Section 1: PRODUCT AND COMPANY IDENTIFICATION

Product identifier

Product Name: DigitalABSPlus™ 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
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

<table>
<thead>
<tr>
<th>Acute toxicity - Oral</th>
<th>Category 4 (HSNO - 6.1D)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin corrosion/irritation</td>
<td>Category 2 (HSNO - 6.3A)</td>
</tr>
</tbody>
</table>
Serious eye damage/eye irritation
Category 1 (HSNO - 8.3A)

Skin sensitisation
Category 1B (HSNO - 6.5B)

Specific target organ toxicity (repeated exposure)
Category 2 (HSNO - 6.9B)

Acute aquatic toxicity
Category 2 (HSNO - 9.1D)

Chronic aquatic toxicity
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**

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS No</th>
<th>Weight-%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proprietary</td>
<td>-</td>
<td>10-30</td>
</tr>
</tbody>
</table>
Proprietary
reaction product of glycolether and Polyol and alicyclic diisocyanate and aliphatic acrylate
- 10-30
Proprietary
aliphatic methacrylate
- 3-10
Tripropylene glycol diacrylate 42978-66-5 3-10
Proprietary
Non-hazardous ingredients Proprietary Balance

Section 4: FIRST AID MEASURES

Description of first aid measures

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

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

Eye contact
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.

Skin contact
Wash off immediately with soap and plenty of water for at least 15 minutes. May cause an allergic skin reaction. In the case of skin irritation or allergic reactions see a doctor.

Ingestion
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.

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

Most important symptoms and effects, both acute and delayed

Symptoms

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

Suitable Extinguishing Media

Suitable Extinguishing Media
Use extinguishing agent suitable for type of surrounding fire. 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.

Specific hazards arising from the chemical

Product is or contains a sensitisser. May cause sensitisation by skin contact.

Special protective actions 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. 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

<table>
<thead>
<tr>
<th>Property</th>
<th>Values</th>
<th>Remarks • Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH</td>
<td>N/A</td>
<td>None known</td>
</tr>
<tr>
<td>Melting point / freezing point</td>
<td>No data available</td>
<td>None known</td>
</tr>
<tr>
<td>Boiling point / boiling range</td>
<td>No data available</td>
<td>None known</td>
</tr>
<tr>
<td>Flash point</td>
<td>&gt;= 100 - &lt; 250 °C</td>
<td>None known</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No data available</td>
<td>None known</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No data available</td>
<td>None known</td>
</tr>
<tr>
<td>Flammability Limit in Air</td>
<td>No data available</td>
<td>None known</td>
</tr>
<tr>
<td>Upper flammability limit</td>
<td>No data available</td>
<td>None known</td>
</tr>
<tr>
<td>Lower flammability limit</td>
<td>No data available</td>
<td>None known</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>No data available</td>
<td>None known</td>
</tr>
<tr>
<td>Vapour density</td>
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<td>None known</td>
</tr>
<tr>
<td>Relative density</td>
<td>1.09</td>
<td>g/cm³</td>
</tr>
<tr>
<td>Water solubility</td>
<td>Insoluble in water</td>
<td>None known</td>
</tr>
<tr>
<td>Solubility(ies)</td>
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<td>None known</td>
</tr>
<tr>
<td>Partition coefficient</td>
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<td>None known</td>
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<tr>
<td>Autoignition temperature</td>
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<td>None known</td>
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<tr>
<td>Decomposition temperature</td>
<td>No data available</td>
<td>None known</td>
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<tr>
<td>Kinematic viscosity</td>
<td>No data available</td>
<td>None known</td>
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<tr>
<td>Dynamic viscosity</td>
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<td>None known</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>No information available.</td>
<td>None known</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>No information available.</td>
<td>None known</td>
</tr>
</tbody>
</table>

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
Section 10: STABILITY AND REACTIVITY

Reactivity

Heating may cause a fire.

Chemical stability

Decomposes on exposure to light. Unstable if heated.

Explosion data

None.

None.

None under normal processing.

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

Not applicable under normal conditions of use and storage.


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


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

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Oral LD50</th>
<th>Dermal LD50</th>
<th>Inhalation LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proprietary</td>
<td>2,000 mg/kg (Rat) (Method: OECD Test Guideline 423)</td>
<td>2,000 mg/kg (Rat) (Method: OECD Test Guideline 402)</td>
<td>-</td>
</tr>
<tr>
<td>Proprietary</td>
<td>588 mg/kg (rat)</td>
<td>&gt; 2000 mg/kg (rat)</td>
<td>5.28 mg/l (rat)</td>
</tr>
<tr>
<td>Proprietary</td>
<td>4890 mg/kg</td>
<td>&gt; 3000 mg/kg (Rabbit)</td>
<td>-</td>
</tr>
<tr>
<td>aliphatic methacrylate</td>
<td>&gt; 2000 mg/kg (rat)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Tripropylene glycol diacrylate</td>
<td>6200 mg/kg</td>
<td>&gt; 2 g/kg (Rabbit)</td>
<td>-</td>
</tr>
<tr>
<td>Proprietary</td>
<td>&gt; 2000 mg/kg</td>
<td>&gt; 2000 mg/kg (Rat)</td>
<td>-</td>
</tr>
</tbody>
</table>

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

Germ cell mutagenicity
No information available.

Carcinogenicity
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.

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Algae/aquatic plants</th>
<th>Fish</th>
<th>Crustacea</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proprietary</td>
<td>(Pseudokirchneriella subcapitata) : 1.6 mg/l (Method: OECD Test Guideline 201)</td>
<td>(Fish) : 4.95 mg/l</td>
<td>(Daphnia magna Straus) : 2.36 mg/l (Method: OECD Test Guideline 202)</td>
</tr>
</tbody>
</table>
### Persistence and degradability

No information available.

### Bioaccumulative potential

Bioaccumulation

There is no data for this product.

### Mobility

Mobility in soil

No information available.

### Chemical name

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Partition coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tripropylene glycol diacrylate</td>
<td>2.77</td>
</tr>
</tbody>
</table>

**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
Section 15: REGULATORY INFORMATION

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

National regulations

New Zealand

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

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>New Zealand HSNO Chemical Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proprietary -</td>
<td>6.3A, 6.4A</td>
</tr>
<tr>
<td>Tripropylene glycol diacrylate - 42978-66-5</td>
<td>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)</td>
</tr>
</tbody>
</table>

SDS-06112 - DigitalABSPlus™ Component, RGD535
Revision Date 21-May-2020

Packing group III
ERG Code 9L
Special Provisions A97, A158, A197
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

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. ((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
International Inventories
NZIoC  No information available
TSCA  No information available
DSL/NDSL  No information available
EINECS/ELINCS  Complies
ENCS  Complies
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
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

Disclaimer
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End of Safety Data Sheet