



SDS: 0021964
Date Prepared: 01/08/2018

SAFETY DATA SHEET

1. IDENTIFICATION

Product Name: UVACURE® 1600 radiation curing resins
Synonyms: None
Product Description: Photoinitiator
Molecular Formula: Not Available
Molecular Weight: Not available
Intended/Recommended Use: Coatings, Radiation curable coating ingredient

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:

Asia Pacific:

Australia: +61 2801 44558 (Carechem 24)
China (PRC): +86(0)532-8388-9090 (NRCC)
Japan: +81 345 789 341 (Carechem 24)
New Zealand: +64 9929 1483 (Carechem 24)
India: 000 800 100 7479 (toll free) or +65 3158 1198 (Carechem 24)
Korea: +82 2 3479 8401 (Carechem 24)
Malaysia: +60 3 6207 4347 (Carechem 24)
Philippines: +63 2 231 2149 (Carechem 24)
All Others: +65 3158 1074 (Carechem 24)

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Europe, Middle East, Africa, Israel: +44 (0) 1235 239 670
Middle East, Africa (Arabic speaking countries): +44 (0) 1235 239 671

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Brazil: +55-800-707-7022 (toll free) or +55-11-98149-0850 (Suatrans 24)
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Canada and USA (Carechem 24 - Allnex29003-NCEC): +1-866-928-0789 (toll free) or +1-215-207-0061

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2. HAZARDS IDENTIFICATION

GHS Classification

Skin Corrosion / Irritation Hazard Category 2
Serious Eye Damage / Eye Irritation Hazard Category 2A

LABEL ELEMENTS



Signal Word
WARNING

Hazard Statements

Causes skin irritation
Causes serious eye irritation

Precautionary Statements

Wash face, hands and any exposed skin thoroughly after handling.
Wear protective gloves/protective clothing/eye protection/face protection.
IF ON SKIN: Wash with plenty of soap and water.
Specific treatment (see supplemental first aid instructions on this label).
If skin irritation occurs: Get medical advice/attention.
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.
If eye irritation persists: Get medical advice/attention.

Hazards Not Otherwise Classified (HNOC), Other Hazards

Not applicable

3. COMPOSITION/INFORMATION ON INGREDIENTS

HAZARDOUS INGREDIENTS

| Component / CAS No. | % | GHS Classification | Carcinogen |
|---|----------|--|------------|
| p-octyloxyphenylphenyliodonium hexafluoroantimonate 121239-75-6 | 98 - 100 | Skin Irrit. 2 (H315) Eye Irrit. 2A (H319) | - |

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.

Skin Contact:

Remove contaminated clothing and shoes without delay. Wash immediately with plenty of water. Do not reuse contaminated clothing without laundering. Get medical attention if pain or irritation persists after washing or if signs and symptoms of overexposure appear.

Eye Contact:

Rinse immediately with plenty of water for at least 15 minutes. Obtain medical advice if there are persistent symptoms.

Ingestion:

Material is not expected to be harmful by ingestion. No specific first aid measures are required.

Most Important Symptoms and Effects, Acute and Delayed

None known

Immediate Medical Attention and Special Treatment

Not applicable

Notes To Physician:

No specific measures have been identified.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media:

Use water spray or fog, carbon dioxide or dry chemical.

Unsuitable Extinguishing Media:

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).

Special Hazards:

Keep containers cool by spraying with water if exposed to fire.

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.

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.

Environmental Precautions:

None known

References to other sections:

See Sections 7, 8 and 13 for additional information.

7. HANDLING AND STORAGE

HANDLING

Precautions: Wash hands thoroughly after handling. Wear protective gloves and eye/face protection.

Special Handling Statements: Provide good ventilation of working area (local exhaust ventilation if necessary). Dust may form explosive mixture with air.

STORAGE

Store in a cool, dry, well ventilated place and keep container tightly closed. Avoid formation of dust. Dust can form an explosive mixture with air.

Storage Temperature: Store at 4 - 40 °C

Reason: Quality.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Engineering Measures:**

Where this material is not used in a closed system, good enclosure and local exhaust ventilation should be provided to control exposure.

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. Recommended respirators include those certified by NIOSH.

Recommended:

Full Face Mask with particle Type P2 filter

Eye Protection:

Wear eye/face protection such as chemical splash proof goggles or face shield. Eyewash equipment and safety shower should be provided in areas of potential exposure.

Skin Protection:

Avoid skin contact. Wear impermeable gloves and 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 repeated or prolonged exposure - non exhaustive list:

Nitrile rubber (NBR), thickness: > 0.56 mm, break through time: up to 480 min

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

Nitrile rubber (NBR), thickness: 0.1 mm, break through time: up to 30 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.

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.

Exposure Limit(s)

No values have been established.

Biological Exposure Limit(s)

No values have been established.

9. PHYSICAL AND CHEMICAL PROPERTIES

| | |
|---|------------------|
| Color: | off white to tan |
| Appearance: | solid |
| Odor: | odorless |
| Boiling Point: | Not available |
| Melting Point: | 57 - 58 °C |
| Vapor Pressure: | Not available |
| Specific Gravity/Density: | Not available |
| Vapor Density: | Not available |
| Percent Volatile (% by wt.): | Not available |
| pH: | Not available |
| Saturation In Air (% By Vol.): | Not available |
| Evaporation Rate: | Not available |
| Solubility In Water: | Insoluble |
| Volatile Organic Content: | Not available |
| Flash Point: | Not applicable |
| Flammable Limits (% By Vol): | Not applicable |
| Autoignition Temperature: | Not available |
| Decomposition Temperature: | Not available |
| Partition coefficient (n-octanol/water): | Not available |
| Odor Threshold: | Not available |
| Viscosity (Kinematic): | Not applicable |
| Viscosity (Dynamic): | Not applicable |

10. STABILITY AND REACTIVITY

| | |
|--|--|
| Reactivity: | No information available |
| Stability: | Stable |
| Conditions To Avoid: | Elevated temperatures. |
| Polymerization: | Will not occur |
| Materials To Avoid: | Hazardous polymerization does not occur. |
| Hazardous Decomposition Products: | Carbon dioxide Carbon monoxide (CO) |

11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure: Eyes, Skin, Respiratory System.

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 irritation

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

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

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 physical form, not an expected route of exposure.

PRODUCT TOXICITY INFORMATION

ACUTE TOXICITY DATA

| | | | |
|------------|--------|-----------------|----------------------|
| oral | rat | Acute LD50 | > 2000 mg/kg |
| dermal | rabbit | Acute LD50 | > 2000 mg/kg |
| inhalation | rat | Acute LC50 4 hr | > 5 mg/l (Dust/Mist) |

LOCAL EFFECTS ON SKIN AND EYE

| | | |
|------------------|--------|------------|
| Acute Irritation | dermal | Irritating |
| Acute Irritation | eye | Irritating |

ALLERGIC SENSITIZATION

| | | |
|---------------|-------------|-----------------|
| Sensitization | Skin | Not sensitizing |
| Sensitization | respiratory | Not sensitizing |

GENOTOXICITY

Assays for Gene Mutations

| | |
|-----------------------|----------|
| Ames Salmonella Assay | Negative |
|-----------------------|----------|

OTHER INFORMATION

The product toxicity information above has been estimated.

The toxicological properties of this material have not been fully determined.

Prolonged or repeated contact with skin or mucous membrane may result in irritation symptoms such as redness, blistering, dermatitis, etc.

HAZARDOUS INGREDIENT TOXICITY DATA

P-octyloxyphenylphenyliodonium hexafluoroantimonate (CAS: 121239-75-6) has a LD50 oral (rat) of > 5000 mg/kg. Contact may cause moderate eye and skin irritation. Inhalation overexposure may cause respiratory system irritation,

with excessive inhalation of dust possibly being harmful. P-octyloxyphenylphenyliodonium hexafluoroantimonate was found to negative in the Ames test.

12. ECOLOGICAL INFORMATION

TOXICITY, PERSISTENCE AND DEGRADABILITY, BIOACCUMULATIVE POTENTIAL, MOBILITY IN SOIL, OTHER ADVERSE EFFECTS

The ecological properties of this material have not been fully investigated.

RESULTS OF PBT AND vPvB ASSESSMENT

Not determined

HAZARDOUS INGREDIENT TOXICITY DATA

| Component / CAS No. | Toxicity to Fish |
|---|------------------|
| p-octyloxyphenylphenyliodonium hexafluoroantimonate (121239-75-6) | Not available |

| Component / CAS No. | Toxicity to Water Flea |
|---|------------------------|
| p-octyloxyphenylphenyliodonium hexafluoroantimonate (121239-75-6) | Not available |

| Component / CAS No. | Toxicity to Algae |
|---|-------------------|
| p-octyloxyphenylphenyliodonium hexafluoroantimonate (121239-75-6) | Not available |

| Component / CAS No. | Partition coefficient |
|---|-----------------------|
| p-octyloxyphenylphenyliodonium hexafluoroantimonate (121239-75-6) | Not available |

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

15. REGULATORY INFORMATION

Inventory Information

United States (USA): All components of this product are included on the TSCA Chemical Inventory or are not required to be listed on the TSCA Chemical Inventory.

Canada: One or more components of this product are NOT included on the Canadian Domestic Substances List (DSL).

European Economic Area (including EU): When purchased 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, pre-registered and/or registered.

Australia: One or more components of this product have NOT yet been included in the Australian Inventory of Chemical Substances (AICS) or assessed by NICNAS.

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

Japan: One or more components of this product are NOT included on the Japanese (ENCS and/or ISHL) inventories.

Korea: One or more components of this product are NOT included on the Korean (ECL) inventory.

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).

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

Serious eye damage or eye irritation

16. OTHER INFORMATION

NFPA Hazard Rating (National Fire Protection Association)

Health: 2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.

Fire: 0 - Materials that will not burn.

Instability: 0 - Materials that in themselves are normally stable, even under fire exposure conditions.

Reasons For Issue: Revised Section 15

Date Prepared: 01/08/2018

Date of last significant revision: 10/29/2012

Component - Hazard Statements

p-octyloxyphenylphenyliodonium hexafluoroantimonate

H315 - Causes skin irritation.

H319 - Causes serious eye irritation.

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

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