Tectonic 3D

Safety Data Sheet

SECTION 1 – Identification of the substance/mixture and of the company

Product Name Proteos Breakaway Support
Chemical Name Poly(ethylene-co-vinyl alcohol)/ Polyvinyl Alcohol
Pure substance/mixture Mixture

Section 1.2 – Relevant identified uses of the substance or mixture and uses advised against

Application Additive Manufacturing
Used advised against Not identified.

Section 1.3 – Details of the supplier of the safety data sheet

Manufacturer

Tectonic 3D B.V.
High Tech Campus 9
5656 AE Eindhoven
The Netherlands
Tel +31 (0) 408517575
https://www.tectonic-3d.com/

E-mail address info@tectonic-3d.com

Section 1.4 – Emergency telephone number

Europe
Emergency telephone: +31 (0) 408517575 (08.00-17.00 CET)

United Kingdom See above.

SECTION 2 – Hazards Identification Summary

Section 2.1 – Classification of the substance or mixture

GHS US classification

Combustible dust : May form combustible dust concentrations in air [if small particles are generated during further processing, handling or by other means

Section 2.2 – Label elements

Signal word (GHS US) : Warning
Hazard Statements (GHS US) : CODU - May form combustible dust concentrations in air [if small particles are generated during
further processing, handling or by other means.
Precautionary Statements (GHS US) : P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P240 - Ground/Bond container and receiving equipment.
P241 - Use explosion-proof equipment.

Section 2.3 – Hazards associated with known or reasonably anticipated uses

No additional information available.

Section 2.4 – Hazards not otherwise classified

Other hazards which do not result in classification : Fine particles can form explosive mixtures with air. Possible precautions against a dust explosion recommended. Observe recognised industrial hygiene measures. Avoid creating or spreading dust.

Section 2.5 – Unknown acute toxicity

No additional information available

SECTION 3 – Composition/information on ingredients

Section 3.1 – Substances

Not applicable

Section 3.2 – Mixtures

Chemical Name	EC No	CAS No	REACH Registration Number	Weight %	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Polyvinyl alcohol, partially saponied	Polymer	25213-24-5	No data available	>90	Not classified
Methyl alcohol (Impurity)	200-659-6	67-56-1	No data available	< 1	Flam. Liq 2, H225 Acute Tox. 3 (Oral), H301 (ATE=100 mg/kg body weight) Acute Tox. 3 (Dermal), H311 (ATE=300 mg/kg body weight) Acute Tox. 3 (Inhalation), H331 (ATE=3 mg/l/4u) STOT SE 1, H370

SECTION 4 – First Aid Measures

Section 4.1 – Description of first aid measures

Inhalation

Move to fresh air in case of accidental inhalation of dust or fumes from overheating or combustion. Consult a physician after significant exposure.

Skin Contact

In contact with molten product immediately flush with cold water for at least 10 min. Do not peel solidified polymer of skin. Obtain medical attention.

Eye Contact

Rinse thoroughly with plenty of water for at least 20 minutes, also under the eyelids. Consult a physician immediately.

Ingestion	Do not induce vomiting unless directed by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention if symptoms occur and show SDS.

Section 4.2 – Most important symptoms and affects, both acute and delayed

Symptoms/effects : Dust can irritate the respiratory tract, skin and eyes.

Section 4.3 – Indication of any immediate medical attention and special treatment needed

No relevant information available. Treat symptomatically.

SECTION 5 – Fire fighting Measures

Section 5.1 – Extinguishing media

Suitable extinguishing media

Water spray, powder, foam and CO2. When using the extinguishing agent, make sure no dust is formed in the air. Use extinguishing agents that are suitable for the materials in the surrounding.

Unsuitable extinguishing media

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

Section 5.2 – Special hazards arising from the substance or mixture

Fire Hazard: The product may form dust and build up electrostatic charges, which may produce an electric spark (ignition source). Proper grounding procedures to avoid static electricity should be followed.

Explosion Hazard: Avoid formation of dust. Suspension of the dust in the air could produce an explosive atmosphere.

Dangerous decomposition products in case of fire: In the event of fire, harmful gases may be produced.

Section 5.3 – Advice for firefighters

Fire Fighting Instructions: Use ordinary fire-fighting measures, taking into account the hazards from other materials involved. Move containers away from the fire area if this can be done without risk.

Protection during firefighting: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

Section 6 – Accidental Release Measures

Section 6.1 – Personal precautions, protective equipment and emergency procedures

6.1.1. Personal precautions, protective equipment and emergency procedures:

Protective equipment	Wear suitable protective clothing and equipment during disposal. Do not enter without an appropriate protective equipment.

6.1.2. For emergency responders

Protective equipment	Wear recommended personal protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

Section 6.2 – Environmental precautions
Avoid release to the environment.

Section 6.3 – Methods and material for containment and cleaning

For containment	: Avoid creating or spreading dust. Stop leak, if possible without risk
Methods for cleaning up	: Mechanically recover the product. Pick up dust with a vacuum cleaner with HEPA filter.
Other information	: Dispose of materials or solid residues at an authorized site.

Section 6.4 Other information/ Disposal
For further information refer to section 8: '' Exposure controls/personal protection'', See section 13 for disposal information

Section 7 – Handling and Storage

Section 7.1 – Precautions for safe handling
Avoid creating or spreading dust. The material must not be deposited in large quantities, especially on horizontal surfaces, as it could become released into the air from there, form flammable dust clouds and contribute to secondary explosions. Routine housekeeping should be instituted. Handling this product may result in electrostatic accumulation. Use proper grounding procedures. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Provide local exhaust or general room ventilation.

Hygiene measures

Avoid prolonged and repeated contact with skin. Wear personal protective equipment. Avoid inhalation of dust and contact with skin and eyes. Observe recognised industrial hygiene measures. Always wash hands after handling the product.

Section 7.2 – Conditions for safe storage, including incompatibilities
Store in tightly closed containers. Refer to the detailed list of incompatible materials in section 10 Stability/Reactivity.

Section 7.3 – Specific end use(s)
See the Technical data sheet (sTDs) for further information

Section 8 – Exposure Controls/Personal Protection

8.1 – Control parameters

PROTEOS PVA Support

USA – OSHA – Occupational Exposure Limits

Local name	Total Dust (Inert or Nuisance Dust)
OSHA PEL TWA	15 mg/m^3 50 mppcf
Regulatory reference (US-OSHA)	OSHA Annoted Table Z-3 Mineral Dust

USA – Cal/OSHA – Occupational Exposure Limits

Local name	Dust, nuisance dust and particulates
Cal/OSHA PEL (OEL TWA)	10 mg/ m^3 (Total Dust) 5 mg /m^3 (Respirable fraction)
Regulatory reference	California Division of Occupational Safety and Health (Cal/OSHA) - Permissible Exposure Limit for Chemical Contaminants (Table AC-1)

Methanol (67-56-1)

USA- ACGIH – Occupational Exposure Limits

Local name	
ACGIH® TLV® TWA	262 mg/m³ 200 ppm
ACGIH® TLV® STEL	328 mg/m³ 250 ppm
Remark (ACGIH®)	TLV® Basis: Headache; eye dam; dizziness; nausea. Notations: Skin; BEI
Regulatory reference	ACGIH 2025

USA- ACGIH – Biological Exposure Indices

Local name	Methanol
BEI	15 mg/l Parameter: Methanol - Medium: urine - Sampling time: End of shift - Notations: B, Ns
Regulatory reference	ACGIH 2025

USA- OSHA - Occupational Exposure Limits

Local name	Methyl alcohol
OSHA PEL TWA	260 mg/m³ 200 ppm
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1

USA- Cal/OSHA - Occupational Exposure Limits

Local Name	Methyl alcohol; methanol
Cal/OSHA PEL (OEL TWA)	260 mg/m³ 200 ppm
Cal/OSHA STEL	325 mg/m³ 250 ppm

Methanol (67-56-1)

Cal/OSHA C	1000 ppm
Remark (Cal/OSHA)	S - Skin notation and Protecting Clothing
Regulatory reference	California Division of Occupational Safety and Health (Cal/OSHA) - Permissible Exposure Limit for Chemical Contaminants (Table AC-1)

USA- NIOSH - Occupational Exposure Limits

Local name	Methyl alcohol
NIOSH REL 10h TWA	200 ppm
NIOSH REL STEL	250 ppm
Regulatory reference (US-NIOSH)	OSHA Annotated Table Z-1 (NIOSH Pocket Guide to Chemical Hazards (NPG))

Monitoring methods

Monitoring methods	Follow standard monitoring procedures

Methanol (67-56-1)

EU - Indicative Occupational Exposure Limit (IOEL)

Local name	Methanol
IOEL TWA	260 mg/m³ 200 ppm
Remarks	Skin
Regulatory reference	COMMISSION DIRECTIVE 2006/15/EC

Netherlands - Occupational exposure limit

Local name	
TGG-8u (OEL TWA)	133 mg/m³ 100 ppm
Remarks	H (Skin absorption) Substances that can be absorbed relatively easily through the skin, which can contribute substantially to total internal exposure, are marked with an H in the list. In addition to measures to

prevent inhalation, adequate measures must also be taken to prevent skin contact with these substances.

Regulatory reference: Working Conditions Regulation 2022

Section 8.2 – Appropriate engineering controls

Appropriate engineering controls

: Provide adequate ventilation to minimize dust concentrations. Provide local exhaust or general room ventilation. Degree of ventilation must be adapted to the conditions. Where appropriate, use process chambers, local exhaust systems or other structural measures to control airborne concentrations to keep them below recommended exposure limits. If no exposure limits have been set, keep concentrations in the air at an acceptable level. If engineering measures are not sufficient to maintain concentrations of dust particulates below the OEL (occupational exposure limit), suitable respiratory protection must be worn.

8.2.3. Individual protection measures, such as personal protective equipment

Personal Protective equipment:
Wear eye protection. Wear protective gloves. Heatproof clothing.

Hand Protection
Protective gloves. ISO 374 Please follow the instructions related to the permeability and the penetration time provided by the manufacturer. Use gloves only once.

Type	Material	Permeation	Thickness	Penetration
Nitrile-rubber protective gloves	Nitrile rubber (NBR)	6 (> 480 minutes)	0.12	

Eye protection:
Safety glasses with side shields. ISO 16321-1 / EN166

Skin and body protection:
Wear suitable protective clothing. ISO 13688.

Personal protective equipment symbol(s):

Thermal hazard protection:
Heatproof clothing.

Section 9 – Physical and Chemical Properties

Section 9.1 – Information on basic physical and chemical properties

Appearance	Filament
Color	Natural/White
Odor	No data available
Odor threshold	No data available

Property	Value	Remarks Method
PH		No information available
Melting point		No information available
Freezing point		No information available
Boiling point / boiling range		No information available
Flash point		No information available
Evaporation rate		No information available
Flammability (solid, gas)		Combustible dust
Explosive limits		No information available
Upper explosive limits		No information available
Lower explosive limits		No information available
Vapor Pressure		No information available
Vapor Density		No information available
Relative Density		No information available
Water Solubility		No information available
Solubility(ies)		No information available
Partition Coefficient		No information available
Autoignition Temperature		No information available
Decomposition Temperature		No information available
Kinematic Viscosity		No information available
Dynamic Viscosity		No information available
Explosive properties		Not explosive
Oxidizing properties		Not oxidising
Density		No information available
Bulk Density		No information available

Methanol (67-56-1)

Boiling point	65 °C Source: ICSC
Flash point	11.11 °C Source: NIOSH pocket guide
Auto-ignition temperature	440 °C Source: ICSC
Vapor pressure	127 mm Hg at 25°C, No cause for concern: HSDB, CHemIDplus

Section 9.2 – Other information

No additional information available.

Section 10 – Stability and Reactivity

Section 10.1 – Reactivity

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

Section 10.2 – Chemical stability

Stable under recommended storage conditions. See Storage, Section 7.

Section 10.3 – Possibility of hazardous reactions
No dangerous reactions known under normal conditions of use.

Section 10.4 – Conditions to avoid
Keep away from any flames or sparking source. Avoid creating or spreading dust.

Section 10.5 – Incompatible materials
Strong acids. Strong oxidizing agents.

Section 10.6 – Hazardous decomposition products
Carbon oxides (CO, CO^2).

Section 11 – Toxicological Information

Section 11.1 – Information on toxicological effects

Acute toxicity

Acute toxicity (oral)	: No data available
Acute toxicity (dermal)	: No data available
Acute toxicity (inhalation)	: No data available

Methanol (67-56-1)

LD50 Oral rat	1187 – 2769 mg/kg REACH study results
LD50 Dermal rabbit	17100 mg/kg REACH study results
LD50 Inhalation – Rat	128200 mg/l 4h
Skin corrusion/irritation	No data available

Polyvinyl alcohol , partially saponified (25213-24-5)

pH	4,5 -7

Methanol (67-56-1)

pH	12.1
Serious eye damage/irritation	No data available

Polyvinyl alcohol , partially saponified (25213-24-5)

pH	4,5 -7

Methanol (67-56-1)

pH	12,1
Respiratory or skin sensitization	No data available
Germ cell mutagenicity	No data available
Carcinogenicity	No data available

Skin corrosion/irritation No data available

Serious eye damage/irritation No data available

Methanol (67-56-1)

NOAEL (chronic, oral , animal/male, 2 year)	466 – 529 mg/kg body weight
Reproductive toxicity	
STOT-single exposure	

Methanol (67-56-1)

STOT-single exposure Causes damage to organs

STOT-repeated exposure	No data available
Aspiration hazard	No data available
Symptoms/effects	Dust can irritate the respiratory tract, skin and eyes

Section 11.2 – Information on other hazards

11.2.1. Endocrine disrupting properties

Harmful effects of these endocrine-disrupting properties on health:

The mixture does not contain any substances included in the list drawn up in accordance with Article 59 (1) of REACH for having endocrine disrupting properties, or one or more substances identified as having endocrine disrupting properties according to the criteria set out in Commission Delegated Regulation (EU) 2017/2100 of the Commission or Commission Regulation (EU) 2018/605, with a concentration greater than or equal to 0.1%.

Section 12 – Ecological Information

Section 12.1 – Eco Toxicity

Hazardous to the aquatic environment, short–term (acute)	No data available
Hazardous to the aquatic environment, long–term (chronic)	No data available

Methanol (67-56-1)

LC50 – Fish	15400 mg/l Lepomis macrochirus, 96 h
EC50 – Crustacea [1]	18260 mg/l Daphnia magna (Water flea), 96 h
ErC50 - Algae	≈ 22000 mg/l Pseudokirchneriella subcapitata
NOEC chronic fish	7900 – 15800 mg/l Oryzias latipes (Ricefish), 200 h
NOEC chronic crustacea	122 mg/l Daphnia magna (Water flea)

Section 12.2 – Persistence and degradability

PROTEOS PVA Support
Persistence and degradability : Expected to be inherently biodegradable.

Polyvinyl alcohol , partially saponified (25213-24-5)
Persistence and degradability : Expected to be inherently biodegradable.

Methanol (67-56-1)
Persistence and degradability : Expected to be inherently biodegradable.

Section 12.3 – Bio accumulative potential

PROTEOS PVA Support
Bioaccumulative potential : No data available.

Methanol (67-56-1)
Partition coefficient n-octanol/water (Log Pow) -0.77

Section 12.4 – Mobility in soil

No additional information available.

Section 12.5 – Results of PBT and vPvB assessment

PROTEOS PVA Support

Results of the study on PBT properties	: The product does not meet the classification criteria for PBT and vPvB

Section 12.6 – Endocrine disrupting properties

Harmful environmental effects of those hormone-disrupting properties	: The mixture does not contain any substances included in the list drawn up in accordance with Article 59 (1) of REACH for having endocrine disrupting properties, or one or more substances identified as having endocrine disrupting properties according to the criteria set out in Commission Delegated Regulation (EU) 2017/2100 of the Commission or Commission Regulation (EU) 2018/605, with a concentration greater than or equal to 0.1%.

Section 12.7 – Other adverse effects

Ozone	:No data available
Fluorinated greenhouse gases	:No
Other information	:Avoid release to the environment.

Section 13 – Disposal Considerations

Section 13.1 – Disposal methods

Regional waste regulation	:Disposal must be done according to official regulations.
Waste treatment options	:Dispose of contents/container in accordance with licensed collector's sorting instructions.
Recommendations for disposal of products/packaging	:EU, waste is classified by origin and activity. The classification is therefore dependent on the processor
European List of Waste (LoW, EC 2000/532)	:07 02 13 – Plastic waste.

Section 14 – Transport Information

DOT: Non-Bulk	
14.1 UN Number	Not applicable
14.2 Proper Shipping Name	Not applicable
14.3 Transport Hazard Class(es)	Not applicable
14.4 Packing Group	Not applicable
14.5 Environmental Hazard	Not applicable
TDG: Transportation of Dangerous Goods	
14.1 UN Number	Not applicable
14.2 Proper Shipping Name	Not applicable
14.3 Transport Hazard Class(es)	Not applicable
14.4 Packing Group	Not applicable
14.5 Environmental Hazard	Not applicable
IMDG: Sea Transport	
14.1 UN Number	Not applicable
14.2 Proper Shipping Name	Not applicable
14.3 Transport Hazard Class(es)	Not applicable
14.4 Packing Group	Not applicable
14.5 Environmental Hazard	Dangerous for the environment: No Marine pollutant: No

IATA: Air Transport

14.1 UN Number	Not applicable
14.2 Proper Shipping Name	Not regulated for transport
14.3 Transport Hazard Class(es)	Not applicable
14.4 Packing Group	Not applicable
14.5 Environmental Hazard	Dangerous for the environment: No

14.7 Maritime Transport in bulk according to IMO instruments

Not relevant

Section 15 – Regulatory Information

Section 15.1 – Safety, health and environmental regulation/legislation specific for the substance or mixture

Warning: This product can expose you to Acetaldehyde and Formaldehyde (gas), which are known to the State of California to cause cancer, and Methanol, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Component	State or local regulations
Methanol(67-56-1)	U.S. - Delaware - Pollutant Discharge Requirements - Reportable Quantities; U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Acceptable Ambient Concentrations; U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - New York City - Right to Know Hazardous Substances List
Acetaldehyde, Ethanal(75-07-0)	U.S. - Delaware - Pollutant Discharge Requirements - Reportable Quantities; U.S. - Idaho - Carcinogenic Toxic Air Pollutants - Acceptable Ambient Concentrations; U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - New York City - Right to Know Hazardous Substances List; U.S. - Pennsylvania - RTK (Right to Know) List
Formaldehyde(50-00-0)	U.S. - Delaware - Pollutant Discharge Requirements - Reportable Quantities; U.S. - Idaho - Carcinogenic Toxic Air Pollutants - Acceptable Ambient Concentrations; U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - New York City - Right to Know Hazardous Substances List; U.S. - Pennsylvania - RTK (Right to Know) List; U.S. - West Virginia - Air Quality - Toxic Air Pollutant Emission Limits
REACH Annex XVII (substances with restricted use)	Contains no substance(s) listed in REACH Annex XVII (restriction conditions)
REACH Annex XIV (list of substances subject to authorization)	Contains no substance(s) included in REACH Annex XIV (list of substances subject to authorization)
REACH candidate list (SVHC)	Contains no substance(s) included in the REACH candidate list
PIC Regulation (prior informed] consent)	Contains no substances included in the PIC list (Regulation EU 649/2012 on the import and export of hazardous chemicals)
POP Regulation (persistent organic pollutants)	Contains no substances included in the POP list (Regulation EU 2019/1021 on organic pollutants)
Ozone Regulation (1005/2009)	Contains no substances included in the list of ozone-depleting substances (Regulation EU 1005/2009 on substances that deplete the ozone layer)
Council Regulation (EC) for the control of dual-use products	Contains no substance covered by the COUNCIL REGULATION (EC) for the control of dual-use products
Explosives Precursors Regulation (2019/1148)	Contains no substances included in the list of explosives precursors (Regulation EU 2019/1148 on the marketing and use of precursors of explosives)
Regulation on precursors for medicinal products (273/2004)	Does not contain substances included in the list of precursors for medicinal products (Regulation EC 273/2004 on the production and marketing of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

Local Regulations

ABM category	B(4) - Slightly harmful to aquatic organisms
SZW list of carcinogenic substances	: None of the ingredients are present
SZW list of mutagenic substances	: None of the ingredients are present

SZW list of reprotoxic substances - Breastfeeding : None of the ingredients are present
SZW list of reprotoxic substances - Fertility : None of the ingredients are present
SZW list of reprotoxic substances- Development: : None of the ingredients are present

Section 15.2 – Chemical Safety assessment
Not data available

Section 16 – Other information

Key or legend to abbreviations and acronyms used in the safety data sheet

Issue Date 23-February-2026

Revision Date No information available

Revision Note No information available

This safety data sheet complies with the requirements of: Regulation (EC) No. 1907/2006, COMMISION REGULATION (EU) No. 830/2015 of 20 May 2015

End of Safety Data Sheet