

# 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

CLPNo data available

#### UN GHS

According to: UN Globally Harmonized System of Classification and Labelling of Chemicals (GHS): Eighth 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.

F362 - Take oil 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

#### 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

#### 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.

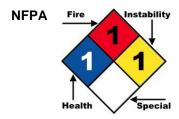
**Storage/Disposal** • P501 - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

#### 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		

Ingestion/Oral-Rat LD50 • GHS / CLP: Aquatic CAS:119313-12-1 1-Butanone, 2-(dimethylamino)-1-(4-(4->2000 mg/kg Acute 1; Aquatic Chronic EC Number: 404-< 1% morpholinyl)phenyl)-2-(phenylmethyl) Skin-Rat LD50 • >=2000 360-3 OSHA / WHMIS: mg/kg

European Chemicals Agency – Candidate List of Substances of Very High Concern for Authorization 1-Butanone, 2-(dimethylamino)-1-(4-(4-morpholinyl)phenyl)-2-(phenylmethyl), CAS #119313-12-1; (2-benzyl-2dimethylamino-4'-morpholinobutyrophenone); listed 16/01/2020; <1%

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** • SMALL FIRES: Dry chemical, CO2, water spray or regular foam.

Media

LARGE FIRE: Water spray, fog or regular foam.

Unsuitable

• No data available

**Extinguishing Media** 

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 of combustion include: carbon oxides (COx), nitrogen oxides (NOx). **Products** 

### 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 • Package in opaque containers and/or use additional light-blocking materials.

**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	STELs	400 ppm STEL	500 ppm STEL [CMP-CPT]	500 ppm STEL; 1230 mg/m3 STEL	400 ppm STEL; 1000 mg/m3 STEL	Not established	
(67-63-0)		200 ppm TWA	400 ppm TWA [CMP]	400 ppm TWA; 983 mg/m3 TWA	200 ppm TWA; 500 mg/m3 TWA	310 ppm TWA LT; 765 mg/m3 TWA LT	
Exposure Limits/Guidelines (Con't.)							
	Result	Canada Alberta	Canada British Columbia	Canada Manitoba	Canada New Brunswick	Canada Northwest Territories	
Isopropyl alcohol	STELs	400 ppm STEL; 984 mg/m3 STEL	400 ppm STEL	400 ppm STEL	500 ppm STEL; 1230 mg/m3 STEL	500 ppm STEL; 1228 mg/m3 STEL	
(67-63-0)	TWAs	200 ppm TWA; 492 mg/m3 TWA	200 ppm TWA	200 ppm TWA	400 ppm TWA; 983 mg/m3 TWA	400 ppm TWA; 983 mg/m3 TWA	
Exposure Limits/Guidelines (Con't.)							
	Result	Canada Nova Scotia	Canada Nunavut	Canada Ontario	Canada Quebec	Canada Saskatchewan	

Isopropyl alcohol	STELs	400 ppm STEL	500 ppm STEL; 1228 mg/m3 STEL	400 ppm STEL	500 ppm STEV; 1230 mg/m3 STEV	400 ppm STEL
(67-63-0)	TWAs	200 ppm TWA	400 ppm TWA; 983 mg/m3 TWA	200 ppm TWA	400 ppm TWAEV; 985 mg/m3 TWAEV	200 ppm TWA
		Ex	posure Limits/Gu	idelines (Con't.)		
	Result	Canada Yukon	Chile	China	Denmark	Egypt
Isopropyl alcohol	STELs	500 ppm STEL; 1225 mg/m3 STEL	500 ppm STEL LPT; 1230 mg/m3 STEL LPT	700 mg/m3 STEL	Not established	500 ppm STEL; 1230 mg/m3 STEL
(67-63-0)	TWAs	400 ppm TWA; 980 mg/m3 TWA	320 ppm TWA LPP; 786 mg/m3 TWA LPP	350 mg/m3 TWA	200 ppm TWA; 490 mg/m3 TWA	Not established
		Ex	posure Limits/Gu	idelines (Con't.)		
	Result	Finland	France	Germany DFG	Germany TRGS	Hong Kong
	STELs	250 ppm STEL; 620 mg/m3 STEL	400 ppm STEL [VLCT]; 980 mg/m3 STEL [VLCT]	Not established	Not established	500 ppm STEL; 1230 mg/m3 STEL
Isopropyl alcohol (67-63-0)	TWAs	200 ppm TWA; 500 mg/m3 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/m3 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/m3 Peak	Not established	Not established
	MAKs	Not established	Not established	200 ppm TWA MAK; 500 mg/m3 TWA MAK	Not established	Not established
		Ex	posure Limits/Gu	idelines (Con't.)	•	
	Result	Indonesia	Ireland	Japan	Korea	Mexico
		Not established	Not established	400 ppm Ceiling; 980 mg/m3 Ceiling	Not established	Not established
Isopropyl alcohol (67-63-0)	STELs	Not established	400 ppm STEL	Not established	400 ppm STEL; 980 mg/m3 STEL	500 ppm STEL [LMPE-CT]; 1225 mg/m3 STEL [LMPE-CT]
	TWAs	400 ppm TWA; 983 mg/m3 TWA	200 ppm TWA	Not established	200 ppm TWA; 480 mg/m3 TWA	400 ppm TWA LMPE-PPT; 980 mg/m3 TWA LMPE- PPT
		Fy	posure Limits/Gu	idelines (Con't )		
	Result	New Zealand	NIOSH	Norway	OSHA	Philippines
	resuit					
Isopropyl alcohol (67-63-0)	TWAs	400 ppm TWA; 983 mg/m3 TWA	400 ppm TWA; 980 mg/m3 TWA	100 ppm TWA; 245 mg/m3 TWA	400 ppm TWA; 980 mg/m3 TWA	400 ppm TWA; 980 mg/m3 TWA
(01-00-0)	STELs	500 ppm STEL; 1230 mg/m3 STEL	500 ppm STEL; 1225 mg/m3 STEL	Not established	Not established	Not established
			posure Limits/Gu	· · · · · · · · · · · · · · · · · · ·		
	Result	Poland	Portugal	Russia	Singapore	South Africa
Isopropyl alcohol	STELs	1200 mg/m3 STEL [NDSCh]	400 ppm STEL [VLE-CD	50 mg/m3 STEL (vapor)	500 ppm STEL; 1230 mg/m3 STEL	500 ppm STEL; 1225 mg/m3 STEL
(67-63-0)	TWAs	900 mg/m3 TWA [NDS]	200 ppm TWA [VLE- MP]	10 mg/m3 TWA (vapor)	400 ppm PEL; 983 mg/m3 PEL	400 ppm TWA; 960 mg/m3 TWA; 980 mg/m3 TWA

						(regulated under Propane-2-ol)				
	Exposure Limits/Guidelines (Con't.)									
	Result	Spain	Sweden	Switzerland	Taiwan	Venezuela				
	MAKs	Not established	Not established	200 ppm TWA [MAK]; 500 mg/m3 TWA [MAK]	Not established	Not established				
	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				
Isopropyl alcohol (67-63-0)	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** Measures/Controls  Adequate ventilation systems as needed to control concentrations of airborne contaminants below applicable threshold limit values.

#### **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** 

• No data available

**Controls** 

# **Section 9 - Physical and Chemical Properties**

# 9.1 Information on Physical and Chemical Properties

Density  8.7 lbs/gal  10,000 Centipoise (cPs, cP) or mPas  None  Viscosity  None  Volatility  Vapor Pressure  No data available  Vapor Density  Volatiles (Wt.)  Flammability  Flash Point  No data available  Non-flammable in liquid form.	Material Description			
Taste No data available Odor Threshold No data available Physical and Chemical Properties  Boiling Point 82 C (180 F) Melting Point No data available pH No data available Specific Gravity/Relative ph Miscible  Viscosity 10,000 Centipoise (cPs, cP) or mPas  Viscosity None  Vidizing Properties: None  Voaldizing Properties: None  Voatility Vapor Pressure No data available Vapor Density >1 Air = 1 Evaporation Rate <1 Water = 1 VOC (Wt.) <50 g/L  Volatility  Viscosity >55 to 60 %  Flammability Flammability Flammability Flammability Flammability (solid, gas) Non data available Autoignition No data available  Non-flammable in liquid form. When dry, product will burn as an ordinary combustible material.  Environmental  Half-Life No data available Octanol/Water Partition Cefficient No data available  Coefficient of water/oil distribution No data available  Bioconcentration Factor No data available  Persistence No data available  No data available  Persistence No data available	Physical Form	Liquid	Appearance/Description	Viscous liquid.
Physical and Chemical Properties  General Properties  Boiling Point 82 C (180 F) Melting Point No data available  PH No data available Specific Gravity/Relative Density 1,000 Centipoise (cPs, cP) or mPas  Oxidizing Properties: None  Volatility  Vapor Density >1 Air = 1  Evaporation Rate	Color	Blue	Odor	Isopropanol
Properties  General Properties  Boiling Point  82 C (180 F)  Melting Point  No data available  Specific Gravity/Relative Density  No data available  No data available  No data available  Properties  None  Viscosity  10,000 Centipoise (cPs, cP) or mPas  None  None  Volatility  Vapor Properties  None  Volatility  Vapor Pressure  Volatility  Vapor Pressure  Volatiles (Wt.)  55 to 60 %  Flammability  Flash Point  Service No data available  No data available  Non-flammable in liquid form. When dry, product will burn as an ordinary combustible material.  Environmental  Half-Life  No data available  Coefficient of water/oil distribution  No data available  No data available  No data available  Bioaccumulation Factor  No data available  No data available  No data available  Biochemical Oxygen Demand  No data available	Taste	No data available	Odor Threshold	No data available
Boiling Point   82 C (180 F)   Melting Point   No data available		UV reactive		
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  None  Oxidizing Properties: None  Volatility  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 %  Flammability  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.  Environmental  Half-Life No data available Octanol/Water Partition coefficient No data available  Coefficient of water/oil distribution No data available  Bioconcentration Factor No data available  Chemical Oxygen Demand No data available  Persistence No data available  Persistence No data available  Persistence No data available	General Properties			
Density 8.7 Ibs/gal Water Solubility Miscible  Viscosity 10,000 Centipoise (cPs, cP) or mPas None  Oxidizing Properties: None  Volatility  Vapor Pressure No data available Vapor Density 14 ir = 1  Evaporation Rate 1 Water = 1 VOC (Wt.) 55 to 60 %  Flammability  Flash Point 2 82 C (>180 F) UEL No data available  LEL No data available Autoignition No data available  Flammability (solid, gas) Vonental When dry, product will burn as an ordinary combustible material.  Environmental  Half-Life No data available Bioaccumulation Factor No data available  Bioconcentration Factor No data available Biochemical Oxygen Demand No data available  Presistence No data available Persistence  No data available No data available  Biochemical Oxygen Demand No data available  Persistence No data available	Boiling Point	82 C (180 F)	Melting Point	No data available
Viscosity  10,000 Centipoise (cPs, cP) or mPas  None  None  Volatility  Vapor Pressure  No data available  Vapor Density  Vapor Pressure  No data available  Vapor Density  Vapor Density  No data available  Biocaccumulation Factor  No data available  Persistence  No data available	рН	No data available		>1 Water = 1
Oxidizing Properties: None  Volatility  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 %  Flammability  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.  Environmental  Half-Life No data available Octanol/Water Partition coefficient No data available  Coefficient of water/oil distribution No data available  Bioconcentration Factor No data available  Biochemical Oxygen Demand No data available  Persistence No data available  No data available  Persistence No data available	Density	8.7 lbs/gal	Water Solubility	Miscible
Volatility Vapor Pressure No data available Vapor Density Valuation	Viscosity		Explosive Properties	None
Vapor Pressure  No data available  Vapor Density  >1 Air = 1  Evaporation Rate  <1 Water = 1  VOC (Wt.)  55 to 60 %  Flammability  Flash Point  >82 C (>180 F)  UEL  No data available  Non-flammable in liquid form. When dry, product will burn as an ordinary combustible material.  Environmental  Half-Life  No data available  No data available  No data available  Octanol/Water Partition coefficient  No data available  Bioaccumulation Factor  No data available  Biochemical Oxygen Demand  No data available  Persistence  No data available	Oxidizing Properties:	None		
Evaporation Rate < 1 Water = 1 VOC (Wt.) <55 g/L  Volatiles (Wt.) 55 to 60 %  Flammability  Flash Point	Volatility			
Volatiles (Wt.)  Flammability  Flash Point	Vapor Pressure	No data available	Vapor Density	>1 Air = 1
Flammability 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.  Environmental 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 Chemical Oxygen Demand No data available Persistence No data available	Evaporation Rate	< 1 Water = 1	VOC (Wt.)	<50 g/L
Flash Point > 82 C (>180 F) UEL No data available  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.  Environmental  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	Volatiles (Wt.)	55 to 60 %		
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.  Environmental 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 Chemical Oxygen Demand No data available Persistence No data available	Flammability			
Flammability (solid, gas)  Non-flammable in liquid form. When dry, product will burn as an ordinary combustible material.  Environmental  Half-Life  No data available  Coefficient of water/oil distribution  No data available  Bioaccumulation Factor  No data available  Biochemical Oxygen Demand No data available  No data available  Persistence  No data available	Flash Point	> 82 C (>180 F)	UEL	No data available
Flammability (solid, gas) When dry, product will burn as an ordinary combustible material.  Environmental  Half-Life No data available Coefficient of water/oil distribution  Bioconcentration Factor No data available Biochemical Oxygen Demand No data available No data available Persistence No data available No data available No data available No data available	LEL	No data available	Autoignition	No data available
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	Flammability (solid, gas)	When dry, product will burn as an		
Half-Life No data available coefficient No data available No data available Rodficient of water/oil distribution No data available Rioaccumulation Factor No data available Rioconcentration Factor No data available Rioconcentration Factor No data available Rod/BOD5 No data available Resistence No data available Resistence No data available	Environmental			
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	Half-Life	No data available		No data available
Chemical Oxygen Demand No data available BOD/BOD5 No data available No data available No data available		No data available	Bioaccumulation Factor	No data available
	Bioconcentration Factor	No data available		No data available
Degradation No data available	Chemical Oxygen Demand	No data available	Persistence	No data available
	Degradation	No data available		

#### 9.2 Other Information

# **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	Acute Toxicity: skn-rbt LD50:>13 gm/kg; Irritation: eye-rbt 100 mg MOD; skn-rbt 500 mg MOD		
Isopropyl alcohol (< 5%)	67-63-0	Acute Toxicity: orl-rat LD50:5000 mg/kg; ihl-rat LC50:16000 ppm/8H; skn-rbt LD50:12800 mg/kg; Irritation: eye-rbt 100 mg/24H MOD		
Benzophenone (< 2%)	119-61-9	Acute Toxicity: orl-rat LD50:>10 gm/kg; Skin-Rabbit LD50 • 353:	5 mg/kg	
1-Butanone, 2-(dimethylamino)-1-(4-(4-morpholinyl)phenyl)-2-(phenylmethyl) (< 1%)	119313-12-1	Acute Toxicity: Ingestion/Oral-Rat LD50 • >2000 mg/kg; Skin-Rat >=2000 mg/kg	at LD50 •	
GHS Properties	Classification			
Skin corrosion/Irritation	UN GHS•Skin	012•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	UN GHS•Eye I	212•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	Crustacea: 24 Hour(s) EC50 Crustacea .28 mg/L; Fish: 96 Hour(s) LC50 Fish 14.2 mg/L
1-Butanone, 2-(dimethylamino)-1-(4-(4-morpholinyl)phenyl)-2-(phenylmethyl) (< 1%)	119313-12-1	Crustacea: 24 Hour(s) EC50 Water Flea .8 mg/L; Fish: 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.

• 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)		No	No	No		

			nven	tory				
Component	CAS	Australia AICS		anada 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	i	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	Ko	rea KECL	New Zealar	nd	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
		Inver	ntory	(Con't.)				
Comp	onent			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	Yes			
Benzophenone	Yes			
1-Butanone, 2-(dimethylamino)-1-(4-(4-morpholinyl)phenyl)-2- (phenylmethyl)	Yes			
Australia				
Labor				
Australia - High Volume Industrial Chemicals List				
•Isopropyl alcohol		67-63-0	N. alta a	
•Ethanol, 2,2',2"-(propylidynetris(methyleneoxy))tri-, triacrylate		28961-43-5	Not Listed	
<ul><li>1-hydroxycyclohexyl phenyl ketone</li><li>Benzophenone</li></ul>		947-19-3 119-61-9	Not Listed Not Listed	
•1-Butanone, 2-(dimethylamino)-1-(4-(4-morpholinyl)phenyl)-2-(	phenylmethyl)	119313-12-1		
Environment	p,		. 101 =.0100	
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				
_abor				
Canada - WHMIS - Ingredient Disclosure List				
•Isopropyl alcohol		67-63-0	1 %	
<ul><li>Ethanol, 2,2',2"-(propylidynetris(methyleneoxy))tri-, triacrylate</li></ul>		28961-43-5	Not Listed	
<ul><li>1-hydroxycyclohexyl phenyl ketone</li></ul>		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			0400   44	
•Isopropyl alcohol		67-63-0	3190 ppbv 1 hour averag 7850 µg/m3 1 hour avera	
<ul><li>Ethanol, 2,2',2"-(propylidynetris(methyleneoxy))tri-, triacrylate</li></ul>		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	
<ul><li>Benzophenone</li><li>1-Butanone, 2-(dimethylamino)-1-(4-(4-morpholinyl)phenyl)-2-(</li></ul>	nhonylmothyl)	119-61-9 119313-12-1	Not Listed	
	prierrylinetriyi)	119313-12-1	NOT LISTED	
Denmark 				
Environment  Donmark - Advisory List for Solf-Classification of Dangerou	ie Subetanas			
Denmark - Advisory List for Self-Classification of Dangerou •Isopropyl alcohol	เอ อนมอเสทีเยร	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	
Europe				
Other				
EU - Endocrine Disrupters (COM (2001)262) - Candidate Lis	t of Substances			
•Isopropyl alcohol		67-63-0	Not Listed	
•Ethanol, 2,2',2"-(propylidynetris(methyleneoxy))tri-, triacrylate		28961-43-5	Not Listed	
<ul><li>1-hydroxycyclohexyl phenyl ketone</li></ul>		947-19-3	Not Listed	

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•Benzophenone	119-61-9	Group III Chemical
•1-Butanone, 2-(dimethylamino)-1-(4-(4-morpholinyl)phenyl)-2-(phenylmethyl)  EU - No-Longer Polymers List (67/548/EEC)	119313-12-1	Not Listed
•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
<ul><li>Benzophenone</li><li>1-Butanone, 2-(dimethylamino)-1-(4-(4-morpholinyl)phenyl)-2-(phenylmethyl)</li></ul>	119-61-9 119313-12-1	Not Listed Not Listed
	119313-12-1	Not Listed
Germany		
Environment Germany - Water Classification (VwVwS) - Annex 2 - Water Hazard Classes		
		ID Number 135, hazard
•Isopropyl alcohol	67-63-0	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
<ul> <li>1-Butanone, 2-(dimethylamino)-1-(4-(4-morpholinyl)phenyl)-2-(phenylmethyl)</li> <li>Germany - Water Classification (VwVwS) - Annex 3</li> </ul>	119313-12-1	Not Listed
•Isopropyl alcohol	67-63-0	Not Listed
		ID Number 8454, hazard class 1 - low hazard to
<ul><li>Ethanol, 2,2',2"-(propylidynetris(methyleneoxy))tri-, triacrylate</li></ul>	28961-43-5	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)
<ul><li>Ethanol, 2,2',2"-(propylidynetris(methyleneoxy))tri-, triacrylate</li></ul>	28961-43-5	Not Listed
•1-hydroxycyclohexyl phenyl ketone	947-19-3	Not Listed
•Benzophenone	119-61-9	Not Listed
<ul> <li>1-Butanone, 2-(dimethylamino)-1-(4-(4-morpholinyl)phenyl)-2-(phenylmethyl)</li> <li>Hong Kong - Dangerous Substances Regulations - Particular Risks</li> </ul>	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)	119313-12-1	Not Listed
Hong Kong - Dangerous Substances Regulations - Safety Precautions		S-6/8, S-13 (listed under
•Isopropyl alcohol	67-63-0	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 Vapo		Olara 4. Di fata a 0
•Isopropyl alcohol	67-63-0	Class 1, Division 2
<ul> <li>Ethanol, 2,2',2"-(propylidynetris(methyleneoxy))tri-, triacrylate</li> <li>1-hydroxycyclohexyl phenyl ketone</li> </ul>	28961-43-5	Not Listed Not Listed
•1-nyaroxycyclonexyl pnenyl ketone •Benzophenone	947-19-3 119-61-9	Not Listed Not Listed
- Delizohileliolie	113-01-9	INOL FISIER

# India

### **Environment**

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

•1-Butanone, 2-(dimethylamino)-1-(4-(4-morpholinyl)phenyl)-2-(phenylmethyl)

119313-12-1 Not Listed

•Isopropyl alcohol	67-63-0	
<ul><li>Ethanol, 2,2',2"-(propylidynetris(methyleneoxy))tri-, triacrylate</li></ul>	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	
	119313-12-1	Not Listed
Japan		
Labor		
Japan - ISHL Dangerous Substances		
		Flammable substance (listed
•Isopropyl alcohol	67-63-0	under Substances whose
loop opyr alloonor	07 00 0	flash points are >=0 °C and
		<30 °C)
<ul><li>Ethanol, 2,2',2"-(propylidynetris(methyleneoxy))tri-, triacrylate</li></ul>	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		(when produced and
•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		4.0/sisht/lists d.us dan
•Isopropyl alcohol	67-63-0	>=1 % weight (listed under
-Ethanal 2 2 2 2" (propulid mothylanogy)\\tri triggrulato	20064 42 5	Propyl alcohol) Not Listed
•Ethanol, 2,2',2"-(propylidynetris(methyleneoxy))tri-, triacrylate	28961-43-5	
•1-hydroxycyclohexyl phenyl ketone	947-19-3	Not Listed
•Benzophenone	119-61-9	Not Listed
<ul> <li>1-Butanone, 2-(dimethylamino)-1-(4-(4-morpholinyl)phenyl)-2-(phenylmethyl)</li> <li>Japan - ISHL Notifiable Substances</li> </ul>	119313-12-1	Not Listed
		>=0.1 % weight [Ordinance
•Isopropyl alcohol	67-63-0	Table 2] (listed under Propyl
		alcohol)
<ul><li>Ethanol, 2,2',2"-(propylidynetris(methyleneoxy))tri-, triacrylate</li></ul>	28961-43-5	Not Listed
•1-hydroxycyclohexyl phenyl ketone	947-19-3	Not Listed
•Benzophenone	119-61-9	Not Listed
<ul><li>1-Butanone, 2-(dimethylamino)-1-(4-(4-morpholinyl)phenyl)-2-(phenylmethyl)</li></ul>	119313-12-1	Not Listed
Japan - ISHL Prevention of Organic Solvent Poisoning		
•Isopropyl alcohol	67-63-0	Class 2 Organic Solvent
<ul><li>Ethanol, 2,2',2"-(propylidynetris(methyleneoxy))tri-, triacrylate</li></ul>	28961-43-5	Not Listed
•1-hydroxycyclohexyl phenyl ketone	947-19-3	Not Listed
•Benzophenone	119-61-9	Not Listed
<ul><li>1-Butanone, 2-(dimethylamino)-1-(4-(4-morpholinyl)phenyl)-2-(phenylmethyl)</li></ul>	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	
Inventory - Japan - Industrial Safety and Health Law Substances (ISHL)	119313-12-1	Not Listed
•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
		Not Listed
•Benzophenone	119-61-9	
•1-Butanone, 2-(dimethylamino)-1-(4-(4-morpholinyl)phenyl)-2-(phenylmethyl)	119313-12-1	0-(1)-921
Other		
Japan - Chemical Substance Control Law (CSCL) - Examined Existing Chemical Subs		
•Isopropyl alcohol	67-63-0	Readily biodegradable
<ul><li>Ethanol, 2,2',2"-(propylidynetris(methyleneoxy))tri-, triacrylate</li></ul>	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 Le	vels	
•Isopropyl alcohol	67-63-0	200 ppm ACL
<ul><li>Ethanol, 2,2',2"-(propylidynetris(methyleneoxy))tri-, triacrylate</li></ul>	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
<ul><li>Ethanol, 2,2',2"-(propylidynetris(methyleneoxy))tri-, triacrylate</li></ul>	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	
Singapore - Petroleum and Flammable Materials - Regulated Products	110010 12 1	140t Elotod
•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	
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)	110313-12-1	_

# E

67-63-0	Not Listed
28961-43-5	Not Listed
947-19-3	Not Listed
119-61-9	carcinogen, 6/22/2012
119313-12-1	Not Listed
	28961-43-5 947-19-3 119-61-9

### **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.

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.

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** 

• 03 August 2018

**Preparation Date** 

• 17 February 2020

# **Other Information**

Liability

 Approved by: Troy Bergstedt, Director of Chemical Research, (218) 628-2217 ext.142. Disclaimer/Statement of • The information contained herein is based on data available to us and is believed to be

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