SAFETY DATA SHEET

1. Identification

Product identifier: ARISTA UV S CYAN INK

Other means of identification
SDS number: 000001016815

Recommended restrictions
Recommended use: Printing ink
Restrictions on use: Reserved for industrial and professional use.

Manufactured for:

Distributor

Company Name:	LTD “ARISTA INK TECHNOLOGIES”
Address:	Aglonas 11-11 LV-1057 Riga Latvia
Telephone:	+371 22334368
Fax:	
Contact Person:	
E-mail:	office@arista.lv

Emergency telephone number:

Transport Emergency	Non-transportation
Call CHEMTREC : +1 800 4249300	Health Emergency Phone : +1 303 6235716 International : +1 703 5273887

2. Hazard(s) identification

Hazard Classification

Health Hazards

Skin Corrosion/Irritation	Category 2

Serious Eye Damage/Eye Irritation	Category 1
Skin sensitizer	Category 1
Toxic to reproduction	Category 2
Specific Target Organ Toxicity - Repeated Exposure	Category 1

Environmental Hazards

Acute hazards to the aquatic environment	Category 2
Chronic hazards to the aquatic environment	Category 3

Label Elements

Hazard Symbol:

Signal Word: Danger

Hazard Statement:
Causes skin irritation.
Causes serious eye damage.
May cause an allergic skin reaction.
Suspected of damaging fertility or the unborn child.
Causes damage to organs through prolonged or repeated exposure.
Toxic to aquatic life.
Harmful to aquatic life with long lasting effects.

Precautionary Statements

Prevention: Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. Contaminated work clothing should not be allowed out of the workplace. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Do not breathe dust/fume/gas/mist/vapors/spray. Do not eat, drink or smoke when using this product. Avoid release to the environment.

Response: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF ON SKIN: Wash with plenty of water/… If skin irritation or rash occurs: Get medical advice/attention. Immediately call a POISON CENTER/doctor. Wash contaminated clothing before reuse.

Storage: Store locked up.

Disposal: Dispose of contents/container to an appropriate treatment and disposal

facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Hazard(s) not otherwise classified (HNOC): None.

3. Composition/information on ingredients

Mixtures

Chemical Identity	CAS number	Content in percent (%)*
2-(2-Vinyloxyethoxy) ethyl acrylate	86273-46-3	50 - <100%
N-vinyl caprolactam	2235-00-9	10 - <20%
Isodecyl acrylate	1330-61-6	5 - <10%
2-Propenoic acid ,1-6-hexanediyl ester, polymer with 2-aminoethanol	67906-98-3	5 - <10%
Oxybis(methyl-2,1-ethanediyl) diacrylate	57472-68-1	5 - <10%
Phosphine oxide, diphenyl(2,4,6-trimethylbenzoyl)-	75980-60-8	1 - <3%
Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	162881-26-7	1 - <5%
Hexamethylene diacrylate	13048-33-4	0.1 - <1%
caprolactam	105-60-2	0.01 - <1%
2,6-bis(1,1-dimethylethyl)-4-methyl-phenol	128-37-0	0 - <0.1%
Tris(N-hydroxy-N-nitrosophenylaminato-O,O')aluminium	15305-07-4	0 - <0.1%
Phenol, 4-methoxy-	150-76-5	0 - <0.1%

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First-aid measures

General information: Get medical attention if symptoms occur.

Inhalation: Move to fresh air.

Skin Contact: Destroy or thoroughly clean contaminated shoes. Immediately remove contaminated clothing and shoes and wash skin with soap and plenty of water. If skin irritation or an allergic skin reaction develops, get medical attention.

Eye contact: Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Call a physician or poison control center immediately.

Ingestion:	Rinse mouth thoroughly.
Personal Protection for First-aid Responders:	CAUTION! First aid personnel must be aware of own risk during rescue! See Section 8 of the SDS for Personal Protective Equipment.

Most important symptoms/effects, acute and delayed

Symptoms:	See section 11 of the SDS for additional information on health hazards.
Hazards:	See section 11 of the SDS for additional information on health hazards.

Indication of immediate medical attention and special treatment needed

Treatment:	Treat symptomatically.

5. Fire-fighting measures

General Fire Hazards:	No unusual fire or explosion hazards noted.

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media:	Extinguish with foam, carbon dioxide, dry powder or water fog.
Unsuitable extinguishing media:	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical:	During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters

Special fire fighting procedures:	No data available.
Special protective equipment for fire-fighters:	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures:	See Section 8 of the SDS for Personal Protective Equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep unauthorized personnel away.
For non-emergency personnel:	Use personal protective equipment.
For emergency responders:	Warn everybody of potential hazards and evacuate if necessary. Use personal protective equipment.
Methods and material for containment and cleaning up:	Absorb spill with vermiculite or other inert material, then place in a container for chemical waste. Dike far ahead of larger spill for later recovery and disposal. For waste disposal, see section 13 of the SDS.

Environmental Precautions: Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Do not contaminate water sources or sewer.

Prevention of secondary hazards: No data available.

7. Handling and storage

Precautions for safe handling: Do not get in eyes. Wash hands thoroughly after handling. Avoid contact with eyes, skin, and clothing.

Conditions for safe storage, including any incompatibilities: Store away from incompatible materials.

8. Exposure controls/personal protection

Control Parameters

Occupational Exposure Limits

Chemical Identity	Type	Exposure Limit Values		Source
caprolactam - Inhalable fraction and vapor.	TWA		5 mg/m3	US. ACGIH Threshold Limit Values (03 2014)
caprolactam - Vapor.	STEL	0.66 ppm	3 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2010)
	REL	0.22 ppm	1 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2010)
caprolactam - Dust.	STEL		3 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2010)
	REL		1 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2010)
caprolactam - Vapor.	STEL	10 ppm	40 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
caprolactam - Dust.	STEL		3 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	TWA		1 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
caprolactam - Vapor.	TWA	5 ppm	20 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
2,6-bis(1,1-dimethylethyl)-4-methyl-phenol - Inhalable fraction and vapor.	TWA		2 mg/m3	US. ACGIH Threshold Limit Values (03 2014)
2,6-bis(1,1-dimethylethyl)-4-methyl-phenol	REL		10 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2010)
	TWA		10 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
Tris(N-hydroxy-N-nitrosophenylaminato-O,O')aluminium - Respirable fraction.	TWA		1 mg/m3	US. ACGIH Threshold Limit Values (03 2014)
Phenol, 4-methoxy-	TWA		5 mg/m3	US. ACGIH Threshold Limit Values (03 2014)
	REL		5 mg/m3	US. NIOSH: Pocket Guide to Chemical Hazards (2010)
	TWA		5 mg/m3	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)

Appropriate Engineering Controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Emergency showers and eye wash stations should be available.

Individual protection measures, such as personal protective equipment

General information: No data available.

Eye/face protection: Safety goggles

Skin Protection

Hand Protection: Additional Information: Protective gloves should be used if there is a risk of direct contact or splash., Chemical resistant gloves required for prolonged or repeated contact., Butyl rubber., Glove thickness: > 0.35 mm, Break-through time: > 240 min, Risk of splashes:, Nitrile rubber., Nitrile gloves are recommended, but be aware that the liquid may penetrate the gloves. Frequent change is advisable., The most suitable glove must be chosen in consultation with the gloves supplier, who can inform about the breakthrough time of the glove material.

Skin and Body Protection: Wear suitable protective clothing as protection against splashing or contamination.

Respiratory Protection: Under normal conditions of use, respirator protection is not required. In case of inadequate ventilation, use respiratory protection. If respirators are used, OSHA requires compliance with its respiratory protection program (29 CFR 1910.134).

Hygiene measures: Do not get in eyes. Observe good industrial hygiene practices. Contaminated work clothing should not be allowed out of the workplace. Avoid contact with skin.

9. Physical and chemical properties

Appearance

Physical state:	liquid
Form:	liquid
Color:	Blue-green
Odor:	Sweetish
Odor Threshold:	No data available.
pH:	No data available.
Freezing point:	No data available.
Boiling Point:	No data available.
Flash Point:	No data available.
Evaporation Rate:	No data available.
Flammability (solid, gas):	No data available.
Flammability Limit - Upper (%):	No data available.
Flammability Limit - Lower (%):	No data available.

Vapor pressure:	No data available.
Vapor density (air=1):	No data available.
Density:	No data available.
Relative density:	1.0382
Solubility(ies)	
Solubility in Water:	No data available.
Solubility (other):	No data available.
Partition coefficient (n-octanol/water):	No data available.
Autoignition Temperature:	No data available.
Decomposition Temperature:	No data available.
Kinematic viscosity:	No data available.
Dynamic viscosity:	No data available.
Explosive properties:	No data available.
Oxidizing properties:	No data available.

Other information

VOC Content:	0 g/l ~0 % (calculated)

10. Stability and reactivity

Reactivity:	Material is stable under normal conditions.
Chemical Stability:	Material is stable under normal conditions.
Possibility of hazardous reactions:	Not known.
Conditions to avoid:	Avoid heat or contamination.
Incompatible Materials:	None known.
Hazardous Decomposition Products:	By heating and fire, harmful vapors/gases may be formed.

11. Toxicological information

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation:	Inhalation is the primary route of exposure. In high concentrations, vapors, fumes or mists may irritate nose, throat and mucus membranes.
Skin Contact:	May cause an allergic skin reaction. Causes skin irritation.
Eye contact:	Causes serious eye damage.
Ingestion:	May be ingested by accident. Ingestion may cause irritation and malaise.

Information on toxicological effects

Acute toxicity (list all possible routes of exposure)

Oral

Product:	ATEmix: 2,221.39 mg/kg

Dermal

Product:	ATEmix: 10,451.14 mg/kg

Inhalation

Product:	Not classified for acute toxicity based on available data.

Specified substance(s):

2-(2-Vinyloxyethoxy) ethyl acrylate	LC 50 (Rat): > 5.04 mg/l
Isodecyl acrylate	LC 50 (Rat): > 1.19 mg/l
Hexamethylene diacrylate	LC 0 (Rat): 0.41 mg/l
caprolactam	LC 50 (Rat): 0.3 mg/l

Repeated dose toxicity

Product:	No data available.

Specified substance(s):

2-(2-Vinyloxyethoxy) ethyl acrylate	NOAEL (Rat(Female, Male), Oral, 28 d): 160 mg/kg Oral Experimental result, Key study
N-vinyl caprolactam	NOAEL (Rat(Female, Male), Inhalation): 0.058 mg/l Inhalation Experimental result, Key study
Isodecyl acrylate	NOAEL (Rat(Female, Male), Inhalation): 0.075 mg/l Inhalation Read-across from supporting substance (structural analogue or surrogate), Key study
Oxybis(methyl-2,1-ethanediyl) diacrylate	NOAEL (Rat(Female, Male), Oral, 28 - 52 d): 250 mg/kg Oral Read-across from supporting substance (structural analogue or surrogate), Key study
Phosphine oxide, diphenyl(2,4,6-trimethylbenzoyl)-	LOAEL (Rat(Female, Male), Oral, 28 d): 250 mg/kg Oral Experimental result, Key study No data available. NOAEL (Rat(Female, Male), Oral, 28 d): 50 mg/kg Oral Experimental result, Key study LOAEL (Rat(Female, Male), Oral, 64 - 91 d): 300 mg/kg Oral Experimental result, Key study NOAEL (Rat(Female, Male), Oral, 64 - 91 d): 100 mg/kg Oral Experimental result, Key study
Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	NOAEL (Rat(Female, Male), Oral): 300 mg/kg Oral Experimental result, Key study
Hexamethylene diacrylate	NOAEL (Rat(Female, Male), Oral, 28 - 52 d): 250 mg/kg Oral Experimental result, Key study
caprolactam	NOAEL (Rat(Female, Male), Inhalation, 13 - 17 Weeks): 0.066 mg/l Inhalation Experimental result, Key study NOAEL (Rat(Female, Male), Inhalation, 13 - 17 Weeks): 0.245 mg/l Inhalation Experimental result, Key study
2,6-bis(1,1-dimethylethyl)-4-methyl-phenol	NOAEL (Rat(Male), Oral, 1.25 - 22.75 Months): 25 mg/kg Oral Experimental result, Key study
Phenol, 4-methoxy-	LOAEL (Rat(Female, Male), Oral, >= 28 d): 300 mg/kg Oral Experimental

result, Key study
No data available.
NOAEL (Rat(Female, Male), Oral, >= 28 d): 150 mg/kg Oral Experimental result, Key study

Skin Corrosion/Irritation

Product: No data available.

Specified substance(s):

2-(2-Vinyloxyethoxy) ethyl acrylate	in vivo (Rabbit): Not irritant Experimental result, Key study
N-vinyl caprolactam	in vivo (Rabbit): Not irritant Experimental result, Key study
Phosphine oxide, diphenyl(2,4,6-trimethylbenzoyl)-	in vivo (Rabbit): Not irritant Experimental result, Key study
Hexamethylene diacrylate	in vivo (Rabbit): Category 2 Experimental result, Key study
caprolactam	Irritating
2,6-bis(1,1-dimethylethyl)-4-methyl-phenol	in vivo (Rabbit): Not irritant Experimental result, Key study
Phenol, 4-methoxy-	in vivo (Rabbit): Slightly irritating Experimental result, Key study DSC Repeated contact may cause allergic reactions in very susceptible persons.

Serious Eye Damage/Eye Irritation

Product: No data available.

Specified substance(s):

2-(2-Vinyloxyethoxy) ethyl acrylate	in vivo (Rabbit): Not irritating EU
Isodecyl acrylate	Mildly Irritating
Oxybis(methyl-2,1-ethanediyl) diacrylate	in vivo (Rabbit): Category 1 , 24 - 72 hrs OECD GHS
Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	in vivo (Rabbit): Not Classified , 24 - 72 hrs EU
Hexamethylene diacrylate	Irritating
caprolactam	Irritating
2,6-bis(1,1-dimethylethyl)-4-methyl-phenol	in vivo (Rabbit): Not irritating , 24 - 72 hrs EU

Respiratory or Skin Sensitization

Product: No data available.

Specified substance(s):

Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	May cause sensitization by skin contact.
Hexamethylene diacrylate	Skin sensitization:, in vivo (Guinea pig): Sensitising
caprolactam	Skin sensitization:, in vivo (Guinea pig): Non sensitising
2,6-bis(1,1-dimethylethyl)-4-methyl-phenol	Skin sensitization:, in vivo (Guinea pig): Non sensitising
Phenol, 4-methoxy-	May cause sensitization by skin contact. Skin sensitization:, in vivo (Guinea pig): Sensitising

Carcinogenicity

Product: No data available.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:

No carcinogenic components identified

US. National Toxicology Program (NTP) Report on Carcinogens:

No carcinogenic components identified

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):

No carcinogenic components identified

Germ Cell Mutagenicity

In vitro

Product: No data available.

In vivo

Product: No data available.

Reproductive toxicity

Product: No data available.

Specific Target Organ Toxicity - Single Exposure

Product: No data available.

Specified substance(s):

Phenol, 4-methoxy- No data available.

Specific Target Organ Toxicity - Repeated Exposure

Product: No data available.

Specified substance(s):

Phenol, 4-methoxy- No information available.

Aspiration Hazard

Product: No data available.

Specified substance(s):

Phenol, 4-methoxy-	No data available.

Other effects: No data available.

12. Ecological information

Ecotoxicity:

Acute hazards to the aquatic environment:

Fish

Product: No data available.

Specified substance(s):

2-(2-Vinyloxyethoxy) ethyl acrylate	LC 50 (Danio rerio, 96 h): 6.8 mg/l Experimental result, Key study LOAEL (Danio rerio, 96 h): 4.6 mg/l Experimental result, Key study NOAEL (Danio rerio, 96 h): 2.2 mg/l Experimental result, Key study
N-vinyl caprolactam	LC 50 (Danio rerio, 96 h): 318 mg/l Experimental result, Key study NOAEL (Danio rerio, 96 h): 208 mg/l Experimental result, Key study LC 0 (Danio rerio, 96 h): 208 mg/l Experimental result, Key study NOAEL (Danio rerio, 96 h): 215 mg/l Experimental result, Key study LC 50 (Danio rerio, 96 h): 307 mg/l Experimental result, Key study
Oxybis(methyl-2,1-ethanediyl) diacrylate	NOAEL (Leuciscus idus, 96 h): 1 mg/l Experimental result, Key study LC 50 (Leuciscus idus, 96 h): 2.2 mg/l
Phosphine oxide, diphenyl(2,4,6-trimethylbenzoyl)-	LC 50 (Oryzias latipes, 48 h): +/- 6.53 mg/l Experimental result, Key study
Hexamethylene diacrylate	LC 50 (Leuciscus idus, 96 h): 4.6 - 10 mg/l Experimental result, Key study
caprolactam	LC 50 (Oryzias latipes, 96 h): > 100 mg/l Experimental result, Key study
2,6-bis(1,1-dimethylethyl)-4-methyl-phenol	LC 50 (96 h): 0.199 mg/l QSAR QSAR, Key study
Phenol, 4-methoxy-	LC 50 (Oncorhynchus mykiss, 96 h): 28.5 mg/l Experimental result, Key study

Aquatic Invertebrates

Product: No data available.

Specified substance(s):

2-(2-Vinyloxyethoxy) ethyl acrylate	NOAEL (Daphnia magna, 48 h): 25 mg/l Experimental result, Key study EC 50 (Daphnia magna, 48 h): 55 mg/l Experimental result, Key study
N-vinyl caprolactam	EC 50 (Daphnia magna, 48 h): > 100 mg/l Experimental result, Key study

Phosphine oxide, diphenyl(2,4,6-trimethylbenzoyl)-	EC 50 (Daphnia magna, 48 h): 3.53 mg/l Experimental result, Key study
Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	EC 50 (48 h): > 1.175 mg/l experimental result
Hexamethylene diacrylate	EC 50 (Daphnia magna, 48 h): 2.6 mg/l Experimental result, Key study
caprolactam	EC 50 (Daphnia magna, 48 h): 0.08 mg/l Experimental result, Key study
2,6-bis(1,1-dimethylethyl)-4-methyl-phenol	EC 50 (Daphnia magna, 48 h): 0.61 mg/l Experimental result, Key study NOAEL (Daphnia magna, 48 h): 0.23 mg/l Experimental result, Key study EC 50 (Daphnia magna, 24 h): > 0.7 mg/l Experimental result, Key study NOAEL (Daphnia magna, 48 h): 0.15 mg/l Experimental result, Key study EC 50 (Daphnia magna, 48 h): 0.48 mg/l Experimental result, Key study
Phenol, 4-methoxy-	NOAEL (Daphnia magna, 48 h): 1.32 mg/l Experimental result, Key study EC 50 (Daphnia magna, 48 h): 3 mg/l Experimental result, Key study

Chronic hazards to the aquatic environment:

Fish

Product: No data available.

Aquatic Invertebrates

Product: No data available.

Toxicity to Aquatic Plants

Product: No data available.

Specified substance(s):

caprolactam	EC 50 (Alga, 72 h): 130 mg/l

Persistence and Degradability

Biodegradation

Product: No data available.

Specified substance(s):

2-(2-Vinyloxyethoxy) ethyl acrylate	> 84.4 % (28 d) Detected in water. Experimental result, Key study 82 %
N-vinyl caprolactam	30 - 40 % (28 d) Detected in water. Experimental result, Key study
Isodecyl acrylate	70 - 80 % (15 d) Detected in water. Read-across from supporting substance (structural analogue or surrogate), Key study
Oxybis(methyl-2,1-ethanediyl) diacrylate	90 - 100 % (28 d) Detected in water. Experimental result, Key study

Phosphine oxide, diphenyl(2,4,6-trimethylbenzoyl)-	> 0 - 10 % (28 d) Detected in water. Experimental result, Key study
Hexamethylene diacrylate	60 - 70 % (28 d) Detected in water. Experimental result, Key study
caprolactam	5 % (28 d) Detected in water. Experimental result, Key study
2,6-bis(1,1-dimethylethyl)-4-methyl-phenol	4.5 % (28 d) Detected in water. Experimental result, Key study > 75 % soil Experimental result, Key study > 85 % soil Experimental result, Key study > 80 % soil Experimental result, Key study < 10 % (20 d) Detected in water. Not specified, Not specified
Phenol, 4-methoxy-	99 % (28 d) Detected in water. Experimental result, Key study 86 % (28 d) Detected in water. Experimental result, Key study > 75 % (56 d) Detected in water. Experimental result, Supporting study 100 % (8 d) soil Experimental result, Supporting study 100 % (6 d) Detected in water. Experimental result, Supporting study

BOD/COD Ratio

Product: No data available.

Bioaccumulative potential

Bioconcentration Factor (BCF)

Product: No data available.

Specified substance(s):

Phosphine oxide, diphenyl(2,4,6-trimethylbenzoyl)-	Cyprinus carpio, Bioconcentration Factor (BCF): 22 - 32 Aquatic sediment Experimental result, Key study Cyprinus carpio, Bioconcentration Factor (BCF): 18 - 22 Aquatic sediment Experimental result, Key study Cyprinus carpio, Bioconcentration Factor (BCF): 53 - 72 Aquatic sediment Experimental result, Key study Cyprinus carpio, Bioconcentration Factor (BCF): 23 - 40 Aquatic sediment Experimental result, Key study Cyprinus carpio, Bioconcentration Factor (BCF): 47 - 55 Aquatic sediment Experimental result, Key study
2,6-bis(1,1-dimethylethyl)-4-methyl-phenol	Cyprinus carpio, Bioconcentration Factor (BCF): 230 - 2,500 Aquatic sediment Experimental result, Weight of Evidence study Cyprinus carpio, Bioconcentration Factor (BCF): 230 - 2,500 Aquatic sediment Experimental result, Key study Cyprinus carpio, Bioconcentration Factor (BCF): 330 - 1,800 Aquatic sediment Experimental result, Key study Bioconcentration Factor (BCF): 598.4 Aquatic sediment Estimated by calculation, Weight of Evidence study Cyprinus carpio, Bioconcentration Factor (BCF): 13 - 17 Aquatic sediment Experimental result, Supporting study

Partition Coefficient n-octanol / water (log Kow)

Product: No data available.

Specified substance(s):

Isodecyl acrylate	Log Kow: No data available.
Oxybis(methyl-2,1-ethanediyl) diacrylate	Log Kow: 0.01 - 0.39 24 °C Yes Experimental result, Key study
Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	Log Kow: 5.8 20 - 25 °C
Hexamethylene diacrylate	Log Kow: 2.62 - 3.08 25 °C No Experimental result, Supporting study Log Kow: 3.08 (DSC)
2,6-bis(1,1-dimethylethyl)-4-methyl-phenol	Log Kow: 5.11 - 5.2 No Experimental result, Weight of Evidence study
Phenol, 4-methoxy-	Log Kow: 1.58 Log Kow: 1.34 (DSC)

Mobility in soil: No data available.

Known or predicted distribution to environmental compartments

2-(2-Vinyloxyethoxy) ethyl acrylate	No data available.
N-vinyl caprolactam	No data available.
Isodecyl acrylate	No data available.
2-Propenoic acid ,1-6-hexanediyl ester, polymer with 2-aminoethanol	No data available.
Oxybis(methyl-2,1-ethanediyl) diacrylate	No data available.
Phosphine oxide, diphenyl(2,4,6-trimethylbenzoyl)-	No data available.
Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	No data available.
Hexamethylene diacrylate	No data available.
caprolactam	No data available.
2,6-bis(1,1-dimethylethyl)-4-methyl-phenol	No data available.
Tris(N-hydroxy-N-nitrosophenylaminato-O,O')aluminium	No data available.
Phenol, 4-methoxy-	No data available.

Other adverse effects: Harmful to aquatic life with long lasting effects.

13. Disposal considerations

General information: Waste disposal should be in accordance with existing federal, state and local environmental control laws.

Disposal instructions: No data available.

Contaminated Packaging: Dispose in accordance with all applicable regulations.

US. RCRA Hazardous Waste Classification (40 CFR 261) If discarded in its purchased form, this product would not be a hazardous waste either by listing or by characteristic. However, under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste.

14. Transport information

DOT

UN Number	Not regulated.
UN Proper Shipping Name	Not regulated.
Transport Hazard Class(es)	Not regulated.
Packing Group	Not regulated.
Environmental Hazards	Not regulated.
Special precautions for user	Not regulated.

IATA

UN Number	Not regulated.
UN Proper Shipping Name	Not regulated.
Transport Hazard Class(es)	Not regulated.
Packing Group	Not regulated.
Environmental Hazards	Not regulated.
Special precautions for user	Not regulated.

IMDG

UN Number	Not regulated.
UN Proper Shipping Name	Not regulated.
Transport Hazard Class(es)	Not regulated.
Packing Group	Not regulated.
Environmental Hazards	Not regulated.
Special precautions for user	Not regulated.

15. Regulatory information

US Federal Regulations

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Chemical Identity	Reportable quantity
2-(2-Vinyloxyethoxy) ethyl acrylate	De minimis concentration: 1.0% One-Time Export Notification only.

US. Toxic Substances Control Act (TSCA) Section 5(a)(2) Final Significant New Use Rules (SNURs) (40 CFR 721, Subpt E)

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)
None present or none present in regulated quantities.

CERCLA Hazardous Substance List (40 CFR 302.4):
None present or none present in regulated quantities.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Immediate (Acute) Health Hazards
Delayed (Chronic) Health Hazard
Skin Corrosion or Irritation
Serious eye damage or eye irritation
Respiratory or Skin Sensitization
Reproductive toxicity
Specific target organ toxicity (single or repeated exposure)

SARA 302 Extremely Hazardous Substance

None present or none present in regulated quantities.

US. EPCRA (SARA Title III) Section 304 Extremely Hazardous Substances Reporting Quantities and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Hazardous Substances

SARA 311/312 Hazardous Chemical

Chemical Identity	Threshold Planning Quantity
2-(2-Vinyloxyethoxy) ethyl acrylate	10000 lbs
N-vinyl caprolactam	10000 lbs
Isodecyl acrylate	10000 lbs
2-Propenoic acid ,1-6-hexanediyl ester, polymer with 2-aminoethanol	10000 lbs
Oxybis(methyl-2,1-ethanediyl) diacrylate	10000 lbs
Phosphine oxide, diphenyl(2,4,6-trimethylbenzoyl)-	10000 lbs
Phenyl bis(2,4,6-trimethylbenzoyl)-phosphine oxide	10000 lbs
Hexamethylene diacrylate	10000 lbs
caprolactam	10000 lbs
2,6-bis(1,1-dimethylethyl)-4-methyl-phenol	10000 lbs
Tris(N-hydroxy-N-nitrosophenylaminato-O,O')aluminium	10000 lbs
Phenol, 4-methoxy-	10000 lbs

SARA 313 (TRI Reporting)

None present or none present in regulated quantities.

Clean Air Act (CAA) Section 111 SOCMI Intermediate or Final Volatile Organic Compounds (40 CFR 60.489):

Chemical Identity
caprolactam

Clean Air Act (CAA) Section 112, 1990 Amendments, Statutory Hazardous Air Pollutants:

None present.

Clean Air Act (CAA) Section 112(i) High-Risk Hazardous Air Pollutants (40 CFR 63.74):
None present.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):
None present or none present in regulated quantities.

Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)
None present or none present in regulated quantities.

US State Regulations

US. California Proposition 65
No ingredient requiring a warning under CA Prop 65.

US. New Jersey Worker and Community Right-to-Know Act
No ingredient regulated by NJ Right-to-Know Law present.

US. Massachusetts RTK - Substance List
No ingredient regulated by MA Right-to-Know Law present.

US. Pennsylvania RTK - Hazardous Substances
No ingredient regulated by PA Right-to-Know Law present.

US. Rhode Island RTK
No ingredient regulated by RI Right-to-Know Law present.

US. Toxic Substances Control Act (TSCA)

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substance Control Act (U.S, EPA TSCA) 8(b) inventory.

16.Other information, including date of preparation or last revision

Issue Date:	04-26-2019
Revision Information:	No data available.
Version #:	1.0
Further Information:	This information is furnished without warranty, expressed or implied, and is believed to be accurate to the best knowledge of the manufacturer. The data on this SDS relates only to the specific material designated herein. The manufacturer assumes no legal responsibility for use or reliance upon these data.
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