SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:
Regulation (EC) No. 1907/2006 as amended by Commission Regulation (EU) 2020/878 and Regulation (EC) No. 1272/2008

Issuing Date 18-Jan-2023 **Revision Date** 18-Jan-2023 **Revision Number** 1

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product Code(s) 800158

Product Name IJSR-4000 JM02DG

Synonyms None

Pure substance/mixture Mixture

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

Recommended use Inkjet solder mask

Uses advised against No information available

1.3. Details of the supplier of the safety data sheet

Importer
REACH OR: CAPLINQ Europe BV
Industrieweg 15E
1566JN Assendelft
The Netherlands
+31208932224

Manufacturer
Taiyo America, Inc.
2675 Antler Drive
Carson City, NV 89701
TEL: 775-885-9959 (M-F, 8 AM - 4 PM, Pacific Time Zone)

For further information, please contact
E-mail address SDSinfo@taiyo-america.com

1.4. Emergency telephone number

Emergency telephone +1-813-248-0585 International - product safety issues (24 hours; in most major languages)
+1-800-255-3924 Within U.S.A. only (24 hours)
(Contract # MIS0007979)

Emergency telephone - §45 - (EC)1272/2008	
Europe	**112**

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

Skin corrosion/irritation	Category 2 - (H315)
Serious eye damage/eye irritation	Category 1 - (H318)
Skin sensitisation	Category 1 - (H317)
Reproductive toxicity	Category 1B - (H360)
Chronic aquatic toxicity	Category 3 - (H412)

2.2. Label elements

Contains Oxybis(methyl-2,1-ethanediyl) diacrylate, Hexamethylene diacrylate, 4-hydroxybutyl acrylate,

Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide

Signal word
Danger

Hazard statements
H315 - Causes skin irritation
H317 - May cause an allergic skin reaction
H318 - Causes serious eye damage
H360 - May damage fertility or the unborn child
H412 - Harmful to aquatic life with long lasting effects

Precautionary Statements - EU (§28, 1272/2008)
P201 - Obtain special instructions before use
P264 - Wash face, hands and any exposed skin thoroughly after handling
P280 - Wear protective gloves/protective clothing/eye protection/face protection
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P310 - Immediately call a POISON CENTER or doctor

2.3. Other hazards

Toxic to aquatic life.
This mixture contains no substance considered to be persistent, bioaccumulating or toxic (PBT) This mixture contains no substance considered to be very persistent nor very bioaccumulating (vPvB)

Endocrine Disruptor Information This product does not contain any known or suspected endocrine disruptors.

SECTION 3: Composition/information on ingredients

3.1 Substances

Not applicable

3.2 Mixtures

Chemical name	Weight-%	REACH registration number	EC No (EU Index No)	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Specific concentration limit (SCL)	M-Factor	M-Factor (long-term)
Oxybis(methyl-2,1-ethanediyl) diacrylate 57472-68-1	40 - 50	No data available	260-754-3	Skin Irrit. 2 (H315) Skin Sens. 1 (H317) Eye Dam. 1 (H318)	-	-	-
Hexamethylene diacrylate 13048-33-4	5 - 10	No data available	(607-109-00-8) 235-921-9	Skin Irrit. 2 (H315) Eye Irrit. 2	-	-	-

				(H319) Skin Sens. 1 (H317) Aquatic Acute 1 (H400) Aquatic Chronic 2 (H411)			
Hexamethylene diisocyanate, oligomerisation product, blocked with 3,5-Dimethyl-1H-pyrrazole 163206-31-3	5 - 10	No data available	No information available	Skin Irrit. 2 (H315) Eye Irrit. 2 (H319)	-	-	-
4-hydroxybutyl acrylate 2478-10-6	1 - 5	No data available	219-606-3	Acute Tox. 4 (H302) Skin Irrit. 2 (H315) Eye Dam. 1 (H318) Skin Sens. 1 (H317)	-	-	-
2-(dimethylamino)-2-[(4-methylphenyl)methyl]-1-[4-(morpholin-4-yl)phenyl]butan-1-one 119344-86-4	1 - < 3	No data available	438-340-0	Repr. 2 (H361)	-	-	-
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide 75980-60-8	0.5 - < 1	No data available	(015-203-00-X) 278-355-8	Skin Sens. 1 (H317) Repr. 1B (H360) Aquatic Chronic 2 (H411)	-	-	-
Melamine 108-78-1	0.5 - < 1	No data available	(613-345-00-2) 203-615-4	Carc. 2 (H351) STOT RE 2 (H373)	-	-	-
Bisphenol A - Epichlorohydrin polymer 25068-38-6	0.1 - 0.5	No data available	500-033-5	Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) Skin Sens. 1 (H317) Aquatic Chronic 2 (H411)	Eye Irrit. 2 :: C>=5% Skin Irrit. 2 :: C>=5%	-	-
C.I. Pigment Blue 15 147-14-8	0.1 - 0.5	No data available	205-685-1	[C], [I]	-	-	-
Propylene glycol monomethyl ether acetate 108-65-6	< 0.1	No data available	(607-195-00-7) 203-603-9	Flam. Liq. 3 (H226)	-	-	-
Phenoxyethanol 122-99-6	< 0.1	No data available	(603-098-00-9) 204-589-7	Acute Tox. 4 (H302) Eye Dam. 1 (H318) STOT SE 3 (H335)	-	-	-

Classification according to Regulation (EC) No. 1272/2008 [CLP] - Notes

[C] - Components with occupational exposure limits and/or biological occupational exposure limits requiring monitoring
[I] - Restricted substance per REACH Annex XVII

Full text of H- and EUH-phrases: see section 16

Acute Toxicity Estimate
If LD50/LC50 data is not available or does not correspond to the classification category, then the appropriate conversion value from CLP Annex I, Table 3.1.2, is used to calculate the acute toxicity estimate (ATEmix) for classifying a mixture based on its components

Chemical name	Oral LD50 mg/kg	Dermal LD50 mg/kg	Inhalation LC50 - 4 hour - dust/mist - mg/L	Inhalation LC50 - 4 hour - vapour - mg/L	Inhalation LC50 - 4 hour - gas - ppm
Oxybis(methyl-2,1-ethanediyl) diacrylate 57472-68-1	4600	2002	No data available	No data available	No data available
Hexamethylene diacrylate 13048-33-4	5000	3600	No data available	No data available	No data available
4-hydroxybutyl acrylate 2478-10-6	No data available	2002	No data available	No data available	No data available
2-(dimethylamino)-2-[(4-methylphenyl)methyl]-1-[4-(morpholin-4-yl)phenyl]butan-1-one 119344-86-4	2002	2002	No data available	No data available	No data available
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide 75980-60-8	No data available	2002	No data available	No data available	No data available
Melamine 108-78-1	3161	1001	No data available	No data available	No data available
Bisphenol A - Epichlorohydrin polymer 25068-38-6	11400	No data available	No data available	No data available	No data available
C.I. Pigment Blue 15 147-14-8	10010	5005	No data available	No data available	No data available
Propylene glycol monomethyl ether acetate 108-65-6	8532	5005	24	No data available	No data available
Phenoxyethanol 122-99-6	1394 + 1850	5550	0.1141	No data available	No data available

+ This value is the harmonised acute toxicity estimate (ATE) listed in CLP Annex VI, Part 3. This harmonised ATE value must be used when calculating the acute toxicity estimate (ATEmix) for classifying a mixture containing the listed substance

This product does not contain candidate substances of very high concern at a concentration >=0.1% (Regulation (EC) No. 1907/2006 (REACH), Article 59)

SECTION 4: First aid measures

4.1. Description of first aid measures

General advice Immediate medical attention is required. Show this safety data sheet to the doctor in attendance.

Inhalation Remove to fresh air. Get medical attention immediately if symptoms occur.

Eye contact Get immediate medical attention. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue

	rinsing. Keep eye wide open while rinsing. Do not rub affected area.
Skin contact	Wash off immediately with soap and plenty of water for at least 15 minutes. May cause an allergic skin reaction. In the case of skin irritation or allergic reactions see a doctor.
Ingestion	Rinse mouth. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Call a doctor.
Self-protection of the first aider	Avoid contact with skin, eyes or clothing. Wear personal protective clothing (see section 8).

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

Symptoms	Burning sensation. Itching. Rashes. Hives.

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

Note to doctors	May cause sensitisation in susceptible persons. Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable Extinguishing Media	Dry chemical. Carbon dioxide (CO2). Foam.
Unsuitable extinguishing media	Water.

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the chemical	Product is or contains a sensitiser. May cause sensitisation by skin contact.

5.3. Advice for firefighters

Specific/special fire-fighting measures	Fires need to be assessed to determine appropriate protocols and safety measures for firefighting, including establishing safe zones, extinguishing media to be used, firefighter protection, and actions to control or extinguish the fire.
Special protective equipment and precautions for fire-fighters	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions	Avoid contact with skin, eyes or clothing. Use personal protective equipment as required. Ensure adequate ventilation. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.
Other information	Refer to protective measures listed in Sections 7 and 8.
For emergency responders	Use personal protection recommended in Section 8.

6.2. Environmental precautions

Environmental precautions	Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Do not flush into surface water or sanitary sewer system. Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for containment	Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labelled containers. Clean contaminated surface thoroughly.

Prevention of secondary hazards Clean contaminated objects and areas thoroughly observing environmental regulations.

6.4. Reference to other sections

Reference to other sections See section 8 for more information See section 13 for more information

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Ensure adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Take off contaminated clothing and wash it before reuse. Remove contaminated clothing and shoes.

General hygiene considerations Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place. Store locked up. Keep out of the reach of children.

Storage class (TRGS 510) LGK 6.1C.

7.3. Specific end use(s)

Specific use(s) The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure Limits

Chemical name	European Union	Austria	Belgium	Bulgaria	Croatia
Bisphenol A - Epichlorohydrin polymer 25068-38-6	-	-	-	TWA: 1.0 mg/m^3	-
C.I. Pigment Blue 15 147-14-8	-	TWA: 1 mg/m^3 TWA: 0.1 mg/m^3 STEL 4 mg/m^3 STEL 0.4 mg/m^3	-	-	-
Propylene glycol monomethyl ether acetate 108-65-6	TWA: 50 ppm TWA: 275 mg/m^3 STEL: 100 ppm STEL: 550 mg/m^3 *	TWA: 50 ppm TWA: 275 mg/m^3 STEL 100 ppm STEL 550 mg/m^3 H*	TWA: 50 ppm TWA: 275 mg/m^3 STEL: 100 ppm STEL: 550 mg/m^3 D*	STEL: 100 ppm STEL: 550.0 mg/m^3 TWA: 50 ppm TWA: 275.0 mg/m^3 K*	TWA: 50 ppm TWA: 275 mg/m^3 STEL: 100 ppm STEL: 550 mg/m^3 *
Phenoxyethanol 122-99-6	-	TWA: 20 ppm TWA: 110 mg/m^3 STEL 20 ppm STEL 110 mg/m^3 Ceiling: 20 ppm Ceiling: 110 mg/m^3	-	-	-

Chemical name	Cyprus	Czech Republic	Denmark	Estonia	Finland
C.I. Pigment Blue 15 147-14-8	-	-	-	-	TWA: 0.02 mg/m³
Propylene glycol monomethyl ether acetate 108-65-6	* STEL: 100 ppm STEL: 550 mg/m³ TWA: 50 ppm TWA: 275 mg/m³	TWA: 270 mg/m³ Ceiling: 550 mg/m³ D*	TWA: 50 ppm TWA: 275 mg/m³ H*	S+ TWA: 50 ppm TWA: 275 mg/m³ STEL: 100 ppm STEL: 550 mg/m³ A*	TWA: 50 ppm TWA: 270 mg/m³ STEL: 100 ppm STEL: 550 mg/m³ iho*
Phenoxyethanol 122-99-6	-	-	-	-	TWA: 20 ppm TWA: 110 mg/m³ STEL: 50 ppm STEL: 290 mg/m³ iho*

Chemical name	France	Germany TRGS	Germany DFG	Greece	Hungary
Hexamethylene diacrylate 13048-33-4	-	-	skin sensitizer	-	-
C.I. Pigment Blue 15 147-14-8	-	-	-	-	TWA: 0.1 mg/m³ STEL: 0.2 mg/m³
Propylene glycol monomethyl ether acetate 108-65-6	TWA: 50 ppm TWA: 275 mg/m³ STEL: 100 ppm STEL: 550 mg/m³ *	TWA: 50 ppm TWA: 270 mg/m³	TWA: 50 ppm TWA: 270 mg/m³ Peak: 50 ppm Peak: 270 mg/m³	TWA: 50 ppm TWA: 275 mg/m³ STEL: 100 ppm STEL: 550 mg/m³ *	TWA: 275 mg/m³ STEL: 550 mg/m³
Phenoxyethanol 122-99-6	-	TWA: 1 ppm TWA: 5.7 mg/m³	TWA: 1 ppm TWA: 5.7 mg/m³ Peak: 1 ppm Peak: 5.7 mg/m³	-	-

Chemical name	Ireland	Italy MDLPS	Italy AIDII	Latvia	Lithuania
Melamine 108-78-1	-	-	-	-	TWA: 0.5 mg/m³
C.I. Pigment Blue 15 147-14-8	-	-	TWA: 1 mg/m³	TWA: 5 mg/m³	TWA: 5 mg/m³
Propylene glycol monomethyl ether acetate 108-65-6	TWA: 50 ppm TWA: 275 mg/m³ STEL: 100 ppm STEL: 550 mg/m³ Sk*	TWA: 50 ppm TWA: 275 mg/m³ STEL: 100 ppm STEL: 550 mg/m³ cute*	-	TWA: 50 ppm TWA: 275 mg/m³ STEL: 100 ppm STEL: 550 mg/m³ Ada*	O* TWA: 50 ppm TWA: 250 mg/m³ STEL: 75 ppm STEL: 400 mg/m³

Chemical name	Luxembourg	Malta	Netherlands	Norway	Poland
Propylene glycol monomethyl ether acetate 108-65-6	Peau* STEL: 100 ppm STEL: 550 mg/m³ TWA: 50 ppm TWA: 275 mg/m³	skin* STEL: 100 ppm STEL: 550 mg/m³ TWA: 50 ppm TWA: 275 mg/m³	TWA: 550 mg/m³	TWA: 50 ppm TWA: 270 mg/m³ STEL: 75 ppm STEL: 337.5 mg/m³ H*	STEL: 520 mg/m³ TWA: 260 mg/m³ skóra*
Phenoxyethanol 122-99-6	-	-	-	-	TWA: 230 mg/m³

Chemical name	Portugal	Romania	Slovakia	Slovenia	Spain
C.I. Pigment Blue 15 147-14-8	-	-	-	-	TWA: 0.01 mg/m³
Propylene glycol monomethyl ether acetate 108-65-6	TWA: 50 ppm TWA: 275 mg/m³ STEL: 100 ppm STEL: 550 mg/m³ Cutânea*	TWA: 50 ppm TWA: 275 mg/m³ STEL: 100 ppm STEL: 550 mg/m³ P*	TWA: 50 ppm TWA: 275 mg/m³ K* Ceiling: 550 mg/m³	TWA: 50 ppm TWA: 275 mg/m³ STEL: 100 ppm STEL: 550 mg/m³ K*	TWA: 50 ppm TWA: 275 mg/m³ STEL: 100 ppm STEL: 550 mg/m³ vía dérmica*
Phenoxyethanol 122-99-6	-	-	-	TWA: 5.7 mg/m³ TWA: 1 ppm STEL: 1 ppm STEL: 5.7 mg/m³	-

Chemical name	Sweden	Switzerland	United Kingdom

Oxybis(methyl-2,1-ethanediyl) diacrylate 57472-68-1	-	S+	-
Hexamethylene diacrylate 13048-33-4	-	S+	-
4-hydroxybutyl acrylate 2478-10-6	-	S+	-
C.I. Pigment Blue 15 147-14-8	-	-	TWA: 1 mg/m^3 STEL: 2 mg/m^3
Propylene glycol monomethyl ether acetate 108-65-6	NGV: 50 ppm NGV: 275 mg/m^3 Bindande KGV: 100 ppm Bindande KGV: 550 mg/m^3 H*	TWA: 50 ppm TWA: 275 mg/m^3 STEL: 50 ppm STEL: 275 mg/m^3	TWA: 50 ppm TWA: 274 mg/m^3 STEL: 100 ppm STEL: 548 mg/m^3 Sk*
Phenoxyethanol 122-99-6	-	TWA: 20 ppm TWA: 110 mg/m^3 STEL: 20 ppm STEL: 110 mg/m^3	-

Biological occupational exposure limits
This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies.

Derived No Effect Level (DNEL) - Workers

Chemical name	Oral	Dermal	Inhalation
Oxybis(methyl-2,1-ethanediyl) diacrylate 57472-68-1	-	2.77 mg/kg bw/day [4] [6]	24.48 mg/m^3 [4] [6]
Hexamethylene diacrylate 13048-33-4	-	2.77 mg/kg bw/day [4] [6]	24.5 mg/m^3 [4] [6]
Hexamethylene diisocyanate, oligomerisation product, blocked with 3,5-Dimethyl-1H-pyrrazole 163206-31-3	-	-	0.005 mg/m^3 [5] [6] 0.025 mg/m^3 [5] [7]
4-hydroxybutyl acrylate 2478-10-6	-	8.2 mg/kg bw/day [4] [6]	3 mg/m^3 [5] [6] 3 mg/m^3 [5] [7]
2-(dimethylamino)-2-[(4-methylphenyl) methyl]-1-[4-(morpholin-4-yl)phenyl]butan-1-one 119344-86-4	-	0.233 mg/kg bw/day [4] [6]	1.64 mg/m^3 [4] [6]
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide 75980-60-8	-	0.233 mg/kg bw/day [4] [6]	0.822 mg/m^3 [4] [6]
Melamine 108-78-1	-	11.8 mg/kg bw/day [4] [6] 117 mg/kg bw/day [4] [7]	8.3 mg/m^3 [4] [6] 82.3 mg/m^3 [4] [7]
C.I. Pigment Blue 15 147-14-8	-	450 mg/kg bw/day [4] [6]	4 mg/m^3 [4] [6]
Propylene glycol monomethyl ether acetate 108-65-6	-	796 mg/kg bw/day [4] [6]	275 mg/m^3 [4] [6] 550 mg/m^3 [5] [7]
Phenoxyethanol 122-99-6	-	20.83 mg/kg bw/day [4] [6]	5.7 mg/m^3 [4] [6] 5.7 mg/m^3 [5] [6]

Notes

[4]	Systemic health effects.
[5]	Local health effects.
[6]	Long term.

[7] Short term.

Derived No Effect Level (DNEL) - General Public

Chemical name	Oral	Dermal	Inhalation
Oxybis(methyl-2,1-ethanediyl) diacrylate 57472-68-1	2.08 mg/kg bw/day [4] [6]	-	7.24 mg/m³ [4] [6]
Hexamethylene diacrylate 13048-33-4	2.1 mg/kg bw/day [4] [6]	-	7.2 mg/m³ [4] [6]
Hexamethylene diisocyanate, oligomerisation product, blocked with 3,5-Dimethyl-1H-pyrrazole 163206-31-3	-	-	0.0009 mg/m³ [5] [6] 0.0045 mg/m³ [5] [7]
2-(dimethylamino)-2-[(4-methylphenyl) methyl]-1-[4-(morpholin-4-yl)phenyl]but an-1-one 119344-86-4	83.3 µg/kg bw/day [4] [6]	-	0.29 mg/m³ [4] [6]
Diphenyl(2,4,6-trimethylbenzoyl)phosp hine oxide 75980-60-8	83.3 µg/kg bw/day [4] [6]	-	0.145 mg/m³ [4] [6]
Melamine 108-78-1	0.42 mg/kg bw/day [4] [6]	-	1.5 mg/m³ [4] [6]
C.I. Pigment Blue 15 147-14-8	45 mg/kg bw/day [4] [6]	-	-
Propylene glycol monomethyl ether acetate 108-65-6	36 mg/kg bw/day [4] [6]	-	33 mg/m³ [4] [6] 33 mg/m³ [5] [6]
Phenoxyethanol 122-99-6	9.23 mg/kg bw/day [4] [6] 9.23 mg/kg bw/day [4] [7]	-	2.41 mg/m³ [4] [6] 2.41 mg/m³ [5] [6]

Notes

[4] Systemic health effects.
[5] Local health effects.
[6] Long term.
[7] Short term.

Predicted No Effect Concentration (PNEC)

Chemical name	Freshwater	Freshwater (intermittent release)	Marine water	Marine water (intermittent release)	Air
Oxybis(methyl-2,1-ethaned iyl) diacrylate 57472-68-1	0.0034 mg/L	0.034 mg/L	0.00034 mg/L	-	-
Hexamethylene diacrylate 13048-33-4	0.00723 mg/L	-	0.000723 mg/L	-	-
4-hydroxybutyl acrylate 2478-10-6	0.0136 mg/L	0.136 mg/L	0.00136 mg/L	-	-
2-(dimethylamino)-2-[(4-m ethylphenyl)methyl]-1-[4-(morpholin-4-yl)phenyl]buta n-1-one 119344-86-4	3.1 µg/L	1 mg/L	0.31 µg/L	0.1 mg/L	-
Diphenyl(2,4,6-trimethylbe nzoyl)phosphine oxide 75980-60-8	1.4 µg/L	14 µg/L	0.14 µg/L	1.4 µg/L	-
Melamine	0.51 mg/L	2 mg/L	0.051 mg/L	-	-

Chemical name	Freshwater	Freshwater (intermittent release)	Marine water	Marine water (intermittent release)	Air
108-78-1					
Propylene glycol monomethyl ether acetate 108-65-6	0.635 mg/L	6.35 mg/L	0.0635 mg/L	-	-
Phenoxyethanol 122-99-6	0.943 mg/L	3.44 mg/L	0.0943 mg/L	-	-

Chemical name	Freshwater sediment	Marine sediment	Sewage treatment	Soil	Food chain
Oxybis(methyl-2,1-ethanediyl) diacrylate 57472-68-1	0.00884 mg/kg sediment dw	-	100 mg/L	0.0013 mg/kg soil dw	-
Hexamethylene diacrylate 13048-33-4	0.493 mg/kg sediment dw	0.0493 mg/kg sediment dw	2.7 mg/L	0.094 mg/kg soil dw	-
Hexamethylene diisocyanate, oligomerisation product, blocked with 3,5-Dimethyl-1H-pyrrazole 163206-31-3	-	-	100 mg/L	-	-
4-hydroxybutyl acrylate 2478-10-6	0.086 mg/kg sediment dw	0.00856 mg/kg sediment dw	10 mg/L	0.0367 mg/kg soil dw	-
2-(dimethylamino)-2-[(4-methylphenyl)methyl]-1-[4-(morpholin-4-yl)phenyl]butan-1-one 119344-86-4	1.07 mg/kg sediment dw	0.107 mg/kg sediment dw	10 mg/L	0.213 mg/kg soil dw	-
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide 75980-60-8	0.115 mg/kg sediment dw	11.5 µg/kg sediment dw	-	22.2 µg/kg soil dw	-
Melamine 108-78-1	2.524 mg/kg sediment dw	0.2524 mg/kg sediment dw	200 mg/L	0.206 mg/kg soil dw	-
C.I. Pigment Blue 15 147-14-8	10 mg/kg sediment dw	1 mg/kg sediment dw	-	1 mg/kg soil dw	-
Propylene glycol monomethyl ether acetate 108-65-6	3.29 mg/kg sediment dw	0.329 mg/kg sediment dw	100 mg/L	0.29 mg/kg soil dw	-
Phenoxyethanol 122-99-6	7.2366 mg/kg sediment dw	0.7237 mg/kg sediment dw	36 mg/L	1.31 mg/kg soil dw	-

8.2. Exposure controls

Engineering controls

Showers
Eyewash stations
Ventilation systems.

Personal protective equipment

Eye/face protection

Tight sealing safety goggles.

Hand protection

Wear suitable gloves. Impervious gloves.

Skin and body protection	Wear suitable protective clothing. Long sleeved clothing.
Respiratory protection	No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.
General hygiene considerations	Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product.
Environmental exposure controls	Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	
Physical state	Liquid
Colour	Green
Odour	Mild
Odour threshold	No information available

Property	**Values**	**Remarks • Method**
Melting point / freezing point		No data available
Initial boiling point and boiling range		No data available
Flammability		No data available
Flammability Limit in Air		
Upper flammability or explosive limits		No data available
Lower flammability or explosive limits		No data available
Flash point	110 °C	
Autoignition temperature		No data available
Decomposition temperature		No data available
pH		No data available
pH (as aqueous solution)		No data available
Kinematic viscosity		No data available
Dynamic viscosity		No data available
Water solubility		No data available
Solubility(ies)		No data available
Partition coefficient		No data available
Vapour pressure		No data available
Relative density		No data available
Bulk density		No data available
Liquid Density		No data available
Vapour density		No data available
Particle characteristics		
Particle Size		No data available
Particle Size Distribution		No data available

9.2. Other information

VOC content	0 %

9.2.1. Information with regards to physical hazard classes
Not applicable

9.2.2. Other safety characteristics
No information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity None under normal use conditions.

10.2. Chemical stability

Stability Stable under normal conditions.

Explosion data
Sensitivity to mechanical impact None.
Sensitivity to static discharge None.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions None under normal processing.

10.4. Conditions to avoid

Conditions to avoid None known based on information supplied.

10.5. Incompatible materials

Incompatible materials None known based on information supplied.

10.6. Hazardous decomposition products

Hazardous decomposition products None known based on information supplied.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Information on likely routes of exposure

Product Information

Inhalation Specific test data for the substance or mixture is not available. May cause irritation of respiratory tract.

Eye contact Specific test data for the substance or mixture is not available. Causes serious eye damage. May cause irreversible damage to eyes.

Skin contact Specific test data for the substance or mixture is not available. May cause sensitisation by skin contact. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons. (based on components). Causes skin irritation.

Ingestion Specific test data for the substance or mixture is not available. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms Redness. Burning. May cause blindness. Itching. Rashes. Hives. May cause redness and tearing of the eyes.

Acute toxicity

Numerical measures of toxicity

The following values are calculated based on chapter 3.1 of the GHS document:
ATEmix (oral) > 2,000 mg/kg

ATEmix (dermal) > 2,000 mg/kg

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Oxybis(methyl-2,1-ethanediyl) diacrylate	= 4600 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	-
Hexamethylene diacrylate	= 5 g/kg (Rat)	= 3600 mg/kg (Rabbit)	-
Hexamethylene diisocyanate, oligomerisation product, blocked with 3,5-Dimethyl-1H-pyrrazole	-	-	> 2379 mg/m^3 (Rat) 4 h
4-hydroxybutyl acrylate	-	> 2000 mg/kg (Rat)	-
2-(dimethylamino)-2-[(4-methylphenyl) methyl]-1-[4-(morpholin-4-yl)phenyl]but an-1-one	> 2000 mg/kg (Rat)	> 2000 mg/kg (Rat)	-
Diphenyl(2,4,6-trimethylbenzoyl)phosp hine oxide	-	> 2000 mg/kg (Rat)	-
Melamine	= 3161 mg/kg (Rat)	> 1 g/kg (Rabbit)	-
Bisphenol A - Epichlorohydrin polymer	= 11400 mg/kg (Rat)	-	-
C.I. Pigment Blue 15	> 10000 mg/kg (Rat)	> 5000 mg/kg (Rat)	-
Propylene glycol monomethyl ether acetate	= 8532 mg/kg (Rat)	> 5 g/kg (Rabbit)	= 16000 mg/m^3 (Rat) 6 h
Phenoxyethanol	= 1850 mg/kg (Rat)	= 5 mL/kg (Rabbit)	> 0.057 mg/L (Rat) 8 h

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation Classification based on data available for ingredients. Causes skin irritation.

Serious eye damage/eye irritation Classification based on data available for ingredients. Causes burns. Causes serious eye damage.

Respiratory or skin sensitisation May cause an allergic skin reaction.

Germ cell mutagenicity No information available.

Carcinogenicity Based on available data, the classification criteria are not met.

The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical name	European Union
Melamine	Carc. 2

Reproductive toxicity Contains a known or suspected reproductive toxin. Classification based on data available for ingredients. May damage fertility or the unborn child.

The table below indicates ingredients above the cut-off threshold considered as relevant which are listed as reproductive toxins.

Chemical name	European Union
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	Repr. 2

STOT - single exposure No information available.

STOT - repeated exposure No information available.

Aspiration hazard No information available.

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

Endocrine disrupting properties This product does not contain any known or suspected endocrine disruptors.

11.2.2. Other information

Other adverse effects No information available.

SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicity Toxic to aquatic life. Harmful to aquatic life with long lasting effects.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Hexamethylene diisocyanate, oligomerisation product, blocked with 3,5-Dimethyl-1H-pyrrazole 163206-31-3	-	LC50: =562mg/L (96h, Danio rerio)	-	-
Melamine 108-78-1	EC50: =940mg/L (96h, Scenedesmus pannonicus)	LC50: >3000mg/L (96h, Poecilia reticulata)	-	EC50: >2000mg/L (48h, Daphnia magna)
Propylene glycol monomethyl ether acetate 108-65-6	-	LC50: =161mg/L (96h, Pimephales promelas)	-	EC50: >500mg/L (48h, Daphnia magna)
Phenoxyethanol 122-99-6	EC50: >500mg/L (72h, Desmodesmus subspicatus)	LC50: 337 - 352mg/L (96h, Pimephales promelas) LC50: =366mg/L (96h, Pimephales promelas)	-	EC50: >500mg/L (48h, Daphnia magna)

12.2. Persistence and degradability

Persistence and degradability No information available.

12.3. Bioaccumulative potential

Bioaccumulation

Component Information

Chemical name	Partition coefficient
Oxybis(methyl-2,1-ethanediyl) diacrylate	0.39
Hexamethylene diacrylate	2.81
Hexamethylene diisocyanate, oligomerisation product, blocked with 3,5-Dimethyl-1H-pyrrazole	6.4
4-hydroxybutyl acrylate	0.77
2-(dimethylamino)-2-[(4-methylphenyl)methyl]-1-[4-(morpholin-4-yl)phenyl]butan-1-one	5.73
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	3.1
Melamine	-1.22
C.I. Pigment Blue 15	6.6

Propylene glycol monomethyl ether acetate	1.2
Phenoxyethanol	1.2

12.4. Mobility in soil

Mobility in soil No information available.

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment

Chemical name	PBT and vPvB assessment
Oxybis(methyl-2,1-ethanediyl) diacrylate 57472-68-1	The substance is not PBT / vPvB
Hexamethylene diacrylate 13048-33-4	The substance is not PBT / vPvB
Hexamethylene diisocyanate, oligomerisation product, blocked with 3,5-Dimethyl-1H-pyrrazole 163206-31-3	The substance is not PBT / vPvB
4-hydroxybutyl acrylate 2478-10-6	The substance is not PBT / vPvB
2-(dimethylamino)-2-[(4-methylphenyl)methyl]-1-[4-(morpholin-4-yl)phenyl]butan-1-one 119344-86-4	The substance is not PBT / vPvB
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide 75980-60-8	The substance is not PBT / vPvB
Melamine 108-78-1	The substance is not PBT / vPvB
Bisphenol A - Epichlorohydrin polymer 25068-38-6	The substance is not PBT / vPvB
C.I. Pigment Blue 15 147-14-8	The substance is not PBT / vPvB
Propylene glycol monomethyl ether acetate 108-65-6	The substance is not PBT / vPvB
Phenoxyethanol 122-99-6	The substance is not PBT / vPvB

12.6. Endocrine disrupting properties

Endocrine disrupting properties This product does not contain any known or suspected endocrine disruptors.

12.7. Other adverse effects

Other adverse effects No information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste from residues/unused products Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

Contaminated packaging Do not reuse empty containers.

Waste codes / waste designations according to EWC / AVV According to the European Waste Catalogue, Waste Codes are not product specific, but application specific. Waste codes should be assigned by the user based on the application for which the product was used.

SECTION 14: Transport information

IMDG	Not regulated
14.1 UN number or ID number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazards	Not applicable
14.6 Special Precautions for Users	
Special Provisions	None
14.7 Maritime transport in bulk according to IMO instruments	No information available

RID	Not regulated
14.1 UN number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazards	Not applicable
14.6 Special Precautions for Users	
Special Provisions	None

ADR	Not regulated
14.1 UN number or ID number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazards	Not applicable
14.6 Special Precautions for Users	
Special Provisions	None

IATA	Not regulated
14.1 UN number or ID number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazards	Not applicable
14.6 Special Precautions for Users	
Special Provisions	None
Note:	None

SECTION 15: Regulatory information

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

National regulations

France
Occupational Illnesses (R-463-3, France)

Chemical name	French RG number
Propylene glycol monomethyl ether acetate 108-65-6	RG 84
Phenoxyethanol 122-99-6	RG 84

Germany

Water hazard class (WGK)	obviously hazardous to water (WGK 2)

Netherlands

Chemical name	Netherlands - List of Carcinogens	Netherlands - List of Mutagens	Netherlands - List of Reproductive Toxins
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	-	-	Fertility Category 2

European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

Authorisations and/or restrictions on use:

This product contains one or more substance(s) subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

Chemical name	Restricted substance per REACH Annex XVII	Substance subject to authorisation per REACH Annex XIV
Hexamethylene diacrylate - 13048-33-4	75.	-
Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide - 75980-60-8	75.	-
Bisphenol A - Epichlorohydrin polymer - 25068-38-6	75.	-
C.I. Pigment Blue 15 - 147-14-8	75.	-
Phenoxyethanol - 122-99-6	75.	-

Persistent Organic Pollutants

Not applicable

Ozone-depleting substances (ODS) regulation (EC) 1005/2009

Not applicable

Biocidal Products Regulation (EU) No 528/2012 (BPR)

Chemical name	Biocidal Products Regulation (EU) No 528/2012 (BPR)
Phenoxyethanol - 122-99-6	Product-type 1: Human hygiene Product-type 2: Disinfectants and algaecides not intended for direct application to humans or animals Product-type 4: Food and feed area Product-type 6: Preservatives for products during storage Product-type 13: Working or cutting fluid preservatives

International Inventories

Contact supplier for inventory compliance status

15.2. Chemical safety assessment

Chemical Safety Report No information available

SECTION 16: Other information

Key or legend to abbreviations and acronyms used in the safety data sheet

Full text of H-Statements referred to under section 3

H226 - Flammable liquid and vapour
H302 - Harmful if swallowed
H315 - Causes skin irritation
H317 - May cause an allergic skin reaction
H318 - Causes serious eye damage
H319 - Causes serious eye irritation
H335 - May cause respiratory irritation
H351 - Suspected of causing cancer
H360 - May damage fertility or the unborn child
H361 - Suspected of damaging fertility or the unborn child
H373 - May cause damage to organs through prolonged or repeated exposure
H400 - Very toxic to aquatic life
H411 - Toxic to aquatic life with long lasting effects

Legend
ATE: Acute Toxicity Estimate
SVHC: Substances of Very High Concern for Authorisation:
PBT: Persistent, Bioaccumulative, and Toxic (PBT) Chemicals
vPvB: Very Persistent and very Bioaccumulative (vPvB) Chemicals

Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation

Classification procedure	
Classification according to Regulation (EC) No. 1272/2008 [CLP]	Method Used
Acute oral toxicity	Calculation method
Acute dermal toxicity	Calculation method
Acute inhalation toxicity - gas	Calculation method
Acute inhalation toxicity - vapour	Calculation method
Acute inhalation toxicity - dust/mist	Calculation method
Skin corrosion/irritation	Calculation method
Serious eye damage/eye irritation	Calculation method
Respiratory sensitisation	Calculation method
Skin sensitisation	Calculation method
Mutagenicity	Calculation method
Carcinogenicity	Calculation method
STOT - single exposure	Calculation method
STOT - repeated exposure	Calculation method
Acute aquatic toxicity	Calculation method
Chronic aquatic toxicity	Calculation method
Aspiration hazard	Calculation method
Ozone	Calculation method

Key literature references and sources for data used to compile the SDS
U.S. Environmental Protection Agency ChemView Database
European Food Safety Authority (EFSA)
European Chemicals Agency (ECHA) Committee for Risk Assessment (ECHA_RAC)
European Chemicals Agency (ECHA) (ECHA_API)
EPA (Environmental Protection Agency)
Acute Exposure Guideline Level(s) (AEGL(s))
U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
U.S. Environmental Protection Agency High Production Volume Chemicals
Food Research Journal
Hazardous Substance Database
International Uniform Chemical Information Database (IUCLID)
Japan GHS Classification
Australian National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
NIOSH (National Institute for Occupational Safety and Health)

National Library of Medicine's ChemID Plus (NLM CIP)
National Toxicology Program (NTP)
New Zealand's Chemical Classification and Information Database (CCID)
Organisation for Economic Co-operation and Development Environment, Health, and Safety Publications
Organisation for Economic Co-operation and Development High Production Volume Chemicals Programme
Organisation for Economic Co-operation and Development Screening Information Data Set
World Health Organization

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This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

Disclaimer
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End of Safety Data Sheet