

# SAFETY DATA SHEET

This safety data sheet complies with the requirements of: Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Issuing Date 07-Feb-2019 Revision Date 25-Dec-2018 Revision Number 2

# Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product Code(s) SDS-06128 EN E

Product Name TangoPlus, FLX930

PN (Part Number) OBJ-03224, OBJ-06271

Denmark

PR No N/A

Chemical name Acrylic formulation

Pure substance/mixture Mixture

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

Recommended Use Printing inks

Uses advised against

This product is a cartridge containing ink. Under normal conditions of use, the substance is

released from a cartridge only inside an appropriate printing system, and therefore,

exposure is limited

#### 1.3. Details of the supplier of the safety data sheet

<u>Importer</u>

Stratasys EMEA Regional Office Airport Boulevard B 120 77836 Rheinmünster, Germany Phone: +49-7229-7772-0

For further information, please contact

E-mail address info@Stratasys.com

1.4. Emergency telephone number

Emergency Telephone +44 1235 239670 - Europe - Multi lingual response

Austria Poison Information Centre (AT): +43-(0)1-406 43 43

 Belgium
 Poison Centre (BE): +32 70 245 245

 Croatia
 Poison Control (CR): +385 1 2348 342

**Czech Republic** Poison Control (CS): +420 224 919 293, +420 224 915 402

DenmarkPoison Control Hotline (DK): +45 82 12 12 12EstoniaPoison Control (ET): 16662, (+372) 626 93 90FinlandPoison Information Centre (FI): +358 9 471 977

France ORFILA (FR): + 01 45 42 59 59

Germany Poison Centre Berlin (DE): +49 030 30686 790 (24 h service, Advice in German and

English)

**Greece** Poison Information Center (EL): (0030) 2107793777 **Hungary** Poison Information Service (HU): (+ 36-80) 201-199

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IcelandPoison Information Center: 543 2222ItalyPoison Centre, Milan (IT): +39 02 6610 1029LatviaPoison Information Center (LV): +371 67042473

**Lithuania** Poison Information Office (LT): +370 5236 20 52 or +370 687 53 378

**Luxembourg** Belgian Poison Center: (+352) 8002-5500

Netherlands National Poisons Information Center (NVIC): 030-274 8888

Norway Poison Center: 22 59 13 00

PortugalPoison Information Centre (PT): +351 21 330 3284SpainPoison Information Service (ES): +34 91 562 04 20

**Sweden** 112 – ask for Poisons Information

# **Section 2: HAZARDS IDENTIFICATION**

#### 2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

Acute toxicity - Inhalation (Dusts/Mists)	Category 4 - (H332)
Skin corrosion/irritation	Category 2 - (H315)
Serious eye damage/eye irritation	Category 2 - (H319)
Skin sensitisation	Category 1A - (H317)
Chronic aquatic toxicity	Category 2 - (H411)

## 2.2. Label elements

Contains 2-[[(butylamino)carbonyl]oxy]ethyl acrylate (main constituent >84%), Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate, 2-[[(butylamino)carbonyl]oxy]ethyl acrylate (main constituent <84%), Acrylic acid, 2-hydroxyethyl ester



Signal word Warning

## **Hazard statements**

H315 - Causes skin irritation

H317 - May cause an allergic skin reaction

H319 - Causes serious eye irritation

H332 - Harmful if inhaled

H411 - Toxic to aquatic life with long lasting effects

#### **Precautionary Statements**

P101 - If medical advice is needed, have product container or label at hand

P102 - Keep out of reach of children

P271 - Use only outdoors or in a well-ventilated area

P273 - Avoid release to the environment

P280 - Wear protective gloves and eye/face protection

P391 - Collect spillage

P501 - Dispose of contents/ container to an approved waste disposal plant

#### 2.3. Other hazards

Toxic to aquatic life.

# Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

#### 3.2 Mixtures

Chemical name	EC No	CAS No	Weight-%	Classification according to Regulation (EC) No.	REACH Registration
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				1272/2008 [CLP]	Number
Proprietary	Listed	-	30- 50	Acute Tox. 3 (H331)	No data available
				Skin Sens. 1A (H317)	
				Aquatic Chronic 2 (H411)	
Proprietary	Listed	-	10 - 30	Skin Irrit. 2 (H315)	17-2120129664-54
				Eye Irrit.2 H319	-0000
				Skin Sens. 1B (H317)	
				STOT SE 3 (H335)	
				Aquatic Acute 1 (H400)	
B	111		10.00	Aquatic Chronic 1 (H410)	N
Proprietary	Listed	-	10 - 30	Acute Tox. 4 (H332)	No data available
				Skin Sens. 1B (H317)	
Proprietary	Listed		0.3-1	Aquatic Chronic 2 (H411) Skin Sens. 1 (H317)	No data available
Proprietary	Listea	_	0.3-1	Aquatic Chronic 4 (H413)	INO data available
Acrylic acid, 2-hydroxyethyl ester	212-454-9	818-61-1	0.3-1	Acute Tox. 4 (H302)	17-2120129649-46
Acrylic acid, 2-nydroxyethyr ester	212-404-9	010-01-1	0.3-1	Acute Tox. 3 (H311)	-0000
				Corr. 1B (H314)	-0000
				Eye Dam. 1 (H318)	
				Skin Sens. 1 (H317)	
				Aquatic Acute 1 (H400)	
				Aquatic Chronic 3 (H412)	
2,6-Bis(1,1-Dimethylethyl)-4-Methyl-	204-881-4	128-37-0	0.1 - 0.3	Aquatic Acute 1 (H400)	No data available
Phenol				Aquatic Chronic 1 (H410)	
Benzyl Alcohol	202-859-9	100-51-6	0.1 - 0.3	Acute Tox. 4 (H302)	No data available
				Acute Tox. 4 (H332)	
				Eye Irrit. 2 (H319)	
Glycerol, propoxylated, esters with	500-114-5	52408-84-1	0.1 - 0.3	Skin Sens. 1 (H317)	No data available
acrylic acid				Eye Irrit. 2 (H319)	
camphene	201-234-8	79-92-5	<0.1	Flam. Sol. 2 (H228)	No data available
				Eye Irrit. 2 (H319)	
				Aquatic Acute 1 (H400)	
1 7 7 T : 11 11 : 1 [0 0 1 00 0]	000 000 7	500.00.7	0.4	Aquatic Chronic 1 (H410)	N
1,7,7-Trimethyltricyclo[2.2.1.02,6]hep	208-083-7	508-32-7	<0.1	Eye Irrit.2 (H319)	No data available
tane				Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	
Limonene	205-341-0	138-86-3	<0.1	Flam. Liq. 3 (H226)	No data available
Limonene	205-341-0	130-00-3	<0.1	Asp. Tox. 1 (H304)	INO data available
				Skin Irrit. 2 (H315)	
				Skin Sens. 1B (H317)	
				Aquatic Acute 1 (H400)	
				Aquatic Chronic 1 (H410)	
Isopentyl Acetate	204-662-3	123-92-2	<0.1	Flam. Liq. 3 (H226)	No data available
				(EUH066)	
3,7-Dimethyl-2,6-Octadienal	226-394-6	5392-40-5	<0.1	Skin Sens. 1B (H317)	No data available
				Skin Irrit. 2 (H315)	
				Eye Irrit. 2 (H319)	

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

# **Section 4: FIRST AID MEASURES**

## 4.1. Description of first aid measures

**General advice** Show this safety data sheet to the doctor in attendance.

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

persist, call a doctor. If breathing has stopped, give artificial respiration. Get medical

attention immediately.

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Eye contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep

eye wide open while rinsing. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists. Do not rub affected area.

**Skin contact** May cause an allergic skin reaction. In the case of skin irritation or allergic reactions see a

doctor. Wash off immediately with soap and plenty of water for at least 15 minutes.

Ingestion Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth

to an unconscious person. Do NOT induce vomiting. Get medical attention.

Self-protection of the first aider Avoid contact with skin, eyes or clothing. Wear personal protective clothing (see section 8).

Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Avoid breathing vapours or mists. Use personal protective equipment as required. See section 8 for more information.

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

Symptoms Itching. Rashes. Hives. Burning sensation. Coughing and/ or wheezing. Difficulty in

breathing.

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: FIRE-FIGHTING MEASURES**

5.1. Extinguishing media

Class B fires: Use carbon dioxide (CO2), regular dry chemical (sodium bicarbonate), regular foam (Aqueous Film Forming Foam-AFFF), or water spray to cool containers

**Unsuitable extinguishing media** No information available.

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

Special protective equipment for fire-fighters

Move containers from fire area if you can do it without risk. Cool containers with flooding quantities of water until well after fire is out. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Keep out of drains, sewers, ditches and waterways. Inhalation is a health risk. 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. Ensure adequate ventilation. Use personal

protective equipment as required. Evacuate personnel to safe areas. Keep people away

from and upwind of spill/leak. Avoid breathing vapours or mists.

Occupational Spill Release Intact cartridges do not pose a leak or spill hazard. Damaged cartridges may leak uncured ink. Stop leak if you can do it without risk Use water spray to reduce vapours or divert

vapour cloud drift Absorb spill with inert material (e.g. dry sand or earth), then place in a

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chemical waste container Keep out of drains, sewers, ditches and waterways

**Other Information** Refer to protective measures listed in Sections 7 and 8.

6.2. Environmental precautions

**Environmental precautions** Prevent further leakage or spillage if safe to do so.

6.3. Methods and material for containment and cleaning up

place into a container for later disposal. Following product recovery, flush area with water.

**Methods for cleaning up**Take up mechanically, placing in appropriate containers for disposal.

**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**Do not eat, drink or smoke when using this product. Avoid breathing vapours or mists.

Wash thoroughly after handling. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Use only outdoors or in a well-ventilated area. Wear protective gloves and eye/face protection. Contaminated work clothing should not be allowed out of the

workplace. Avoid release to the environment.

General hygiene considerations Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this

product. Avoid contact with skin, eyes or clothing.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions Store in a cool, dry area away from potential sources of heat, open flames, sunlight or other

chemicals. Store in a cool, well ventilated area. Store in accordance with local regulations. Keep container tightly closed. Store between 15 °C and 27 °C. Shipment temperature (up to 5 weeks) is -20 °C to 50 °C. Store in a combustible storage area away from heat and open

flame.

Hints on joint storage

Storage class LGK10 - Combustible liquids unless storage class 3

7.3. Specific end use(s)

Risk Management Methods (RMM) The information required is contained in this Material Safety Data Sheet.

## Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

**Exposure disclaimer** Personal protection measures are only needed if cartridge is damaged punctured causing

spillage of material.

8.1. Control parameters

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# Exposure Limits

Chemical name	European Union	United Kingdom	France	Spain	Germany
2,6-Bis(1,1-Dimethylethyl	- Luiopean Onion	TWA: 10 mg/m <sup>3</sup>	TWA: 10 mg/m <sup>3</sup>	TWA: 10 mg/m <sup>3</sup>	TWA: 10 mg/m <sup>3</sup>
)-4-Methyl-Phenol 128-37-0		STEL: 30 mg/m <sup>3</sup>	TWA. TO mg/m²	TVVA. TO mg/m²	TWA. TO mg/m
camphene 79-92-5	-	-	TWA: 1000 mg/m <sup>3</sup> STEL: 1500 mg/m <sup>3</sup>	-	-
1,7,7-Trimethyltricyclo[2. 2.1.02,6]heptane 508-32-7	-	-	TWA: 1000 mg/m <sup>3</sup> STEL: 1500 mg/m <sup>3</sup>	-	-
Limonene 138-86-3	-	-	TWA: 1000 mg/m <sup>3</sup> STEL: 1500 mg/m <sup>3</sup>	-	-
Isopentyl Acetate 123-92-2	TWA 50 ppm TWA 270 mg/m <sup>3</sup> STEL 100 ppm STEL 540 mg/m <sup>3</sup>	TWA: 50 ppm TWA: 270 mg/m <sup>3</sup>	TWA: 50 ppm TWA: 270 mg/m <sup>3</sup> STEL: 100 ppm STEL: 540 mg/m <sup>3</sup>	TWA: 50 ppm TWA: 270 mg/m <sup>3</sup> STEL: 100 ppm STEL: 540 mg/m <sup>3</sup>	TWA: 50 ppm TWA: 270 mg/m <sup>3</sup>
3,7-Dimethyl-2,6-Octadie nal 5392-40-5	-	-	-	TWA: 5 ppm vía dérmica*	-
Chemical name	Italy	Portugal	Netherlands	Finland	Denmark
Acrylic acid, 2-hydroxyethyl ester 818-61-1	-		-	-	TWA: 1 ppm TWA: 5 mg/m³ H*
2,6-Bis(1,1-Dimethylethyl )-4-Methyl-Phenol 128-37-0	-	TWA: 2 mg/m <sup>3</sup>	-	TWA: 10 mg/m <sup>3</sup> STEL: 20 mg/m <sup>3</sup>	TWA: 10 mg/m <sup>3</sup>
Benzyl Alcohol 100-51-6	-	-	-	TWA: 10 ppm TWA: 45 mg/m <sup>3</sup>	-
Isopentyl Acetate 123-92-2	TWA: 50 ppm TWA: 270 mg/m <sup>3</sup> STEL: 100 ppm STEL: 540 mg/m <sup>3</sup>	TWA: 50 ppm TWA: 270 mg/m <sup>3</sup> STEL: 100 ppm STEL: 540 mg/m <sup>3</sup>	STEL: 530 mg/m <sup>3</sup>	TWA: 50 ppm TWA: 270 mg/m <sup>3</sup> STEL: 100 ppm STEL: 540 mg/m <sup>3</sup>	TWA: 50 ppm TWA: 271 mg/m <sup>3</sup>
Chemical name	Austria	Switzerland	Poland	Norway	Ireland
2,6-Bis(1,1-Dimethylethyl )-4-Methyl-Phenol 128-37-0	TWA: 10 mg/m <sup>3</sup>	TWA: 10 mg/m <sup>3</sup> STEL: 40 mg/m <sup>3</sup>	-		TWA: 10 mg/m <sup>3</sup> STEL: 30 mg/m <sup>3</sup>
Benzyl Alcohol 100-51-6	-	-	TWA: 240 mg/m <sup>3</sup>	-	-
Limonene 138-86-3	-	-	-	TWA: 25 ppm TWA: 140 mg/m³ TWA: 40 ppm TWA: 275 mg/m³ STEL: 37.5 ppm STEL: 175 mg/m³ STEL: 60 ppm STEL: 343.75 mg/m³	-
Isopentyl Acetate 123-92-2	TWA: 50 ppm TWA: 270 mg/m <sup>3</sup> STEL 100 ppm STEL 540 mg/m <sup>3</sup>	TWA: 50 ppm TWA: 260 mg/m³ STEL: 50 ppm STEL: 260 mg/m³	STEL: 500 mg/m <sup>3</sup> TWA: 250 mg/m <sup>3</sup>	TWA: 50 ppm TWA: 260 mg/m <sup>3</sup> STEL: 75 ppm STEL: 325 mg/m <sup>3</sup>	TWA: 50 ppm TWA: 260 mg/m³ STEL: 100 ppm STEL: 520 mg/m³
3,7-Dimethyl-2,6-Octadie nal 5392-40-5	-	-	STEL: 54 mg/m <sup>3</sup> TWA: 27 mg/m <sup>3</sup>	-	-

Derived No Effect Level (DNEL)

No information available.

Predicted No Effect Concentration

No information available.

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(PNEC)

8.2. Exposure controls

Personal protective equipment

**Eye/face protection** Wear safety glasses with side shields (or goggles). If splashes are likely to occur, wear

safety glasses with side-shields.

**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 Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this

product. Avoid contact with skin, eyes or clothing.

**Environmental exposure controls** No information available.

# **Section 9: PHYSICAL AND CHEMICAL PROPERTIES**

9.1. Information on basic physical and chemical properties

Physical stateliquidAppearanceInk cartridgeOdourCharacteristic

**Colour** clear

Odour threshold No information available

<u>Property</u> <u>Values</u> <u>Remarks • Method</u>

pH N/A

Melting point / freezing pointNo data availableNone knownBoiling point / boiling rangeNo data availableNone known

Flash point  $\Rightarrow$  100 - < 250 °C

Evaporation rateNo data availableNone knownFlammability (solid, gas)No data availableNone knownFlammability Limit in AirNone known

Upper flammability limit: No data available Lower flammability limit No data available

Vapour pressureNo data availableNone knownVapour densityNo data availableNone knownRelative density1.05g/cm3

Water solubility Insoluble in water

Solubility(ies) No data available None known No data available None known **Partition coefficient Autoignition temperature** No data available None known No data available None known **Decomposition temperature** Kinematic viscosity No data available None known Dynamic viscosity No data available None known

Explosive properties No information available Oxidising properties No information available

9.2. Other information

Softening point
Molecular weight
VOC Content (%)
Liquid Density
No information available

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Particle Size No information available Particle Size Distribution No information available

# **Section 10: STABILITY AND REACTIVITY**

10.1. Reactivity

**Reactivity** Heating may cause a fire.

10.2. Chemical stability

Stability Decomposes on exposure to light. Unstable if heated.

**Explosion data** 

**Sensitivity to Mechanical Impact** None. **Sensitivity to Static Discharge** None.

10.3. Possibility of hazardous reactions

10.4. Conditions to avoid

**Conditions to avoid** Avoid exposure to heat and light.

10.5. Incompatible materials

**Incompatible materials**Not applicable under normal conditions of use and storage.

10.6. Hazardous decomposition products

Hazardous decomposition products Thermal Decomposition Products. Combustion: oxides of carbon.

## Section 11: TOXICOLOGICAL INFORMATION

#### 11.1. Information on toxicological effects

#### Information on likely routes of exposure

#### **Product Information**

**Inhalation** May cause irritation of respiratory tract. (based on components). Harmful by inhalation.

Eye contact Irritating to eyes. (based on components). Causes serious eye irritation.

**Skin contact** 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** Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. (based on

components).

Information on toxicological effects

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

and/ or wheezing.

Numerical measures of toxicity

**Acute toxicity** 

The following values are calculated based on chapter 3.1 of the GHS document mg/kg

ATEmix (dermal) 68,181.82 mg/kg

ATEmix (inhalation-dust/mist) 1.02 mg/l

**Component Information** 

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Proprietary	= 4890 mg/kg (Rat)	> 3000 mg/kg (Rabbit)	-
Acrylic acid, 2-hydroxyethyl ester	= 548 mg/kg (Rat)	= 154 mg/kg (Rabbit)	-
2,6-Bis(1,1-Dimethylethyl)-4-Me thyl-Phenol	> 2930 mg/kg (Rat)	> 2000 mg/kg (Rat)	-
Benzyl Alcohol	= 1230 mg/kg (Rat)	= 2 g/kg (Rabbit)	= 8.8 mg/L (Rat) 4 h
camphene	> 5 g/kg (Rat)	> 2500 mg/kg (Rabbit)	= 17100 mg/m <sup>3</sup> (Rat) 1 h
Limonene	= 5300 mg/kg (Rat)	-	-
Isopentyl Acetate	= 16600 mg/kg (Rat)	> 5 g/kg (Rabbit)	-
3,7-Dimethyl-2,6-Octadienal	= 4960 mg/kg (Rat)	= 2250 mg/kg (Rabbit)	-

## 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. Irritating to skin.

Serious eye damage/eye irritation Classification based on data available for ingredients. Irritating to eyes.

Respiratory or skin sensitisation May cause sensitisation by skin contact. Classification based on data available for

ingredients.

Germ cell mutagenicity No information available.

**Carcinogenicity** No information available.

Reproductive toxicity
STOT - single exposure

No information available.
No information available.

STOT - repeated exposure

No information available.

**Aspiration hazard** No information available.

# **Section 12: ECOLOGICAL INFORMATION**

12.1. Toxicity

**Ecotoxicity** Toxic to aquatic life with long lasting effects

**Unknown aquatic toxicity**Contains 0 % of components with unknown hazards to the aquatic environment.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Proprietary	1.98 mg/l Fresh water	0.704 mg/l Fresh water	-	0.524 mg/l Fresh water
Acrylic acid, 2-hydroxyethyl ester	-	4.8: 96 h Pimephales promelas mg/L LC50 flow-through	-	0.78: 48 h Daphnia magna mg/L EC50
2,6-Bis(1,1-Dimethylethyl )-4-Methyl-Phenol	6: 72 h Pseudokirchneriella subcapitata mg/L EC50 0.42: 72 h Desmodesmus subspicatus mg/L EC50	5: 48 h Oryzias latipes mg/L LC50	-	-
Benzyl Alcohol	35: 3 h Anabaena variabilis mg/L EC50	460: 96 h Pimephales promelas mg/L LC50	-	23: 48 h water flea mg/L EC50

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		static 10: 96 h Lepomis macrochirus mg/L LC50 static		
camphene	1000: 72 h Desmodesmus subspicatus mg/L EC50	0.72: 96 h Brachydanio rerio mg/L LC50 flow-through 150: 96 h Brachydanio rerio mg/L LC50 static	-	22: 48 h Daphnia magna mg/L EC50
3,7-Dimethyl-2,6-Octadie nal	16: 72 h Desmodesmus subspicatus mg/L EC50 19: 96 h Desmodesmus subspicatus mg/L EC50	4.6 - 10: 96 h Leuciscus idus mg/L LC50 static	-	7: 48 h Daphnia magna mg/L EC50

## 12.2. Persistence and degradability

Persistence and degradability No information available.

12.3. Bioaccumulative potential

**Bioaccumulation** There is no data for this product.

**Component Information** 

Chemical name	Partition coefficient
Acrylic acid, 2-hydroxyethyl ester	0.21
2,6-Bis(1,1-Dimethylethyl)-4-Methyl-Phenol	4.17
Benzyl Alcohol	1.1
3,7-Dimethyl-2,6-Octadienal	2.76

## 12.4. Mobility in soil

**Mobility in soil** No information available.

12.5. Results of PBT and vPvB assessment

**PBT and vPvB assessment** No information available.

12.6. 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

08 03 12\* Waste ink containing dangerous substances.

# **Section 14: TRANSPORT INFORMATION**

Additional information The environmentally hazardous substance mark is not required when transported in sizes

of ≤5L or ≤5kg

The marine pollutant mark is not required when transported in sizes of ≤5L or ≤5kg

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IMDG

14.1 UN Number UN3082

14.2 UN proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

14.3 Transport hazard class(es) 14.4 Packing group

Description UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

> (2-[[(butylamino)carbonyl]oxy]ethyl acrylate (main constituent >84%), Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate), 9, III, Marine pollutant

This product contains a chemical which is listed as a severe marine pollutant according to 14.5 Marine pollutant

IMDG/IMO

**Environmental Hazard** Yes

14.6 Special Provisions 274, 335, 969 F-A. S-F EmS-No

14.7 Transport in bulk according to No information available

Annex II of MARPOL 73/78 and the

**IBC Code** 

RID

14.1 UN Number UN3082

14.2 UN proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

14.3 Transport hazard class(es) Labels q 14.4 Packing group Ш

UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. Description

(2-[[(butylamino)carbonyl]oxy]ethyl acrylate (main constituent >84%),

Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate), 9, III

14.5 Environmental Hazard

274, 335, 375, 601 14.6 Special Provisions

Classification code M6

14.1 UN Number UN3082

14.2 UN proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

14.3 Transport hazard class(es) 9 Labels Ш 14.4 Packing group

Description UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

(2-[[(butylamino)carbonyl]oxy]ethyl acrylate (main constituent >84%),

Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate), 9, III

14.5 Environmental Hazard Yes

274, 335, 601, 375 14.6 Special Provisions

Classification code M6 **Tunnel restriction code** (E)

IATA

14.1 UN Number UN3082

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. 14.2 UN proper shipping name q

14.3 Transport hazard class(es) 14.4 Packing group

Description UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

(2-[[(butylamino)carbonyl]oxy]ethyl acrylate (main constituent >84%).

Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate), 9, III

14.5 Environmental Hazard

14.6 Special Provisions A97, A158, A197

**ERG Code** 9L



# **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)

occupational infecces (11 400 o, 1 failed)		
Chemical name	French RG number	Title
Acrylic acid, 2-hydroxyethyl ester	RG 65	-
818-61-1		
Benzyl Alcohol	RG 84	-
100-51-6		
Limonene	RG 84	-
138-86-3		
Isopentyl Acetate	RG 84	-
123-92-2		

Germany

Water hazard class (WGK) hazardous to water (WGK 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 does not contain substances subject to authorisation (Regulation (EC) No. 1907/2006 (REACH), Annex XIV) This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

## **Persistent Organic Pollutants**

Not applicable

## Dangerous substance category per Seveso Directive (2012/18/EU)

E2 - Hazardous to the Aquatic Environment in Category Chronic 2

Ozone-depleting substances (ODS) regulation (EC) 1005/2009 Not applicable

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

EUH066 - Repeated exposure may cause skin dryness or cracking

H226 - Flammable liquid and vapour

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H228 - Flammable solid

H302 - Harmful if swallowed

H304 - May be fatal if swallowed and enters airways

H311 - Toxic in contact with skin

H314 - Causes severe skin burns and eye damage

H315 - Causes skin irritation

H317 - May cause an allergic skin reaction

H318 - Causes serious eye damage

H319 - Causes serious eye irritation

H331 - Toxic if inhaled

H332 - Harmful if inhaled

H335 - May cause respiratory irritation

H400 - Very toxic to aquatic life

H410 - Very toxic to aquatic life with long lasting effects

H411 - Toxic to aquatic life with long lasting effects

H412 - Harmful to aquatic life with long lasting effects

H413 - May cause long lasting harmful effects to aquatic life

#### Legend

SVHC: Substances of Very High Concern for Authorisation:

## 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 - Vapor	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
Mutagenicity	Calculation method
Carcinogenicity	Calculation method
Reproductive toxicity	Calculation method
STOT - single exposure	Calculation method
STOT - repeated exposure	Calculation method
Acute aquatic toxicity	Calculation method
Chronic aquatic toxicity	Calculation method
Aspiration toxicity	Calculation method
Ozone	Calculation method

Revision Date 25-Dec-2018

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** 

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