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Revision Number 2.03

## Section 1: PRODUCT AND COMPANY IDENTIFICATION

### Product identifier

**Product Name** DigitalABSPPlus™ Component, RGD535

**Product Code(s)** SDS-06112 EN Z

**PN (Part Number)** OBJ-03253, OBJ-06268, OBJ-18002

### Other means of identification

**Proper Shipping Name** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
((Octahydro-4,7-methano-1H-indenediyl)bis(methylene)diacrylate,  
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 - Oral</b>	Category 4 (HSNO - 6.1D)
<b>Skin corrosion/irritation</b>	Category 2 (HSNO - 6.3A)

<b>Serious eye damage/eye irritation</b>	Category 1 (HSNO - 8.3A)
<b>Skin sensitisation</b>	Category 1B (HSNO - 6.5B)
<b>Specific target organ toxicity (repeated exposure)</b>	Category 2 (HSNO - 6.9B)
<b>Acute aquatic toxicity</b>	Category 2 (HSNO - 9.1D)
<b>Chronic aquatic toxicity</b>	Category 2 (HSNO - 9.1B)

**Label elements****Signal word**

Danger

**Hazard statements**

H302 - Harmful if swallowed

H315 - Causes skin irritation

H317 - May cause an allergic skin reaction

H318 - Causes serious eye damage

H373 - May cause damage to organs through prolonged or repeated exposure

H411 - Toxic to aquatic life with long lasting effects

**Precautionary Statements - Prevention**

Wash face, hands and any exposed skin thoroughly after handling

Do not eat, drink or smoke when using this product

Contaminated work clothing should not be allowed out of the workplace

Do not breathe dust/fume/gas/mist/vapours/spray

Avoid release to the environment

Wear protective gloves/protective clothing/eye protection/face protection

**Precautionary Statements - Response**

Get medical advice/attention if you feel unwell

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

Immediately call a POISON CENTRE or doctor

IF ON SKIN: Wash with plenty of water and soap

Take off all contaminated clothing and wash it before reuse

If skin irritation or rash occurs: Get medical advice/attention

IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell

Rinse mouth

Collect spillage

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**Other hazards**

No information available

## Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

**Substance**

Not applicable

**Mixture**

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

Proprietary	-	10-30
reaction product of glycolether and Polyol and alicyclic diisocyanate and aliphatic acrylate	-	10-30
Proprietary	-	3-10
aliphatic methacrylate	-	3-10
Tripropylene glycol diacrylate	42978-66-5	3-10
Proprietary	-	1-3
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. Immediate medical attention is required.
<b>Inhalation</b>	Remove to fresh air. Get medical attention immediately if symptoms occur.
<b>Eye contact</b>	Get immediate medical advice/attention. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area.
<b>Skin contact</b>	Wash off immediately with soap and plenty of water for at least 15 minutes. May cause an allergic skin reaction. In the case of skin irritation or allergic reactions see a doctor.
<b>Ingestion</b>	Do NOT induce vomiting. Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Call a doctor.
<b>Self-protection of the first aider</b>	Avoid contact with skin, eyes or clothing. Wear personal protective clothing (see section 8).

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

<b>Symptoms</b>	Burning sensation. Itching. Rashes. Hives.
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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.
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<b>Unsuitable extinguishing media</b>	No information available.
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### 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

<b>Special protective equipment for fire-fighters</b>	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
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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. Use personal protective equipment as required. Ensure adequate ventilation. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

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

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

### 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** Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product.

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

**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** Tight sealing safety goggles.

**Hand Protection** Wear suitable gloves. Impervious gloves.

**Skin and body protection** Wear suitable protective clothing. Long sleeved clothing.

**Respiratory protection** No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

**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** green  
**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>	>= 100 - < 250 °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>	1.09	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

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

**Particle Size** No information available  
**Particle Size Distribution** 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).

**Eye contact** Severely irritating to eyes. Causes serious eye damage. May cause burns. May cause irreversible damage to eyes. (based on components).

**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. Harmful if swallowed. (based on components).

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

#### Numerical measures of toxicity - Product Information

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

**ATEmix (oral)** 1,965.30 mg/kg

**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	= 2.000 mg/kg (Rat) (Method: OECD Test Guideline 423)	= 2.000 mg/kg (Rat)(Method: OECD Test Guideline 402)	-
Proprietary	= 588 mg/kg (rat)	> 2000 mg/kg (rat)	= 5.28 mg/l (rat)
Proprietary	= 4890 mg/kg = 4890 mg/kg ( Rat )	> 3000 mg/kg ( Rabbit )	-
aliphatic methacrylate	> 2000 mg/kg (rat)	-	-
Tripropylene glycol diacrylate	= 6200 mg/kg = 6200 mg/kg ( Rat )	> 2 g/kg ( Rabbit )	-
Proprietary	> 2000 mg/kg > 2000 mg/kg ( Rat )	> 2000 mg/kg ( Rat )	-

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. Causes burns. Risk of serious damage 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.  
 IARC (International Agency for Research on Cancer) *Group 2B - Possibly Carcinogenic to Humans*

**Reproductive toxicity** No information available.

**STOT - single exposure** No information available.

**STOT - repeated exposure** Classification based on data available for ingredients.

**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	(Pseudokirchneriella subcapitata) : 1,6 mg/l (Method: OECD Test Guideline 201)	(Fish) : 4,95 mg/l	(Daphnia magna Straus) : 2,36 mg/l (Method: OECD Test Guideline 202)

Proprietary	120 mg/l (algae)	-	120 mg/kg (daphnia)
Proprietary	1.98 mg/l Fresh water	0.704 mg/l Fresh water	0.524 mg/l Fresh water
aliphatic methacrylate	2.28 mg/l	1.79 mg/l Zebra Fish	2.57 mg/l Water Flea
Tripropylene glycol diacrylate	28: 72 h Desmodemus subspicatus mg/L EC50	4.5 - 10: 96 h Leuciscus idus mg/L LC50	88.7: 48 h Daphnia magna mg/L EC50
Proprietary	-	90: 96 h Danio rerio µg/L LC50 semi-static	-

**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
Tripropylene glycol diacrylate	2.77

**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** 274, 331, 335, 375, AU01  
**Description** UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. ((Octahydro-4,7-methano-1H-indenediyl)bis(methylene)diacrylate, 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



<b>Packing group</b>	III
<b>ERG Code</b>	9L
<b>Special Provisions</b>	A97, A158, A197
<b>Description</b>	UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. ((Octahydro-4,7-methano-1H-indenediyl)bis(methylene)diacrylate, Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate), 9, III
<b>IMDG</b>	
<b>UN number</b>	UN3082
<b>UN proper shipping name</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
<b>Transport hazard class(es)</b>	9
<b>Packing group</b>	III
<b>EmS-No</b>	F-A, S-F
<b>Special Provisions</b>	274, 335, 969
<b>Marine pollutant</b>	This product contains a chemical which is listed as a severe marine pollutant according to IMDG/IMO
<b>Description</b>	UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. ((Octahydro-4,7-methano-1H-indenediyl)bis(methylene)diacrylate, 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 HSR002670 code or group standard**

Chemical name	New Zealand HSNO Chemical Classification
Proprietary -	6.3A,6.4A
Tripropylene glycol diacrylate - 42978-66-5	6.3A,6.4A,6.5B,9.1B (All),9.1B (A),9.1B (C),9.1B (F) 6.3A,6.4A,6.5B,9.1B (All),9.1B (F),9.1C (C),9.1C (A)

**International Inventories**

<b>NZIoC</b>	No information available
<b>TSCA</b>	No information available
<b>DSL/NDL</b>	No information available
<b>EINECS/ELINCS</b>	Complies
<b>ENCS</b>	Complies
<b>IECSC</b>	Complies
<b>KECL</b>	No information available
<b>PICCS</b>	No information available
<b>AICS</b>	No information available

**Legend:**

- NZIoC** - New Zealand Inventory of Chemicals  
**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory  
**DSL/NDL** - 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**

**The Montreal Protocol on Substances that Deplete the Ozone Layer** Not applicable

**The Stockholm Convention on Persistent Organic Pollutants** Not applicable

**The Rotterdam Convention** Not applicable

**Section 16: OTHER INFORMATION**

**Revision Date** 21-May-2020

**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**