

Issuing Date 07-Feb-2019

Revision Date 07-Feb-2019

Revision Number 2

## Section 1: PRODUCT AND COMPANY IDENTIFICATION

### Product identifier

**Product Name** Agilus30, FLX935  
**Product Code(s)** SDS-06173 EN Z  
**PN (Part Number)** OBJ-03328, OBJ-03331

### Other means of identification

**Proper Shipping Name** 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)

**UN Number** UN3082

**Pure substance/mixture** Mixture

### Recommended use of the chemical and restrictions on use

**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

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

#### Importer

Objective3D Ltd  
BDO Taranaki Limited  
10 Young Street  
New Plymouth, New Plymouth 4310  
New Zealand  
Phone: +64 9 801 0380

### For further information, please contact

**Contact Point** Product Safety Department

**E-mail address** info@Stratasys.com

### Emergency telephone number

**Emergency Telephone** +64 9 929 1483 - New Zealand - English Language response

## Section 2: HAZARDS IDENTIFICATION

ERMA New Zealand HSNO approval code or group standard HSR002670

### GHS Classification

<b>Acute toxicity - Inhalation (Dusts/Mists)</b>	Category 4 (HSNO - 6.1D)
<b>Skin corrosion/irritation</b>	Category 2 (HSNO - 6.3A)

Serious eye damage/eye irritation	Category 2A (HSNO - 6.4A)
Skin sensitisation	Category 1A (HSNO - 6.5B)
Acute aquatic toxicity	Category 2 (HSNO - 9.1D)
Chronic aquatic toxicity	Category 2 (HSNO - 9.1B)

**Label elements****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 - Prevention**

Avoid breathing dust/fume/gas/mist/vapours/spray  
 Use only outdoors or in a well-ventilated area  
 Wash face, hands and any exposed skin thoroughly after handling  
 Wear protective gloves/protective clothing/eye protection/face protection  
 Contaminated work clothing should not be allowed out of the workplace  
 Avoid release to the environment

**Precautionary Statements - Response**

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
 If eye irritation persists: Get medical advice/attention  
 IF ON SKIN: Wash with plenty of soap and water  
 Take off contaminated clothing and wash it before reuse  
 If skin irritation or rash occurs: Get medical advice/attention  
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing  
 Call a POISON CENTER or doctor/physician if you feel unwell  
 Collect spillage

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**Other hazards**

May cause respiratory irritation  
 No information available

## Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

**Substance**

Not applicable

**Mixture**

Chemical name	CAS No	Weight-%
Proprietary	-	30-50
Proprietary	-	10-30
Proprietary	-	10-30

Glycerol, propoxylated, esters with acrylic acid	52408-84-1	0.3-1
Proprietary	-	0.3-1
Acrylic acid, 2-hydroxyethyl ester	818-61-1	0.3-1
Stabilizer	-	0.1-0.3
2,6-Bis(1,1-Dimethylethyl)-4-Methyl-Phenol	128-37-0	0.1-0.3
camphene	79-92-5	0.1-0.3
1,7,7-Trimethyltricyclo[2.2.1.0 <sup>2,6</sup> ]heptane	508-32-7	0.1-0.3
Non-hazardous ingredients	Proprietary	Balance

## Section 4: FIRST AID MEASURES

### Description of first aid measures

<b>General advice</b>	Show this safety data sheet to the doctor in attendance.
<b>Inhalation</b>	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.
<b>Eye contact</b>	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.
<b>Skin contact</b>	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.
<b>Ingestion</b>	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.
<b>Self-protection of the first aider</b>	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.

### Most important symptoms and effects, both acute and delayed

<b>Symptoms</b>	Itching. Rashes. Hives. Burning sensation. Coughing and/ or wheezing. Difficulty in breathing.
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### Indication of any immediate medical attention and special treatment needed

<b>Note to doctors</b>	May cause sensitisation in susceptible persons. Treat symptomatically.
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## Section 5: FIRE-FIGHTING MEASURES

### Suitable Extinguishing Media

<b>Suitable Extinguishing Media</b>	Use extinguishing agent suitable for type of surrounding fire. Class B fires: Use carbon dioxide (CO <sub>2</sub> ), regular dry chemical (sodium bicarbonate), regular foam (Aqueous Film Forming Foam-AFFF), or water spray to cool containers.
<b>Unsuitable extinguishing media</b>	No information available.

### Specific hazards arising from the chemical

<b>Specific hazards arising from the chemical</b>	Product is or contains a sensitiser. May cause sensitisation by skin contact.
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### Special protective actions for fire-fighters

**Special protective equipment for fire-fighters** Cool containers with flooding quantities of water until well after fire is out. Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Move containers from fire area if you can do it without risk. Use personal protection equipment. 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.

**Section 6: ACCIDENTAL RELEASE MEASURES**

**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.

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

**For emergency responders** Use personal protection recommended in Section 8.

**Environmental precautions**

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

**Methods and material for containment and cleaning up**

**Methods for containment** Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water.

**Methods for cleaning up** Pick up and transfer to properly labelled containers.

**Precautions to prevent secondary hazards**

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

**Section 7: HANDLING AND STORAGE**

**Precautions for safe handling**

**Advice on safe handling** 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. Do not eat, drink or smoke when using this product. Heating may cause a fire.

**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.

**Conditions for safe storage, including any incompatibilities**

**Storage Conditions** 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.

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

**Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Control parameters**

**Exposure Limits** .

Chemical name	New Zealand
2,6-Bis(1,1-Dimethylethyl)-4-Methyl-Phenol 128-37-0	TWA: 10 mg/m <sup>3</sup>

**Biological occupational exposure limits** Not applicable.

#### Appropriate engineering controls

**Engineering controls** Showers  
Eyewash stations  
Ventilation systems.

#### Individual protection measures, such as 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.

**Environmental exposure controls** No information available.

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

#### Information on basic physical and chemical properties

**Physical state** liquid  
**Appearance** Ink cartridge  
**Odour** Characteristic.  
**Colour** clear  
**Odour threshold** No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
<b>pH</b>	N/A	
<b>Melting point / freezing point</b>	No data available	None known
<b>Boiling point / boiling range</b>	No data available	None known
<b>Flash point</b>	116 °C	
<b>Evaporation rate</b>	No data available	None known
<b>Flammability (solid, gas)</b>	No data available	None known
<b>Flammability Limit in Air</b>		None known
<b>Upper flammability limit:</b>	No data available	
<b>Lower flammability limit</b>	No data available	
<b>Vapour pressure</b>	No data available	None known
<b>Vapour density</b>	No data available	None known
<b>Relative density</b>	1.07	g/cm <sup>3</sup>
<b>Water solubility</b>	Insoluble in water	
<b>Solubility(ies)</b>	No data available	None known
<b>Partition coefficient</b>	No data available	None known
<b>Autoignition temperature</b>	No data available	None known
<b>Decomposition temperature</b>	No data available	None known
<b>Kinematic viscosity</b>	No data available	None known
<b>Dynamic viscosity</b>	No data available	None known
<b>Explosive properties</b>	No information available.	
<b>Oxidising properties</b>	No information available.	

**Other Information**

<b>Softening point</b>	No information available
<b>Molecular weight</b>	No information available
<b>VOC Content (%)</b>	No information available
<b>Liquid Density</b>	No information available
<b>Bulk density</b>	No information available
<b>Particle Size</b>	No information available
<b>Particle Size Distribution</b>	No information available

## Section 10: STABILITY AND REACTIVITY

**Reactivity**

**Reactivity** Heating may cause a fire.

**Chemical stability**

**Stability** Decomposes on exposure to light. Unstable if heated.

**Explosion data**

**Sensitivity to Mechanical Impact** None.

**Sensitivity to Static Discharge** None.

**Possibility of hazardous reactions**

**Possibility of hazardous reactions** None under normal processing.

**Conditions to avoid**

**Conditions to avoid** Avoid exposure to heat and light. Uncured ink will polymerize on exposure to light.

**Incompatible materials**

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

**Hazardous decomposition products**

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

## Section 11: TOXICOLOGICAL INFORMATION

**Acute toxicity****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).

**Symptoms** Itching. Rashes. Hives. Redness. May cause redness and tearing of the eyes. Coughing and/ or wheezing.

**Numerical measures of toxicity - Product Information**

The following values are calculated based on chapter 3.1 of the GHS document mg/kg  
**ATEmix (inhalation-dust/mist)** 1.02 mg/l

**Unknown acute toxicity** 0 % of the mixture consists of ingredient(s) of unknown toxicity  
 0 % of the mixture consists of ingredient(s) of unknown acute oral toxicity  
 0 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity  
 0 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)  
 0 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapour)  
 0 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

**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-Methyl-Phenol	> 2930 mg/kg ( Rat )	> 2000 mg/kg ( Rat )	-
camphene	> 5 g/kg ( Rat )	> 2500 mg/kg ( Rabbit )	= 17100 mg/m <sup>3</sup> ( Rat ) 1 h

See section 16 for terms and abbreviations

**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.  
**Sensitisation** No information available.  
**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.

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

Chemical name	New Zealand	IARC
2,6-Bis(1,1-Dimethylethyl)-4-Methyl-Phenol - 128-37-0		Group 3

**Reproductive toxicity** No information available.  
**STOT - single exposure** Classification based on data available for ingredients.  
**STOT - repeated exposure** No information available.  
**Aspiration hazard** No information available

## Section 12: ECOLOGICAL INFORMATION

**Ecotoxicity**

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

**Unknown aquatic toxicity** 0 % of the mixture consists of component(s) of unknown hazards to the aquatic environment.

Chemical name	Algae/aquatic plants	Fish	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 Desmodemus subspicatus mg/L EC50	5: 48 h Oryzias latipes mg/L LC50	-
camphene	1000: 72 h Desmodemus 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

**Persistence and degradability**

**Persistence and degradability** No information available.

**Bioaccumulative potential**

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

**Mobility**

**Mobility in soil** No information available.

**Mobility** No information available.

Chemical name	Partition coefficient
Acrylic acid, 2-hydroxyethyl ester	0.21
2,6-Bis(1,1-Dimethylethyl)-4-Methyl-Phenol	4.17

**Other adverse effects**

**Other adverse effects** No information available.

**Section 13: DISPOSAL CONSIDERATIONS**

**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.

**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

**Road transport**

**ADG**

**UN Number** UN3082  
**Proper Shipping Name** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
**Hazard Class** 9  
**Packing group** III  
**Environmental Hazard** Yes  
**Special Provisions** 179, 274, 331, 335, AU01  
**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

**IATA**



**UN Number** UN3082  
**UN proper shipping name** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
**Transport hazard class(es)** 9  
**Packing group** III  
**ERG Code** 9L  
**Special Provisions** A97, A158, A197  
**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

**IMDG**

**UN Number** UN3082  
**UN proper shipping name** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
**Transport hazard class(es)** 9  
**Packing group** III  
**EmS-No** F-A, S-F  
**Special Provisions** 274, 335, 969  
**Marine pollutant** This product contains a chemical which is listed as a severe marine pollutant according to IMDG/IMO  
**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

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

No information available



## Section 15: REGULATORY INFORMATION

**Safety, health and environmental regulations/legislation specific for the substance or mixture****National regulations****New Zealand****Exposure Limits**

See Section 8 for any applicable Tolerable Exposure or Environmental Exposure Limits

**Certified handlers, tracking and controlled substance licence requirements**

- Certified handlers are required for some substances. This includes for substances requiring a controlled substance licence, including Class 1 explosives, vertebrate toxic agents (9.3A, B, C), and certain fumigants. Class 6.1A and 6.1B substances such as pesticides also require Certified handlers. Please check the Health and Safety at Work Act 2015 for further information.
- Tracking is required for some highly hazardous substances. These substances need to be under the control of an appropriately trained person or appropriately secured. Please check the Health and Safety at Work Act 2015 for further information.
- Controlled substance licences are required to possess certain class 1 (explosive) and class 6 (vertebrate toxic agents or fumigants) substances. See Part 7 of the Health and Safety at Work Regulation 2017 for more information.

**ERMA New Zealand HSNO approval code or group standard**

Chemical name	New Zealand HSNO Chemical Classification
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Glycerol, propoxylated, esters with acrylic acid - 52408-84-1	6.1E inhalation,6.3A,6.4A 6.3A,6.4A
Acrylic acid, 2-hydroxyethyl ester - 818-61-1	6.5B contact,8.2C,8.3A,9.1A algal,9.1A crustacean,9.1A fish
2,6-Bis(1,1-Dimethylethyl)-4-Methyl-Phenol - 128-37-0	6.1D oral,6.5B contact,6.8C,6.9B oral,9.1D crustacean,9.1D algal,9.3C
camphene - 79-92-5	4.1.1B,8.3A,9.1A fish,9.1C crustacean

**International Inventories**

NZIoC	No information available
TSCA	Complies
DSL/NDSL	Complies
EINECS/ELINCS	Complies
ENCS	No information available
IECSC	Complies
KECL	No information available
PICCS	No information available
AICS	No information available

**Legend:**

- NZIoC - New Zealand Inventory of Chemicals
- TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
- DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
- EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
- ENCS - Japan Existing and New Chemical Substances
- IECSC - China Inventory of Existing Chemical Substances
- KECL - Korean Existing and Evaluated Chemical Substances
- PICCS - Philippines Inventory of Chemicals and Chemical Substances
- AICS - Australian Inventory of Chemical Substances

**International Regulations**

**Ozone-depleting substances (ODS)** Not applicable

**Persistent Organic Pollutants** Not applicable

**Export Notification requirements** Not applicable

**Section 16: OTHER INFORMATION**

**Revision Date** 07-Feb-2019

**Revision Note**

The symbol (\*) in the margin of this SDS indicates that this line has been revised.

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

**Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

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

**Disclaimer**

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**End of Safety Data Sheet**