Section 8

(a.iii) Emergency procedures: If dangerous conditions exist, contact emergency response personnel, follow emergency procedures, and contact emergency response authorities. Follow your company's emergency response procedures. Clean all spills.

(b) Methods for containment and cleaning up:
If it is safe to do so, adjust leaking containers to reduce or eliminate the continued release. Wear all Personal Protection listed in Section 8 before directly contacting spilled material. For high viscosity materials, scoop or shovel material into appropriate container for reuse, recycling, or disposal. For low viscosity materials, first surround and then cover spilled material with inert absorbent (vermiculite, or similar). Then scoop or shovel material into appropriate container for reuse, recycling, or disposal.

Residual material can be cleaned with UV blanket wash, acetone, or other press solvent. Consult your company's spill procedure for details of regulatory restrictions and recommendations. Do not allow spilled materials, or clean up materials to enter storm drains or natural water ways.

SECTION 7: HANDLING AND STORAGE

(a) Precautions for safe handling:
Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.
Wear protective gloves, protective clothing, eye protection, face protection.

(b) Conditions for safe storage:
Store locked up. Store in original container and keep containers covered and sealed. Store in a cool, dry, well-ventilated place, away from direct sun light and sources of heat. Appropriate storage temperature is approximately 7° - 35° C (45° - 95° F).

Incompatibilities: Avoid contact with heat, sources of ignition, sunlight, and strong oxidizers.

SECTION 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

(a) Permissible exposure limits		OSHA PEL		Cal/OSHA PEL	NIOSH REL	ACGIH 2015 TVL
Substance	CAS #	ppm	mg/m^3	8-hour TWA (ST) STEL (C) Ceiling	Up to 10-hour TWA (ST) STEL (C) Ceiling	8-hour TWA (ST) STEL (C) Ceiling
No data available						

No hazardous ingredients in this mixture appear on OSHA Annotated Tables Z-1, Z-2, or Z-3.

(b) Appropriate engineering controls:
Ventilation requirements: Adequate ventilation in accordance with good engineering practice must be provided.

General protective measures: Ensure that eye flushing /eye wash stations, and hand washing areas are accessible.

(c) Personal protective equipment:

Inhalation: Avoid breathing mist/ vapors/spray. Where mist or aerosol is present, an organic vapor respirator is recommended.

Skin Contact: Wear protective gloves/protective clothing. Contaminated work clothing must not be allowed out of the workplace. Neoprene or nitrile gloves are recommended. PVC gloves are not compatible. Always wear long sleeves and where exposure potential is high, a neoprene or other chemical resistant apron is recommended.

Eye Contact: Wear eye protection, and face protection. Eye and face protective devices must comply with ANSI Z87.1-1989. Recommended eye protection: full face shield.

Ingestion: Avoid eating, drinking, or smoking in work area and wash hands after handling this product.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

(a) Appearance (physical state, color): Viscous paste or liquid, various colors
(b) Odor: Ester-like
(c) Odor threshold: Data not available
(d) pH: Data not available
(e) Melting point/ freezing point; Data not available
(f) Initial Boiling point / Range: Data not available
(g) Flashpoint: > 212 °F (> 100 °C)
(h) Evaporation Rate: Data not available
(i) Flammability (solid/ gas): Not classified as flammable/ Not classified as flammable
(j) Upper/ lower flammability explosion limits: Data not available
(k) Vapor Pressure (mm Hg @ 68°F): Data not available
(l) Vapor Density (Air = 1): Data not available
(m) Relative Density (H_2O = 1): 1.24
(n) Solubility: insoluble in water
(o) Partition coefficient n- Octanol/ Water: Data not available
(p) Auto-ignition temperature: Data not available
(q) Decomposition temperature: Data not available
(r) Viscosity: Data not available

Other properties

VOC % (wt): ≤ 1.0
VOC (lbs./gal): ≤ 0.11

SECTION 10: STABILITY AND REACTIVITY INFORMATION

a) Reactivity: Not reactive under normal storage conditions. See Section 7. Mixture will undergo polymerization reaction in the presence of sunlight, bright industrial lights, or high temperatures.
(b) Chemical stability: Mixture is chemically stable under normal storage and handling conditions, and under normal temperatures and pressures.
(c) Possibility of hazardous reactions: Exposure to excess heat may cause exothermic polymerization reaction.
(d) Conditions to avoid: Avoid contact with heat (temperature > 100° F, 38° C), sources of ignition, sunlight, and strong oxidizers.
(e) Incompatible materials: Radical forming initiators, peroxides or other strong oxidizers, strong alkalies or reactive metals.
(f) Hazardous decomposition product: No data available.

SECTION 11: TOXICOLOGICAL INFORMATION

(a) Likely routes of exposure: Skin contact, eye contact, inhalation, and ingestion.

(b) Symptoms related to physical, chemical, and toxicological characteristics:

Skin contact: May cause an allergic skin reaction.
Eye contact: Causes serious eye damage.
Inhalation: Data not available. Not classified as hazardous
Ingestion: May damage fertility or the unborn child

(c) Delayed and immediate effects, and chronic effects from long-term exposure

Causes serious eye damage; May cause an allergic skin reaction; May damage fertility or the unborn child

(d) Numerical measures of toxicity, acute:

Substance	CAS # (TS= trade secret)	Oral	Inhalation	Dermal
2-(2-hydroxyethoxy) …	72162-39-1	Data not available	Data not available	Data not available
Glycerol, propoxylated, …	52408-84-1	LD50 2000 mg/kg bw (rat)	Data not available	LD50 2000 mg/kg bw (rabbit)
Esterfification product …	84170-74-1	LD50 5000 mg/kg bw (rat)	LC50 (4 h) 2 mg/L air (rat)	Data not available
Monomer	TS	Data not available	Data not available	Data not available
4,4'-Isopropylidenediphenol, …	55818-57-0	LD0 2000 mg/kg bw (rat)	Data not available	LD0 2000 mg/kg bw (rat)
Gans photoinitiator UVP-2002	TS	LD50 1340 - 2756 mg/kg bw (rat)	Data not available	LD50 2000 mg/kg bw (rat)
Polyester acrylate	TS	Data not available	Data not available	Data not available
Polyester acrylate Gans UVO-1077	TS	Data not available	Data not available	Data not available
2-[[2,2-bis[[(1-oxoallyl)oxy]methyl]butoxy]…	94108-97-1	LD50 5000 mg/kg bw (rat)	Data not available	Data not available
Rosin	8050-09-7	LD50 1000 - 5000 mg/kg bw (rat)	Data not available	LD50 2000 mg/kg bw (rat)
Epoxy acrylate oligomer	TS	Data not available	Data not available	Data not available
2-ethylhexanoic acid	149-57-5	LD50 2043 mg/kg bw (rat)	LC0 (8 h) 110 mg/m³ air (rat)	LD50 2000 mg/kg bw (rat)
2-hydroxyethyl acrylate	818-61-1	LD50 540 mg/kg bw (rat)	Data not available	LD50 1000 mg/kg bw (rat)
Tris(N-hydroxy-…	15305-07-4	LD50 cut-off 500 mg/kg bw (rat)	Data not available	Data not available
Hexamethylene diacrylate	13048-33-4	LD50 5000 mg/kg bw (rat)	LC0 (7 h) 410 mg/m³ air (rat)	LD50 3650 mg/kg bw (rabbit)

(e) Carcinogens information:

IARC; Group 1 (Carcinogenic to humans), Group 2A (Probably carcinogenic to humans), or Group 2B (Possibly carcinogenic to humans) by IARC: This mixture does not contain listed materials.
NTP; 13th Report on Carcinogens: This mixture does not contain listed materials.
OSHA: This mixture does not contain listed materials.

SECTION 12: ECOLOGICAL INFORMATION

(a) Ecotoxicity

Classification of mixture: Not classified as hazardous
(b) Persistence and degradability: No data available
(c) Bioaccumulative potential: No data available.
(d) Mobility in soil: No data available
(e) Other adverse effects: No known adverse effects

SECTION 13: DISPOSAL CONSIDERATIONS

Dispose of contents/container in accordance with local/regional/national regulations. The hazard and precautionary statements displayed on the label also apply to any residues left in the container.

SECTION 14: TRANSPORT INFORMATION

US DOT (Ground): Not regulated as a dangerous good
(a) UN number: Not regulated as a dangerous good
(b) UN Proper Shipping Name: Not regulated as a dangerous good
(c) Transport hazard class: Not regulated as a dangerous good
(d) Packing Group: Not regulated as a dangerous good
(e) Environmental hazards: Not regulated as a dangerous good
(f) Transport in bulk

MARPOL 73/78: Not regulated as a dangerous good
IBC: Not regulated as a dangerous good.

(g) Special Precautions: None known

SECTION 15: REGULATORY INFORMATION

U.S. Federal Regulations

TSCA Section 8(b) Inventory Status: All ingredients in this mixture are listed on the TSCA Chemical Inventory, or are not required to be listed.

EPCRA, Section 302 – Extremely hazardous substances: This mixture does not contain listed materials.
CERCLA Hazardous Substances: This mixture does not contain listed materials.
EPCRA Section 313 Toxic Chemicals: This mixture does not contain listed materials.
CAA 112(r) Regulated Chemicals for Accidental Release Prevention: This mixture does not contain listed materials.
Hazardous Air Pollutants (HAP): This mixture does not contain listed materials.

U.S. State Regulations

California Proposition 65: This mixture does not contain listed materials.

New Jersey Right to Know

- 2-ethylhexanoic acid CAS 149-57-5
- 2-hydroxyethyl acrylate CAS 818-61-1

Oregon DEQ List of Air Toxic Contaminants: This mixture does not contain listed materials.

Pennsylvania Right to Know

- 2-hydroxyethyl acrylate CAS 818-61-1

Canadian Environmental Protection Act:

WHMIS Classification: No data available

European Chemical Agency (ECHA)

Candidate List of Substances of Very High Concern (SoVHC): This mixture does not contain listed materials.

SECTION 16: OTHER INFORMATION

The information herein is presented in good faith, based on the data available to us and is believed to be correct as of the date hereof. However, Gans Ink and Supply Co., Inc. makes no warranty, expressed or implied regarding the accuracy of this data or the results to be obtained from the use thereof. Gans Ink and Supply Co., Inc. assumes no responsibility for any damages of any nature directly or indirectly resulting from the use of or reliance upon the information contained herein. Users must make their own determination as to the suitability of the product for their purpose prior to use. In accordance with good practices of personal cleanliness and hygiene, handle with due care and avoid unnecessary contact with this product.