

#### Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878 Issue date: 8/31/2021 Version: 1.0

#### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

Product form : Mixture

Product name : Prusament Resin Tough Prusa Orange

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

#### 1.2.1. Relevant identified uses

Main use category : Consumer use, Professional use

Use of the substance/mixture : Resin for 3D printing

#### 1.2.2. Uses advised against

No additional information available

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

 Supplier
 Manufacturer

 Prusa Research a.s.
 Prusa Polymers a.s.

 Partyzánská 188/7A
 Partyzanska 188/7A

 170 00 Praha
 170 00 Prague 7

 Czech Republic
 Czech Republic

 T +420 222 263 718
 T +420 222 263 718

info@prusa3d.cz - www.prusa3d.cz info@prusa3d.cz - www.prusa3d.cz

#### 1.4. Emergency telephone number

Country	Official advisory body	Address	Emergency number	Comment
Ireland	National Poisons Information Centre Beaumont Hospital	PO Box 1297 Beaumont Road 9 Dublin	+353 1 809 2566 (Healthcare professionals- 24/7) +353 1 809 2166 (public, 8am - 10pm, 7/7)	
United Kingdom	National Poisons Information Service (Birmingham Centre) City Hospital	Dudley Road B18 7QH Birmingham	0344 892 0111	
United Kingdom	National Poisons Information Service (Belfast Centre) Royal Victoria Hospital	Grosvenor Road BT12 6BA Belfast	0344 892 0111	

#### **SECTION 2: Hazards identification**

#### 2.1. Classification of the substance or mixture

#### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Skin corrosion/irritation, Category 2 H315
Serious eye damage/eye irritation, Category 2 H319
Skin sensitisation, Category 1 H317
Hazardous to the aquatic environment — Chronic Hazard, Category 2 H411

Full text of H- and EUH-statements: see section 16

#### Adverse physicochemical, human health and environmental effects

May cause an allergic skin reaction. Causes skin irritation. Causes serious eye irritation. Toxic to aquatic life with long lasting effects.

#### Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

#### 2.2. Label elements

#### Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)





GHS07

GHS09

Signal word (CLP) : Warning

Contains : Propoxylated neopentylglycol diacrylate, Tricyclodecane dimethanol diacrylate

Hazard statements (CLP) : H315 - Causes skin irritation.

H317 - May cause an allergic skin reaction. H319 - Causes serious eye irritation.

H411 - Toxic to aquatic life with long lasting effects.

Precautionary statements (CLP) : P261 - Avoid breathing vapours.

P264 - Wash hands, forearms and face thoroughly after handling.

P273 - Avoid release to the environment.

P280 - Wear protective gloves, protective clothing, eye protection/face protection.

P302+P352 - IF ON SKIN: Wash with plenty of soap and water.

P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove

contact lenses, if present and easy to do. Continue rinsing.
P337+P313 - If eye irritation persists: Get medical advice/attention.
P362+P364 - Take off contaminated clothing and wash it before reuse.
P501 - Dispose of contents/container to an approved waste disposal plant.

#### 2.3. Other hazards

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605

#### SECTION 3: Composition/information on ingredients

#### 3.1. Substances

Not applicable

#### 3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Propoxylated neopentylglycol diacrylate	CAS-No.: 84170-74-1 EC-No.: 617-546-6 REACH-no: 01-2119970213-43	5 – 60	Skin Sens. 1B, H317 Aquatic Chronic 2, H411
Tricyclodecane dimethanol diacrylate	CAS-No.: 42594-17-2 EC-No.: 255-901-3 REACH-no: 01-2120051112-76	5 – 60	Skin Sens. 1B, H317 Aquatic Chronic 2, H411
Ethoxylated pentaerythritol tetraacrylate	CAS-No.: 51728-26-8 EC-No.: 500-111-9 REACH-no: 01-2119969962-19	5 – 60	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Aquatic Chronic 2, H411
Urethane diacrylate	CAS-No.: 119107-13-0	5 – 60	Skin Irrit. 2, H315 Eye Irrit. 2, H319

Full text of H- and EUH-statements: see section 16

#### Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

#### **SECTION 4: First aid measures**

#### 4.1. Description of first aid measures

First-aid measures general : In case of doubt or persistent symptoms, consult always a physician.

First-aid measures after inhalation : Remove person to fresh air and keep them warm and calm. If you feel unwell, seek medical

advice. Give oxygen or artificial respiration if necessary.

First-aid measures after skin contact : Take off contaminated clothing. Wash skin with plenty of water. Gently wash with plenty of

soap and water. If skin irritation occurs: Get medical advice/attention.

First-aid measures after eye contact : Rinse immediately with plenty of water (for at least 15 minutes). Remove contact lenses, if

present and easy to do. Continue rinsing. Get medical advice/attention.

First-aid measures after ingestion : Rinse mouth. Do not induce vomiting. Never give anything by mouth to an unconscious

person. Call a physician immediately.

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

Symptoms/effects after skin contact : May cause an allergic skin reaction.

Symptoms/effects after eye contact : May cause eye irritation.

#### 4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

#### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Sand.

Unsuitable extinguishing media : Use extinguishing media appropriate for surrounding fire.

#### 5.2. Special hazards arising from the substance or mixture

Fire hazard : The inhalation of decomposition combustion products may result in health damage.

Polymerizes when exposed to heat or light.

Explosion hazard : Heating will cause a rise in pressure with a risk of bursting.

Hazardous decomposition products in case of fire : Toxic fumes may be released.

#### 5.3. Advice for firefighters

Firefighting instructions : During the fire of the product, keep the safe distance, use suitable breathing protection

(isolation device), or self-contained breathing apparatus. Prevent fire fighting water from entering the environment. On heating, there is a risk of bursting due to internal pressure

build-up. Cool down the containers exposed to heat with a water spray.

#### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

#### 6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel. Ensure adequate ventilation. Avoid contact with skin,

eyes and clothing. Avoid inhalation of vapours. Wear recommended personal protective

equipment. Wear respiratory protection.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment.

#### 6.2. Environmental precautions

Do not allow the mixture to enter into sewer, water system (underground water, surface water) or soil. Notify authorities if product enters sewers or public waters.

#### 6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Soak up with inert absorbent material (for example sand, sawdust, a universal binder, silica gel). Take up mechanically (sweeping, shovelling) and collect in suitable container for

disposal. Dispose in a safe manner in accordance with local/national regulations.

#### Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

#### 6.4. Reference to other sections

See Section 8 and 13 of this safety data sheet.

#### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Do not breathe vapours. Avoid contact with

skin, eyes and clothing. Wear personal protective equipment. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Heating will cause a

rise in pressure with a risk of bursting.

Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands and face

immediately after handling this product, and once again before leaving the workplace. Take

off contaminated clothing and wash it before reuse.

#### 7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Comply with applicable regulations.

Storage conditions : Store in original container. Store in dry, cool, well-ventilated area. Store away from direct

sunlight or other heat sources. Protect from light. Keep container tightly closed and away

from heat, sparks and flame.

Storage temperature : 16 - 32 °C

#### 7.3. Specific end use(s)

No additional information available

#### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

#### 8.1.1 National occupational exposure and biological limit values

No additional information available

#### 8.1.2. Recommended monitoring procedures

No additional information available

#### 8.1.3. Air contaminants formed

No additional information available

#### 8.1.4. DNEL and PNEC

Propoxylated neopentylglycol diacrylate (84170-74-1)			
DNEL/DMEL (Workers)			
Long-term - systemic effects, dermal	46.7 mg/kg bodyweight/day		
Long-term - systemic effects, inhalation	32.9 mg/m³		
PNEC (Water)			
PNEC aqua (freshwater)	0.0027 mg/l		
PNEC aqua (marine water)	0.00027 mg/l		
PNEC aqua (intermittent, freshwater)	0.027 mg/l		
PNEC (Sediment)			
PNEC sediment (freshwater)	0.0638 mg/kg dwt		
PNEC sediment (marine water)	0.0064 mg/kg dwt		
PNEC (Soil)	PNEC (Soil)		
PNEC soil	0.0112 mg/kg dwt		

### Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

PNEC (STP)  PNEC sewage treatment plant 0.1 mg/l  Tricyclodecane dimethanol diacrylate (42594-17-2)  PNEC (Water)  PNEC (aqua (marine water) 1.6 μg/L  PNEC aqua (intermittent, freshwater) 1.6 μg/L  PNEC sediment (freshwater) 0.66 mg/kg dwt  PNEC sediment (marine water) 0.066 mg/kg dwt  PNEC sediment (marine water) 0.066 mg/kg dwt  PNEC sediment (marine water) 1.0 mg/l  PNEC sediment (marine water) 1.0 mg/l  PNEC sediment (marine water) 1.0 mg/l  Ethoxylated pentaerythritol tetraacrylate (517±8-26-8)  DNEL/DMEL (Workers) 800 μg/m²  DNEL/DMEL (General population)  Long-term - systemic effects, inhalation 880 μg/m²  DNEL/DMEL (General population)  Long-term - systemic effects, inhalation 217 ng/m²  Long-term - systemic effects, dermal 250 μg/kg bodyweight/day  Long-term - systemic effects, dermal 250 μg/kg bodyweight/day  Long-term - systemic effects, dermal 250 μg/kg bodyweight/day  PNEC (Water)  PNEC (Water) 1.76 μg/L  PNEC aqua (marine water) 1.76 μg/L  PNEC aqua (marine water) 1.76 μg/L  PNEC sediment (freshwater) 1.79 μg/kg dw  PNEC (Sediment)  PNEC sediment (freshwater) 1.79 μg/kg dw  PNEC (Sediment)  PNEC sediment (freshwater) 1.79 μg/kg dw  PNEC (Sediment)  PNEC sediment (freshwater) 1.79 μg/kg dw  PNEC (SETP)	locationing to the NENOTT Regulation (EO) 1307/2000 amended by Negaliation (EO) 2020/070			
PNEC sewage treatment plant 0.1 mg/l  PNEC (water)  PNEC (water) 1.6 μg/L  PNEC aqua (freshwater) 0.16 μg/L  PNEC aqua (intermittent, freshwater) 16 μg/L  PNEC sediment (freshwater) 0.66 mg/kg dwt  PNEC sediment (marine water) 0.066 mg/kg dwt  PNEC sevage treatment plant 0.0 mg/l  Ethoxylated pentaerythritol tetraacrylate (517≥8-6-8)  DNEL/DMEL (Workers)  Long-term - systemic effects, dermal 500 μg/kg bodyweight/day  Long-term - systemic effects, inhalation 880 μg/m³  DNEL/DMEL (General population)  Long-term - systemic effects, oral 375 μg/kg bodyweight/day  Long-term - systemic effects, inhalation 217 ng/m²  Long-term - systemic effects, dermal 250 μg/kg bodyweight/day  PNEC (water)  PNEC (water) 1.76 μg/L  PNEC (water) 1.76 μg/L  PNEC aqua (marine water) 1.76 μg/L  PNEC aqua (intermittent, freshwater) 1.76 μg/L  PNEC sediment)  PNEC sediment (freshwater) 1.7 μg/kg dw  PNEC Sediment (freshwater) 1.7 μg/kg dw	Propoxylated neopentylglycol diacrylate (84170-74-1)			
Tricyclodecane dimethanol diacrylate (42594-17-2)           PNEC (water)           PNEC aqua (freshwater)         1.6 μg/L           PNEC aqua (minermittent, freshwater)         16 μg/L           PNEC sediment)           PNEC (Sediment)         0.66 mg/kg dwt           PNEC sediment (marine water)         0.66 mg/kg dwt           PNEC sediment (marine water)         0.066 mg/kg dwt           PNEC sediment (marine water)         0.131 mg/kg dwt           PNEC set/Set/DNEC (SETP)         0.131 mg/kg dwt           PNEC sewage treatment plant         10 mg/l           Ethoxylated pentaerythritol tetraacrylate (5172-8-8)         0.00 μg/kg bodyweight/day           DNEL/DMEL (Workers)         0.09 μg/kg bodyweight/day           Long-term - systemic effects, inhalation         880 μg/m³           DNEL/DMEL (General population)         0.09 μg/kg bodyweight/day           Long-term - systemic effects, inhalation         217 ng/m²           Long-term - systemic effects, inhalation         217 ng/m²           PNEC (Water)         0.09 μg/kg bodyweight/day           PNEC qua (freshwater)         1.76 μg/L           PNEC aqua (freshwater)         1.76 μg/L           PNEC aqua (intermittent, freshwater)         1.7 μg/kg dw           PNEC (Sediment)         1.7	PNEC (STP)			
PNEC (water)           PNEC aqua (freshwater)         1.6 μg/L           PNEC aqua (minermittent, freshwater)         16 μg/L           PNEC aqua (intermittent, freshwater)         16 μg/L           PNEC (Sediment)         PNEC (Sediment)           PNEC sediment (freshwater)         0.66 mg/kg dwt           PNEC sediment (marine water)         0.066 mg/kg dwt           PNEC sediment (marine water)         0.131 mg/kg dwt           PNEC (Soll)         DNEC sewage treatment plant           PNEC sewage treatment plant         10 mg/l           Ethoxylated pentaerythritol tetraacrylate (5172-56-8)           DNEL/DMEL (Workers)           Long-term - systemic effects, dermal         500 μg/kg bodyweight/day           Long-term - systemic effects, inhalation         880 μg/m³           DNEL/DMEL (General population)         Long-term - systemic effects, inhalation           Long-term - systemic effects, inhalation         217 ng/m³           Long-term - systemic effects, inhalation         217 ng/m³           PNEC (Water)         VPNEC (Water)           PNEC qua (freshwater)         1.76 μg/L           PNEC aqua (intermittent, freshwater)         1.76 μg/L           PNEC aqua (intermittent, freshwater)         1.7 μg/kg dw           PNEC (Sediment)         1.7 μg/kg dw	PNEC sewage treatment plant	0.1 mg/l		
PNEC aqua (freshwater) 1.6 μg/L  PNEC aqua (marine water) 0.16 μg/L  PNEC aqua (intermittent, freshwater) 16 μg/L  PNEC (Sediment)  PNEC sediment (freshwater) 0.66 mg/kg dwt  PNEC sediment (marine water) 0.066 mg/kg dwt  PNEC sediment (marine water) 0.066 mg/kg dwt  PNEC (Soil)  PNEC (SOI)  PNEC (SOI)  PNEC (SIP)  PNEC sed treatment plant 10 mg/l  Ethoxylated pentaerythritol totraacrylate (517×2-56-8)  DNEL/DMEL (Workers)  Long-term - systemic effects, dermal 800 μg/m²  DNEL/DMEL (General population)  Long-term - systemic effects, inhalation 217 ng/m³  Long-term - systemic effects, dermal 250 μg/kg bodyweight/day  Long-term - systemic effects, inhalation 217 ng/m³  PNEC (Water)  PNEC (Water)  PNEC (Water)  PNEC (water) 1.76 μg/L  PNEC aqua (freshwater) 1.76 μg/L  PNEC (sediment)  PNEC (sediment) 17 μg/kg dw  PNEC (sediment) 1.79 μg/kg dw  PNEC (sediment) 1.79 μg/kg dw  PNEC (sediment) 1.79 μg/kg dw	Tricyclodecane dimethanol diacrylate (42594-	17-2)		
PNEC aqua (marine water)   0.16 μg/L	PNEC (Water)			
PNEC (sediment)  PNEC (sediment (freshwater)	PNEC aqua (freshwater)	1.6 µg/L		
PNEC (Sediment)           PNEC sediment (freshwater)         0.66 mg/kg dwt           PNEC sediment (marine water)         0.066 mg/kg dwt           PNEC (Soil)           PNEC soil         0.131 mg/kg dwt           PNEC (STP)           PNEC sewage treatment plant         10 mg/l           Ethoxylated pentaerythritol tetraacrylate (51728-26-8)           DNEL/DMEL (Workers)           Long-term - systemic effects, dermal         500 μg/kg bodyweight/day           Long-term - systemic effects, inhalation         880 μg/m³           DNEL/DMEL (General population)           Long-term - systemic effects, oral         375 μg/kg bodyweight/day           Long-term - systemic effects, inhalation         217 ng/m³           Long-term - systemic effects, demal         250 μg/kg bodyweight/day           PNEC (Water)           PNEC aqua (freshwater)         1.76 μg/L           PNEC aqua (marine water)         0.176 μg/L           PNEC (Sediment)         17 μg/kg dw           PNEC sediment (freshwater)         17 μg/kg dw           PNEC sediment (marine water)         1.7 μg/kg dw           PNEC (SETP)	PNEC aqua (marine water)	0.16 μg/L		
PNEC sediment (freshwater)	PNEC aqua (intermittent, freshwater)	16 μg/L		
PNEC sediment (marine water)   0.066 mg/kg dwt	PNEC (Sediment)			
PNEC (soil)           PNEC (STP)           PNEC sewage treatment plant         10 mg/l           Ethoxylated pentaerythritol tetraacrylate (51728-26-8)           DNEL/DMEL (Workers)           Long-term - systemic effects, dermal         500 μg/kg bodyweight/day           Long-term - systemic effects, inhalation         880 μg/m²           DNEL/DMEL (General population)           Long-term - systemic effects, oral         375 μg/kg bodyweight/day           Long-term - systemic effects, inhalation         217 ng/m²           Long-term - systemic effects, inhalation         217 ng/m²           Long-term - systemic effects, dermal         250 μg/kg bodyweight/day           PNEC (Water)         1.76 μg/L           PNEC aqua (freshwater)         1.76 μg/L           PNEC aqua (marine water)         0.176 μg/L           PNEC (Sediment)         17 μg/kg dw           PNEC sediment (freshwater)         17 μg/kg dw           PNEC sediment (marine water)         1.7 μg/kg dw           PNEC (STP)	PNEC sediment (freshwater)	0.66 mg/kg dwt		
PNEC (STP)  PNEC swage treatment plant 10 mg/l  Ethoxylated pentaerythritol tetraacrylate (51728-26-8)  DNEL/DMEL (Workers)  Long-term - systemic effects, dermal 500 µg/kg bodyweight/day  Long-term - systemic effects, inhalation 880 µg/m³  DNEL/DMEL (General population)  Long-term - systemic effects, inhalation 217 µg/m³  Long-term - systemic effects, inhalation 217 µg/m²  Long-term - systemic effects, inhalation 217 µg/m²  Long-term - systemic effects, inhalation 217 µg/m²  Long-term - systemic effects, inhalation 217 µg/kg bodyweight/day  PNEC (Water)  PNEC aqua (freshwater) 1.76 µg/L  PNEC aqua (marine water) 0.176 µg/L  PNEC aqua (intermittent, freshwater) 17.6 µg/L  PNEC (Sediment)  PNEC sediment (freshwater) 17 µg/kg dw  PNEC sediment (marine water) 1.7 µg/kg dw  PNEC sediment (marine water) 1.7 µg/kg dw  PNEC (SETP)	PNEC sediment (marine water)	0.066 mg/kg dwt		
PNEC (STP)  PNEC sewage treatment plant 10 mg/l  Ethoxylated pentaerythritol tetraacrylate (51728-26-8)  DNEL/DMEL (Workers) Long-term - systemic effects, oral 880 µg/m³  DNEL/DMEL (General population) Long-term - systemic effects, inhalation 217 ng/m³ Long-term - systemic effects, inhalation 217 ng/m³ PNEC (Water)  PNEC (Water)  PNEC aqua (freshwater) 1.76 µg/L  PNEC aqua (intermittent, freshwater) 17 µg/kg dw PNEC sediment (freshwater) 17 µg/kg dw PNEC sediment (freshwater) 1.7 µg/kg dw PNEC sediment (freshwater) 1.7 µg/kg dw PNEC sediment (marine water) 1.7 µg/kg dw PNEC sediment (marine water) 1.7 µg/kg dw	PNEC (Soil)			
PNEC sewage treatment plant 10 mg/l  Ethoxylated pentaerythritol tetraacrylate (51728-26-8)  DNEL/DMEL (Workers)  Long-term - systemic effects, dermal 500 µg/kg bodyweight/day  Long-term - systemic effects, inhalation 880 µg/m²  DNEL/DMEL (General population)  Long-term - systemic effects, oral 375 µg/kg bodyweight/day  Long-term - systemic effects, inhalation 217 ng/m³  Long-term - systemic effects, dermal 250 µg/kg bodyweight/day  PNEC (Water)  PNEC aqua (freshwater) 1.76 µg/L  PNEC aqua (intermittent, freshwater) 0.176 µg/L  PNEC aqua (intermittent, freshwater) 17.6 µg/L  PNEC sediment (freshwater) 17 µg/kg dw  PNEC sediment (freshwater) 1.7 µg/kg dw  PNEC sediment (marine water) 1.7 µg/kg dw	PNEC soil	0.131 mg/kg dwt		
Ethoxylated pentaerythritol tetraacrylate (51728-26-8)  DNEL/DMEL (Workers)  Long-term - systemic effects, dermal 500 μg/kg bodyweight/day  Long-term - systemic effects, inhalation 880 μg/m³  DNEL/DMEL (General population)  Long-term - systemic effects, oral 375 μg/kg bodyweight/day  Long-term - systemic effects, inhalation 217 ng/m³  Long-term - systemic effects, dermal 250 μg/kg bodyweight/day  PNEC (Water)  PNEC aqua (freshwater) 1.76 μg/L  PNEC aqua (marine water) 0.176 μg/L  PNEC aqua (intermittent, freshwater) 17.6 μg/L  PNEC sediment (freshwater) 17 μg/kg dw  PNEC sediment (marine water) 1.7 μg/kg dw  PNEC sediment (marine water) 1.7 μg/kg dw	PNEC (STP)			
DNEL/DMEL (Workers)  Long-term - systemic effects, dermal 500 μg/kg bodyweight/day  Long-term - systemic effects, inhalation 880 μg/m³  DNEL/DMEL (General population)  Long-term - systemic effects, oral 375 μg/kg bodyweight/day  Long-term - systemic effects, inhalation 217 ng/m³  Long-term - systemic effects, dermal 250 μg/kg bodyweight/day  PNEC (Water)  PNEC aqua (freshwater) 1.76 μg/L  PNEC aqua (marine water) 0.176 μg/L  PNEC aqua (intermittent, freshwater) 17.6 μg/L  PNEC sediment (freshwater) 17 μg/kg dw  PNEC sediment (marine water) 1.7 μg/kg dw  PNEC sediment (marine water) 1.7 μg/kg dw  PNEC sediment (marine water) 1.7 μg/kg dw	PNEC sewage treatment plant	10 mg/l		
Long-term - systemic effects, dermal  Long-term - systemic effects, inhalation  880 μg/m³   DNEL/DMEL (General population)  Long-term - systemic effects, oral  Long-term - systemic effects, inhalation  217 ng/m³  Long-term - systemic effects, inhalation  218 μg/kg bodyweight/day  Long-term - systemic effects, inhalation  219 μg/kg bodyweight/day  PNEC (Water)  PNEC aqua (freshwater)  PNEC aqua (freshwater)  1.76 μg/L  PNEC aqua (intermittent, freshwater)  PNEC aqua (intermittent, freshwater)  PNEC sediment (freshwater)  17 μg/kg dw  PNEC sediment (marine water)  1.7 μg/kg dw  PNEC sediment (marine water)  1.7 μg/kg dw  PNEC sediment (marine water)	Ethoxylated pentaerythritol tetraacrylate (517)	28-26-8)		
Long-term - systemic effects, inhalation 880 μg/m³  DNEL/DMEL (General population)  Long-term - systemic effects, oral 375 μg/kg bodyweight/day  Long-term - systemic effects, inhalation 217 ng/m³  Long-term - systemic effects, dermal 250 μg/kg bodyweight/day  PNEC (Water)  PNEC aqua (freshwater) 1.76 μg/L  PNEC aqua (marine water) 0.176 μg/L  PNEC aqua (intermittent, freshwater) 17.6 μg/L  PNEC (Sediment)  PNEC sediment (freshwater) 17 μg/kg dw  PNEC sediment (marine water) 1.7 μg/kg dw  PNEC sediment (marine water) 1.7 μg/kg dw	DNEL/DMEL (Workers)			
DNEL/DMEL (General population)  Long-term - systemic effects, oral 375 μg/kg bodyweight/day  Long-term - systemic effects, inhalation 217 ng/m³  Long-term - systemic effects, dermal 250 μg/kg bodyweight/day  PNEC (Water)  PNEC aqua (freshwater) 1.76 μg/L  PNEC aqua (intermittent, freshwater) 17.6 μg/L  PNEC (Sediment)  PNEC (Sediment)  PNEC sediment (freshwater) 17 μg/kg dw  PNEC sediment (marine water) 1.7 μg/kg dw  PNEC sediment (marine water) 1.7 μg/kg dw	Long-term - systemic effects, dermal	500 μg/kg bodyweight/day		
Long-term - systemic effects, oral  Long-term - systemic effects, inhalation  Long-term - systemic effects, dermal  250 µg/kg bodyweight/day  PNEC (Water)  PNEC aqua (freshwater)  PNEC aqua (marine water)  PNEC aqua (intermittent, freshwater)  PNEC (Sediment)  PNEC (sediment)  PNEC sediment (freshwater)  17 µg/kg dw  PNEC sediment (marine water)  1.7 µg/kg dw  PNEC (STP)	Long-term - systemic effects, inhalation	880 µg/m³		
Long-term - systemic effects, inhalation  Long-term - systemic effects, dermal  250 µg/kg bodyweight/day  PNEC (Water)  PNEC aqua (freshwater)  PNEC aqua (marine water)  PNEC aqua (intermittent, freshwater)  PNEC aqua (intermittent, freshwater)  PNEC (Sediment)  PNEC sediment (freshwater)  17 µg/kg dw  PNEC sediment (marine water)  1.7 µg/kg dw  PNEC (STP)	DNEL/DMEL (General population)			
Long-term - systemic effects, dermal  250 μg/kg bodyweight/day  PNEC (Water)  PNEC aqua (freshwater)  PNEC aqua (marine water)  PNEC aqua (intermittent, freshwater)  PNEC (Sediment)  PNEC (Sediment (freshwater)  PNEC sediment (freshwater)  17 μg/kg dw  PNEC sediment (marine water)  1.7 μg/kg dw  PNEC (STP)	Long-term - systemic effects,oral	375 μg/kg bodyweight/day		
PNEC (Water)  PNEC aqua (freshwater)  PNEC aqua (marine water)  PNEC aqua (intermittent, freshwater)  PNEC (Sediment)  PNEC (sediment)  PNEC sediment (freshwater)  17 μg/kg dw  PNEC sediment (marine water)  1.7 μg/kg dw  PNEC (STP)	Long-term - systemic effects, inhalation	217 ng/m³		
PNEC aqua (freshwater)  1.76 μg/L  PNEC aqua (marine water)  0.176 μg/L  PNEC aqua (intermittent, freshwater)  17.6 μg/L  PNEC (Sediment)  PNEC sediment (freshwater)  17 μg/kg dw  PNEC sediment (marine water)  1.7 μg/kg dw  PNEC (STP)	Long-term - systemic effects, dermal	250 μg/kg bodyweight/day		
PNEC aqua (marine water)  PNEC aqua (intermittent, freshwater)  PNEC (Sediment)  PNEC sediment (freshwater)  17 μg/kg dw  PNEC sediment (marine water)  1.7 μg/kg dw  PNEC (STP)	PNEC (Water)			
PNEC aqua (intermittent, freshwater)  PNEC (Sediment)  PNEC sediment (freshwater)  17 μg/kg dw  PNEC sediment (marine water)  1.7 μg/kg dw  PNEC (STP)	PNEC aqua (freshwater)	1.76 µg/L		
PNEC (Sediment)  PNEC sediment (freshwater)  17 μg/kg dw  PNEC sediment (marine water)  1.7 μg/kg dw  PNEC (STP)	PNEC aqua (marine water)	0.176 μg/L		
PNEC sediment (freshwater)  17 μg/kg dw  PNEC sediment (marine water)  1.7 μg/kg dw  PNEC (STP)	PNEC aqua (intermittent, freshwater)	17.6 µg/L		
PNEC sediment (marine water)  1.7 μg/kg dw  PNEC (STP)	PNEC (Sediment)			
PNEC (STP)	PNEC sediment (freshwater)	17 µg/kg dw		
	PNEC sediment (marine water)	1.7 µg/kg dw		
PNEC sewage treatment plant 4 mg/l	PNEC (STP)	PNEC (STP)		
	PNEC sewage treatment plant	4 mg/l		

#### 8.1.5. Control banding

No additional information available

#### 8.2. Exposure controls

#### 8.2.1. Appropriate engineering controls

#### Appropriate engineering controls:

Provide local exhaust or general room ventilation.

#### Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

#### 8.2.2. Personal protection equipment

#### 8.2.2.1. Eye and face protection

#### Eye protection:

Safety glasses with side shields. EN 166

#### 8.2.2.2. Skin protection

#### Skin and body protection:

Wear suitable protective clothing

#### Hand protection:

Protective gloves. Material of gloves: Chloroprene rubber. Neoprene. Nitrile rubber gloves. Follow the glove manufacturer's specific recommendations when selecting the appropriate thickness, material, and permeability.

#### 8.2.2.3. Respiratory protection

#### Respiratory protection:

In case of inadequate ventilation wear respiratory protection. Protective mask or half mask with a filter (EN 140) against organic vapours – type A/P2 or with a combined filter – type AEBK

#### 8.2.2.4. Thermal hazards

#### Thermal hazard protection:

May polymerize on exposure to temperature rise.

#### 8.2.3. Environmental exposure controls

#### Other information:

Do not eat, drink or smoke during use. Wash hands and other exposed areas with soap and water before leaving work. Do not breathe vapour/aerosol. Separate working clothes from town clothes. Wash contaminated clothing before reuse.

#### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

Physical state : Liquid Colour Orange. Odour : Slight. : Not available Odour threshold : Not available Melting point Freezing point : Not available Boiling point : Not available Flammability : Not available Explosive properties : Not explosive. It does not have oxidising properties : Non oxidizing. **Explosion limits** : Not available Lower explosive limit (LEL) : Not available Upper explosive limit (UEL) : Not available Flash point : Not applicable Not available Auto-ignition temperature Decomposition temperature Not available рΗ : Not available Viscosity, kinematic : Not available

Viscosity, dynamic : 100 – 400 mPa·s (20 °C)

Solubility : Not available Partition coefficient n-octanol/water (Log Kow) : Not available Vapour pressure : Not available Vapour pressure at 50 °C : Not available Density : 1.09 g/cm<sup>3</sup> Relative density : 1.09 Relative vapour density at 20 °C : Not available Particle size : Not applicable Particle size distribution : Not applicable : Not applicable Particle shape Particle aspect ratio : Not applicable Particle aggregation state : Not applicable

#### Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Particle agglomeration state : Not applicable
Particle specific surface area : Not applicable
Particle dustiness : Not applicable

#### 9.2. Other information

#### 9.2.1. Information with regard to physical hazard classes

No additional information available

#### 9.2.2. Other safety characteristics

No additional information available

#### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

#### 10.2. Chemical stability

The product is stable at normal handling and storage conditions.

#### 10.3. Possibility of hazardous reactions

Can polymerise exothermically if heated, exposed to air, sunlight or by addition or free radical initiators.

#### 10.4. Conditions to avoid

Heat. Direct sunlight. Light (daylight). Store at temperatures not exceeding 32 °C.

#### 10.5. Incompatible materials

Acids. Alkali metals. Strong oxidizing agents. Acid chlorides. Polymerization initiators. Peroxides.

#### 10.6. Hazardous decomposition products

In case of fire: Toxic fumes.

#### SECTION 11: Toxicological information

#### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral) : Based on available data, the classification criteria are not met.

Acute toxicity (dermal) : Based on available data, the classification criteria are not met.

Acute toxicity (inhalation) : Based on available data, the classification criteria are not met.

Ethoxylated pentaerythritol tetraacrylate (51728-26-8)		
LD50 oral rat	> 2000 mg/kg	
LD50 dermal rat	> 2000 mg/kg	
Skin corrosion/irritation	: Causes skin irritation.	

Serious eye damage/irritation : Causes serious eye irritation.

Respiratory or skin sensitisation : May cause an allergic skin reaction.

Compactly mytogopicity : Paged on eyellable data, the electrical exitorial exitoria

Germ cell mutagenicity : Based on available data, the classification criteria are not met.

Carcinogenicity : Based on available data, the classification criteria are not met.

Reproductive toxicity : Based on available data, the classification criteria are not met.

# Ethoxylated pentaerythritol tetraacrylate (51728-26-8) NOAEL (animal/male, F0/P) 200 mg/kg bodyweight (OECD 422)

STOT-single exposure : Based on available data, the classification criteria are not met. STOT-repeated exposure : Based on available data, the classification criteria are not met.

Propoxylated neopentylglycol diacrylate (84170-74-1)	
NOAEL (oral, rat, 90 days)	1000 mg/kg bodyweight (OECD 407)

Aspiration hazard : Based on available data, the classification criteria are not met.

#### Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

#### 11.2. Information on other hazards

#### 11.2.1. Endocrine disrupting properties

Adverse health effects caused by endocrine disrupting properties

: The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605

#### 11.2.2. Other information

No additional information available

#### SECTION 12: Ecological information

#### 12.1. Toxicity

Hazardous to the aquatic environment, short-term

Hazardous to the aquatic environment, long-term

: Based on available data, the classification criteria are not met.

: Toxic to aquatic life with long lasting effects.

(chronic)			
Propoxylated neopentylglycol diacrylate (84170-74-1)			
LC50 - Fish [1]	2.7 mg/l (Danio rerio)		
EC50 - Crustacea [1]	37 mg/l (Daphnia magna)		
EC50 72h - Algae [1]	11 mg/l (Pseudokirchneriella subcapitata)		
EC50 72h - Algae [2]	3.4 mg/l (Pseudokirchneriella subcapitata)		
Tricyclodecane dimethanol diacrylate (42594-17-2)			
LC50 - Fish [1]	1.65 mg/l (Danio rerio, OECD 203)		
EC50 - Crustacea [1]	2.36 mg/l (Daphnia magna, OECD 202)		
EC50 72h - Algae [1]	1.6 mg/l (Pseudokirchneriella subcapitata, OECD 201)		
Ethoxylated pentaerythritol tetraacrylate (51728-26-8)			

### 12.2. Persistence and degradability

Prusament Resin Tough Prusa Orange	
Persistence and degradability	Not readily biodegradable.

> 100 mg/l (Pseudokirchneriella subcapitata)

1.76 mg/l (Danio rerio)

90.94 mg/l (Daphnia magna)

#### 12.3. Bioaccumulative potential

No additional information available

#### 12.4. Mobility in soil

LC50 - Fish [1]

EC50 - Crustacea [1] EC50 72h - Algae [1]

Propoxylated neopentylglycol diacrylate (84170-74-1)		
Surface tension	32.9 mN/m (23 °C)	
Tricyclodecane dimethanol diacrylate (42594-17-2)		
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	3.61 (OECD 121)	

8/31/2021 (Issue date) EN (English) 8/13

#### Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

#### 12.5. Results of PBT and vPvB assessment

#### **Prusament Resin Tough Prusa Orange**

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

#### 12.6. Endocrine disrupting properties

Adverse effects on the environment caused by endocrine disrupting properties

: The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605

#### 12.7. Other adverse effects

No additional information available

#### **SECTION 13: Disposal considerations**

#### 13.1. Waste treatment methods

Waste treatment methods

: Dispose in a safe manner in accordance with local/national regulations. Recycling is preferred to disposal or incineration. Remove to an authorized incinerator equipped with an afterburner and a flue gas scrubber.

Sewage disposal recommendations

Product/Packaging disposal recommendations

: Do not allow into drains or water courses.

: Handle uncleaned empty containers as full ones. Empty containers should be taken for recycling, recovery or waste in accordance with local regulation.

#### SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

ADR	IMDG	IATA	ADN	RID	
14.1. UN number or ID n	mhar				
14.1. UN number or ID n	umber				
UN 3082	UN 3082	UN 3082	UN 3082	UN 3082	
14.2. UN proper shippin	g name				
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.	Environmentally hazardous substance, liquid, n.o.s.	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.	
Transport document descr	iption (ADR)				
UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Urethane acrylate), 9, III, (-)	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Urethane acrylate), 9, III, MARINE POLLUTANT	UN 3082 Environmentally hazardous substance, liquid, n.o.s. (Urethane acrylate), 9, III	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Urethane acrylate), 9, III	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Urethane acrylate), 9, III	
14.3. Transport hazard	14.3. Transport hazard class(es)				
9	9	9	9	9	
	**************************************				

#### Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

ADR	IMDG	IATA	ADN	RID
14.4. Packing group				
III	III	III	III	III
14.5. Environmental ha	zards			
Dangerous for the environment: Yes	Dangerous for the environment: Yes Marine pollutant: Yes	Dangerous for the environment: Yes	Dangerous for the environment: Yes	Dangerous for the environment: Yes

#### 14.6. Special precautions for user

#### **Overland transport**

Classification code (ADR) : M6

Special provisions (ADR) : 274, 335, 375, 601

Limited quantities (ADR) : 5I Excepted quantities (ADR) : E1

Packing instructions (ADR) : P001, IBC03, LP01, R001

Special packing provisions (ADR) : PP1
Mixed packing provisions (ADR) : MP19
Portable tank and bulk container instructions (ADR) : T4

Portable tank and bulk container special provisions : TP1, TP29

(ADR)

Tank code (ADR) : LGBV
Vehicle for tank carriage : AT
Transport category (ADR) : 3
Special provisions for carriage - Packages (ADR) : V12
Special provisions for carriage - Loading, unloading : CV13

and handling (ADR)

Hazard identification number (Kemler No.) : 90

Orange plates :

90 3082

Tunnel restriction code (ADR) : -EAC code : •3Z

#### Transport by sea

Special provisions (IMDG) : 274, 335, 969

Limited quantities (IMDG) : 5 L
Excepted quantities (IMDG) : E1

Packing instructions (IMDG) : LP01, P001 Special packing provisions (IMDG) : PP1 IBC packing instructions (IMDG) : IBC03 Tank instructions (IMDG) : T4 Tank special provisions (IMDG) : TP1, TP29 : F-A EmS-No. (Fire) : S-F EmS-No. (Spillage) Stowage category (IMDG) : A

Air transport

PCA Excepted quantities (IATA) : E1
PCA Limited quantities (IATA) : Y964
PCA limited quantity max net quantity (IATA) : 30kgG
PCA packing instructions (IATA) : 964
PCA max net quantity (IATA) : 450L
CAO packing instructions (IATA) : 964
CAO max net quantity (IATA) : 450L

Special provisions (IATA) : A97, A158, A197,

ERG code (IATA) : 9L

#### Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Inland waterway transport

Classification code (ADN) : M6

Special provisions (ADN) : 274, 335, 375, 601

Limited quantities (ADN) : 5 L

Excepted quantities (ADN) : E1

Carriage permitted (ADN) : T

Equipment required (ADN) : PP

Number of blue cones/lights (ADN) : 0

Rail transport

Classification code (RID) : M6

Special provisions (RID) : 274, 335, 375, 601

Limited quantities (RID) : 5L Excepted quantities (RID) : E1

Packing instructions (RID) : P001, IBC03, LP01, R001

Special packing provisions (RID) : PP1
Mixed packing provisions (RID) : MP19
Portable tank and bulk container instructions (RID) : T4
Portable tank and bulk container special provisions : TP1, TP29

(RID)

Tank codes for RID tanks (RID) : LGBV

Transport category (RID) : 3

Special provisions for carriage – Packages (RID) : W12

Special provisions for carriage - Loading, unloading : CW13, CW31

and handling (RID)

Colis express (express parcels) (RID) : CE8
Hazard identification number (RID) : 90

#### 14.7. Maritime transport in bulk according to IMO instruments

Not applicable

#### SECTION 15: Regulatory information

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

#### 15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

Contains no substance subject to Regulation (EU) 2019/1148 of the European Parliament and of the Council of 20 June 2019 on the marketing and use of explosives precursors.

#### 15.1.2. National regulations

REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures (CLP)

REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

#### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

#### SECTION 16: Other information

Abbreviations and acronyms:	
CAS-No.	Chemical Abstract Service number

#### Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Abbreviations and acronyms:			
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways		
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road		
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008		
DNEL	Derived-No Effect Level		
EC50	Median effective concentration		
ED	Endocrine disrupting properties		
IATA	International Air Transport Association		
IMDG	International Maritime Dangerous Goods		
LC50	Median lethal concentration		
LD50	Median lethal dose		
OEL	Occupational Exposure Limit		
РВТ	Persistent Bioaccumulative Toxic		
PNEC	Predicted No-Effect Concentration		
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006		
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail		
vPvB	Very Persistent and Very Bioaccumulative		

Data sources

Training advice

: ECHA Guidance on the compilation of safety data sheets ECHA C&L Inventory database. Supplier's safety documents.

: Normal use of this product shall imply use in accordance with the instructions on the packaging. Provide SDS to employees. Follow general rules on handling chemical

substances and/or mixtures.

Other information

: This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

Full text of H- and EUH-statements:			
Aquatic Chronic 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2		
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2		
H315	Causes skin irritation.		
H317	May cause an allergic skin reaction.		
H319	Causes serious eye irritation.		
H411	Toxic to aquatic life with long lasting effects.		
Skin Irrit. 2	Skin corrosion/irritation, Category 2		
Skin Sens. 1	Skin sensitisation, Category 1		
Skin Sens. 1B	Skin sensitisation, category 1B		

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:				
Skin Irrit. 2	H315	Calculation method		
Eye Irrit. 2	H319	Calculation method		
Skin Sens. 1	H317	Calculation method		
Aquatic Chronic 2	H411	Calculation method		

### Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Prusa Polymers 2021

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.