

Material Safety Data Sheet

according to HazCom 2012

SDS # : PR48

Standard Clear

Issue Date 2014-12-09

Revision Date 2014-12-09

Version 1

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier

Product Name Standard Clear

Other means of identification

Product Code PR48
Synonyms Not applicable

Recommended use of the chemical and restrictions on use

Identified uses Photopolymer Resin.
Uses and exposure Photosensitive material for 3D printing
Uses advised against No information available

Details of the supplier of the safety data sheet

Supplier Address Autodesk, Inc.
 111 McInnis Parkway
 San Rafael, California 94903
 Tel: 415-507-5000

Emergency Telephone

North American Safety Department: Arvato Bertelsmann 1-800-535-5053
 International Safety Department: Arvato Bertelsmann 1-352-323-3500

2. HAZARDS IDENTIFICATION

Emergency Overview

Appearance transparent
Odor Characteristic
Physical state liquid

Classification

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2A
Reproductive toxicity	Category 2

GHS Label elements, including precautionary statements



Signal word

Warning

Hazard statements

H361 - Suspected of damaging fertility or the unborn child
 H315 - Causes skin irritation
 H319 - Causes serious eye irritation

Precautionary Statements - Prevention

Do not handle until all safety precautions have been read and understood

Avoid contact with eyes, skin and clothing

Keep container closed when not in use.

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

Wash face, hands and any exposed skin thoroughly after handling

Precautionary Statements - Response

IF exposed or concerned, get medical advice/attention.

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

IF ON SKIN: Gently wash with plenty of soap and water, Take off contaminated clothing and wash before reuse.

IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.

Collect spillage.

Precautionary Statements - Storage

Store locked up

Keep out of reach of children

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant.

Hazards not otherwise classified (HNOC)

None

Other Information

Toxic to aquatic life with long lasting effects

Toxic to aquatic life

Unknown acute toxicity

0% of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

The ingredients listed in this section have been determined to be hazardous and above threshold limits

Hazardous

Chemical Name	CAS No	Weight-%	Trade Secret	Classification (Reg. 1272/2008)
Alkox. pentaerythritol tetraacrylate	Proprietary	30 - 60	*	Eye Irrit.2 (H319) Aquatic Chronic 2 (H411)
Aliph. Urethane Acrylate Monomer	Proprietary	10 - 30	*	Skin Irrit. 2 (H315) Eye Irrit. 2 (H319)
Visible Photoinitiator	Proprietary	0.1 - 1	*	Skin Sens. 1B (H317) Repr. 2 (H361f) Aquatic Acute 2 (H401) Aquatic Chronic 2 (H411)

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES**First aid measures****General advice**

IN CASE OF SERIOUS OR PERSISTENT CONDITIONS, CALL A DOCTOR OR EMERGENCY MEDICAL CARE.

Eye contact

Flush eyes with water at least 15 minutes, get medical attention if eye irritation develops or persists.

Skin Contact

Wash off immediately with plenty of water, Get medical attention if irritation develops and persists.

Inhalation

Move to fresh air, If symptoms persist, call a physician.

Ingestion

If swallowed, Rinse mouth, Get medical attention.

Self-protection of the first aider

Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination.

Most important symptoms and effects, both acute and delayed**Main Symptoms**

No information available.

Indication of any immediate medical attention and special treatment needed**Note to physicians**

Treat symptomatically.

5. FIRE-FIGHTING MEASURES**Suitable extinguishing media**

Use CO2, dry chemical, or foam.

Unsuitable extinguishing media

Do not use a solid water stream as it may scatter and spread fire.

Specific hazards arising from the chemical

Carbon dioxide (CO2), carbon monoxide (CO), oxides of nitrogen (NOx), dense black smoke.

Hazardous combustion products

Hazardous decomposition products due to incomplete combustion.

Explosion data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge None.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES**Personal precautions, protective equipment and emergency procedures****Personal precautions**

Ensure adequate ventilation, Wear protective gloves/clothing and eye/face protection.

Environmental precautions**Environmental precautions**

Do not allow material to contaminate ground water system, Try to prevent the material from entering drains or water courses, See Section 12 for additional Ecological Information, Local authorities should be advised if significant spillages cannot be contained.

Methods and material for containment and cleaning up

Methods for containment

Prevent further leakage or spillage if safe to do so.

Methods for cleaning up

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).

7. HANDLING AND STORAGE**Precautions for safe handling****Advice on safe handling**

Handle in accordance with good industrial hygiene and safety practice, Ensure adequate ventilation, Protect from light.

Conditions for safe storage, including any incompatibilities**Technical measures/Storage conditions**

Keep container tightly closed in a dry and well-ventilated place, Protect from light.

Incompatible products

Amines, Strong oxidizing agents, Strong acids, Strong bases, Oxygen scavengers, Thiosulfates.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Control parameters****Exposure Guidelines**

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

Legend**Appropriate engineering controls****Engineering Measures**

Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction.

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

Safety glasses with side-shields, If splashes are likely to occur, wear:, Goggles.

Skin and body protection

Wear suitable protective 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

Hygiene measures

When using, do not eat, drink or smoke, Handle in accordance with good industrial hygiene and safety practice, Wear suitable gloves and eye/face protection, Wash hands before breaks and at the end of workday, Avoid breathing vapors, mist or gas, Regular cleaning of equipment, work area and clothing is recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES**Information on basic physical and chemical properties****Physical state**

liquid

Appearance

transparent

Color

light yellow

Odor

Characteristic

Odor threshold

No information available

<u>Property</u>	<u>Values</u>	<u>Remarks / • Method</u>
pH		No information available
Melting point/freezing point		No information available
Boiling point / boiling range		No information available
Flash point	> 101 °C / > 214 °F	
Evaporation rate		No information available
Flammability (solid, gas)		No information available
Flammability Limit in Air		
Upper flammability limit	no data available	
Lower flammability limit	no data available	
Vapor pressure		No information available
Vapor density		No information available
Specific Gravity		No information available
Water Solubility VALUE		No information available
Solubility in other solvents		No information available
Partition coefficient: n-octanol/water		No information available
Autoignition temperature		No information available
Decomposition temperature		No information available
Kinematic viscosity		No information available
Dynamic viscosity	300 cP	
Explosive properties	No information available	
Oxidizing properties	No information available	

Other Information

Softening point	No information available
VOC Content (%)	No information available
Density	No information available
Bulk density	No information available

10. STABILITY AND REACTIVITY**Reactivity**

No information available

Chemical stability

Stable under normal conditions.

Possibility of Hazardous Reactions**Hazardous polymerization**

None under normal processing.

Conditions to avoid

Protect from light. Heat, flames and sparks.

Incompatible materials

Amines, Strong oxidizing agents, Strong acids, Strong bases, Oxygen scavengers.

Hazardous Decomposition Products

No decomposition if stored and applied as directed.

11. TOXICOLOGICAL INFORMATION**Information on likely routes of exposure****Product Information**

No acute toxicity information is available for this product

Inhalation	No information available
Eye contact	No information available
Skin Contact	No information available
Ingestion	No information available

Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Aliph. Urethane Acrylate Monomer	>2000 mg/kg (Rat)		

Information on toxicological effects

Symptoms No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization	No information available.
Mutagenic effects	No information available.
Reproductive toxicity	No information available.
Carcinogenicity	Contains no ingredients above reportable quantities listed as a carcinogen.

Legend

STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Chronic toxicity	Avoid repeated exposure
Aspiration hazard	No information available.

Numerical measures of toxicity - Product Information

Unknown acute toxicity 0% of the mixture consists of ingredient(s) of unknown toxicity

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

ATEmix (oral) 5592 mg/kg

12. ECOLOGICAL INFORMATION**Ecotoxicity**

19.88% of the mixture consists of component(s) of unknown hazards to the aquatic environment

Acute aquatic toxicity

Product Information
No information available

Component Information

Chemical Name	Toxicity to algae	Toxicity to fish	Toxicity to daphnia and other aquatic invertebrates
Visible Photoinitiator	-	LC50 10 mg/l 48 h (Oryzias latipes)	-

Persistence and degradability No information available.

Bioaccumulation No information available.

Mobility

Chemical Name	log Pow
Alkox. pentaerythritol tetraacrylate	2.17

Other adverse effects

None

13. DISPOSAL CONSIDERATIONSWaste treatment methods**Waste Disposal Methods**

This material, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261). This material could become a hazardous waste if it is mixed with or otherwise comes in contact with a hazardous waste, if chemical additions are made to this material, or if the material is processed or otherwise altered. Consult 40 CFR 261 to determine whether the altered material is a hazardous waste. Consult the appropriate state, regional, or local regulations for additional requirements.

Contaminated packaging

Dispose of in accordance with local regulations.

This product contains one or more substances that are listed with the State of California as a hazardous waste.

14. TRANSPORT INFORMATIONDOT

Not regulated

ICAO/IATA

UN/ID no

3082

Proper shipping name

Environmentally hazardous substance, liquid, n.o.s (Alkoxyated pentaerythritol tetraacrylate)

Hazard Class

9 Miscellaneous dangerous substances and articles

Packing Group

III

IMDG/IMO

UN/ID no

3082

Proper shipping name

Environmentally hazardous substance, liquid, n.o.s (Alkoxyated pentaerythritol tetraacrylate)

Hazard Class

9 Miscellaneous dangerous substances and articles

Packing Group

III

TDG

Not regulated

MEX

Not regulated

15. REGULATORY INFORMATIONInternational Inventories

TSCA	Complies
AICS	Not listed
DSL/NDSL	Not listed
EINECS/ELINCS	Complies
ENCS	Complies
IECSC	Complies
KECL	Not listed
NZIoC	Not listed
PICCS	Not listed
ECSI	Not listed

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

AICS - Australian Inventory of Chemical Substances

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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
NZIoC - New Zealand Inventory of Chemicals
PICCS - Philippines Inventory of Chemicals and Chemical Substances
ECSI - Taiwan Existing Substance Inventory

US Federal Regulations

OSHA Regulatory Status

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200)

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic Health Hazard	No
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

US State Regulations

California Proposition 65

This product contains chemical(s) known to the State of California to cause cancer and/or to cause birth defects or other reproductive harm

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Toluene	X	X	X

16. OTHER INFORMATION

Revision Date 2014-12-09

Revision Note No information available

Disclaimer

This information is furnished without warranty, express or implied. This information is believed to be accurate to the best knowledge of Dymax Corporation and its subsidiaries and affiliates (DYMAX). The information in this SDS relates only to the specific material designated herein. DYMAX assumes no legal responsibility for use of or reliance upon the information in this SDS.

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