

ACTDIGI® DUV-9021A

Version 1.9

Revision Date 08/15/2018

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SECTION 1. IDENTIFICATION

Product name : ACTDIGI® DUV-9021A
Product Use Description : UV GLOSS COATING FOR DIGITAL TONERS

Manufacturer or supplier's details

Company : ALLIANCE TECHNOLOGY CORP.
2 North Maple Avenue
Ridgely, MD 21660
U.S.A.

Telephone : Phone: (410) 634-9381

Telefax : Fax: (410) 634-9382

Emergency telephone number : (410) 634-9381

SECTION 2. HAZARDS IDENTIFICATION**GHS Classification**

Skin irritation : Category 2

Eye irritation : Category 2A

Skin sensitisation : Category 1

Carcinogenicity : Category 2

Reproductive toxicity : Category 2

Specific target organ toxicity - single exposure : Category 3 (Respiratory system)

Specific target organ toxicity - repeated exposure : Category 2 (Liver, Kidney)

GHS label elements

Hazard pictograms : 

Signal word : Warning

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Hazard statements	: H315 Causes skin irritation. H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H335 May cause respiratory irritation. H351 Suspected of causing cancer. H361 Suspected of damaging fertility or the unborn child. H373 May cause damage to organs (Liver, Kidney) through prolonged or repeated exposure.
Precautionary statements	: Prevention: P201 Obtain special instructions before use. P202 Do not handle until all safety precautions have been read and understood. P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray. P264 Wash skin thoroughly after handling. P271 Use only outdoors or in a well-ventilated area. P272 Contaminated work clothing should not be allowed out of the workplace. P280 Wear eye protection/ face protection. P280 Wear protective gloves. P281 Use personal protective equipment as required. Response: P302 + P352 IF ON SKIN: Wash with plenty of soap and water. P304 + P340 + P312 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/ physician if you feel unwell. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P308 + P313 IF exposed or concerned: Get medical advice/ attention. P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention. P337 + P313 If eye irritation persists: Get medical advice/ attention. P362 Take off contaminated clothing and wash before reuse. Storage: P403 + P233 Store in a well-ventilated place. Keep container tightly closed. P405 Store locked up. Disposal: P501 Dispose of contents/ container to an approved waste disposal plant.
Other hazards	None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**Hazardous components**

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Component	CAS-No.	Concentration (%)
Triacrylate Ester	-	>= 30 - < 60
Diacrylate Ester	-	>= 10 - < 30
Epoxy Acrylate	-	>= 10 - < 30
Benzophenone	119-61-9	>= 5 - < 10
Photoinitiator	-	>= 1 - < 5
Octamethylcyclotetrasiloxane	556-67-2	>= 0.1 - < 1

SECTION 4. FIRST AID MEASURES

- General advice** : Get medical attention immediately if symptoms occur.
Treat symptomatically.
Move out of dangerous area.
Show this safety data sheet to the doctor in attendance.
Do not leave the victim unattended.
- If inhaled** : If inhaled, remove to fresh air.
If breathing is difficult, give oxygen.
If not breathing, give artificial respiration.

If unconscious, place in recovery position and seek medical advice.
If symptoms persist, call a physician.
- In case of skin contact** : Remove contaminated clothing. Wash thoroughly with soap and water for at least 20 min. or until material is removed.
Wash contaminated clothing before re-use.
Get medical attention if irritation develops and persists.

If skin irritation persists, call a physician.
If on skin, rinse well with water.
If on clothes, remove clothes.
- In case of eye contact** : If easy to do, remove contact lens, if worn.
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
Seek medical advice.

Immediately flush eye(s) with plenty of water.
Remove contact lenses.
Protect unharmed eye.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.
- If swallowed** : Do NOT induce vomiting.
Gently wipe or rinse the inside of the mouth with water.
Obtain medical attention.

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Induce vomiting immediately and call a physician.
 Keep respiratory tract clear.
 Do not give milk or alcoholic beverages.
 Never give anything by mouth to an unconscious person.
 If symptoms persist, call a physician.
 Take victim immediately to hospital.

SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : ABC powder
 Carbon dioxide (CO₂)
- Unsuitable extinguishing media : Water
- High volume water jet
- Specific hazards during firefighting : Do not use a solid water stream as it may scatter and spread fire.
- Do not allow run-off from fire fighting to enter drains or water courses.
- Further information : Use water spray to cool unopened containers.
- Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
 Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
- Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.
 Use personal protective equipment.
- Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Ensure adequate ventilation.
 Use personal protective equipment.
- : Use personal protective equipment.
- Environmental precautions : Prevent spilled material from entering the ground, water and/or air by using appropriate containment methods.
- Prevent product from entering drains.

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Prevent further leakage or spillage if safe to do so.
If the product contaminates rivers and lakes or drains inform respective authorities.

Methods and materials for containment and cleaning up : Soak up with inert absorbent material.

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).
Keep in suitable, closed containers for disposal.

SECTION 7. HANDLING AND STORAGE

Advice on safe handling : Use only in accordance with our recommendations.

Avoid formation of aerosol.
Do not breathe vapours/dust.
Avoid exposure - obtain special instructions before use.
Avoid contact with skin and eyes.
For personal protection see section 8.
Smoking, eating and drinking should be prohibited in the application area.
Provide sufficient air exchange and/or exhaust in work rooms.
Dispose of rinse water in accordance with local and national regulations.
Persons susceptible to skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.

Conditions for safe storage : Keep container tightly closed in a dry and well-ventilated place.

Keep container tightly closed in a dry and well-ventilated place.
Observe label precautions.
Electrical installations / working materials must comply with the technological safety standards.

Materials to avoid : Keep away from oxidizing agents and strongly acid or alkaline materials.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Components with workplace control parameters**

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible	Basis

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			concentration	
Triacrylate Ester	-	TWA	1 mg/m ³	US WEEL
Benzophenone	119-61-9	TWA	0.5 mg/m ³	US WEEL
Octamethylcyclotetrasiloxane	556-67-2	TWA	10 ppm	US WEEL

Engineering measures : Handle only in a place equipped with local exhaust (or other appropriate exhaust).

Personal protective equipment

Respiratory protection : In the case of vapour formation use a respirator with an approved filter.

Hand protection

Material : Impervious gloves

Remarks : The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Eye protection

: Safety glasses with side-shields
 Safety goggles
 Eye wash bottle with pure water
 Tightly fitting safety goggles
 Wear face-shield and protective suit for abnormal processing problems.

Skin and body protection

: Long sleeved clothing
 Chemical resistant apron
 Lightweight protective clothing
 Impervious clothing
 Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Protective measures

: Ensure that eye flushing systems and safety showers are located close to the working place.

Hygiene measures

: Handle in accordance with good industrial hygiene and safety practice.
 Wash hands before eating, drinking, or smoking.
 When using do not eat or drink.
 When using do not smoke.
 Wash hands before breaks and at the end of workday.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : liquid

Colour : off-white

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Odour	: acrylic-like
Odour Threshold	: No data available
pH	: Not applicable
	: No data available
Initial boiling point	: > 200.1 °F (> 93.4 °C)
Vapour pressure	: No data available
Flash point	: > 200.1 °F (> 93.4 °C)
Upper explosion limit	: No data available
Lower explosion limit	: No data available
Evaporation rate	: No data available
Flammability (solid, gas)	: No data available
Relative vapour density	: No data available
Relative Density/Specific Gravity	: 1.090 (68 °F (20 °C))
Density	: 9.10 lb/gal
Bulk density	: No data available
Solubility(ies)	
Water solubility	: No data available
Solubility in other solvents	: No data available
Partition coefficient: n-octanol/water	: No data available
Ignition temperature	: No data available
Auto-ignition temperature	: No data available
Thermal decomposition	: Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke).
Viscosity	

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Viscosity, kinematic : > 21 mm²/s (104 °F (40 °C))

SECTION 10. STABILITY AND REACTIVITY

Reactivity : No decomposition if stored and applied as directed.

Chemical stability : No decomposition if stored and applied as directed.

Possibility of hazardous reactions : Acids and bases
Strong oxidizing agents
Fluorine

No decomposition if stored and applied as directed.

Conditions to avoid : Avoid temperatures above 60°C, direct sunlight and contact with sources of heat.

No data available

Hazardous decomposition products : Stable under recommended storage conditions.

SECTION 11. TOXICOLOGICAL INFORMATION**Information on likely routes of exposure**

Eyes
Skin contact
Inhalation

Acute toxicity**Product:**

Acute oral toxicity : Acute toxicity estimate : > 5,000 mg/kg
Method: Calculation method

Acute dermal toxicity : Acute toxicity estimate : > 5,000 mg/kg
Method: Calculation method

Components:**- Triacrylate Ester:**

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg

Acute dermal toxicity : LD50 (Rabbit): > 5,000 mg/kg

119-61-9 Benzophenone:

Acute oral toxicity : LD50 (Rat): > 10,000 mg/kg

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LD50 (Mouse): 2,895 mg/kg

Acute dermal toxicity : LD50 (Rabbit): 3,535 mg/kg

Skin corrosion/irritation**Product:**

Remarks: No data available

Remarks: May cause skin irritation and/or dermatitis.

Components:**- Triacrylate Ester:**

Species: Rabbit

Result: Skin irritation

- Diacrylate Ester:

Species: Rabbit

Result: No skin irritation

556-67-2 Octamethylcyclotetrasiloxane:

Species: Rabbit

Result: slight irritation

Serious eye damage/eye irritation**Product:**

Remarks: No data available

Remarks: May cause irreversible eye damage.

Components:**- Triacrylate Ester:**

Species: Rabbit

Result: Eye irritation

Method: Draize Test

- Diacrylate Ester:

Species: Rabbit

Result: Severe eye irritation

556-67-2 Octamethylcyclotetrasiloxane:

Species: Rabbit

Result: Mild eye irritation

Respiratory or skin sensitisation**Product:**

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Remarks: No data available

Remarks: Causes sensitisation.

Components:**- Triacrylate Ester:**

Test Type: Maximisation Test

Exposure routes: Dermal

Species: Guinea pig

Result: May cause sensitisation by skin contact.

- Diacrylate Ester:

Test Type: Mouse Local Lymph Node assay (LLNA)

Species: Mouse

Method: OECD Test Guideline 429

Result: May cause sensitisation by skin contact.

GLP: yes

556-67-2 Octamethylcyclotetrasiloxane:

Species: Guinea pig

Method: OECD Test Guideline 406

Result: Does not cause skin sensitisation.

GLP: yes

Germ cell mutagenicity**Components:****- Triacrylate Ester:**

Germ cell mutagenicity- Assessment	: In vitro tests showed mutagenic effects, In vivo tests showed mutagenic effects
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Carcinogenicity**IARC**

Group 2B: Possibly carcinogenic to humans

Benzophenone

119-61-9

ACGIH

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

OSHA

No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

NTP

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Repeated dose toxicity**Product:**

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Remarks: No data available

Further information**Product:**

Remarks: No data available

Remarks: No data available

SECTION 12. ECOLOGICAL INFORMATION**Ecotoxicity****Product:**Toxicity to fish :
Remarks: No data availableToxicity to daphnia and other :
aquatic invertebrates : Remarks: No data available**Components:****119-61-9 Benzophenone:**Toxicity to fish : NOEC (Pimephales promelas (fathead minnow)): 5.86 mg/l
Exposure time: 168 hLC50 (Pimephales promelas (fathead minnow)): 14.2 mg/l
Exposure time: 96 hToxicity to daphnia and other : EC50 (Daphnia magna (Water flea)): 0.28 mg/l
aquatic invertebrates : Exposure time: 24 h**Persistence and degradability****Product:**

Biodegradability : Remarks: No data available

Bioaccumulative potential**Product:**

Bioaccumulation : Remarks: No data available

Mobility in soil

No data available

Other adverse effects

No data available

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Product:

Regulation 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances

Remarks This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

Additional ecological information : No data available

SECTION 13. DISPOSAL CONSIDERATIONS
Disposal methods

EPA Hazardous Waste Code(s) : none

Waste from residues : Dispose of in accordance with applicable local/municipal, state/provincial and federal regulations. The hazard and precautionary statements displayed on the label also apply to any residues left in the container. Do not dispose of waste into sewer. Do not contaminate ponds, waterways or ditches with chemical or used container. Send to a licensed waste management company.

Contaminated packaging : Do not re-use empty containers. Empty remaining contents. Dispose of as unused product. Do not re-use empty containers.

SECTION 14. TRANSPORT INFORMATION
International Regulations**IATA-DGR**

Not regulated as a dangerous good

IMDG-Code

Not regulated as a dangerous good

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

Not applicable for product as supplied.

National Regulations**49 CFR**

Not regulated as a dangerous good

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SECTION 15. REGULATORY INFORMATION

WHMIS Classification : D2B: Toxic Material Causing Other Toxic Effects

EPCRA - Emergency Planning and Community Right-to-Know Act**US. EPA CERCLA Hazardous Substances (40 CFR 302)**

Calculated RQ exceeds reasonably attainable upper limit.

SARA 304 - Emergency Release Notification

This material does not contain any components with a section 304 EHS RQ.

US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 302 Extremely Hazardous Substance (40 CFR 355, Appendix A)

This material does not contain any components with a SARA 302 RQ.

SARA 311/312 Hazards : Acute Health Hazard
Chronic Health Hazard

SARA 302 : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Clean Air Act

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

The following chemical(s) are listed under the U.S. Clean Air Act Section 111 SOCM I Intermediate or Final VOC's (40 CFR 60.489):

Benzophenone	119-61-9	5 %
Amine Synergist	-	5 %

VOC : 0.00 lb/gal
0.00 %

Non-volatile information is not a specification.

Massachusetts Right To Know

No components are subject to the Massachusetts Right to Know Act.

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Pennsylvania Right To Know

Triacrylate Ester	-
Diacrylate Ester	-
Epoxy Acrylate	-
Benzophenone	119-61-9
Amine Synergist	-
Surfactant	-
Triethylamine	121-44-8

New Jersey Right To Know

Triacrylate Ester	-
Diacrylate Ester	-
Epoxy Acrylate	-
Benzophenone	119-61-9
Amine Synergist	-

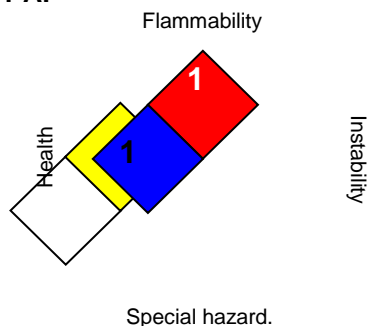
California Prop 65 

WARNING! This product can expose you to Benzophenone, which is known to the State of California to cause cancer. From more information go to www.P65Warnings.ca.gov.

Benzophenone	119-61-9
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The components of this product are reported in the following inventories:

LISTED : Listed

SECTION 16. OTHER INFORMATION
Further information
NFPA:

HMIS III:

HEALTH	2*
FLAMMABILITY	1
PHYSICAL HAZARD	1

0 = not significant, 1 =Slight,
2 = Moderate, 3 = High
4 = Extreme, * = Chronic

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