

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY UNDERTAKING

- 1.1 **Product Identifier**
 Product Name: HCoating - UT
 CAS No.: Mixture
- 1.2 **Relevant Identified Uses of The Substance Or Mixture and Uses Advised Against**
 Identified Uses: Protective coating for lenses and transparent polymeric substrates
- 1.3 **Details of The Supplier of The Safety Data Sheet**
 Company: Arotek International LLC
 23890 Copper Hill Dr. #238
 Valencia, CA 91354 , USA
 Telephone & Fax: (815) 301-8789
- 1.4 **Emergency Telephone Number** (562) 303-3772

SECTION 2: HAZARDOUS IDENTIFICATION

- 2.1 **Classification of the Substance or Mixture**
 Acute toxicity, oral (Category 4) H302
 Skin Irritation (Category 2) H315
 Skin Sensitization (Category 1) H317
 Serious eye damage (Category 1) H318
 Chronic Aquatic Toxicity (Category 3) H412
- 2.2 **GHS Label Elements, Including Precautionary Statements**

Pictogram:		Signal Word:	Danger
Hazard Statements			
H302	Harmful if swallowed		
H315	Causes skin irritation		
H317	May cause an allergic skin reaction		
H318	Causes serious eye damage		
H412	Harmful to aquatic life with long lasting effects		
Precautionary Statements			
P210	Keep away from heat/sparks/open flames/hot surfaces		
P261	Avoid breathing dust/fume/gas/mist/vapours/spray		
P264	Wash skin thoroughly after handling		
P270	Do not eat, drink or smoke when using this product		
P272	Contaminated work clothing should not be allowed out of the workplace		
P273	Avoid release to the environment		
P280	Wear protective glove/eye protection/face protection		
P301 + P310	IF SWALLOWED: immediately call a POISON CENTER or doctor/physician		
P330	Rinse mouth		
P302 + P352	IF ON SKIN: Wash with plenty of soap and water		
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention		
P305 + P351 + P338 + P310	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		
P337 + P313	If eye irritation persists: Get medical advice/attention		
P362	Take off contaminated clothing and wash before reuse		
P501	Dispose of contents/container to an approved waste disposal plant		

- 2.3 **Hazards Not Otherwise Classified Or Not Covered By GHS - None.**

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Component	CAS No.	EC No.	Concentration
(3-Glycidylpropyl) trimethoxysilane	2530-83-8	219-784-2	< 40 %
Trimethylol propane triglycidyl ether polymer	30499-70-8	-	< 40 %
Epoxy silane polymer with modified silsesquioxanes	-	-	< 40 %
1, 6-Hexanediol diacrylate	13048-33-4	235-921-9	< 25 %
Dipentaerythritol hexaacrylate	29570-58-9	249-698-0	< 25 %
Pentaerythritol, ethoxylated, tetraacrylate	51728-26-8	500-111-9	< 25 %
Tri(ethyleneglycol) diacrylate	1680-21-3	216-853-9	< 25 %
[(Phenylthio) Phenyl] Diphenylsulfonium Hexafluorophosphate	68156-13-8	269-006-0	< 6 %
Bis[4-Diphenylsulfonio] Sulfide Bis(Hexafluorophosphate)	74227-35-3	403-490-8	< 6 %
2-Hydroxy-2-methylpropiophenone	7473-98-5	231-272-0	< 6 %
Propylene carbonate	108-32-7	203-572-1	< 6 %

SECTION 4: FIRST AID MEASURES

- 4.1 **Description of First Aid Measures**
 Inhalation: Remove the affected person to fresh air and assist in breathing if necessary. If irritation persists, seek medical attention.

- Skin Contact: Wash off with soap and plenty of water. If rash develops, seek medical attention.
 Eye Contact: Rinse thoroughly with plenty of water for 15 minutes, remove contact lenses if present and easy to do. If irritation persists, seek medical attention.
 Ingestion: Rinse mouth with water. Do not induce vomiting. Get immediate medical attention.
- 4.2 **Most Important Symptoms and Effects, Both Acute and Delayed** The most important symptoms and effects are described in section and/or in section 11.
- 4.3 **Indication of Any Immediate Medical Attention and Special Treatment Needed** No data available.

SECTION 5: FIRE-FIGHTING MEASURES

- 5.1 **Extinguishing Media** Water, alcohol-resistant foam, dry chemical or carbon dioxide.
 5.2 **Special Hazards Arising From The Substance Of Mixture:** Carbon oxides, silicone oxides.
 5.3 **Advice for Firefighters** Wear self-contained breathing apparatus for the fire-fighting if necessary.
 5.4 **Further Information** No data available.

SECTION 6: ACCIDENTAL RELEASE MEASURES

- 6.1 **Personal Precautions, Protective Equipment and Emergency Procedures** Use safety glasses, chemical resistant gloves, and a NIOSH approved respirator. Ensure adequate ventilation. Evacuate personnel to safe areas.
 6.2 **Environmental Precautions** Prevent further leakage or spillage. Do not let product enter drains and be discharged into environment.
 6.3 **Methods and Materials for Containment and Cleaning up** Soak up with sand or inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

SECTION 7: HANDLING AND STORAGE

- 7.1 **Precautions for Safe Handling** Avoid contact with eye and skin. Work in well ventilated areas. Avoid breathing dust, fumes, mist, or vapor. Wash hands before eating and drinking.
 7.2 **Conditions for Safe Storage, Including Any Incompatibilities** Keep container tightly closed in a dry and cool area away from heat, direct sunlight, moisture, sparks, and flame.
 7.3 **Specific End Uses** Consult the supplier.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

- 8.1 **Control Parameters**
Components with Workplace Control Parameters
- | Component | CAS No. | Exposure Limits (WEEL) |
|--------------------------------|------------|------------------------------|
| Hexamethylene diacrylate | 13048-33-4 | 1 mg/m ³ (8h TWA) |
| Tri(ethyleneglycol) diacrylate | 1680-21-3 | 1 mg/m ³ (8h TWA) |
- 8.2 **Exposure Controls**
Personal Protective Equipment
Eye Protection: Use safety glasses or goggles as a minimum.
Skin Protection: Use chemical resistant gloves (butyl-rubber). Wash hands before eating and drinking.
Respiratory Protection: Use a NIOSH approved respirator.
Engineering Control: Provide eye wash station, local exhaust ventilation, and general dilution ventilation.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

- 9.1 **Information on Basic Physical and Chemical Properties**
- | | | | |
|----------------------------|---------------|----------------------------|---------------|
| Appearance: | Clear liquid | Color: | Light yellow |
| Odor: | Solvent odor | Odor threshold: | N/A |
| pH: | not available | Melting point: | not available |
| Boiling point: | > 100°C | Flash point: | > 100°C |
| Evaporation rate: | N/A | Flammability: | not available |
| Explosive limit: | N/A | Vapor pressure: | N/A |
| Vapor density: | N/A | Specific gravity: | ~1.1 |
| Solubility in water: | not available | Partition coefficient: | not available |
| Auto-ignition temperature: | not available | Decomposition temperature: | not available |
| Viscosity: | < 50 cps | | |

SECTION 10: STABILITY AND REACTIVITY

- 10.1 **Reactivity** No spontaneous reaction occurs if stored in a cool, dry area.
 10.2 **Chemical Stability** Stable under recommended storage conditions.
 10.3 **Possibility of Hazardous Reactions** No hazardous polymerization occurs under storage conditions.
 10.4 **Conditions to Avoid** Oxidizing agents usage, moisture, direct sunlight, heat.
 10.5 **Incompatible Materials** Strong oxidizers, acids, bases, and water.
 10.6 **Hazardous Decomposition Products** Methanol forms by reaction with water. Thermal decomposition at high heat may evolve metal oxides, carbon oxides, silicon oxides, formaldehyde.

SECTION 11: TOXICOLOGICAL INFORMATION

- 11.1 **Information on Toxicological Effects**
Acute Toxicity: This product is classified in Category 4 Acute Toxicity, harmful if swallowed.

Skin Corrosion/Irritation:

This product is classified in both Category 1 Skin Sensitization, may cause an allergic skin reaction and Category 2 Skin Irritation , causes skin irritation.

Serious Eye Damage/Irritation:

This product is classified in Category 1 Eye Damage, causes serious eye damage.

Respiratory Or Skin Sensitization:

No data available.

Germ Cell Mutagenicity:

No data available.

Carcinogenicity:

No components of this mixture present at levels greater than or equal to 0.1% is identified as a known or potential carcinogen.

Reproductive Toxicity:

No data available.

Specific Target Organ Toxicity - Single Exposure:

No data available.

Specific Target Organ Toxicity - Repeated Exposure:

No data available.

Aspiration Hazard

No data available.

11.2

Additional Information

1, 6-Hexanediol diacrylate

RTECS: AT1430000

2-Hydroxy-2-methylpropiophenone

RTECS: UC2977245

(3-Glycidyloxypropyl) trimethoxysilane

RTECS: VV4025000

Tri(ethyleneglycol) diacrylate

RTECS: AS8150000

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity:

This product is classified in Category 3 Acute Aquatic Toxicity and Category 3 Chronic Aquatic Toxicity, harmful to aquatic life with long lasting effects.

12.2 Persistence and Degradability:

No data available.

12.3 Bioaccumulative Potential:

No data available.

12.4 Mobility in Soil:

No data available.

12.5 Results of PBT and vPvB assessment:

No data available.

12.6 Other Adverse Effects:

No data available.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste Treatment Methods:

Disposal should adhere to all local, state, and federal regulations. Contact a licensed professional waste disposal service to dispose of this material.

13.2 Additional Information:

None.

SECTION 14: TRANSPORT INFORMATION

DOT UN

Not regulated.

Road/Rail (ADR/RID)

Not regulated.

Sea Transport (IMDG)

Not regulated.

Air Transport (IATA)

Not regulated.

SECTION 15: REGULATORY INFORMATION

Federal Regulations

TSCA - Toxic Substance Control Act Status:

Released/listed.

SARA 302 - Extremely Hazardous Substances:

None.

SARA 311/312 - Hazard Categories:

Acute health hazard, chronic health hazard.

SARA 313 - Toxic Chemicals:

None.

Pennsylvania Right-to-Know Components:

2-Hydroxy-2-methylpropiophenone

CAS No. 7473-98-5

[3-(2, 3-Epoxypropoxy) propyl] trimethoxysilane

CAS No. 2530-83-8

Hexamethylene diacrylate

CAS No. 13048-33-4

Tri(ethyleneglycol) diacrylate

CAS No. 1680-21-3

New Jersey Right-to-Know Components:

2-Hydroxy-2-methylpropiophenone

CAS No. 7473-98-5

[3-(2, 3-Epoxypropoxy) propyl] trimethoxysilane

CAS No. 2530-83-8

Hexamethylene diacrylate

CAS No. 13048-33-4

Tri(ethyleneglycol) diacrylate

CAS No. 1680-21-3

California Prop. 65 Components:

None.

SECTION 16: OTHER INFORMATION

HMIS/NFPA Rating:

HMIS

NFPA

Physical hazard - 1

Health - 2
Flammability - 1
Instability - 1



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