

SAFETY DATA SHEET

1. IDENTIFICATION

Product Name:	DPGDA
Synonyms:	None
Product Description:	dipropyleneglycol diacrylate
Molecular Formula:	Not available
Molecular Weight:	Not available
Intended/Recommended Use:	Radiation curable coating ingredient, Coatings & Inks, Recommended for Industrial and/or Professional use only
Uses advised against:	None

Allnex USA Inc., 9005 Westside Parkway, Alpharetta, Georgia 30009, USA

For Product and all Non-Emergency Information call your local Allnex contact point or contact us at <http://www.allnex.com/contact>

EMERGENCY PHONE (24 hours/day) - For emergency only involving spill, leak, fire, exposure or accident call:

+1-866-928-0789 (toll free) or +1-215-207-0061 (Carechem 24 - Allnex29003-NCEC)

See Section 16 for Emergency phone numbers for other regions.

2. HAZARDS IDENTIFICATION

GHS Classification

Skin Corrosion / Irritation Hazard Category 2

Serious Eye Damage / Eye Irritation Hazard Category 1

Skin Sensitizer Hazard Category 1B

Aquatic Environment Acute Hazard Category 2

LABEL ELEMENTS



Signal Word

DANGER

Hazard Statements

Causes skin irritation

Causes serious eye damage

May cause an allergic skin reaction

Toxic to aquatic life

Precautionary Statements

Wash face, hands and any exposed skin thoroughly after handling.

Wear protective gloves/protective clothing/eye protection/face protection.

Avoid breathing dust/fume/gas/mist/vapours/spray.

Contaminated work clothing should not be allowed out of the workplace.

Avoid release to the environment.

IF ON SKIN: Wash with plenty of soap and water.

Specific treatment (see supplemental first aid instructions on this label).

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 or doctor/physician.

Dispose of contents/container in accordance with local and national regulations.

Hazards Not Otherwise Classified (HNOC), Other Hazards

Polymerization may occur from excessive heat, contamination or exposure to direct sunlight.

3. COMPOSITION/INFORMATION ON INGREDIENTS

HAZARDOUS INGREDIENTS

Component / CAS No.	%	GHS Classification
oxybis(methyl-2,1-ethanediyl) diacrylate 57472-68-1	> 99	Skin Irrit. 2 (H315) Eye Dam. 1 (H318) Skin Sens. 1 (H317) Aquatic Acute 2 (H401)

The specific chemical identity and/or exact percentage of composition for one or more ingredients has been withheld as a trade secret.

Additional GHS classification or other information may be included in this section but has not been adopted by OSHA. See Section 16 for full text of H phrases.

4. FIRST AID MEASURES

First-aid Measures

Inhalation:

Remove to fresh air. If breathing is difficult, give oxygen. Obtain medical advice if there are persistent symptoms.

Remove to fresh air. Get medical attention immediately if symptoms occur.

Skin Contact:

Wash immediately with plenty of water and soap. Remove contaminated clothing and shoes without delay. Obtain medical attention. Do not reuse contaminated clothing without laundering. Destroy or thoroughly clean shoes before reuse. Wash immediately with plenty of water and soap. May cause an allergic skin reaction. Wash off immediately with soap and plenty of water for at least 15 minutes. In the case of skin irritation or allergic reactions see a physician. Get medical attention if irritation develops and persists.

Eye Contact:

Rinse immediately with plenty of water for at least 15 minutes. Obtain medical attention immediately. Get immediate medical advice/attention. Remove contact lenses, if present and easy to do. Continue rinsing. Do not rub affected area. Get medical attention if irritation develops and persists. Keep eye wide open while rinsing. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

Ingestion:

If swallowed, call a physician immediately. Only induce vomiting at the instruction of a physician. Never give anything by mouth to an unconscious person. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Clean mouth with water and drink afterwards plenty of water. Call a physician.

Most Important Symptoms and Effects, Acute and Delayed

Itching. Burning sensation. Rashes. Hives.

Immediate Medical Attention and Special Treatment

In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.

Notes To Physician:

Treat symptomatically. May cause sensitization in susceptible persons.

5. FIRE-FIGHTING MEASURES**Suitable Extinguishing Media:**

Use water spray or fog, carbon dioxide or dry chemical. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media:

full water jet, high pressure water jet.

Protective Equipment:

Firefighters, and others exposed, wear self-contained breathing apparatus. Wear full firefighting protective clothing. See SDS Section 8 (Exposure Controls/Personal Protection). Wear self-contained breathing apparatus and protective suit. Use personal protective equipment as required.

Special Hazards:

Keep containers cool by spraying with water if exposed to fire. May cause sensitization by skin contact. Product is or contains a sensitizer.

6. ACCIDENTAL RELEASE MEASURES**Personal precautions:**

Where exposure level is not known, wear approved, positive pressure, self-contained respirator. Where exposure level is known, wear approved respirator suitable for level of exposure. In addition to the protective clothing/equipment in Section 8 (Exposure Controls/Personal Protection), wear impermeable boots. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Use personal protective equipment as required.

Methods For Containment:

Prevent further leakage or spillage if safe to do so.

Methods For Cleaning Up:

Cover spills with some inert absorbent material; sweep up and place in a waste disposal container. Flush spill area with water. Take up mechanically, placing in appropriate containers for disposal.

Environmental Precautions:

Prevent further leakage or spillage if safe to do so. Avoid release to the environment.

References to other sections:

See Sections 7, 8 and 13 for additional information.

7. HANDLING AND STORAGE**HANDLING**

Precautions: Wash hands thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wear protective gloves and eye/face protection.

Special Handling Statements: Provide good ventilation of working area (local exhaust ventilation if necessary). Avoid excessive heat, contamination or exposure to direct sunlight to prevent polymerization. Handle in accordance with good industrial hygiene and safety practices. Avoid contact with skin, eyes or clothing. Take off contaminated clothing and wash it before reuse. In case of insufficient ventilation, wear suitable respiratory

equipment. Ensure adequate ventilation. Do not eat, drink or smoke when using this product.

STORAGE

Store under air. The stabilizer is only effective in the presence of oxygen. Keep container in a cool, well-ventilated area. Keep away from heat sources and direct sunlight. Keep container tightly closed and dry in a cool, well-ventilated place. Store locked up. Keep out of reach of children.

Storage Temperature: Store at 4 - 40 °C

Reason: Safety.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Measures:

Utilize a closed system process where feasible. Where this material is not used in a closed system, good enclosure and local exhaust ventilation should be provided to control exposure when spraying or curing at elevated temperatures. Ensure adequate ventilation, especially in confined areas.

Respiratory Protection:

For operations where inhalation exposure can occur use an approved respirator. Recommendations are listed below. Other protective respiratory equipment may be used based on user's own risk assessment. Where exposures are below the established exposure limit, no respiratory protection is required. Where exposures exceed the established exposure limit, use respiratory protection recommended for the material and level of exposure. Recommended respirators include those certified by NIOSH.

Recommended:

Full Face Mask with organic vapor cartridge, Type A filter (BP >65°C)

Eye Protection:

Prevent eye and skin contact. Provide eye wash fountain and safety shower in close proximity to points of potential exposure. Wear eye/face protection such as chemical splash proof goggles or face shield. Tight sealing safety goggles.

Skin Protection:

Prevent contamination of skin or clothing when removing protective equipment. Barrier creams may be used in conjunction with the gloves to provide additional skin protection. Wear impermeable gloves and suitable protective clothing. Wear suitable protective clothing.

Hand Protection:

Wear protective gloves. Recommendations are listed below. Other protective materials may be used based on user's own risk assessment. Barrier creams may help to protect the exposed areas of the skin, they should however not be applied once exposure has occurred. Replace gloves immediately when torn or any change in appearance (dimension, color, flexibility etc.) is noticed.

Gloves for short term exposure/splash protection - non exhaustive list:

Laminated multilayer gloves, break through time: > 60 min

Nitrile rubber (NBR), thickness: > 0.56 mm, break through time: < 60 min

The chemical resistance depends on the type of product and amount of product on the glove. Therefore gloves need to be changed when in contact with chemicals.

Not suitable gloves - non exhaustive list:

Latex gloves

Due to many conditions (e.g. temperature, abrasion) the practical usage of a chemical protective glove in practice may be much shorter than the permeation time determined through testing. Use PE gloves as under gloves for difficult situations like for instance: high exposure, unknown composition or unknown properties of the chemicals.

Additional Advice:

Food, beverages, and tobacco products should not be carried, stored, or consumed where this material is in use. Before eating, drinking, or smoking, wash face and hands thoroughly with soap and water. Avoid contact with skin,

eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product.

Exposure Limit(s)

No values have been established.

Biological Exposure Limit(s)

No values have been established.

9. PHYSICAL AND CHEMICAL PROPERTIES

Color:	clear pale yellow
Appearance:	liquid clear clear liquid
Odor:	ester-like characteristic
Boiling Point:	> 200 °C 493.3 °F
Melting Point:	< 0 °C -29.7 °F
Vapor Pressure:	< 0.00085 hPa @ 20 °C hPa, 20°C
Specific Gravity/Density:	1.06 g/cm ³
Vapor Density:	1.0 Not available
Percent Volatile (% by wt.):	< 0.5 %
pH:	6.8 - 7.2
Saturation In Air (% By Vol.):	Not available
Evaporation Rate:	Not available
Solubility In Water:	> 3 - <4 g/L @ room temperature Insoluble
Volatile Organic Content:	Not available
Flash Point:	> 110 °C 295 °F Cleveland Open Cup
Flammable Limits (% By Vol):	Not applicable
Autoignition Temperature:	240 °C 464 °F
Decomposition Temperature:	Not available
Partition coefficient (n-octanol/water):	2.28 @ 30 °C Method EC A8, HPLC
Odor Threshold:	Not available
Viscosity (Kinematic):	Not available
Viscosity (Dynamic):	7 - 13 mPa.s @ 25 °C Non viscous liquid
Flammability:	Normal combustion
Oxidizing Properties:	Not available

10. STABILITY AND REACTIVITY

Reactivity: No information available

Stability: Stable.

Conditions To Avoid: The explosive and oxidizing properties of this product have been predicted negative based on chemical structure, following the guidance outlined in Method A14 (Explosive Properties) and Method A21 (Oxidative Properties (liquids)) of Commission Regulation (EC) No 440/2008. Protect from heat and direct sunlight. Avoid friction with temperature increase as result. Avoid exposure to strong UV sources. Avoid direct contact with heat sources. Avoid temperature higher than 40°C. Protect from direct sunlight.

Polymerization: May occur

Conditions To Avoid: Material should not be heated above 100°C due to polymerization.

Materials To Avoid:	Strong oxidizing agents. Strong acids Strong bases Avoid free radical producing initiators. Avoid contact with peroxides. Avoid contact with reactive metals. Avoid contact with strong alkali's. Unintentional contact with them should be avoided. They give an exothermic reaction with the product.
Hazardous Decomposition Products:	Hazardous polymerization can occur when exposed to direct sunlight. None known Carbon dioxide Carbon monoxide (CO) hydrocarbons Toxic gases/vapours

11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure: Skin, Eyes, Oral.

Acute toxicity - oral: Not Classified - Based on available data and/or professional judgment, the classification criteria are not met.

Acute toxicity - dermal: Not Classified - Based on available data and/or professional judgment, the classification criteria are not met.

Acute toxicity - inhalation: Not Classified - Based on available data and/or professional judgment, the classification criteria are not met.

Skin corrosion / irritation: Causes skin irritation

Serious eye damage / eye irritation: Causes serious eye damage

Respiratory sensitization: Not Classified - Based on available data and/or professional judgment, the classification criteria are not met.

Skin sensitization: May cause an allergic skin reaction

Carcinogenicity: Not Classified - Based on available data and/or professional judgment, the classification criteria are not met.

Germ cell mutagenicity: Not Classified - Based on available data and/or professional judgment, the classification criteria are not met.

Reproductive toxicity: Not Classified - Based on available data and/or professional judgment, the classification criteria are not met.

Specific target organ toxicity (STOT) - single exposure: Not Classified. - Based on available data and/or professional judgment, the classification criteria are not met.

Specific target organ toxicity (STOT) - repeated exposure: Not Classified. - Based on available data and/or professional judgment, the classification criteria are not met.

Aspiration hazard: Not Classified - Based on available data and/or professional judgment, the classification criteria are not met.

PRODUCT TOXICITY INFORMATION

ACUTE TOXICITY DATA

oral	rat	Acute LD50	3530 mg/kg Actual
dermal	rabbit	Acute LD50	> 2000 mg/kg Actual
Inhalation	rat	Acute LC50 4 hr	No data

LOCAL EFFECTS ON SKIN AND EYE

Acute Irritation	dermal	Irritating
Acute Irritation	eye	Causes serious damage

ALLERGIC SENSITIZATION

Sensitization	Skin	Sensitizing
Sensitization	respiratory	No data

GENOTOXICITY**Assays for Gene Mutations**

Ames Salmonella Assay	No data
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OTHER INFORMATION

The toxicity data above are the results from Allnex sponsored studies or from the available public literature. Prolonged or repeated contact with skin or mucous membrane may result in irritation symptoms such as redness, blistering, dermatitis, etc.

The inhalation of airborne droplets or aerosols may cause irritation of the respiratory tract.

HAZARDOUS INGREDIENT TOXICITY DATA

Oxybis(methyl-2,1-ethanediyl) diacrylate has acute oral (rat) and dermal (rabbit) LD50 values of 3530 mg/kg and >2,000 mg/kg, respectively. Direct contact with this material may cause moderate skin irritation and severe eye irritation/eye burns. Repeated or prolonged skin contact may cause skin sensitization.



WARNING: Reproductive Harm – www.P65Warnings.ca.gov

12. ECOLOGICAL INFORMATION**TOXICITY, PERSISTENCE AND DEGRADABILITY, BIOACCUMULATIVE POTENTIAL, MOBILITY IN SOIL, OTHER ADVERSE EFFECTS**

Overall Environmental Toxicity: Toxic to aquatic life.

This material is readily biodegradable.

The ecological assessment for this material is based on an evaluation of its components. Material is not expected to significantly bioaccumulate based on Log Kow value of <3.

ECOTOXICITY**ALGAE TEST RESULTS**

Test: Growth Inhibition (OECD 201)

Duration: 72 hr

Species: Algae

10 - 100 mg/l EC50

FISH TEST RESULTS

Test: Acute toxicity, freshwater (OECD 203)

Duration: 96 hr. **Procedure:** Static.

1 - 10 mg/l LC50

INVERTEBRATE TEST RESULTS

Test: Acute Immobilization (OECD 202)

Duration: 48 hr **Procedure:** Static
Species: Water Flea (Daphnia magna)
 10 - 100 mg/l EC50

PERSISTENCE AND DEGRADABILITY

Duration: 28 day **Procedure:** Ready biodegradability
 > 70 % Readily Biodegradable Biodegradation in activated domestic sewage: 90-100% after 28 days.

RESULTS OF PBT AND vPvB ASSESSMENT

This product does not meet the criteria for PBT (Persistent, Bioaccumulative and Toxic substance) or for vPvB (Very Persistent and Very Bioaccumulative).

HAZARDOUS INGREDIENT TOXICITY DATA

Component / CAS No.	Toxicity to Fish
oxybis(methyl-2,1-ethanediyl) diacrylate (57472-68-1)	LC50 = 2.2-4.64 mg/l - Leuciscus idus (96h)

Component / CAS No.	Toxicity to Water Flea
oxybis(methyl-2,1-ethanediyl) diacrylate (57472-68-1)	EC50 = 22.3 mg/l - Water Flea (Daphnia magna) (48h)

Component / CAS No.	Toxicity to Algae
oxybis(methyl-2,1-ethanediyl) diacrylate (57472-68-1)	EC50 = 16.7 mg/l - Desmodesmus subspicatus (72h) EC10 = 2.2 mg/L - Desmodesmus subspicatus (72h)

Component / CAS No.	Partition coefficient
oxybis(methyl-2,1-ethanediyl) diacrylate (57472-68-1)	0.01 - 0.39

13. DISPOSAL CONSIDERATIONS

The information on RCRA waste classification and disposal methodology provided below applies only to the product, as supplied. If the material has been altered or contaminated, or it has exceeded its recommended shelf life, the guidance may be inapplicable. Hazardous waste classification under federal regulations (40 CFR Part 261 et seq) is dependent upon whether a material is a RCRA "listed hazardous waste" or has any of the four RCRA "hazardous waste characteristics." Refer to 40 CFR Part 261.33 to determine if a given material to be disposed of is a RCRA "listed hazardous waste"; information contained in Section 15 of this SDS is not intended to indicate if the product is a "listed hazardous waste." RCRA Hazardous Waste Characteristics: There are four characteristics defined in 40 CFR Section 261.21-61.24: Ignitability, Corrosivity, Reactivity, and Toxicity. To determine Ignitability, see Section 9 of this SDS (flash point). For Corrosivity, see Sections 9 and 14 (pH and DOT corrosivity). For Reactivity, see Section 10 (incompatible materials). For Toxicity, see Section 3 (composition). Federal regulations are subject to change. State and local requirements, which may differ from or be more stringent than the federal regulations, may also apply to the classification of the material if it is to be disposed. The Company encourages the recycle, recovery and reuse of materials, where permitted, as an alternate to disposal as a waste. The Company recommends that organic materials classified as RCRA hazardous wastes be disposed of by thermal treatment or incineration at EPA approved facilities. The Company has provided the foregoing for information only; the person generating the waste is responsible for determining the waste classification and disposal method.

14. TRANSPORT INFORMATION

This section provides basic shipping classification information. Refer to appropriate transportation regulations for

specific requirements.

US DOT

Dangerous Goods? Not applicable/Not regulated

TRANSPORT CANADA

Dangerous Goods? Not applicable/Not regulated

ICAO / IATA

Dangerous Goods? Not applicable/Not regulated

IMO

Dangerous Goods? Not applicable/Not regulated

SPECIAL PRECAUTIONS FOR USER

Protect against external heat sources above +40°C/104°F.

15. REGULATORY INFORMATION

Inventory Information

United States (USA): All components of this product are designated as “Active” on the TSCA Inventory or are not required to be listed.

Canada: All components of this product are included on the Domestic Substances List (DSL) or are not required to be listed on the DSL.

European Economic Area (including EU): When purchased and shipped from an Allnex legal entity based in the EEA (EU or Norway), this product is compliant with the registration of the REACH Regulation (EC) No. 1907/2006 as all its components are either excluded, exempt and/or registered.

Australia: All components of this product are included in the Australian Inventory of Industrial Chemicals (AIIC) or are not required to be listed on AIIC.

New Zealand: This product is approved or exempt under the Hazardous Substances and New Organisms (HSNO) Act.

China: All components of this product are included on the Chinese inventory or are not required to be listed on the Chinese inventory.

Japan: All components of this product are included on the Japanese (ENCS and ISHL) inventories or are not required to be listed on the Japanese inventories.

Korea: All components of this product are included on the Korean (ECL) inventory or are not required to be listed on the Korean inventory. When purchased from Allnex Korea or Chemart distributor this product is compliant with the ARECs (the Act on the Registration and Evaluation, etc. of Chemical Substances). All its components are either excluded, exempt, pre-notified and/or registered. When purchased from another allnex entity, please contact PSRA-KREACH@allnex.com to check the possibility to be covered by our Only Representative.

Philippines: One or more components of this product are NOT included on the Philippine (PICCS) inventory.

Taiwan: All components of this product are included in the Taiwan chemical substance inventory or are not required to be listed on the Taiwan chemical substance inventory (TCSI).

Switzerland: All components of this product are exempt from the new substance notification requirements for Switzerland (SR 813.11 art. 24-26).

Turkey: When purchased directly from Allnex by a Turkish legal entity, this product is compliant with the PRE-registration requirements of KKDIK as all its components are either pre-registered, excluded and/or exempt.

OTHER ENVIRONMENTAL INFORMATION

The following components of this product may be subject to reporting requirements pursuant to Section 313 of CERCLA (40 CFR 372), Section 12(b) of TSCA, or may be subject to release reporting requirements (40 CFR 307, 40 CFR 311, etc.) See Section 13 for information on waste classification and waste disposal of this product.

This product does not contain any components regulated under these sections of the EPA

PRODUCT HAZARD CATEGORY UNDER SECTIONS 311 AND 312 OF EPCRA

Physical Hazards

Not applicable

Health Hazards

Skin Corrosion or Irritation

Respiratory or Skin Sensitization

Serious eye damage or eye irritation

16. OTHER INFORMATION

NFPA Hazard Rating (National Fire Protection Association)

Health: 3 - Materials that, under emergency conditions, can cause serious or permanent injury. 0 - Materials that under emergency conditions, would offer no hazard beyond that of ordinary combustible materials.

Fire: 1 - Materials that must be preheated before ignition can occur.

Instability: 1 - Materials that in themselves are normally stable, but that can become unstable at elevated temperatures and pressures. 0 - Materials that in themselves are normally stable, even under fire exposure conditions.

Reasons for Issue: Revised Section 2
Revised Section 8
Revised Section 11

Date Prepared: 08/04/2022

Date of last significant revision: 08/04/2022

Component - Hazard Statements

oxybis(methyl-2,1-ethanediyl) diacrylate

H315 - Causes skin irritation.

H317 - May cause an allergic skin reaction.

H318 - Causes serious eye damage.

H401 - Toxic to aquatic life.

Emergency phone numbers for other regions

Asia Pacific

Australia: +61 1800 022 037 (Allnex Australia)

China (PRC): +86(0)532 8388 9090 (NRCC)

India: 000 800 100 7479 (toll free) or +65 3158 1198 (Carechem 24)

Indonesia: 007 803 011 0293 (Carechem 24)

Japan: 0120 015 230 (toll free) (Carechem 24)

Korea: +82 2 3479 8401 (Carechem 24)

Malaysia: +60 3 6207 4347 (Carechem 24)

New Zealand: +64 0800 803 002 (Allnex New Zealand)

Philippines: +63 2 231 2149 (Carechem 24)

Taiwan: +886 2 8793 3212 (Carechem 24)

Vietnam: +84 8 4458 2388 (Carechem 24)

All Others: +65 3158 1074 (Carechem 24)

Europe

+44 (0) 1235 239 670 (Carechem 24)

Middle East, Africa

+44 (0) 1235 239 671 (Carechem 24)

Latin America

Brazil: +55-800-707-7022 (toll free) or +55-11-98149-0850 (Suatrans 24)

Chile: +56 2 2582 9336 (Carechem 24)

Mexico and all others: +52-555-004-8763 (Carechem 24)

Prepared By: Product Stewardship & Regulatory Affairs Department, <http://www.allnex.com/contact>

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