

Section 1: Identification: Product identifier and chemical identity
Product identifier
Product Name: MED610 Biocompatible, Clear

Product Code(s): SDS-06135

Other means of identification
Proper shipping name: OTHER REGULATED SUBSTANCES, LIQUID, N.O.S. (URETHANE ACRYLATE, OLIGOMER, EXO-1,7-TRIMETHYLBICYCLO[2.2.1]HEPT-2-YL ACRYLATE)

UN Number: UN3082

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 manufacturer or importer
Importer: Stratasys GMBH, Airport Boulevard B 120, 77836

Rheinmünster, Germany

For further information, please contact

Contact Point: Product Safety Department

E-mail address: info@Stratasys.com

Emergency telephone number

- +49 722 97772280 - Europe - Multi lingual response
- +49 722 97772281 - Global - English Language response
- +1 978 495 5580 - USA - Multi-lingual response
- +85 2 975 70887 - Asia Pacific - Multi-lingual response
- +61 2 8011 4763 - Australia - Multi lingual response
- +86 15626070595 - China - Chinese response

Section 2: Hazard(s) identification
GHS Classification

Acute toxicity - Oral	Category 4 - (H302)
Skin corrosion/irritation	Category 2 - (H315)
Serious eye damage/eye irritation	Category 1 - (H318)
Skin sensitisation	Category 1B - (H317)
Specific target organ toxicity (single exposure)	Category 3 - (H335)
Specific target organ toxicity (repeated exposure)	Category 2 - (H373)
Acute aquatic toxicity	Category 1 - (H400)
Chronic aquatic toxicity	Category 1 - (H410)

Label elements
Signal word : Danger
Hazard statements

H302 - Harmful if swallowed

H315 - Causes skin irritation

H318 - Causes serious eye damage

H317 - May cause an allergic skin reaction

H335 - May cause respiratory irritation

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

H410 - Very toxic to aquatic life with long lasting effects

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H410 - Very 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

Wear protective gloves/protective clothing/eye protection/face

protection

Contaminated work clothing should not be allowed out of the

workplace

Use only outdoors or in a well-ventilated area

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

Avoid release to the environment

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 CENTER or doctor/physician

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

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you

feel unwell

Rinse mouth

Collect spillage

Precautionary Statements - Storage

Store in a well-ventilated place. Keep container tightly closed

Store locked up

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Other hazards

May be harmful in contact with skin

No information available

Section 3: Composition and information on ingredients, in accordance with Schedule 8
Substance

Chemical name	CAS No	Weight-%
Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate	5888-33-5	21.728
Trade secret	-	20 - 30%
Trade secret	-	10 - 20%
TRICYCLODECANE DIMETHANOL DIACRYLATE	42594-17-2	9.297
Bisphenol A epoxy acrylate oligomer	55818-57-0	7.986
Trade secret	-	0 - 10%
2, 4, 6 - trimethylbenzoyl-diphenylphosphine oxide	75980-60-8	1.204
Trade secret	Not Known	0 - 10%
Non-hazardous ingredients	Proprietary	Balance

Additional information

This product requires tactile warnings if supplied to the general public

Section 4: First aid measures
Description of first aid measures
Inhalation: Remove to fresh air.
Eye contact

Rinse thoroughly with plenty of water for at least 15 minutes, lifting

lower and upper eyelids. Consult a doctor.

Skin contact: Wash skin with soap and water.
Ingestion

Clean mouth with water and drink afterwards plenty of water.

Most important symptoms and effects, both acute and delayed
Symptoms: No information available.

Indication of any immediate medical attention and special
treatment needed
Note to doctors: Treat symptomatically.

Section 5: Firefighting measures
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
Specific hazards arising from the: No information available.
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: Ensure adequate ventilation.
For emergency responders:

Use personal protection recommended in Section 8.

Environmental precautions**Environmental precautions**

See Section 12 for additional Ecological Information.

Methods and material for containment and cleaning up
Methods for containment: Methods for containment.
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, including how the chemical may be safely used
Precautions for safe handling**Advice on safe 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.

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

Store in a cool, well ventilated area. Store in accordance with local regulations. Store locked up. 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

None known based on information supplied.

Section 8: Exposure controls and 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.

Appropriate engineering controls**Engineering controls:**

- Showers
- Eyewash stations
- Ventilation systems.

Individual protection measures, such as personal protective equipment**Eye/face protection**

No special protective equipment required.

Skin and body protection

No special protective equipment required.

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	Bluish clear
Odour threshold	No information available

Property	Values	Remarks • Method
pH	No data available	None known
Melting point / freezing point	No data available	None known
Boiling point / boiling range	No data available	None known
Flash point	> 100 °C	
Evaporation rate	No data available	None known
Flammability (solid, gas)	No data available	None known
Flammability Limit in Air		None known
Upper flammability limit:	No data available	
Lower flammability limit	No data available	
Vapour pressure	No data available	None known
Vapour density	No data available	None known
Relative density	No data available	None known
Water solubility	No data available	None known
Solubility(ies)	No data available	None known
Partition coefficient	No data available	None known
Autoignition temperature	No data available	None known
Decomposition temperature	No data available	None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known

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	No information available.	
Chemical stability		
Stability	Stable under normal conditions.	
Explosion data	Sensitivity to Mechanical Impact	None.
	Sensitivity to Static Discharge	None.
Possibility of hazardous reactions	None under normal processing.	
Conditions to avoid	None known based on information supplied.	
Incompatible materials	None known based on information supplied.	
Hazardous decomposition products	None known based on information supplied.	
Thermal Decomposition Products.	Combustion: oxides of carbon.	

Section 11: Toxicological information

Acute toxicity		
Information on likely routes of exposure		
Product Information		
Inhalation	Specific test data for the substance or mixture is not available.	
Eye contact	Specific test data for the substance or mixture is not available.	
Skin contact	Specific test data for the substance or mixture is not available.	
Ingestion	Specific test data for the substance or mixture is not available.	
Symptoms	No information available.	
Numerical measures of toxicity - Product Information		
The following values are calculated based on chapter 3.1 of the GHS document		
ATEmix (oral)	1,314.00 mg/kg	
ATEmix (dermal)	2,266.00 mg/kg	
ATEmix (inhalation-dust/mist)	13.16 mg/l	
Unknown acute toxicity	24.054 % of the mixture consists of ingredient(s) of unknown toxicity	
Component Information		

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate	= 4890 mg/kg (Rat)	> 3000 mg/kg (Rabbit)	-
Trade secret	588 mg/kg (rat)	> 2000 mg/kg (rat)	5.28 mg/l (rat)
Trade secret	(Rat) LD50 = 1,590 - 3,910		
mg/kg	(Rabbit) LD50 = > 2,000 mg/kg	(Rat) 1 h LC0 = 6.7 mg/l	
TRICYCLODECANE DIMETHANOL DIACRYLATE	2,000 mg/kg (Rat) (Method: OECD Test Guideline 423)	2,000 mg/kg (Rat)(Method: OECD Test Guideline 402)	-
Bisphenol A epoxy acrylate oligomer	>2000 mg/kg (Rat)	>2000 mg/kg	-
Trade secret	rat (oral): > 2,500 mg/kg (OECD Guideline 423)	> 5,000 mg/kg (OECD Guideline 402)	> 1 mg/l 4 h (OECD Guideline 403)
2, 4, 6 - trimethylbenzoyl diphenylphosphine oxide	> 5,000 mg/kg (Rat) (OECD Guideline 401)	> 2,000 mg/kg (Rat) (OECD Guideline 402)	-

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	No information available.
Serious eye damage/eye irritation	No information available.
Respiratory or skin sensitisation	No information available.
Germ cell mutagenicity	No information available.
Carcinogenicity	No information available.
Reproductive toxicity	No information available.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Aspiration hazard	No information available.

Section 12: Ecological information**Ecotoxicity****Ecotoxicity:** The environmental impact of this product has not been fully investigated.**Unknown aquatic toxicity:** 24.264 % of the mixture consists of component(s) of unknown hazards to the aquatic environment.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate	1.98 mg/l Fresh water	0.704 mg/l Fresh water	-	0.524 mg/l Fresh water
Trade secret	120 mg/l (algae)	-	-	120 mg/kg (daphnia)
Trade secret	Pseudokirchneriella subcapitata (green algae) 96 h EC50 = 0.17 mg/l	Oncorhynchus mykiss (rainbow trout) 96 h LC50 = 27 mg/l (Fish) : 4.95 mg/l	-	Daphnia magna (Water flea) 48 h EC50 = 95 mg/l
TRICYCLODECANE DIMETHANOL DIACRYLATE	(Pseudokirchneriella subcapitata) : 1.6 mg/l (Method: OECD Test Guideline 201)	24 mg/l, Brachydanio rerio (Directive 92/69/EEC, C.1, static)	-	(Daphnia magna Straus) : 2.36 mg/l (Method: OECD Test Guideline 202)
Trade secret	14.4 mg/l (growth rate), Desmodesmus subspicatus (OECD Guideline 201, static)	6.53 mg/l, Oryzias latipes (JIS K 0102-71, semistatic)	-	53.9 mg/l, Daphnia magna (OECD Guideline 202, part 1, semistatic)
2, 4, 6 - trimethylbenzoyl diphenyl phosphine oxide	> 2.01 mg/l (growth rate), Pseudokirchneriella subcapitata (OECD Guideline 201, static)	6.53 mg/l, Oryzias latipes (JIS K 0102-71, semistatic)	-	3.53 mg/l, Daphnia magna (OECD Guideline 202, part 1, static)

Persistence and degradability	No information available.
Persistence and degradability	No information available.
Bioaccumulative potential	No information available.
Bioaccumulation	No information available.
Mobility	No information available.
Mobility in soil	No information available.
Mobility	No information available.
Other adverse effects	No information available.
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
ADG	
UN Number	UN3082
Proper shipping name	OTHER REGULATED SUBSTANCES, LIQUID, N.O.S.
Hazard Class	9
Packing Group	III
Environmental hazard	Yes
Special Provisions	179, 274, 331, 335, AU01
Description	UN3082, OTHER REGULATED SUBSTANCES, LIQUID, N.O.S. (URETHANE ACRYLATE, OLIGOMER, EXO-1,7,7-TRIMETHYLBICYCLO[2.2.1]HEPT-2-YL ACRYLATE), 9, III
IATA	
UN/ID no	UN3082
Hazard Class	9
Packing Group	III
ERG Code	9L
Special Provisions	A197
Description	&UN3082, & (<TNI00056>), 9, III
IMDG	
UN/ID no	UN3082
Hazard Class	9
Packing Group	III
EmS-No	F-A, S-F
Special Provisions	274, 335
Description	&UN3082, & (<TNW00149>), 9, III, <TWRP0001>

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**
Australia : See section 8 for national exposure control parameters**International Inventories**

TSCA	Does not comply
DSL/NDSL	Does not comply
EINECS/ELINCS	Does not comply
ENCS	Does not comply
IECSC	Does not comply
KECL	Does not comply
PICCS	Does not comply
AICS	Does not comply

Legend:

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 12: Ecological information**Revision Date:** 02-Mar-2016**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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