

WARNING

This document contains both:

**SDS – Safety Data Sheet
for the USA/CANADA only**

(from pages 2 to 12)

**MSDS – Material Safety Data Sheet
for the rest of the world (USA/CANADA excluded)**

(from pages 14 to 24)

Please discard the irrelevant pages for your own country

SDS SAFETY DATA SHEET

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND THE COMPANY/UNDERTAKING

1.1 Identification of the product

Trade Name: **JV3D One - LED VARNISH - 10L**

PN: **10109S (10L)**

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

Used for: *JETvarnish 3D One & AccurioShine 3600*

1.3 Details of the supplier of the safety data sheet

Manufacturer / Supplier:

MGI Digital Technology
4, rue de la Méridienne
94260 Fresnes
FRANCE
Tel.: +33 1 45 21 06 60 / Fax: +33 1 46 68 71 55
E-mail: info@mgi-fr.com / <http://www.mgi-fr.com>

1.4 Emergency telephone number:

CHEMTREC: +1 800 4249300
International: +1 703 5273887

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Skin irritation cat 2	H315
Eye irritation cat 2	H319
Sensitization skin cat 1B	H317
Reproductive toxicity cat 1B	H360Fd
Specific target organ toxicity - Single exposure cat 3	H335
Hazardous to the aquatic environment - Long-term hazard cat 2	H411

2.2 Label element

Hazard pictograms



GHS07



GHS08



GHS09

Signal word: Danger

Hazard statements

H315 Causes skin irritation
H319 Causes serious eye irritation
H317 May cause an allergic skin reaction
H360Fd May damage fertility and suspected of damaging the unborn child
H335 May cause respiratory irritation

H411 Toxic to aquatic life with long lasting effects

Precautionary statements

Prevention

P264 Wash hands thoroughly after handling.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P261 Avoid breathing dust/fume/gas/mist/vapors/spray.
P272 Contaminated work clothing should not be allowed out of the workplace.
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P405 Store locked up.
P403+P233 Store in a well-ventilated place. Keep container tightly closed.
P271 Use only outdoors or in a well-ventilated area.
P501 Dispose of contents / container in accordance with local / national / international regulations.
P273 Avoid release to the environment.
P391 Collect spillage.

Intervention

P302+P352 If on skin: wash with plenty of water.
P332+P313 If skin irritation occurs: Get medical advice/attention.
P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.
P304+P340 If inhaled: Remove person to fresh air and keep comfortable for breathing.
P337+P313 If eye irritation persists: Get medical advice/attention.
P308+P313 If exposed or concerned: Get medical advice/attention.
P362+P364 Take off contaminated clothing and wash it before reuse.
P312 Call a poison center or doctor if you feel unwell.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixture

Chemical name	CAS No	GHS Classification	Quantity
Diphenyl(2,4,6-trimethylbenzoyl) phosphine oxide	75980-60-8	Sensitization skin cat 1B H317 Reproductive toxicity cat 1B H360Fd Hazardous to the aquatic environment - Long-term hazard cat 2 H411	1-2,9%
2-Phenoxyethyl Acrylate	48145-04-6	Sensitization skin cat 1B H317 Reproductive toxicity cat 2 H361d Hazardous to the aquatic environment - Long-term hazard cat 2 H411	20-30%
Ethoxylated Phenol Acrylate	56641-05-5	Sensitization skin cat 1B H317 Reproductive toxicity cat 2 H361d Hazardous to the aquatic environment - Long-term hazard cat 3 H412	20-30%
Acrylate monomers	Proprietary	Acute toxicity (inhalation) cat 4 H332 Skin irritation cat 2 H315 Eye irritation cat 2 H319 Sensitization skin cat 1B H317 Specific target organ toxicity - Single exposure cat 3 H335 Hazardous to the aquatic environment - Long-term hazard cat 3 H412	30-55%
Acrylate polymers	Proprietary	/	5-10%

4. FIRST AID MEASURES

4.1 Description of first aid measures

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: Wash open eyes immediately, abundantly and thoroughly for at least 15 minutes. Seek advice of an ophthalmologist if necessary.

Inhalation: Move to fresh air.

Ingestion: Do NOT induce vomiting. Rinse mouth. Consult a physician if necessary.

4.2 Most important symptoms and effects, both acute and delayed

See section 11 for additional information on health hazards.

4.3 Indication of any immediate medical attention and special treatment needed

See section 11 for additional information on health hazards.

5. FIREFIGHTING MEASURES

5.1 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.

5.2 Special hazards arising from the substance or mixture

During fire, gases hazardous to health may be formed (Carbon oxides).

5.3 Advice for firefighter

Special firefighting 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

6.1 Personal precautions, protective equipment and emergency procedures

See Section 8 for Personal Protective Equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep unauthorized personnel away.

6.2 Environmental precautions:

Avoid release to the environment. Prevent further leakage or spillage if safe to do so.

6.3 Methods and material for containment and cleaning up:

Stop the flow of material, if this is without risk. Absorb with sand or other inert absorbent.

6.4 Reference to other sections

See Section 7 for handling

See Section 8 for Personal Protective Equipment.

See Section 13 for waste disposal.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Avoid contact with eyes, skin, and clothing. Wash hands thoroughly after handling. Keep away from heat, sparks and flame. Do not eat, drink or smoke when using material.

7.2 Conditions for safe storage, including any incompatibilities

Store between 15°C and 30°C max (59-86°F) and in original container. Protect from frost, heat and sunlight (risk of polymerization). Keep away from open flames, hot surfaces and sources of ignition. Make sure of the presence of air and inhibitor in the drums. In addition, the product's inhibitor(s) require the presence of dissolved oxygen. An air space is required above the liquid in all containers; avoid storage under an oxygen-free atmosphere. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

7.3 Specific end use(s)

Reserved for industrial and professional use

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

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

8.2 Exposure controls

Appropriate engineering controls:

Provide adequate ventilation.

Personal protective equipment:



Safety glasses



Gloves

Respiratory protection: In case of inadequate ventilation use suitable respirator.

Hand protection: Protective gloves should be used if there is a risk of direct contact or splash. Chemical resistant gloves required for prolonged or repeated contact. 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.

Eye/face protection: Safety glasses with side-shields. Do not wear contact lenses.

Skin and body protection: Long sleeved clothing

Environmental exposure controls:

See Section 6

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance:

Physical state (20°C): Liquid

Color: Colorless to yellow

Odor: Sweetish

Olfactory threshold: No data available.

pH: Not applicable.

Melting point / range: No data available.

Boiling point / range: No data available.

Flash point: > 110°C (212°F)

Evaporation rate: No data available.

Flammability (solid, gas): Not applicable.

Vapor pressure: No data available.

Vapor density: No data available.

Density: >1

Water solubility: Insoluble

Auto-ignition temperature: No data available.

Decomposition temperature: No data available.

Viscosity: 30-40mPa.s; 25 °C

9.2 Other information

VOC Content: No presence of solvent and / or VOC.

10. STABILITY AND REACTIVITY

10.1 Reactivity

No data available.

10.2 Chemical stability

The product is stable under recommended handling and storage conditions.

10.3 Possibility of hazardous reaction

Polymerization may occur. It is exothermic and can degenerate into an uncontrolled reaction.

10.4 Conditions to avoid

Avoid exposure to strong UV sources and to sunlight. Avoid direct contact with heat sources.

10.5 Incompatible materials

Materials to avoid: acids, bases, oxidizing agents and reducing agents.

10.6 Hazardous decomposition products

Formation of toxic products through combustion: carbon oxides.

11. TOXICOLOGICAL EFFECTS

11.1 Information on toxicological effects

Causes skin irritation

Causes serious eye irritation

May cause an allergic skin reaction

May damage fertility and suspected of damaging the unborn child

May cause respiratory irritation

Acute toxicity:

Diphenyl(2,4,6-trimethylbenzoyl) phosphine oxide	<u>Oral:</u> LD50 / Rat: > 5000mg/kg <u>Dermal:</u> LD50 / Rat: > 2000mg/kg <u>Inhalation:</u> No data available
2-Phenoxyethyl Acrylate	<u>Oral:</u> Slightly or not harmful by ingestion No mortality / Rat: 5000mg/kg (Method: OECD Test 401) <u>Dermal:</u> Slightly or not harmful in contact with skin No mortality / Rat: 2000mg/kg (Method: OECD Test 402) <u>Inhalation:</u> No data available
Ethoxylated Phenol Acrylate	<u>Oral:</u> No data available <u>Dermal:</u> No data available <u>Inhalation:</u> No data available
Acrylate monomers	<u>Oral:</u> Slightly or not harmful by ingestion No mortality / Rat: 2000mg/kg (Method: OECD Test 423) <u>Dermal:</u> Slightly or not harmful in contact with skin No mortality / Rat: 2000mg/kg (Method: OECD Test 402) <u>Inhalation:</u> Harmful if inhaled LC50 4h / Rat: 1-5mg/l (Method: OECD Test 436; Aerosol)

Local effects (Corrosion / Irritation / Serious eye damage):

Diphenyl(2,4,6-trimethylbenzoyl) phosphine oxide	<u>Skin contact:</u> Non-irritant (Rabbit; Dermal; 0,5g; Exposure time: 4 hours) <u>Eyes contact:</u> Non-irritant (Rabbit; Eye; 0,056g; Exposure time: 5 days)
2-Phenoxyethyl Acrylate	<u>Skin contact:</u> Not irritating to skin (Method: OECD Test 404; Rabbit) <u>Eyes contact:</u> Not irritating to the eyes. (Draize Test; Rabbit)
Ethoxylated Phenol Acrylate	<u>Skin contact:</u> Non-irritant (Rabbit) <u>Eyes contact:</u> Non-irritant (Rabbit)
Acrylate monomers	<u>Skin contact:</u> Causes skin irritation (Method: OECD Test 439; In vitro) <u>Eyes contact:</u> Causes serious eye irritation (Method: OECD Test 405; Rabbit)

Respiratory or skin sensitization:

Diphenyl(2,4,6-trimethylbenzoyl) phosphine oxide	<u>Inhalation:</u> No data available <u>Skin contact:</u> May cause sensitization by skin contact (Method: OECD Test 429; Local Lymph Node Assay; Dermal; Mouse)
2-Phenoxyethyl	<u>Inhalation:</u> No data available

Acrylate	<u>Skin contact:</u> Strong skin sensitizer (Method: OECD Test 406; Guinea pig; maximization test)
Ethoxylated Phenol Acrylate	<u>Inhalation:</u> No data available. <u>Skin contact:</u> Causes sensitization
Acrylate monomers	<u>Inhalation:</u> No data available <u>Skin contact:</u> Strong skin sensitizer (Method: OECD Test 429: Local Lymph Node Assay; Mouse)
CMR effects:	
Diphenyl(2,4,6-trimethylbenzoyl) phosphine oxide	<u>Mutagenicity:</u> <ul style="list-style-type: none"> In vitro: Bacterial Reverse Mutation Test: Negative (Method: OECD Test 471) In vitro Mammalian Chromosome Aberration Test: Negative (Method: OECD Test 473) In vivo: No data available. <u>Carcinogenicity:</u> No data available. <u>Reproductive toxicity:</u> NOAEL (Parental toxicity): 200mg/kg bw/day (Method: OECD Test 421; Rat) NOAEL (Developmental Toxicity): 150mg/kg bw/day (Method: OECD Test 414; Rat) NOAEL (Reproductive toxicity): 60mg/kg bw/day (Method: OECD Test 421; Rat) NOAEL (Developmental Toxicity): 200mg/kg bw/day (Method: OECD Test 421; Rat)
2-Phenoxyethyl Acrylate	<u>Mutagenicity:</u> Results from tests do not lead to considering the product as genotoxic <ul style="list-style-type: none"> In vitro: Ames test in vitro: Inactive (Method: OECD Test 471) In vitro chromosomal abnormality test on human lymphocytes: Inactive (Method: OECD Test 473) In vitro gene mutations test on mammalian cells: Inactive (Method: OECD Test 476) In vivo: No data available. <u>Carcinogenicity:</u> No data available. <u>Reproductive toxicity:</u> <ul style="list-style-type: none"> Fertility: Based on the available data, the substance is not suspected of having reprotoxic potential Reproduction Test: Effects on early embryonic development NOAEL (Parental toxicity): 300mg/kg bw/day NOAEL (Fertility): 800mg/kg bw/day NOAEL (Developmental Toxicity): 300mg/kg bw/day (Method: OECD Test 422; Rat; By oral route) Foetal development: Suspected of damaging the unborn child Embryo-foetal development: Effects on foetal development NOAEL (Developmental Toxicity): 200mg/kg bw/day NOAEL (Maternal Toxicity): > 600mg/kg bw/day (Method: OECD Test 414; Rat; By oral route)
Ethoxylated Phenol Acrylate	<u>Mutagenicity:</u> <ul style="list-style-type: none"> In vitro: Ames test in vitro: No data available In vivo: No data available <u>Carcinogenicity:</u> No data available <u>Reproductive toxicity:</u> Suspected of damaging the unborn child and fertility
Acrylate monomers	<u>Mutagenicity:</u> Results from tests do not lead to considering the product as genotoxic <ul style="list-style-type: none"> In vitro: Ames test in vitro: Inactive (Method: OECD Test 471) In vitro gene mutations test on mammalian cells: Inactive (Method: OECD

Test 476)
In vitro mammalian cell micronucleus test: Inactive (Method: OECD Test 487)
• In vivo: No data available
Carcinogenicity: No data available
Reproductive toxicity:
• Fertility: No data available
• Foetal development: Based on the available data, the substance is not suspected of having developmental toxicity potential
Embryo-foetal development: Absence of toxic effects for foetal development
NOAEL (Developmental Toxicity): > 1000mg/kg bw/day (Method: OECD Test 414; Rat; By oral route)
NOAEL (Maternal Toxicity): 300mg/kg bw/day (Method: OECD Test 414, Rat, by oral route)

Specific target organ toxicity:

Diphenyl(2,4,6-trimethylbenzoyl) phosphine oxide	<u>Single exposure</u> : No data available <u>Repeated exposure</u> : NOAEL: 100mg/kg bw/day (Method OECD Test 408; Rat; Oral)
2-Phenoxyethyl Acrylate	<u>Single exposure</u> : No data available. <u>Repeated exposure</u> : The substance or mixture is not classified as specific target organ toxicant, repeated exposure By oral route: Target organs: Liver; NOAEL: 300mg/kg (Method: OECD Test 422; Rat; 6 weeks) By oral route: No adverse systemic effects reported; NOAEL: > 350mg/kg (Method: OECD Test 408; Rat; 3 months)
Ethoxylated Phenol Acrylate	<u>Single exposure</u> : No data available <u>Repeated exposure</u> : No data available
Acrylate monomers	<u>Single exposure</u> : The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with respiratory tract irritation Exposure routes: Inhalation; Target Organs: Respiratory Tract • Inhalation: May cause respiratory irritation <u>Repeated exposure</u> : The substance or mixture is not classified as specific target organ toxicant, repeated exposure By oral route: No specific toxic effects; NOAEL: >300mg/kg (Method: OECD Test 408; Rat; 90 days)

Aspiration hazard:

Diphenyl(2,4,6-trimethylbenzoyl) phosphine oxide	Not applicable
2-Phenoxyethyl Acrylate	Not applicable
Ethoxylated Phenol Acrylate	Not applicable
Acrylate monomers	Not applicable

12. ECOLOGICAL INFORMATION

Toxic to aquatic life with long lasting effects

12.1 Toxicity

Acute toxicity:

Diphenyl(2,4,6-trimethylbenzoyl) phosphine oxide	<u>Fish</u> : LC50; 96h Cyprinus carpio: 1,4mg/L <u>Aquatic invertebrates</u> : EC50; 48h; Daphnia magna: 3,53mg/L
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	<p><u><i>Aquatic plants:</i></u> EC50; 72h; Pseudokirchneriella subcapitata: > 2,01mg/L EC10; 72h; Pseudokirchneriella subcapitata: 1,56 mg/L</p> <p><u><i>Microorganisms:</i></u> EC50; 3h; Activated sludge: > 1000mg/L</p>
2-Phenoxyethyl Acrylate	<p><u><i>Fish:</i></u> Toxic to fish LC50; 96h; Leuciscus idus: 10mg/L (Method: OECD Test 203)</p> <p><u><i>Aquatic invertebrates:</i></u> Toxic to daphnia EC50; 48h; Daphnia magna (Water flea): 2,21mg/L (Method: OECD Test 202)</p> <p><u><i>Aquatic plants:</i></u> Toxic to algae ErC50; 72h; Desmodesmus subspicatus (green algae): 4,4mg/L (Method: ISO 8692)</p> <p><u><i>Microorganisms:</i></u> EC50; 3h; Activated sludge: 177 mg/L (Method: OECD Test 209; Respiration inhibition)</p>
Ethoxylated Phenol Acrylate	<p><u><i>Fish:</i></u> LC50; 96h; Leuciscus idus: 10mg/L</p> <p><u><i>Aquatic invertebrates:</i></u> EC50; 48h; Daphnia magna: 1,21mg/L</p> <p><u><i>Aquatic plants:</i></u> ErC50; 72h; Desmodesmus subspicatus: 4,4mg/L (Method: OECD Test 201)</p>
Acrylate monomers	<p><u><i>Fish:</i></u> Toxic to fish LC50; 96h; Danio rerio (zebra fish): 1,23mg/L (Method: OECD Test 203)</p> <p><u><i>Aquatic invertebrates:</i></u> Harmful to daphnia EC50; 48h; Daphnia magna (Water flea): 12,79mg/L (Method: OECD Test 202)</p> <p><u><i>Aquatic plants:</i></u> Toxic to algae ErC50; 72h; Pseudokirchneriella subcapitata: 1,4mg/L (Method: OECD Test 201)</p> <p><u><i>Microorganisms:</i></u> NOEC; 14d; Activated sludge: > 100mg/l (Respiration inhibition)</p>
Long term toxicity:	
Diphenyl(2,4,6-trimethylbenzoyl) phosphine oxide	No data available
2-Phenoxyethyl Acrylate	<p><u><i>Aquatic invertebrates:</i></u> EC10; 21d; Daphnia magna (Water flea): > 0,1mg/L (Method: OECD Test 211, reproduction)</p> <p><u><i>Aquatic plants:</i></u> ErC10; 72h; Desmodesmus subspicatus (green algae): 0,71mg/L</p>
Ethoxylated Phenol Acrylate	No data available
Acrylate monomers	<p><u><i>Aquatic invertebrates:</i></u> NOECr; 21d; Daphnia magna (Water flea): 0,271mg/L (Method: OECD Test 211)</p> <p><u><i>Aquatic plants:</i></u> ErC10; 72h; Pseudokirchneriella subcapitata: 0,38mg/L (Method: OECD Test 201)</p>
12.2 Persistence and degradability	
Diphenyl(2,4,6-trimethylbenzoyl) phosphine oxide	<u><i>Biodegradation (in water):</i></u> Not readily biodegradable 0-10% after 28 days (Method: OECD Test 301 F)
2-Phenoxyethyl Acrylate	<p><u><i>Stability in water:</i></u> Half-life: > 1y; 25°C; pH 4-9 (Method: OECD Test 111)</p> <p><u><i>Biodegradation (in water):</i></u> Not readily biodegradable</p>

	22,30% after 28 days (Method: OECD Test 301 D)
Ethoxylated Phenol Acrylate	No data available
Acrylate monomers	<u>Biodegradation (in water)</u> : Readily biodegradable 81% after 28 days (Method: OECD Test 301 D) 57,1% after 28 days (Method: OECD Test 302 C)

12.3 Bioaccumulative potential

Diphenyl(2,4,6-trimethylbenzoyl) phosphine oxide	<u>Bioaccumulation</u> : Partition coefficient: 3,1
2-Phenoxyethyl Acrylate	<u>Bioaccumulation</u> : Low potential to bioaccumulate Partition coefficient: n-octanol/water: log Kow: 2,58; 25°C (Method: OECD Test 117)
Ethoxylated Phenol Acrylate	<u>Bioaccumulation</u> : Partition coefficient: 2,58
Acrylate monomers	<u>Bioaccumulation</u> : Low potential to bioaccumulate Partition coefficient: n-octanol/water: log Kow: 2,76 (Method: OECD Test 117)

12.4 Mobility in soil

Diphenyl(2,4,6-trimethylbenzoyl) phosphine oxide	<u>Vapor pressure</u> : 0Pa; 25°C <u>Absorption / desorption</u> : log Koc: 784,8
2-Phenoxyethyl Acrylate	<u>Vapor pressure</u> : 0,25Pa; 25°C (Method: OECD Test 104) <u>Surface tension</u> : 53,6mN/m; 23 °C / 472,5 mg/L (Method: OECD Test 115) <u>Absorption / desorption</u> : log Koc: 2,19 (Method: calculated)
Ethoxylated Phenol Acrylate	No data available
Acrylate monomers	<u>Vapor pressure</u> : 0,105Pa; 20°C (Method: OECD Test 104) <u>Surface tension</u> : Not relevant <u>Absorption / desorption</u> : log Koc: 1,97-2,34 (Method: calculated)

12.5 Results of PBT and vPvB assessment

Diphenyl(2,4,6-trimethylbenzoyl) phosphine oxide	The substance is not PBT / vPvB
2-Phenoxyethyl Acrylate	The substance is not PBT / vPvB
Ethoxylated Phenol Acrylate	No data available
Acrylate monomers	The substance is not PBT / vPvB

12.6 Other adverse effects

Diphenyl(2,4,6-trimethylbenzoyl) phosphine oxide	No data available
2-Phenoxyethyl Acrylate	None known
Ethoxylated Phenol Acrylate	No data available
Acrylate monomers	None known

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Waste from residues/unused products: Waste disposal should be in accordance with existing federal, state and local environmental control laws.

Contaminated Packaging: Do not reuse empty containers and dispose of in accordance with existing federal, state and local environmental control laws.

EPA Hazardous Waste Codes: Not applicable

14. TRANSPORT INFORMATION

14.1 UN Number

DOT / IMDG / IATA: UN3082

Hazchem Code: •3Z

14.2 UN proper shipping name

DOT / IATA: Environmentally hazardous substance, liquid, N.O.S. (Acrylate monomers)

IMDG: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Acrylate monomers)

14.3 Transport hazard class(es)

DOT / IMDG:

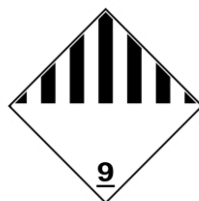
Class: 9

Label: 9

IATA:

Class: 9

Label: 9 Miscellaneous



14.4 Packing group

DOT / IMDG / IATA: III

14.5 Environmental hazards:

DOT / IMDG:

Marine pollutant: Yes

IATA:

Environmentally hazardous: Yes



14.6. Special precautions for user

Not applicable

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

15. REGULATORY INFORMATION

US Federal Regulations

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D): None

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050): None

CERCLA Hazardous Substance List (40 CFR 302.4): None

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely Hazardous Substances: None

SARA 304 Emergency Release Notifications: None

SARA 311/312 Hazardous Chemical: None

SARA 313 (TRI Reporting): None

Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3): None

Clean Air Act (CAA) Section 111 SOCM Intermediate or Final Volatile Organic Compounds (40 CFR 60.489): None

Clean Air Act (CAA) Section 112, 1990 Amendments, Statutory Hazardous Air Pollutants: None

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

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130): None

US State Regulations

California Proposition 65: None

New Jersey Worker and Community Right-to-Know Act: None

Massachusetts RTK - Substance List: None

Pennsylvania RTK - Hazardous Substances: None

Rhode Island RTK: None

16. OTHER INFORMATION

The data are based on the current state of our knowledge, and are intended to describe the product with regard to the requirements of safety. The data should not be taken to imply any guarantee of a particular or general specification. It is the responsibility of the user of the product to ensure to his satisfaction that the product is suitable for the intended purpose and method to use. We do not accept responsibility for any harm caused by the use of this information. Furthermore, nothing contained herein shall be construed as a recommendation to use any product in conflict with existing patents covering any material or its use. In all cases, our general conditions of sale apply.

Update

Version 1: 20/09/2019

Version 2: 19/07/2021

Version 3: 01/02/2022

Version 4: 02/05/2022

Version 5: 17/06/2022

Version 6: 01/09/2022

Version 7: 24/01/2023

Version 8: 01/07/2024

Version 9: 19/05/2025

MSDS

MATERIAL SAFETY DATA SHEET

According to Directive (CE) 1907/2006

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND THE COMPANY/UNDERTAKING

1.1 Identification of the product

Trade Name: **JV3D One - LED VARNISH - 10L**

PN: **10109S (10L)**

UFI: 8S00-40P7-9002-49TJ

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

Used for: *JETvarnish 3D One & AccurioShine 3600*

1.3 Details of the supplier of the safety data sheet

Manufacturer / Supplier:

MGI Digital Technology
4, rue de la Méridienne
94260 Fresnes
FRANCE
Tel.: +33 1 45 21 06 60 / Fax: +33 1 46 68 71 55
E-mail: info@mgi-fr.com / <http://www.mgi-fr.com>

1.4 Emergency telephone number:

ORFILA: +33 1 45 42 59 59

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Skin irritation cat 2

Eye irritation cat 2

Sensitization skin cat 1B

Reproductive toxicity cat 1B

Specific target organ toxicity - Single exposure cat 3

Hazardous to the aquatic environment - Long-term hazard cat 2

H315
H319
H317
H360Fd
H335
H411

2.2 Label element

Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the CLP regulation.

Hazard pictograms



GHS07



GHS08



GHS09

Signal word: Danger

Hazard statements

H315 Causes skin irritation
H319 Causes serious eye irritation
H317 May cause an allergic skin reaction
H360Fd May damage fertility and suspected of damaging the unborn child
H335 May cause respiratory irritation
H411 Toxic to aquatic life with long lasting effects

Precautionary statements

Prevention

P264 Wash hands thoroughly after handling.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P261 Avoid breathing dust/fume/gas/mist/vapors/spray.
P272 Contaminated work clothing should not be allowed out of the workplace.
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P405 Store locked up.
P403+P233 Store in a well-ventilated place. Keep container tightly closed.
P271 Use only outdoors or in a well-ventilated area.
P501 Dispose of contents / container in accordance with local / national / international regulations.
P273 Avoid release to the environment.
P391 Collect spillage.

Intervention

P302+P352 If on skin: wash with plenty of water.
P332+P313 If skin irritation occurs: Get medical advice/attention.
P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.
P304+P340 If inhaled: Remove person to fresh air and keep comfortable for breathing.
P337+P313 If eye irritation persists: Get medical advice/attention.
P308+P313 If exposed or concerned: Get medical advice/attention.
P362+P364 Take off contaminated clothing and wash it before reuse.
P312 Call a poison center or doctor if you feel unwell.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixture

Chemical name	CAS No	CLP Classification	Quantity
Diphenyl(2,4,6-trimethylbenzoyl) phosphine oxide	75980-60-8	Sensitization skin cat 1B H317 Reproductive toxicity cat 1B H360Fd Hazardous to the aquatic environment - Long-term hazard cat 2 H411	1-2,9%
2-Phenoxyethyl Acrylate	48145-04-6	Sensitization skin cat 1B H317 Reproductive toxicity cat 2 H361d Hazardous to the aquatic environment - Long-term hazard cat 2 H411	20-30%
Ethoxylated Phenol Acrylate	56641-05-5	Sensitization skin cat 1B H317 Reproductive toxicity cat 2 H361d Hazardous to the aquatic environment - Long-term hazard cat 3 H412	20-30%
Acrylate monomers	Proprietary	Acute toxicity (inhalation) cat 4 H332 Skin irritation cat 2 H315 Eye irritation cat 2 H319 Sensitization skin cat 1B H317 Specific target organ toxicity - Single exposure cat 3 H335 Hazardous to the aquatic environment - Long-term hazard cat 3 H412	30-55%
Acrylate polymers	Proprietary	/	5-10%

4. FIRST AID MEASURES

4.1 Description of first aid measures

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: Wash open eyes immediately, abundantly and thoroughly for at least 15 minutes. Seek advice of an ophthalmologist if necessary.

Inhalation: Move to fresh air.

Ingestion: Do NOT induce vomiting. Rinse mouth. Consult a physician if necessary.

4.2 Most important symptoms and effects, both acute and delayed

See section 11 for additional information on health hazards.

4.3 Indication of any immediate medical attention and special treatment needed

See section 11 for additional information on health hazards.

5. FIREFIGHTING MEASURES

5.1 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.

5.2 Special hazards arising from the substance or mixture

During fire, gases hazardous to health may be formed (Carbon oxides).

5.3 Advice for firefighter

Special firefighting 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

6.1 Personal precautions, protective equipment and emergency procedures

See Section 8 for Personal Protective Equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep unauthorized personnel away.

6.2 Environmental precautions:

Avoid release to the environment. Prevent further leakage or spillage if safe to do so.

6.3 Methods and material for containment and cleaning up:

Stop the flow of material, if this is without risk. Absorb with sand or other inert absorbent.

6.4 Reference to other sections

See Section 7 for handling

See Section 8 for Personal Protective Equipment.

See Section 13 for waste disposal.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Avoid contact with eyes, skin, and clothing. Wash hands thoroughly after handling. Keep away from heat, sparks and flame. Do not eat, drink or smoke when using material.

7.2 Conditions for safe storage, including any incompatibilities

Store between 15°C and 30°C max (59-86°F) and in original container. Protect from frost, heat and sunlight (risk of polymerization). Keep away from open flames, hot surfaces and sources of ignition. Make sure of the presence of air and inhibitor in the drums. In addition, the product's inhibitor(s) require the presence of dissolved oxygen. An air

space is required above the liquid in all containers; avoid storage under an oxygen-free atmosphere. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

7.3 Specific end use(s)

Reserved for industrial and professional use

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

DNEL-Values

Diphenyl(2,4,6-trimethylbenzoyl) phosphine oxide	Workers	<u>Inhalation:</u> 0,822mg/m ³ <u>Dermal:</u> 0,233mg/kg bw/day
	General population	<u>Inhalation:</u> 0,145mg/m ³ <u>Oral:</u> 0,0833mg/kg bw/day <u>Dermal:</u> 0,0833mg/kg bw/day
2-Phenoxyethyl Acrylate	Workers	<u>Inhalation:</u> 12mg/m ³ <u>Dermal:</u> 3,5mg/kg
	General population	<u>Inhalation:</u> No data available <u>Oral:</u> No data available <u>Dermal:</u> No data available
Ethoxylated Phenol Acrylate	Workers	<u>Inhalation:</u> 12mg/m ³ <u>Dermal:</u> 3,5mg/kg
	General population	<u>Inhalation:</u> No data available <u>Oral:</u> No data available <u>Dermal:</u> No data available
Acrylate monomers	Workers	<u>Inhalation:</u> 14,81mg/m ³ <u>Dermal:</u> 42mg/kg
	General population	<u>Inhalation:</u> No data available <u>Oral:</u> No data available <u>Dermal:</u> No data available

PNEC-Values

Diphenyl(2,4,6-trimethylbenzoyl) phosphine oxide	<u>Fresh water:</u> 1,4µg/L <u>Water (Intermittent release):</u> 14µg/L <u>Marine water:</u> 0,14µg/L <u>Effects on waste water treatment plants:</u> No data available <u>Fresh water sediment:</u> 0,115mg/kg <u>Marine sediment:</u> 0,0115mg/kg <u>Soil:</u> 0,0222mg/kg
2-Phenoxyethyl Acrylate	<u>Fresh water:</u> 0,002mg/L <u>Water (Intermittent release):</u> 0,0121mg/L <u>Marine water:</u> 0,0002mg/L <u>Effects on waste water treatment plants:</u> 1,77mg/L <u>Fresh water sediment:</u> 0,02mg/kg dw <u>Marine sediment:</u> 0,002mg/kg dw <u>Soil:</u> 0,006mg/kg dw
Ethoxylated Phenol Acrylate	<u>Fresh water:</u> 2µg/L <u>Water (Intermittent release):</u> 0,0121mg/L <u>Marine water:</u> 0,2µg/L <u>Effects on waste water treatment plants:</u> 1,77mg/L <u>Fresh water sediment:</u> 0,02mg/kg <u>Marine sediment:</u> 0,002mg/kg <u>Soil:</u> 0,006mg/kg
Acrylate monomers	<u>Fresh water:</u> 0,005mg/L <u>Water (Intermittent release):</u> 0,012mg/L <u>Marine water:</u> 0,001mg/L <u>Effects on waste water treatment plants:</u> 10mg/L <u>Fresh water sediment:</u> 0,138mg/kg dw <u>Marine sediment:</u> 0,014mg/kg dw

Soil: No data available

8.2 Exposure controls

Appropriate engineering controls:

Provide adequate ventilation.

Personal protective equipment:



Safety glasses



Gloves

Respiratory protection: In case of inadequate ventilation use suitable respirator.

Hand protection: Protective gloves should be used if there is a risk of direct contact or splash. Chemical resistant gloves required for prolonged or repeated contact. 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.

Eye/face protection: Safety glasses with side-shields. Do not wear contact lenses.

Skin and body protection: Long sleeved clothing

Environmental exposure controls:

See Section 6

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance:

Physical state (20°C): Liquid

Color: Colorless to yellow

Odor: Sweetish

Olfactory threshold: No data available.

pH: Not applicable.

Melting point / range: No data available.

Boiling point / range: No data available.

Flash point: > 110°C (212°F)

Evaporation rate: No data available.

Flammability (solid, gas): Not applicable.

Vapor pressure: No data available.

Vapor density: No data available.

Density: >1

Water solubility: Insoluble

Auto-ignition temperature: No data available.

Decomposition temperature: No data available.

Viscosity: 30-40mPa.s; 25 °C

9.2 Other information

VOC Content: No presence of solvent and / or VOC.

10. STABILITY AND REACTIVITY

10.1 Reactivity

No data available.

10.2 Chemical stability

The product is stable under recommended handling and storage conditions.

10.3 Possibility of hazardous reaction

Polymerization may occur. It is exothermic and can degenerate into an uncontrolled reaction.

10.4 Conditions to avoid

Avoid exposure to strong UV sources and to sunlight. Avoid direct contact with heat sources.

10.5 Incompatible materials

Materials to avoid: acids, bases, oxidizing agents and reducing agents.

10.6 Hazardous decomposition products

Formation of toxic products through combustion: carbon oxides.

11. TOXICOLOGICAL EFFECTS

11.1 Information on toxicological effects

Causes skin irritation

Causes serious eye irritation

May cause an allergic skin reaction

May damage fertility and suspected of damaging the unborn child

May cause respiratory irritation

Acute toxicity:

Diphenyl(2,4,6-trimethylbenzoyl) phosphine oxide	<u>Oral:</u> LD50 / Rat: > 5000mg/kg <u>Dermal:</u> LD50 / Rat: > 2000mg/kg <u>Inhalation:</u> No data available
2-Phenoxyethyl Acrylate	<u>Oral:</u> Slightly or not harmful by ingestion No mortality / Rat: 5000mg/kg (Method: OECD Test 401) <u>Dermal:</u> Slightly or not harmful in contact with skin No mortality / Rat: 2000mg/kg (Method: OECD Test 402) <u>Inhalation:</u> No data available
Ethoxylated Phenol Acrylate	<u>Oral:</u> No data available <u>Dermal:</u> No data available <u>Inhalation:</u> No data available
Acrylate monomers	<u>Oral:</u> Slightly or not harmful by ingestion No mortality / Rat: 2000mg/kg (Method: OECD Test 423) <u>Dermal:</u> Slightly or not harmful in contact with skin No mortality / Rat: 2000mg/kg (Method: OECD Test 402) <u>Inhalation:</u> Harmful if inhaled LC50 4h / Rat: 1-5mg/l (Method: OECD Test 436; Aerosol)

Local effects (Corrosion / Irritation / Serious eye damage):

Diphenyl(2,4,6-trimethylbenzoyl) phosphine oxide	<u>Skin contact:</u> Non-irritant (Rabbit; Dermal; 0,5g; Exposure time: 4 hours) <u>Eyes contact:</u> Non-irritant (Rabbit; Eye; 0,056g; Exposure time: 5 days)
2-Phenoxyethyl Acrylate	<u>Skin contact:</u> Not irritating to skin (Method: OECD Test 404; Rabbit) <u>Eyes contact:</u> Not irritating to the eyes. (Draize Test; Rabbit)
Ethoxylated Phenol Acrylate	<u>Skin contact:</u> Non-irritant (Rabbit) <u>Eyes contact:</u> Non-irritant (Rabbit)
Acrylate monomers	<u>Skin contact:</u> Causes skin irritation (Method: OECD Test 439; In vitro) <u>Eyes contact:</u> Causes serious eye irritation (Method: OECD Test 405; Rabbit)

Respiratory or skin sensitization:

Diphenyl(2,4,6-trimethylbenzoyl) phosphine oxide	<u>Inhalation:</u> No data available <u>Skin contact:</u> May cause sensitization by skin contact (Method: OECD Test 429; Local Lymph Node Assay; Dermal; Mouse)
2-Phenoxyethyl	<u>Inhalation:</u> No data available

Acrylate	<u>Skin contact</u> : Strong skin sensitizer (Method: OECD Test 406; Guinea pig; maximization test)
Ethoxylated Phenol Acrylate	<u>Inhalation</u> : No data available. <u>Skin contact</u> : Causes sensitization
Acrylate monomers	<u>Inhalation</u> : No data available <u>Skin contact</u> : Strong skin sensitizer (Method: OECD Test 429: Local Lymph Node Assay; Mouse)
CMR effects:	
Diphenyl(2,4,6-trimethylbenzoyl) phosphine oxide	<u>Mutagenicity</u> : <ul style="list-style-type: none"> In vitro: Bacterial Reverse Mutation Test: Negative (Method: OECD Test 471) In vitro Mammalian Chromosome Aberration Test: Negative (Method: OECD Test 473) In vivo: No data available. <u>Carcinogenicity</u> : No data available. <u>Reproductive toxicity</u> : NOAEL (Parental toxicity): 200mg/kg bw/day (Method: OECD Test 421; Rat) NOAEL (Developmental Toxicity): 150mg/kg bw/day (Method: OECD Test 414; Rat) NOAEL (Reproductive toxicity): 60mg/kg bw/day (Method: OECD Test 421; Rat) NOAEL (Developmental Toxicity): 200mg/kg bw/day (Method: OECD Test 421; Rat)
2-Phenoxyethyl Acrylate	<u>Mutagenicity</u> : Results from tests do not lead to considering the product as genotoxic <ul style="list-style-type: none"> In vitro: Ames test in vitro: Inactive (Method: OECD Test 471) In vitro chromosomal abnormality test on human lymphocytes: Inactive (Method: OECD Test 473) In vitro gene mutations test on mammalian cells: Inactive (Method: OECD Test 476) In vivo: No data available. <u>Carcinogenicity</u> : No data available. <u>Reproductive toxicity</u> : <ul style="list-style-type: none"> Fertility: Based on the available data, the substance is not suspected of having reprotoxic potential Reproduction Test: Effects on early embryonic development NOAEL (Parental toxicity): 300mg/kg bw/day NOAEL (Fertility): 800mg/kg bw/day NOAEL (Developmental Toxicity): 300mg/kg bw/day (Method: OECD Test 422; Rat; By oral route) Foetal development: Suspected of damaging the unborn child Embryo-foetal development: Effects on foetal development NOAEL (Developmental Toxicity): 200mg/kg bw/day NOAEL (Maternal Toxicity): > 600mg/kg bw/day (Method: OECD Test 414; Rat; By oral route)
Ethoxylated Phenol Acrylate	<u>Mutagenicity</u> : <ul style="list-style-type: none"> In vitro: Ames test in vitro: No data available In vivo: No data available <u>Carcinogenicity</u> : No data available <u>Reproductive toxicity</u> : Suspected of damaging the unborn child and fertility
Acrylate monomers	<u>Mutagenicity</u> : Results from tests do not lead to considering the product as genotoxic <ul style="list-style-type: none"> In vitro: Ames test in vitro: Inactive (Method: OECD Test 471)

In vitro gene mutations test on mammalian cells: Inactive (Method: OECD Test 476)
In vitro mammalian cell micronucleus test: Inactive (Method: OECD Test 487)
• In vivo: No data available
Carcinogenicity: No data available
Reproductive toxicity:
• Fertility: No data available
• Foetal development: Based on the available data, the substance is not suspected of having developmental toxicity potential
Embryo-foetal development: Absence of toxic effects for foetal development
NOAEL (Developmental Toxicity): > 1000mg/kg bw/day (Method: OECD Test 414; Rat; By oral route)
NOAEL (Maternal Toxicity): 300mg/kg bw/day (Method: OECD Test 414, Rat, by oral route)

Specific target organ toxicity:

Diphenyl(2,4,6-trimethylbenzoyl) phosphine oxide	<u>Single exposure</u> : No data available <u>Repeated exposure</u> : NOAEL: 100mg/kg bw/day (Method OECD Test 408; Rat; Oral)
2-Phenoxyethyl Acrylate	<u>Single exposure</u> : No data available. <u>Repeated exposure</u> : The substance or mixture is not classified as specific target organ toxicant, repeated exposure By oral route: Target organs: Liver; NOAEL: 300mg/kg (Method: OECD Test 422; Rat; 6 weeks) By oral route: No adverse systemic effects reported; NOAEL: > 350mg/kg (Method: OECD Test 408; Rat; 3 months)
Ethoxylated Phenol Acrylate	<u>Single exposure</u> : No data available <u>Repeated exposure</u> : No data available
Acrylate monomers	<u>Single exposure</u> : The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with respiratory tract irritation Exposure routes: Inhalation; Target Organs: Respiratory Tract • Inhalation: May cause respiratory irritation <u>Repeated exposure</u> : The substance or mixture is not classified as specific target organ toxicant, repeated exposure By oral route: No specific toxic effects; NOAEL: >300mg/kg (Method: OECD Test 408; Rat; 90 days)

Aspiration hazard:

Diphenyl(2,4,6-trimethylbenzoyl) phosphine oxide	Not applicable
2-Phenoxyethyl Acrylate	Not applicable
Ethoxylated Phenol Acrylate	Not applicable
Acrylate monomers	Not applicable

12. ECOLOGICAL INFORMATION

Toxic to aquatic life with long lasting effects

12.1 Toxicity

Acute toxicity:

Diphenyl(2,4,6-trimethylbenzoyl) phosphine oxide	<u>Fish</u> : LC50; 96h Cyprinus carpio: 1,4mg/L <u>Aquatic invertebrates</u> :
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	<p>EC50; 48h; Daphnia magna: 3,53mg/L</p> <p><u>Aquatic plants:</u></p> <p>EC50; 72h; Pseudokirchneriella subcapitata: > 2,01mg/L</p> <p>EC10; 72h; Pseudokirchneriella subcapitata: 1,56 mg/L</p> <p><u>Microorganisms:</u></p> <p>EC50; 3h; Activated sludge: > 1000mg/L</p>
2-Phenoxyethyl Acrylate	<p><u>Fish:</u> Toxic to fish</p> <p>LC50; 96h; Leuciscus idus: 10mg/L (Method: OECD Test 203)</p> <p><u>Aquatic invertebrates:</u> Toxic to daphnia</p> <p>EC50; 48h; Daphnia magna (Water flea): 2,21mg/L (Method: OECD Test 202)</p> <p><u>Aquatic plants:</u> Toxic to algae</p> <p>ErC50; 72h; Desmodesmus subspicatus (green algae): 4,4mg/L (Method: ISO 8692)</p> <p><u>Microorganisms:</u></p> <p>EC50; 3h; Activated sludge: 177 mg/L (Method: OECD Test 209; Respiration inhibition)</p>
Ethoxylated Phenol Acrylate	<p><u>Fish:</u></p> <p>LC50; 96h; Leuciscus idus: 10mg/L</p> <p><u>Aquatic invertebrates:</u></p> <p>EC50; 48h; Daphnia magna: 1,21mg/L</p> <p><u>Aquatic plants:</u></p> <p>ErC50; 72h; Desmodesmus subspicatus: 4,4mg/L (Method: OECD Test 201)</p>
Acrylate monomers	<p><u>Fish:</u> Toxic to fish</p> <p>LC50; 96h; Danio rerio (zebra fish): 1,23mg/L (Method: OECD Test 203)</p> <p><u>Aquatic invertebrates:</u> Harmful to daphnia</p> <p>EC50; 48h; Daphnia magna (Water flea): 12,79mg/L (Method: OECD Test 202)</p> <p><u>Aquatic plants:</u> Toxic to algae</p> <p>ErC50; 72h; Pseudokirchneriella subcapitata: 1,4mg/L (Method: OECD Test 201)</p> <p><u>Microorganisms:</u></p> <p>NOEC; 14d; Activated sludge: > 100mg/l (Respiration inhibition)</p>
Long term toxicity:	
Diphenyl(2,4,6-trimethylbenzoyl) phosphine oxide	No data available
2-Phenoxyethyl Acrylate	<p><u>Aquatic invertebrates:</u></p> <p>EC10; 21d; Daphnia magna (Water flea): > 0,1mg/L (Method: OECD Test 211, reproduction)</p> <p><u>Aquatic plants:</u></p> <p>ErC10; 72h; Desmodesmus subspicatus (green algae): 0,71mg/L</p>
Ethoxylated Phenol Acrylate	No data available
Acrylate monomers	<p><u>Aquatic invertebrates:</u></p> <p>NOECr; 21d; Daphnia magna (Water flea): 0,271mg/L (Method: OECD Test 211)</p> <p><u>Aquatic plants:</u></p> <p>ErC10; 72h; Pseudokirchneriella subcapitata: 0,38mg/L (Method: OECD Test 201)</p>
12.2 Persistence and degradability	
Diphenyl(2,4,6-trimethylbenzoyl) phosphine oxide	<p><u>Biodegradation (in water):</u> Not readily biodegradable</p> <p>0-10% after 28 days (Method: OECD Test 301 F)</p>
2-Phenoxyethyl Acrylate	<p><u>Stability in water:</u></p> <p>Half-life: > 1y; 25°C; pH 4-9 (Method: OECD Test 111)</p>

	<u>Biodegradation (in water)</u> : Not readily biodegradable 22,30% after 28 days (Method: OECD Test 301 D)
Ethoxylated Phenol Acrylate	No data available
Acrylate monomers	<u>Biodegradation (in water)</u> : Readily biodegradable 81% after 28 days (Method: OECD Test 301 D) 57,1% after 28 days (Method: OECD Test 302 C)

12.3 Bioaccumulative potential

Diphenyl(2,4,6-trimethylbenzoyl) phosphine oxide	<u>Bioaccumulation</u> : Partition coefficient: 3,1
2-Phenoxyethyl Acrylate	<u>Bioaccumulation</u> : Low potential to bioaccumulate Partition coefficient: n-octanol/water: log Kow: 2,58; 25°C (Method: OECD Test 117)
Ethoxylated Phenol Acrylate	<u>Bioaccumulation</u> : Partition coefficient: 2,58
Acrylate monomers	<u>Bioaccumulation</u> : Low potential to bioaccumulate Partition coefficient: n-octanol/water: log Kow: 2,76 (Method: OECD Test 117)

12.4 Mobility in soil

Diphenyl(2,4,6-trimethylbenzoyl) phosphine oxide	<u>Vapor pressure</u> : 0Pa; 25°C <u>Absorption / desorption</u> : log Koc: 784,8
2-Phenoxyethyl Acrylate	<u>Vapor pressure</u> : 0,25Pa; 25°C (Method: OECD Test 104) <u>Surface tension</u> : 53,6mN/m; 23 °C / 472,5 mg/L (Method: OECD Test 115) <u>Absorption / desorption</u> : log Koc: 2,19 (Method: calculated)
Ethoxylated Phenol Acrylate	No data available
Acrylate monomers	<u>Vapor pressure</u> : 0,105Pa; 20°C (Method: OECD Test 104) <u>Surface tension</u> : Not relevant <u>Absorption / desorption</u> : log Koc: 1,97-2,34 (Method: calculated)

12.5 Results of PBT and vPvB assessment

Diphenyl(2,4,6-trimethylbenzoyl) phosphine oxide	The substance is not PBT / vPvB
2-Phenoxyethyl Acrylate	The substance is not PBT / vPvB
Ethoxylated Phenol Acrylate	No data available
Acrylate monomers	The substance is not PBT / vPvB

12.6 Other adverse effects

Diphenyl(2,4,6-trimethylbenzoyl) phosphine oxide	No data available
2-Phenoxyethyl Acrylate	None known
Ethoxylated Phenol Acrylate	No data available
Acrylate monomers	None known

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Products: Do not release into the environment. Dispose of in accordance with local regulations.

Contaminated Packaging: Do not reuse empty containers and dispose of in accordance with local environmental control laws.

European Waste Key (EWK)/ European Waste Catalogue (EWC): 08 03 12*

(*Hazardous waste)

14. TRANSPORT INFORMATION

14.1 UN Number

ADR / IMDG / IATA: UN3082

Hazchem Code: •3Z

14.2 UN proper shipping name

ADR: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Acrylate monomers)

IMDG: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Acrylate monomers)

IATA: Environmentally hazardous substance, liquid, N.O.S. (Acrylate monomers)

14.3 Transport hazard class(es)

ADR / IMDG:

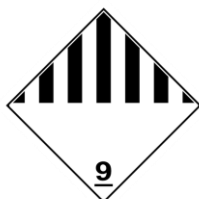
Class: 9

Label: 9

IATA:

Class: 9

Label: 9 Miscellaneous



14.4 Packing group

ADR / IMDG / IATA: III

14.5 Environmental hazards:

IMDG:

Marine pollutant: Yes

ADR / IATA:

Environmentally hazardous: Yes



14.6. Special precautions for user

Not applicable

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

15. REGULATORY INFORMATION

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

Regulation (EC) No. 2037/2000 Substances that deplete the ozone layer: None

Regulation (EC) No. 850/2004 on persistent organic pollutants: None

Regulation (EC) No. 689/2008 Import and export of dangerous chemicals: None

Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorization, as amended: None
Regulation (EC) No. 1907/2006 Annex XVII Substances subject to restriction on marketing and use: Yes

Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide (75980-60-8)	Use restricted. See entry 75.
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Directive 92/85/EEC: on the safety and health of pregnant workers and workers who have recently given birth or are breast feeding

Directive 2004/37/EC on the protection of workers from the risks related to exposure to carcinogens and mutagens at work: None

Directive 96/82/EC (Seveso III): on the control of major accident hazards involving dangerous substances: None

EU. Regulation No. 166/2006 PRTR (Pollutant Release and Transfer Registry), Annex II: Pollutants: None

Directive 98/24/EC on the protection of workers from the risks related to chemical agents at work: None

15.2 Chemical safety assessment:

No substance-related safety assessment is necessary / has been conducted for this product.

16. OTHER INFORMATION

CLP Classification	Method used for classification
Skin irritation cat 2 H315	Calculation method
Eye irritation cat 2 H319	Calculation method
Sensitization skin cat 1B H317	Calculation method
Reproductive toxicity cat 1B H360Fd	Calculation method
Specific target organ toxicity - Single exposure cat 3 H335	Calculation method
Hazardous to the aquatic environment - Long-term hazard cat 2 H411	Calculation method

The data are based on the current state of our knowledge, and are intended to describe the product with regard to the requirements of safety. The data should not be taken to imply any guarantee of a particular or general specification. It is the responsibility of the user of the product to ensure to his satisfaction that the product is suitable for the intended purpose and method to use. We do not accept responsibility for any harm caused by the use of this information. Furthermore, nothing contained herein shall be construed as a recommendation to use any product in conflict with existing patents covering any material or its use. In all cases, our general conditions of sale apply.

Update

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