

**Section 1: Identification of the Substance/Mixture and of the Company/Undertaking**

**1.1 Product identifier**

**Product Name** • **DTS Universal Emulsion**

**Product Description** • Blue liquid

**1.2 Relevant identified uses of the substance or mixture and uses advised against**

**Relevant identified use(s)** • Water-based emulsion

**1.3 Details of the supplier of the safety data sheet**

**Manufacturer** • IKONICS Corporation  
4832 Grand Ave.  
Duluth, MN 55807  
United States  
www.ikonics.com  
sds@ikonics.com

**Telephone (General)** • (218) 628-2217

**Telephone (General)** • (800) 328-4261 - Toll free

**1.4 Emergency telephone number**

**Chemtrec** • 1-800-424-9300 - Within USA and Canada  
• +1 703-527-3887 - Outside USA and Canada (collect calls accepted)

**Section 2: Hazards Identification**

**EU/EEC**

According to: Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 2015/830]

**2.1 Classification of the substance or mixture**

**CLP** • Skin Irritation 2 - H315  
Skin Sensitization 1 - H317  
Eye Irritation 2 - H319  
Hazardous to the aquatic environment Chronic 3 - H412  
EUH208

**2.2 Label Elements**

**CLP**

**WARNING**



**Hazard statements** • H315 - Causes skin irritation.  
H317 - May cause an allergic skin reaction.  
H319 - Causes serious eye irritation.  
H412 - Harmful to aquatic life with long lasting effects.  
EUH208 – Contains sensitizing substance (acrylate oligomers; Ethanol, 2,2',2''-(propylidynetris(methyleneoxy))tri-, triacrylate)

**Precautionary statements**

**Prevention** • P261 - Avoid breathing dust, fume, gas, mist, vapors and/or spray.

P264 - Wash thoroughly after handling.  
P272 - Contaminated work clothing should not be allowed out of the workplace.  
P273 - Avoid release to the environment.  
P280 - Wear protective gloves/protective clothing/eye protection/face protection.

- Response**
- P302+P352 - IF ON SKIN: Wash with plenty of soap and water.
  - P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
  - P321 - Specific treatment, see supplemental first aid information.
  - P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
  - P337+P313 - If eye irritation persists: Get medical advice/attention.
  - P362 - Take off contaminated clothing and wash before reuse.

- Storage/Disposal**
- P501 - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

## 2.3 Other Hazards

- CLP
- No data available

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## UN GHS

According to: UN Globally Harmonized System of Classification and Labelling of Chemicals (GHS): Seventh Revised Edition

### 2.1 Classification of the substance or mixture

- UN GHS
- Skin Irritation 2 - H315
  - Skin Sensitization 1 - H317
  - Eye Irritation 2 - H319
  - Hazardous to the aquatic environment Acute 2 - H401
  - Hazardous to the aquatic environment Chronic 3 - H412

### 2.2 Label elements

UN GHS

#### WARNING



- Hazard statements**
- H315 - Causes skin irritation.
  - H317 - May cause an allergic skin reaction.
  - H319 - Causes serious eye irritation.
  - H401 - Toxic to aquatic life.
  - H412 - Harmful to aquatic life with long lasting effects.

#### Precautionary statements

- Prevention**
- P261 - Avoid breathing dust, fume, gas, mist, vapors and/or spray.
  - P264 - Wash thoroughly after handling.
  - P272 - Contaminated work clothing should not be allowed out of the workplace.
  - P273 - Avoid release to the environment.
  - P280 - Wear protective gloves/protective clothing/eye protection/face protection.
- Response**
- P302+P352 - IF ON SKIN: Wash with plenty of soap and water.
  - P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
  - P321 - Specific treatment, see supplemental first aid information.
  - P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
  - P337+P313 - If eye irritation persists: Get medical advice/attention.
  - P362 - Take off contaminated clothing and wash before reuse.
- Storage/Disposal**
- P501 - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

### 2.3 Other hazards

- UN GHS
- No data available

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## United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

### 2.1 Classification of the substance or mixture

- OSHA HCS 2012
- Skin Irritation 2 - H315
  - Skin Sensitization 1 - H317
  - Eye Irritation 2 - H319

### 2.2 Label elements

OSHA HCS 2012

#### WARNING



- Hazard statements**
- H315 - Causes skin irritation.
  - H317 - May cause an allergic skin reaction.
  - H319 - Causes serious eye irritation.
  - H412 - Harmful to aquatic life with long lasting effects.

#### Precautionary statements

- Prevention**
- P261 - Avoid breathing dust, fume, gas, mist, vapors and/or spray.
  - P264 - Wash thoroughly after handling.
  - P272 - Contaminated work clothing should not be allowed out of the workplace.
  - P273 - Avoid release to the environment.
  - P280 - Wear protective gloves/protective clothing/eye protection/face protection.
- Response**
- P302+P352 - IF ON SKIN: Wash with plenty of soap and water.
  - P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
  - P321 - Specific treatment, see supplemental first aid information.
  - P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
  - P337+P313 - If eye irritation persists: Get medical advice/attention.
  - P362 - Take off contaminated clothing and wash before reuse.
- Storage/Disposal**
- P501 - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

### 2.3 Other hazards

- OSHA HCS 2012
- No data available

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## Canada

According to: WHMIS 2015

### 2.1 Classification of the substance or mixture

- WHMIS 2015
- Skin Irritation 2 - H315
  - Skin Sensitization 1 - H317
  - Eye Irritation 2 - H319

### 2.2 Label elements

WHMIS 2015

#### WARNING



- Hazard statements**
- H315 - Causes skin irritation.
  - H317 - May cause an allergic skin reaction.
  - H319 - Causes serious eye irritation.
  - H412 - Harmful to aquatic life with long lasting effects.

## Precautionary statements

- Prevention**
- P261 - Avoid breathing dust, fume, gas, mist, vapors and/or spray.
  - P264 - Wash thoroughly after handling.
  - P272 - Contaminated work clothing should not be allowed out of the workplace.
  - P273 - Avoid release to the environment.
  - P280 - Wear protective gloves/protective clothing/eye protection/face protection.

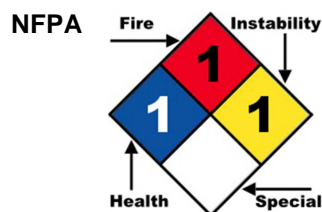
- Response**
- P302+P352 - IF ON SKIN: Wash with plenty of soap and water.
  - P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
  - P321 - Specific treatment, see supplemental first aid information.
  - P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
  - P337+P313 - If eye irritation persists: Get medical advice/attention.
  - P362 - Take off contaminated clothing and wash before reuse.

- Storage/Disposal**
- P501 - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

## 2.3 Other hazards

- WHMIS 2015**
- No data available

## 2.4 Other information



See Section 12 for Ecological Information.

## Section 3 - Composition/Information on Ingredients

### 3.1 Substances

### 3.2 Mixtures

Hazardous Components				
Chemical Name	Identifiers	%(weight)	LD50/LC50	Classifications According to Regulation/Directive
Ethanol, 2,2',2''-(propylidynetris(methyleneoxy))tri-, triacrylate	CAS:28961-43-5	4% TO 6%	Skin-Rabbit LD50 • >13 g/kg	GHS / CLP / OSHA / WHMIS: Skin Sens. 1
Acrylate oligomers		16% TO 17%	NDA	GHS / CLP / OSHA / WHMIS: Skin Sens. 1
Isopropyl alcohol	CAS:67-63-0 EC Number:200-661-7 UN:UN1219 EINECS:200-661-7	< 5%	Inhalation-Rat LC50 • 16000 ppm 8 Hour(s) Skin-Rabbit LD50 • 12800 mg/kg Ingestion/Oral-Rat LD50 • 5000 mg/kg	GHS / CLP / OSHA / WHMIS: Flam. Liq. 2; Eye Irrit. 2; STOT SE 3: Narc.
1-hydroxycyclohexyl phenyl ketone	CAS:947-19-3 EC Number:213-426-9 EINECS:213-426-9	< 2%		GHS / CLP / OSHA / WHMIS: Acute Tox. 5; Eye Irrit. 2; Skin Irrit. 2
Benzophenone	CAS:119-61-9 EINECS:204-337-6	< 2%	Ingestion/Oral-Rat LD50 • >10 g/kg Skin-Rabbit LD50 • 3535 mg/kg	GHS / CLP: Aquatic Acute 1; Aquatic Chronic 1; Eye Irrit. 2 OSHA / WHMIS: Eye Irrit. 2; Skin Irrit. 2
1-Butanone, 2-(dimethylamino)-1-(4-(4-morpholinyl)phenyl)-2-(phenylmethyl)	CAS:119313-12-1 EC Number:404-360-3	< 1%	Ingestion/Oral-Rat LD50 • >2000 mg/kg Skin-Rat LD50 • >=2000 mg/kg	GHS / CLP: Aquatic Acute 1; Aquatic Chronic 1 OSHA / WHMIS:

See Section 11 for Toxicological Information.

## Section 4 - First Aid Measures

### 4.1 Description of first aid measures

- Inhalation**
- IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, give artificial respiration and call 911 or emergency medical service.
- Skin**
- IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash before reuse. If skin irritation occurs: Get medical advice/attention.
- Eye**
- 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.
- Ingestion**
- If swallowed, do NOT induce vomiting unless directed to do so by medical personnel. Rinse mouth. Never give anything by mouth to an unconscious person. If large quantities are swallowed, call a physician immediately.

### 4.2 Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

### 4.3 Indication of any immediate medical attention and special treatment needed

### 4.4 Other information

- Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination.

## Section 5 - Firefighting Measures

### 5.1 Extinguishing media

- Suitable Extinguishing Media**
- SMALL FIRES: Dry chemical, CO<sub>2</sub>, water spray or regular foam.
  - LARGE FIRE: Water spray, fog or regular foam.

- Unsuitable Extinguishing Media**
- No data available

- Firefighting Procedures**
- Fire fighters should wear complete protective clothing including self-contained breathing apparatus.
  - Keep unauthorized personnel away.
  - Ventilate closed spaces before entering.
  - LARGE FIRES: Use extinguishing agent suitable for type of surrounding fire.

### 5.2 Special hazards arising from the substance or mixture

- Unusual Fire and Explosion Hazards**
- Some of these materials may burn, but none ignite readily.

- Hazardous Combustion Products**
- Products of combustion include: carbon oxides (CO<sub>x</sub>), nitrogen oxides (NO<sub>x</sub>).

### 5.3 Advice for firefighters

- Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations where direct contact with the substance is possible.
- Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection.
- Wear positive pressure self-contained breathing apparatus (SCBA).

### 5.4 Other information

- Runoff may pollute waterways.

## Section 6 - Accidental Release Measures

## 6.1 Personal precautions, protective equipment and emergency procedures

- Personal Precautions**
- Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Do not touch or walk through spilled material. Contact may irritate or burn skin and eyes.
- Emergency Procedures**
- No emergency procedures are expected to be necessary if material is used under ordinary conditions as recommended. Use normal clean up procedures.

## 6.2 Environmental precautions

- LARGE SPILLS:** Prevent entry into waterways, sewers, basements or confined areas.

## 6.3 Methods and material for containment and cleaning up

- Containment/Clean-up Measures**
- Use appropriate Personal Protective Equipment (PPE)
  - Contain and/or absorb spill with inert material (e.g. sand, vermiculite), then place in suitable container.

## 6.4 Reference to other sections

- Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

## Section 7 - Handling and Storage

### 7.1 Precautions for safe handling

- Handling**
- Use good safety and industrial hygiene practices. Do not expose to sunlight or white room light. Handle under yellow room lights to prevent polymerization due to UV exposure.

### 7.2 Conditions for safe storage, including any incompatibilities

- Storage**
- Keep container closed when not in use. Store away from extreme heat. Do not freeze. Ventilate enclosed areas.

- Special Packaging Materials**
- Package in opaque containers and/or use additional light-blocking materials.

### 7.3 Specific end use(s)

- Refer to Section 1.2 - Relevant identified uses.

## Section 8 - Exposure Controls/Personal Protection

### 8.1 Control parameters

Exposure Limits/Guidelines						
	Result	ACGIH	Argentina	Australia	Belgium	Brazil
Isopropyl alcohol (67-63-0)	STELs	400 ppm STEL	500 ppm STEL [CMP-CPT]	500 ppm STEL; 1230 mg/m <sup>3</sup> STEL	400 ppm STEL; 1000 mg/m <sup>3</sup> STEL	Not established
	TWAs	200 ppm TWA	400 ppm TWA [CMP]	400 ppm TWA; 983 mg/m <sup>3</sup> TWA	200 ppm TWA; 500 mg/m <sup>3</sup> TWA	310 ppm TWA LT; 765 mg/m <sup>3</sup> TWA LT
Exposure Limits/Guidelines (Con't.)						
	Result	Canada Alberta	Canada British Columbia	Canada Manitoba	Canada New Brunswick	Canada Northwest Territories
Isopropyl alcohol (67-63-0)	STELs	400 ppm STEL; 984 mg/m <sup>3</sup> STEL	400 ppm STEL	400 ppm STEL	500 ppm STEL; 1230 mg/m <sup>3</sup> STEL	500 ppm STEL; 1228 mg/m <sup>3</sup> STEL
	TWAs	200 ppm TWA; 492 mg/m <sup>3</sup> TWA	200 ppm TWA	200 ppm TWA	400 ppm TWA; 983 mg/m <sup>3</sup> TWA	400 ppm TWA; 983 mg/m <sup>3</sup> TWA
Exposure Limits/Guidelines (Con't.)						
	Result	Canada Nova Scotia	Canada Nunavut	Canada Ontario	Canada Quebec	Canada Saskatchewan
Isopropyl alcohol (67-63-0)	STELs	400 ppm STEL	500 ppm STEL; 1228 mg/m <sup>3</sup> STEL	400 ppm STEL	500 ppm STEV; 1230 mg/m <sup>3</sup> STEV	400 ppm STEL
	TWAs	200 ppm TWA	400 ppm TWA; 983 mg/m <sup>3</sup> TWA	200 ppm TWA	400 ppm TWAEV; 985 mg/m <sup>3</sup> TWAEV	200 ppm TWA
Exposure Limits/Guidelines (Con't.)						

	Result	Canada Yukon	Chile	China	Denmark	Egypt
Isopropyl alcohol (67-63-0)	STELs	500 ppm STEL; 1225 mg/m <sup>3</sup> STEL	500 ppm STEL LPT; 1230 mg/m <sup>3</sup> STEL LPT	700 mg/m <sup>3</sup> STEL	Not established	500 ppm STEL; 1230 mg/m <sup>3</sup> STEL
	TWAs	400 ppm TWA; 980 mg/m <sup>3</sup> TWA	320 ppm TWA LPP; 786 mg/m <sup>3</sup> TWA LPP	350 mg/m <sup>3</sup> TWA	200 ppm TWA; 490 mg/m <sup>3</sup> TWA	Not established
Exposure Limits/Guidelines (Con't.)						
	Result	Finland	France	Germany DFG	Germany TRGS	Hong Kong
Isopropyl alcohol (67-63-0)	STELs	250 ppm STEL; 620 mg/m <sup>3</sup> STEL	400 ppm STEL [VLCT]; 980 mg/m <sup>3</sup> STEL [VLCT]	Not established	Not established	500 ppm STEL; 1230 mg/m <sup>3</sup> STEL
	TWAs	200 ppm TWA; 500 mg/m <sup>3</sup> TWA	Not established	Not established	200 ppm TWA AGW (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed, exposure factor 2); 500 mg/m <sup>3</sup> TWA AGW (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed, exposure factor 2)	Not established
	Ceilings	Not established	Not established	400 ppm Peak; 1000 mg/m <sup>3</sup> Peak	Not established	Not established
	MAKs	Not established	Not established	200 ppm TWA MAK; 500 mg/m <sup>3</sup> TWA MAK	Not established	Not established
Exposure Limits/Guidelines (Con't.)						
	Result	Indonesia	Ireland	Japan	Korea	Mexico
Isopropyl alcohol (67-63-0)	Ceilings	Not established	Not established	400 ppm Ceiling; 980 mg/m <sup>3</sup> Ceiling	Not established	Not established
	STELs	Not established	400 ppm STEL	Not established	400 ppm STEL; 980 mg/m <sup>3</sup> STEL	500 ppm STEL [LMPE-CT]; 1225 mg/m <sup>3</sup> STEL [LMPE-CT]
	TWAs	400 ppm TWA; 983 mg/m <sup>3</sup> TWA	200 ppm TWA	Not established	200 ppm TWA; 480 mg/m <sup>3</sup> TWA	400 ppm TWA LMPE-PPT; 980 mg/m <sup>3</sup> TWA LMPE- PPT
Exposure Limits/Guidelines (Con't.)						
	Result	New Zealand	NIOSH	Norway	OSHA	Philippines
Isopropyl alcohol (67-63-0)	TWAs	400 ppm TWA; 983 mg/m <sup>3</sup> TWA	400 ppm TWA; 980 mg/m <sup>3</sup> TWA	100 ppm TWA; 245 mg/m <sup>3</sup> TWA	400 ppm TWA; 980 mg/m <sup>3</sup> TWA	400 ppm TWA; 980 mg/m <sup>3</sup> TWA
	STELs	500 ppm STEL; 1230 mg/m <sup>3</sup> STEL	500 ppm STEL; 1225 mg/m <sup>3</sup> STEL	Not established	Not established	Not established
Exposure Limits/Guidelines (Con't.)						
	Result	Poland	Portugal	Russia	Singapore	South Africa
Isopropyl alcohol (67-63-0)	STELs	1200 mg/m <sup>3</sup> STEL [NDSCh]	400 ppm STEL [VLE-CD]	50 mg/m <sup>3</sup> STEL (vapor)	500 ppm STEL; 1230 mg/m <sup>3</sup> STEL	500 ppm STEL; 1225 mg/m <sup>3</sup> STEL
	TWAs	900 mg/m <sup>3</sup> TWA [NDS]	200 ppm TWA [VLE- MP]	10 mg/m <sup>3</sup> TWA (vapor)	400 ppm PEL; 983 mg/m <sup>3</sup> PEL	400 ppm TWA; 960 mg/m <sup>3</sup> TWA; 980 mg/m <sup>3</sup> TWA (regulated under Propane-2-ol)
Exposure Limits/Guidelines (Con't.)						
	Result	Spain	Sweden	Switzerland	Taiwan	Venezuela
Isopropyl alcohol	MAKs	Not established	Not established	200 ppm TWA	Not established	Not established

(67-63-0)				[MAK]; 500 mg/m3 TWA [MAK]		
	STELs	400 ppm STEL [VLA-EC]; 1000 mg/m3 STEL [VLA-EC]	250 ppm STV; 600 mg/m3 STV	400 ppm STEL [KZW]; 1000 mg/m3 STEL [KZW]	Not established	500 ppm STEL [LEB]
	TWAs	200 ppm TWA [VLA-ED] (it is prohibited the partial or complete commercialization or use of this substance as a phytosanitary o biocide compound); 500 mg/m3 TWA [VLA-ED] (it is prohibited the partial or complete commercialization or use of this substance as a phytosanitary o biocide compound)	150 ppm LLV; 350 mg/m3 LLV	Not established	400 ppm TWA; 983 mg/m3 TWA	400 ppm TWA [CAP]
	Biological Limit Values (BLV)	40 mg/L urine end of workweek Acetone (1,F,I)	Not established	Not established	Not established	Not established

### Exposure Control Notations

#### Switzerland

•Isopropyl alcohol (67-63-0): **Developmental Risk Groups:** (Developmental Risk Group C)

#### Portugal

•Isopropyl alcohol (67-63-0): **Carcinogens:** (A4 - Not Classifiable as a Human Carcinogen)

#### Singapore

•Isopropyl alcohol (67-63-0): **Odor Threshold - High:** (490 mg/m3) | **Odor Threshold - Low:** (8 mg/m3) | **Irritation:** (490 mg/m3)

#### South Africa

•Isopropyl alcohol (67-63-0): **Skin:** (Skin Notation)

#### Brazil

•Isopropyl alcohol (67-63-0): **Skin:** (skin designation)

#### Ireland

•Isopropyl alcohol (67-63-0): **Skin:** (Potential for cutaneous absorption)

#### ACGIH

•Isopropyl alcohol (67-63-0): **Carcinogens:** (A4 - Not Classifiable as a Human Carcinogen)

#### Germany DFG

•Isopropyl alcohol (67-63-0): **Pregnancy:** (no risk to embryo/fetus if exposure limits adhered to)

### Exposure Limits Supplemental

#### Switzerland

•Isopropyl alcohol (67-63-0): **Biological Limit Values:** (25 mg/L Medium: urine Time: end of shift Parameter: Acetone; 25 mg/L Medium: whole blood Time: end of shift Parameter: Acetone)

#### Argentina

•Isopropyl alcohol (67-63-0): **BEIs:** (2 mg/g Creatinine urine Acetone)

#### ACGIH

•Isopropyl alcohol (67-63-0): **BEIs:** (40 mg/L Medium: urine Time: end of shift at end of workweek Parameter: Acetone (background, nonspecific)) | **TLV Basis - Critical Effects:** (CNS impairment; eye and upper respiratory tract irritation)

#### Germany TRGS

•Isopropyl alcohol (67-63-0): **BELs:** (50 mg/L Medium: whole blood Time: end of shift Parameter: Acetone; 50 mg/L Medium: urine Time: end of shift Parameter: Acetone)

## 8.2 Exposure controls

### Engineering

- Adequate ventilation systems as needed to control concentrations of airborne contaminants below applicable threshold limit values.

### Measures/Controls

### Personal Protective Equipment



**Pictograms**



**Respiratory**

- In case of insufficient ventilation, wear suitable respiratory equipment.

**Eye/Face**

- Wear protective eyewear (goggles, face shield, or safety glasses).

**Hands**

- Wear protective gloves - rubber or neoprene.

**Skin/Body**

- Wear protective clothing - apron or other impervious body coverings.

**General Industrial Hygiene Considerations**

- Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Wash thoroughly with soap and water after handling.

**Environmental Exposure Controls**

- No data available

**Section 9 - Physical and Chemical Properties**

**9.1 Information on Physical and Chemical Properties**

<b>Material Description</b>			
Physical Form	Liquid	Appearance/Description	Viscous liquid.
Color	Blue	Odor	Isopropanol
Taste	No data available	Odor Threshold	No data available
Physical and Chemical Properties	UV reactive		
<b>General Properties</b>			
Boiling Point	82 C (180 F)	Melting Point	No data available
pH	No data available	Specific Gravity/Relative Density	>1 Water = 1
Density	8.7 lbs/gal	Water Solubility	Miscible
Viscosity	10,000 Centipoise (cPs, cP) or mPas	Explosive Properties	None
Oxidizing Properties:	None		
<b>Volatility</b>			
Vapor Pressure	No data available	Vapor Density	>1 Air = 1
Evaporation Rate	< 1 Water = 1	VOC (Wt.)	<50 g/L
Volatiles (Wt.)	55 to 60 %		
<b>Flammability</b>			
Flash Point	> 82 C (>180 F)	UEL	No data available
LEL	No data available	Autoignition	No data available
Flammability (solid, gas)	Non-flammable in liquid form. When dry, product will burn as an ordinary combustible material.		
<b>Environmental</b>			
Half-Life	No data available	Octanol/Water Partition coefficient	No data available
Coefficient of water/oil distribution	No data available	Bioaccumulation Factor	No data available
Bioconcentration Factor	No data available	Biochemical Oxygen Demand BOD/BOD5	No data available
Chemical Oxygen Demand	No data available	Persistence	No data available
Degradation	No data available		

**9.2 Other Information**

- No data available

## Section 10: Stability and Reactivity

### 10.1 Reactivity

- No dangerous reaction known under conditions of normal use.

### 10.2 Chemical stability

- UV reactive.

### 10.3 Possibility of hazardous reactions

- Hazardous polymerization will not occur.

### 10.4 Conditions to avoid

- Avoid freezing. Direct sunlight. Excess heat.

### 10.5 Incompatible materials

- Oxidizers.

### 10.6 Hazardous decomposition products

- Hazardous decomposition products formed under fire conditions - carbon oxides, nitrogen oxides. No decomposition is expected under normal storage and use conditions.

## Section 11 - Toxicological Information

### 11.1 Information on toxicological effects

Component Name	CAS	Data
Ethanol, 2,2',2''-(propylidynetris(methyleneoxy))tri-, triacrylate (5% TO 6%)	28961-43-5	<b>Acute Toxicity:</b> skn-rbt LD50:>13 gm/kg; <b>Irritation:</b> eye-rbt 100 mg MOD; skn-rbt 500 mg MOD
Isopropyl alcohol (< 5%)	67-63-0	<b>Acute Toxicity:</b> orl-rat LD50:5000 mg/kg; ihl-rat LC50:16000 ppm/8H; skn-rbt LD50:12800 mg/kg; <b>Irritation:</b> eye-rbt 100 mg/24H MOD
Benzophenone (< 2%)	119-61-9	<b>Acute Toxicity:</b> orl-rat LD50:>10 gm/kg; Skin-Rabbit LD50 • 3535 mg/kg
1-Butanone, 2-(dimethylamino)-1-(4-(4-morpholinyl)phenyl)-2-(phenylmethyl) (< 1%)	119313-12-1	<b>Acute Toxicity:</b> Ingestion/Oral-Rat LD50 • >2000 mg/kg; Skin-Rat LD50 • >=2000 mg/kg
GHS Properties	Classification	
Skin corrosion/Irritation	EU/CLP•Skin Irritation 2 OSHA HCS 2012•Skin Irritation 2 UN GHS•Skin Irritation 2 Canada WHMIS•Skin Irritation 2	
Skin sensitization	EU/CLP•Skin Sensitizer 1 OSHA HCS 2012•Skin Sensitizer 1 UN GHS•Skin Sensitizer 1 Canada WHMIS• Skin Sensitizer 1	
Serious eye damage/Irritation	EU/CLP•Eye Irritation 2 OSHA HCS 2012•Eye Irritation 2 UN GHS•Eye Irritation 2A Canada WHMIS• Eye Irritation 2	

### Potential Health Effects

#### Inhalation

##### Acute (Immediate)

- May cause irritation.

##### Chronic (Delayed)

- Repeated and prolonged exposure may cause irritation.

#### Skin

##### Acute (Immediate)

- May cause irritation. May cause an allergic skin reaction.

##### Chronic (Delayed)

- Repeated and prolonged exposure may cause irritation. Repeated and prolonged exposure may cause sensitization.

#### Eye

- Acute (Immediate)** • May cause irritation.
  - Chronic (Delayed)** • Repeated and prolonged exposure may cause irritation.
- Ingestion**
- Acute (Immediate)** • No data available
  - Chronic (Delayed)** • No data available

## Section 12 - Ecological Information

### 12.1 Toxicity

Component	CAS	Data
Benzophenone (< 2%)	119-61-9	<b>Crustacea:</b> 24 Hour(s) EC50 Crustacea .28 mg/L ; <b>Fish:</b> 96 Hour(s) LC50 Fish 14.2 mg/L
1-Butanone, 2-(dimethylamino)-1-(4-(4-morpholinyl)phenyl)-2-(phenylmethyl) (< 1%)	119313-12-1	<b>Crustacea:</b> 24 Hour(s) EC50 Water Flea .8 mg/L ; <b>Fish:</b> 96 Hour(s) LC50 Fish .46 mg/L

### 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

## Section 13 - Disposal Considerations

### 13.1 Waste treatment methods

**Product waste** • Dispose of content in accordance with local, regional, national, and/or international regulations.

**Packaging waste** • Dispose of container in accordance with local, regional, national, and/or international regulations.

### 13.2 Other Information

- Avoid release to the environment. Dispose of wastes in an approved waste disposal facility.

## Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards
DOT	NDA	NDA	NDA	NDA	NDA
IMO/IMDG	NDA	NDA	NDA	NDA	NDA
IATA/ICAO	NDA	NDA	NDA	NDA	NDA

**14.6 Special precautions for user** • None specified.

**14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** • Not relevant.

**14.8 Other information**

**DOT** • Not regulated.

IMO/IMDG • Not regulated.

IATA/ICAO • Not regulated.

## Section 15 - Regulatory Information

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications • Acute

State Right To Know				
Component	CAS	MA	NJ	PA
Ethanol, 2,2',2''-(propylidynetris(methyleneoxy))tri-, triacrylate	28961-43-5	No	No	No
Acrylate oligomers	NDA	No	No	No
Isopropyl alcohol	67-63-0	Yes	Yes	Yes
1-hydroxycyclohexyl phenyl ketone	947-19-3	No	No	No
Benzophenone	119-61-9	No	No	No
1-Butanone, 2-(dimethylamino)-1-(4-(4-morpholinyl)phenyl)-2-(phenylmethyl)	119313-12-1	No	No	No

Inventory						
Component	CAS	Australia AICS	Canada DSL	China	EU EINECS	EU ELNICS
Ethanol, 2,2',2''-(propylidynetris(methyleneoxy))tri-, triacrylate	28961-43-5	Yes	Yes	Yes	No	No
Acrylate oligomers	NDA	No	No	No	No	No
Isopropyl alcohol	67-63-0	Yes	Yes	Yes	Yes	No
1-hydroxycyclohexyl phenyl ketone	947-19-3	Yes	Yes	Yes	Yes	No
Benzophenone	119-61-9	Yes	Yes	Yes	Yes	No
1-Butanone, 2-(dimethylamino)-1-(4-(4-morpholinyl)phenyl)-2-(phenylmethyl)	119313-12-1	Yes	Yes	Yes	No	Yes

Inventory (Con't.)						
Component	CAS	Japan ENCS	Korea KECL	New Zealand	Philippines PICCS	Switzerland SWISS
Ethanol, 2,2',2''-(propylidynetris(methyleneoxy))tri-, triacrylate	28961-43-5	No	Yes	Yes	Yes	No
Acrylate oligomers	NDA	No	No	No	No	No
Isopropyl alcohol	67-63-0	Yes	Yes	Yes	Yes	No
1-hydroxycyclohexyl phenyl ketone	947-19-3	Yes	Yes	Yes	Yes	No
Benzophenone	119-61-9	Yes	Yes	Yes	Yes	No
1-Butanone, 2-(dimethylamino)-1-(4-(4-morpholinyl)phenyl)-2-(phenylmethyl)	119313-12-1	Yes	Yes	Yes	Yes	Yes

Inventory (Con't.)		
Component	CAS	TSCA
Ethanol, 2,2',2''-(propylidynetris(methyleneoxy))tri-, triacrylate	28961-43-5	Yes
Acrylate oligomers	NDA	No
Isopropyl alcohol	67-63-0	Yes
1-hydroxycyclohexyl phenyl ketone	947-19-3	Yes
Benzophenone	119-61-9	Yes
1-Butanone, 2-(dimethylamino)-1-(4-(4-morpholinyl)phenyl)-2-	119313-12-1	Yes

(phenylmethyl)		
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## Australia

### Labor

#### Australia - High Volume Industrial Chemicals List

•Isopropyl alcohol	67-63-0	
•Ethanol, 2,2',2''-(propylidynetris(methyleneoxy))tri-, triacrylate	28961-43-5	Not Listed
•1-hydroxycyclohexyl phenyl ketone	947-19-3	Not Listed
•Benzophenone	119-61-9	Not Listed
•1-Butanone, 2-(dimethylamino)-1-(4-(4-morpholinyl)phenyl)-2-(phenylmethyl)	119313-12-1	Not Listed

#### Australia - List of Designated Hazardous Substances - Classification

•Isopropyl alcohol	67-63-0	F, Xi R11, R36, R67
•Ethanol, 2,2',2''-(propylidynetris(methyleneoxy))tri-, triacrylate	28961-43-5	Not Listed
•1-hydroxycyclohexyl phenyl ketone	947-19-3	Not Listed
•Benzophenone	119-61-9	Not Listed
•1-Butanone, 2-(dimethylamino)-1-(4-(4-morpholinyl)phenyl)-2-(phenylmethyl)	119313-12-1	N R50, R53

### Environment

#### Australia - Priority Existing Chemical Program

•Isopropyl alcohol	67-63-0	Candidate chemical
•Ethanol, 2,2',2''-(propylidynetris(methyleneoxy))tri-, triacrylate	28961-43-5	Not Listed
•1-hydroxycyclohexyl phenyl ketone	947-19-3	Not Listed
•Benzophenone	119-61-9	Not Listed
•1-Butanone, 2-(dimethylamino)-1-(4-(4-morpholinyl)phenyl)-2-(phenylmethyl)	119313-12-1	Not Listed

## Canada

### Labor

#### Canada - WHMIS - Classifications of Substances

•Isopropyl alcohol	67-63-0	B2, D2B (including 70%)
•Ethanol, 2,2',2''-(propylidynetris(methyleneoxy))tri-, triacrylate	28961-43-5	Not Listed
•1-hydroxycyclohexyl phenyl ketone	947-19-3	Not Listed
•Benzophenone	119-61-9	Not Listed
•1-Butanone, 2-(dimethylamino)-1-(4-(4-morpholinyl)phenyl)-2-(phenylmethyl)	119313-12-1	Not Listed

#### Canada - WHMIS - Ingredient Disclosure List

•Isopropyl alcohol	67-63-0	1 %
•Ethanol, 2,2',2''-(propylidynetris(methyleneoxy))tri-, triacrylate	28961-43-5	Not Listed
•1-hydroxycyclohexyl phenyl ketone	947-19-3	Not Listed
•Benzophenone	119-61-9	Not Listed
•1-Butanone, 2-(dimethylamino)-1-(4-(4-morpholinyl)phenyl)-2-(phenylmethyl)	119313-12-1	Not Listed

## Canada Alberta

### Environment

#### Canada - Alberta - Ambient Air Quality Objectives

•Isopropyl alcohol	67-63-0	3190 ppbv 1 hour average; 7850 µg/m <sup>3</sup> 1 hour average
•Ethanol, 2,2',2''-(propylidynetris(methyleneoxy))tri-, triacrylate	28961-43-5	Not Listed
•1-hydroxycyclohexyl phenyl ketone	947-19-3	Not Listed
•Benzophenone	119-61-9	Not Listed
•1-Butanone, 2-(dimethylamino)-1-(4-(4-morpholinyl)phenyl)-2-(phenylmethyl)	119313-12-1	Not Listed

## China

### Other

#### China - Dangerous Goods List

•Isopropyl alcohol	67-63-0	
•Ethanol, 2,2',2''-(propylidynetris(methyleneoxy))tri-, triacrylate	28961-43-5	Not Listed
•1-hydroxycyclohexyl phenyl ketone	947-19-3	Not Listed
•Benzophenone	119-61-9	Not Listed
•1-Butanone, 2-(dimethylamino)-1-(4-(4-morpholinyl)phenyl)-2-(phenylmethyl)	119313-12-1	Not Listed

## Denmark

### Environment

#### Denmark - Advisory List for Self-Classification of Dangerous Substances

•Isopropyl alcohol	67-63-0	Not Listed
•Ethanol, 2,2',2''-(propylidynetris(methyleneoxy))tri-, triacrylate	28961-43-5	Not Listed
•1-hydroxycyclohexyl phenyl ketone	947-19-3	R52/53
•Benzophenone	119-61-9	Not Listed

•1-Butanone, 2-(dimethylamino)-1-(4-(4-morpholinyl)phenyl)-2-(phenylmethyl)	119313-12-1	Not Listed
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## Europe

### Other

#### EU - CLP (1272/2008) - Annex VI - Table 3.2 - Classification

•Isopropyl alcohol	67-63-0	F; R11 Xi; R36 R67
•Ethanol, 2,2',2''-(propylidynetris(methyleneoxy))tri-, triacrylate	28961-43-5	Not Listed
•1-hydroxycyclohexyl phenyl ketone	947-19-3	Not Listed
•Benzophenone	119-61-9	Not Listed
•1-Butanone, 2-(dimethylamino)-1-(4-(4-morpholinyl)phenyl)-2-(phenylmethyl)	119313-12-1	N; R50-53

#### EU - CLP (1272/2008) - Annex VI - Table 3.2 - Labelling

•Isopropyl alcohol	67-63-0	F Xi R:11-36-67 S:(2)-7-16-24/25-26
•Ethanol, 2,2',2''-(propylidynetris(methyleneoxy))tri-, triacrylate	28961-43-5	Not Listed
•1-hydroxycyclohexyl phenyl ketone	947-19-3	Not Listed
•Benzophenone	119-61-9	Not Listed
•1-Butanone, 2-(dimethylamino)-1-(4-(4-morpholinyl)phenyl)-2-(phenylmethyl)	119313-12-1	N R:50/53 S:60-61

#### EU - CLP (1272/2008) - Annex VI - Table 3.2 - Safety Phrases

•Isopropyl alcohol	67-63-0	S:(2)-7-16-24/25-26
•Ethanol, 2,2',2''-(propylidynetris(methyleneoxy))tri-, triacrylate	28961-43-5	Not Listed
•1-hydroxycyclohexyl phenyl ketone	947-19-3	Not Listed
•Benzophenone	119-61-9	Not Listed
•1-Butanone, 2-(dimethylamino)-1-(4-(4-morpholinyl)phenyl)-2-(phenylmethyl)	119313-12-1	S:60-61

#### EU - Endocrine Disruptors (COM (2001)262) - Candidate List of Substances

•Isopropyl alcohol	67-63-0	Not Listed
•Ethanol, 2,2',2''-(propylidynetris(methyleneoxy))tri-, triacrylate	28961-43-5	Not Listed
•1-hydroxycyclohexyl phenyl ketone	947-19-3	Not Listed
•Benzophenone	119-61-9	Group III Chemical
•1-Butanone, 2-(dimethylamino)-1-(4-(4-morpholinyl)phenyl)-2-(phenylmethyl)	119313-12-1	Not Listed

#### EU - No-Longer Polymers List (67/548/EEC)

•Isopropyl alcohol	67-63-0	Not Listed
•Ethanol, 2,2',2''-(propylidynetris(methyleneoxy))tri-, triacrylate	28961-43-5	NLP No. 500-066-5 (>1<6.5 mol ethoxylated units)
•1-hydroxycyclohexyl phenyl ketone	947-19-3	Not Listed
•Benzophenone	119-61-9	Not Listed
•1-Butanone, 2-(dimethylamino)-1-(4-(4-morpholinyl)phenyl)-2-(phenylmethyl)	119313-12-1	Not Listed

## Germany

### Environment

#### Germany - Water Classification (VwVwS) - Annex 2 - Water Hazard Classes

•Isopropyl alcohol	67-63-0	ID Number 135, hazard class 1 - low hazard to waters
•Ethanol, 2,2',2''-(propylidynetris(methyleneoxy))tri-, triacrylate	28961-43-5	Not Listed
•1-hydroxycyclohexyl phenyl ketone	947-19-3	Not Listed
•Benzophenone	119-61-9	Not Listed
•1-Butanone, 2-(dimethylamino)-1-(4-(4-morpholinyl)phenyl)-2-(phenylmethyl)	119313-12-1	Not Listed

#### Germany - Water Classification (VwVwS) - Annex 3

•Isopropyl alcohol	67-63-0	Not Listed
•Ethanol, 2,2',2''-(propylidynetris(methyleneoxy))tri-, triacrylate	28961-43-5	ID Number 8454, hazard class 1 - low hazard to waters (1 - 6.5 moles ethoxylated)
•1-hydroxycyclohexyl phenyl ketone	947-19-3	Not Listed
•Benzophenone	119-61-9	ID Number 2024, hazard class 2 - hazard to waters
•1-Butanone, 2-(dimethylamino)-1-(4-(4-morpholinyl)phenyl)-2-(phenylmethyl)	119313-12-1	ID Number 2102, hazard class 2 - hazard to waters

## Hong Kong

### Labor

#### Hong Kong - Dangerous Substances Regulations - Classification

•Isopropyl alcohol	67-63-0	Flammable (listed under Propanol, all isomers)
•Ethanol, 2,2',2''-(propylidynetris(methyleneoxy))tri-, triacrylate	28961-43-5	Not Listed
•1-hydroxycyclohexyl phenyl ketone	947-19-3	Not Listed
•Benzophenone	119-61-9	Not Listed

•1-Butanone, 2-(dimethylamino)-1-(4-(4-morpholinyl)phenyl)-2-(phenylmethyl) <b>Hong Kong - Dangerous Substances Regulations - Particular Risks</b>	119313-12-1	Not Listed
•Isopropyl alcohol	67-63-0	R-11 (listed under Propanol, all isomers)
•Ethanol, 2,2',2''-(propylidynetris(methyleneoxy))tri-, triacrylate	28961-43-5	Not Listed
•1-hydroxycyclohexyl phenyl ketone	947-19-3	Not Listed
•Benzophenone	119-61-9	Not Listed
•1-Butanone, 2-(dimethylamino)-1-(4-(4-morpholinyl)phenyl)-2-(phenylmethyl) <b>Hong Kong - Dangerous Substances Regulations - Safety Precautions</b>	119313-12-1	Not Listed
•Isopropyl alcohol	67-63-0	S-6/8, S-13 (listed under Propanol, all isomers)
•Ethanol, 2,2',2''-(propylidynetris(methyleneoxy))tri-, triacrylate	28961-43-5	Not Listed
•1-hydroxycyclohexyl phenyl ketone	947-19-3	Not Listed
•Benzophenone	119-61-9	Not Listed
•1-Butanone, 2-(dimethylamino)-1-(4-(4-morpholinyl)phenyl)-2-(phenylmethyl)	119313-12-1	Not Listed

## Other

### Hong Kong - Dangerous Goods - Category 5 - Substances Giving Off Flammable Vapour

•Isopropyl alcohol	67-63-0	Class 1, Division 2
•Ethanol, 2,2',2''-(propylidynetris(methyleneoxy))tri-, triacrylate	28961-43-5	Not Listed
•1-hydroxycyclohexyl phenyl ketone	947-19-3	Not Listed
•Benzophenone	119-61-9	Not Listed
•1-Butanone, 2-(dimethylamino)-1-(4-(4-morpholinyl)phenyl)-2-(phenylmethyl)	119313-12-1	Not Listed

## India

### Environment

#### India - Hazardous Chemical Rules - List of Hazardous and Toxic Chemicals

•Isopropyl alcohol	67-63-0	
•Ethanol, 2,2',2''-(propylidynetris(methyleneoxy))tri-, triacrylate	28961-43-5	Not Listed
•1-hydroxycyclohexyl phenyl ketone	947-19-3	Not Listed
•Benzophenone	119-61-9	Not Listed
•1-Butanone, 2-(dimethylamino)-1-(4-(4-morpholinyl)phenyl)-2-(phenylmethyl)	119313-12-1	Not Listed

## Japan

### Labor

#### Japan - ISHL Dangerous Substances

•Isopropyl alcohol	67-63-0	Flammable substance (listed under Substances whose flash points are $\geq 0$ °C and $< 30$ °C)
•Ethanol, 2,2',2''-(propylidynetris(methyleneoxy))tri-, triacrylate	28961-43-5	Not Listed
•1-hydroxycyclohexyl phenyl ketone	947-19-3	Not Listed
•Benzophenone	119-61-9	Not Listed
•1-Butanone, 2-(dimethylamino)-1-(4-(4-morpholinyl)phenyl)-2-(phenylmethyl)	119313-12-1	Not Listed

#### Japan - ISHL Harmful Substances Requiring Workers to Subject to Medical Exams

•Isopropyl alcohol	67-63-0	(when produced and handled indoors)
•Ethanol, 2,2',2''-(propylidynetris(methyleneoxy))tri-, triacrylate	28961-43-5	Not Listed
•1-hydroxycyclohexyl phenyl ketone	947-19-3	Not Listed
•Benzophenone	119-61-9	Not Listed
•1-Butanone, 2-(dimethylamino)-1-(4-(4-morpholinyl)phenyl)-2-(phenylmethyl)	119313-12-1	Not Listed

#### Japan - ISHL Harmful Substances Whose Names Are to be Indicated on the Label

•Isopropyl alcohol	67-63-0	$\geq 1$ % weight (listed under Propyl alcohol)
•Ethanol, 2,2',2''-(propylidynetris(methyleneoxy))tri-, triacrylate	28961-43-5	Not Listed
•1-hydroxycyclohexyl phenyl ketone	947-19-3	Not Listed
•Benzophenone	119-61-9	Not Listed
•1-Butanone, 2-(dimethylamino)-1-(4-(4-morpholinyl)phenyl)-2-(phenylmethyl)	119313-12-1	Not Listed

#### Japan - ISHL Notifiable Substances

•Isopropyl alcohol	67-63-0	$\geq 0.1$ % weight [Ordinance Table 2] (listed under Propyl alcohol)
•Ethanol, 2,2',2''-(propylidynetris(methyleneoxy))tri-, triacrylate	28961-43-5	Not Listed
•1-hydroxycyclohexyl phenyl ketone	947-19-3	Not Listed
•Benzophenone	119-61-9	Not Listed
•1-Butanone, 2-(dimethylamino)-1-(4-(4-morpholinyl)phenyl)-2-(phenylmethyl)	119313-12-1	Not Listed

#### Japan - ISHL Prevention of Organic Solvent Poisoning

•Isopropyl alcohol	67-63-0	Class 2 Organic Solvent
•Ethanol, 2,2',2''-(propylidynetris(methyleneoxy))tri-, triacrylate	28961-43-5	Not Listed
•1-hydroxycyclohexyl phenyl ketone	947-19-3	Not Listed
•Benzophenone	119-61-9	Not Listed
•1-Butanone, 2-(dimethylamino)-1-(4-(4-morpholinyl)phenyl)-2-(phenylmethyl)	119313-12-1	Not Listed

## Environment

### Japan - Pollutant Release Transfer Register (PRTR) - Class 1 Substances

•Isopropyl alcohol	67-63-0	Not Listed
•Ethanol, 2,2',2''-(propylidynetris(methyleneoxy))tri-, triacrylate	28961-43-5	Not Listed
•1-hydroxycyclohexyl phenyl ketone	947-19-3	Not Listed
•Benzophenone	119-61-9	403 >=1 %
•1-Butanone, 2-(dimethylamino)-1-(4-(4-morpholinyl)phenyl)-2-(phenylmethyl)	119313-12-1	Not Listed

### Inventory - Japan - Industrial Safety and Health Law Substances (ISHL)

•Isopropyl alcohol	67-63-0	2-(8)-319
•Ethanol, 2,2',2''-(propylidynetris(methyleneoxy))tri-, triacrylate	28961-43-5	10-2718
•1-hydroxycyclohexyl phenyl ketone	947-19-3	7-(4)-697
•Benzophenone	119-61-9	Not Listed
•1-Butanone, 2-(dimethylamino)-1-(4-(4-morpholinyl)phenyl)-2-(phenylmethyl)	119313-12-1	8-(7)-927

## Other

### Japan - Chemical Substance Control Law (CSCL) - Examined Existing Chemical Substances

•Isopropyl alcohol	67-63-0	Readily biodegradable
•Ethanol, 2,2',2''-(propylidynetris(methyleneoxy))tri-, triacrylate	28961-43-5	Not Listed
•1-hydroxycyclohexyl phenyl ketone	947-19-3	Not Listed
•Benzophenone	119-61-9	Non-biodegradable/Low bioconcentration
•1-Butanone, 2-(dimethylamino)-1-(4-(4-morpholinyl)phenyl)-2-(phenylmethyl)	119313-12-1	Not Listed

### Japan - Fire Service Law - Hazardous Materials

•Isopropyl alcohol	67-63-0	Group 4 - Flammable liquids II (listed under Alcohols)
•Ethanol, 2,2',2''-(propylidynetris(methyleneoxy))tri-, triacrylate	28961-43-5	Not Listed
•1-hydroxycyclohexyl phenyl ketone	947-19-3	Not Listed
•Benzophenone	119-61-9	Not Listed
•1-Butanone, 2-(dimethylamino)-1-(4-(4-morpholinyl)phenyl)-2-(phenylmethyl)	119313-12-1	Not Listed

### Japan - ISHL Working Environment Evaluation Standards - Administrative Control Levels

•Isopropyl alcohol	67-63-0	200 ppm ACL
•Ethanol, 2,2',2''-(propylidynetris(methyleneoxy))tri-, triacrylate	28961-43-5	Not Listed
•1-hydroxycyclohexyl phenyl ketone	947-19-3	Not Listed
•Benzophenone	119-61-9	Not Listed
•1-Butanone, 2-(dimethylamino)-1-(4-(4-morpholinyl)phenyl)-2-(phenylmethyl)	119313-12-1	Not Listed

## Korea

### Labor

#### Korea - ISHA - Name, Toxicity and Protective Measures of New Chemical Substances

•Isopropyl alcohol	67-63-0	Not Listed
•Ethanol, 2,2',2''-(propylidynetris(methyleneoxy))tri-, triacrylate	28961-43-5	Not Listed
•1-hydroxycyclohexyl phenyl ketone	947-19-3	Not Listed
•Benzophenone	119-61-9	Not Listed
•1-Butanone, 2-(dimethylamino)-1-(4-(4-morpholinyl)phenyl)-2-(phenylmethyl)	119313-12-1	94-20 (0055)

## Singapore

### Environment

#### Singapore - Petroleum and Flammable Materials - Hazard Classes

•Isopropyl alcohol	67-63-0	3
•Ethanol, 2,2',2''-(propylidynetris(methyleneoxy))tri-, triacrylate	28961-43-5	Not Listed
•1-hydroxycyclohexyl phenyl ketone	947-19-3	Not Listed
•Benzophenone	119-61-9	Not Listed
•1-Butanone, 2-(dimethylamino)-1-(4-(4-morpholinyl)phenyl)-2-(phenylmethyl)	119313-12-1	Not Listed

#### Singapore - Petroleum and Flammable Materials - Regulated Products

•Isopropyl alcohol	67-63-0	SCDIPA1219L2
•Ethanol, 2,2',2''-(propylidynetris(methyleneoxy))tri-, triacrylate	28961-43-5	Not Listed
•1-hydroxycyclohexyl phenyl ketone	947-19-3	Not Listed
•Benzophenone	119-61-9	Not Listed
•1-Butanone, 2-(dimethylamino)-1-(4-(4-morpholinyl)phenyl)-2-(phenylmethyl)	119313-12-1	Not Listed

## United States - California



## Environment

### U.S. - California - Proposition 65 - Carcinogens List

•Isopropyl alcohol	67-63-0	Not Listed
•Ethanol, 2,2',2''-(propylidynetris(methyleneoxy))tri-, triacrylate	28961-43-5	Not Listed
•1-hydroxycyclohexyl phenyl ketone	947-19-3	Not Listed
•Benzophenone	119-61-9	carcinogen, 6/22/2012
•1-Butanone, 2-(dimethylamino)-1-(4-(4-morpholinyl)phenyl)-2-(phenylmethyl)	119313-12-1	Not Listed

## United States - Pennsylvania

### Labor

#### U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

•Isopropyl alcohol	67-63-0	
•Ethanol, 2,2',2''-(propylidynetris(methyleneoxy))tri-, triacrylate	28961-43-5	Not Listed
•1-hydroxycyclohexyl phenyl ketone	947-19-3	Not Listed
•Benzophenone	119-61-9	Not Listed
•1-Butanone, 2-(dimethylamino)-1-(4-(4-morpholinyl)phenyl)-2-(phenylmethyl)	119313-12-1	Not Listed

## 15.2 Chemical Safety Assessment

- No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

## 15.3 Other Information

- California Proposition 65: This product can expose you to chemicals known to the State of California to cause cancer:

Benzophenone	CAS No. 119-61-9	1-2%
1,4-Dioxane	CAS No. 123-91-1	<0.0001%
Acetaldehyde	CAS No. 75-07-0	<0.002%

## Section 16 - Other Information

### Relevant Phrases (code & full text)

- H315 - Causes skin irritation.
- H316 - Causes mild skin irritation.
- H319 - Causes serious eye irritation.
- H401 - Toxic to aquatic life.
- H412 - Harmful to aquatic life with long lasting effects.
- P261 - Avoid breathing dust, fume, gas, mist, vapors and/or spray.
- P264 - Wash thoroughly after handling.
- P272 - Contaminated work clothing should not be allowed out of the workplace.
- P273 - Avoid release to the environment.
- P280 - Wear protective gloves/protective clothing/eye protection/face protection.
- P302+P352 - IF ON SKIN: Wash with plenty of soap and water.
- P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P321 - Specific treatment, see supplemental first aid information.
- 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.
- P501 - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.
- EUH208 – Contains sensitizing substance.

### Classification method for mixtures

- Calculation method.

### Last Revision Date

- 28 September 2016

### Preparation Date

- 03 August 2018

### Other Information

- Approved by: Troy Bergstedt, Director of Chemical Research, (218) 628-2217 ext.142.

### Disclaimer/Statement of Liability

- The information contained herein is based on data available to us and is believed to be correct. Since this information may have been obtained in part from independent laboratories or other sources not under direct supervision, no representation is made that the information is accurate, reliable, complete, or representative and Buyer may rely

thereon only at the Buyer's risk. We make no guarantee that the health and safety precautions we have suggested will be adequate for all individuals and / or situations involving its handling and uses. No warranty is expressed or implied regarding the accuracy of this data or the results to be obtained from the use thereof. Vendor assumes no responsibility for injury to vendee or third person proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet.

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